

# race of champions

# **2021 Race of Champions Rule Book**

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Race of Champions 1670 Hall Road Elma NY 14059 www.rocmodifiedseries.com

E-Mai: info@rocmodifiedseries.com

# **Primary Race of Champions Contacts;**

#### Joe Skotnicki

jskotnicki@rocmodifiedseries.com

716-880-0110

#### **Table of Contents:**

#### Preface Α **Definition of Terms** a.1 Race of Champions Rules R Membership . Membership Eligibility b.1 Conduct Series Championship Medical Exemption Substance Abuse Policy/Explanation b.2 **b.3 b.4** b.5 С **Personal Safety Equipment** c.1 General c.2 **Seat Belts** c.3 **Protective Clothing** c.4 Seats c.5 Helmets Other c.6 Licenses **Racing Event Procedures** Pre Race Inspections Driver's Meetings e.2 Legality Restrictions e.3 e.4 e.5 Pill Draw Hot Laps e.6 Qualifying/Time Trials/Heat Races/B-Mains e.7 e.8 Starts Restarts e.9 e.10 Racing Flag Rules e.11 Scoring Procedures G Payoff and Pit Procedures **Provisional and Alternate Starting Positions** Н Racing Programs Special Event Shows Points Breakdown Κ Penalties, Fine Schedules and Protests k.1 **Penalties and Fine Schedules Protests** Race of Champions Appeals L Race of Champions Vehicle Specifications М M.1.A Race of Champions Asphalt Modifieds Race of Champions Sportsman Asphalt Modifieds Race of Champions "602" Sportsman Asphalt Modified Race of Champions Late Models M.1.B M.1.B.b M.1.C Race of Champions Super Stocks Race of Champions Dirt Modifieds Race of Champions Dirt 602 Sportsman Modifieds Race of Champions Open DirtSportsman Modifieds M.1.D M.1.E M.1.F M.1.G M.1.H Race of Champions Four Cylinder Series M.1.I Race of Champions TQ Midgets M.1.J Race of Champions Street Stocks **Engines** m.2 Fuel, Fuel Cells and Fuel Systems m.3 **Muffler and Sound Reduction Devices Traction Control Devices** m.4 Chassis/Frame m.5 Weight m.6 Body Suspension Roll Cage m.7 m.8 m.9

m.10

m.11

m.12 m.13

m.14

Wheels

Tires Safety

Other

Series Decal and Patches

# **PREFACE**

A Race of Champions Series event is a competitive racing event which is intended to be conducted and officiated in accordance with the rules herein (the 2021 Race of Champions Rule Book). These rules provide the guideline for all events. The rule book may be amended from time-to-time and special rules may be published and/or adjusted at any particular event with the participants receiving prior notification. By participating in these events, all participants agree to comply with these rules and regulations.

The rules are not intended to express or imply the warranty of safety as a result of publication of, or compliance with the rules and regulations as stated herein. The rules are intended to offer a guideline for the conduct and officiating of an event.

The Officials shall be empowered to permit any reasonable and/or appropriate amendment from any of the specifications and/or procedures herein, or impose any further restriction that in their opinion does not alter minimum acceptable requirements. Revisions to the rules are not intended to express or imply the warranty of safety shall not result from any such deviation or restriction of the specifications, rules and/or procedures. Any interpretation of, deviation from, these rules herein, are left to the discretion of the racing officials and their jurisdiction is final.

Any visible equipment changes and/or performance enhancing changes to previously approved Race of Champions racecars and/or equipment must be approved in writing prior to introduction into competition by the Race of Champions Officials. Race of Champions Officials reserve the right to immediately determine the legality and use of any equipment that has not received prior written approval for introduction into competition.

It is ultimately the obligation of each participant to ensure their conduct and equipment complies with all of the applicable rules, as they may be amended from time-to-time. The rules are in no way a guarantee against injury and/or death to participants, spectators, officials and/or others.

# A. Definition of Terms

The following terms, which appear periodically throughout this Rule Book, have the following meanings:

- A.) "Race of Champions RoC" The trade name and registered mark of the Race of Champions.
- B.) "Race of Champions Rule Book" The rules in this Rule Book, as they may be amended from time-to-time as provided in Sub-Section 1.1.
- C.) "Race of Champions Officials" Persons employed by Race of Champions and/or appointed by Race of Champions to officiate as an employee or independent contractor at an event.
- D.) "Race of Champions Supervisory Officials" The officers, employees and/or agents of the Race of Champions as designated herein and/or in Race of Champions bulletin. Race of Champions may designate additional 'Supervisory Officials' in a bulletin and/or verbally from time-to-time. The Race of Champions Supervisory Officials until further notice are as follows;

#### For All Events:

Joe Skotnicki

- E.) "Member" An individual who has been accepted by the Race of Champions as a Member pursuant to the rules and whose membership has not expired, been suspended, cancelled and/or terminated.
- **F.)** "Event" A Race of Champions sanctioned event. The event includes the race and all ancillary activity leading up to and following the conclusion of the event, including registration/sign-in, inspection (pre and post-race), practice, time trials and/or qualifying and/or participant meetings and it includes events affected by inclement weather and/or postponed dates related thereto.
- G.) "Promoter" The individual, partnership, corporation, joint venture and/or other legal entity that, in connection with the Event, is designated as the "Promoter" in the executed Sanction Agreement for the Event.
- H.) "Competitor" A driver, car owner, crew member and/or any other person (other than a Race of Champions Official) who participates competitively in a Race of Champions sanctioned racing Event. Whenever the words Competitor, driver, car owner, mechanic, team member and/or crew member are used unless the context indicates otherwise, the term used shall be interpreted to include any driver, car owner, crew member and/or other person assigned to or a member of the same racing team.
- I.) "OEM" Original Equipment Manufacturer.
- J.) "Modified, Sportsman, Super Stock, Street Stock, Late Model, Sprint Car, Sportsman, Four Cylinder Dash" A specified racing vehicle that fits the specifications set forth in this Rule Book.
- K.) "EIRI" Meaning "Except in Rare Instances" to indicated the likelihood that such a determination may be made.

# a.1 Race of Champions Rules:

- **A.)** Effective Date The Rules are effective upon the date of publication by the Race of Champions for any division and/or event, regardless of when a Competitor receives actual notice. "Date of Publication" of the Rules or any amendments thereto is the earliest of distribution from Race of Champions headquarters and/or release to the press.
- **B.)** Amendment The Race of Champions rules may only be amended by publication of an amendment in an issued bulletin pursuant to the authority of Race of Champions officials. An amendment is effective upon the date of the publication, regardless when a competitor receives the actual notice.
- **C.)** Applicability Race of Champions issues various rule books, each of which includes in its title reference to a particular Race of Champions sanctioned series or type of event. The rules in each Rule Book are applicable to the Series and/or type of Event set in the title of that Rule Book.
- **D.)** Interpretation and Application If there is a disagreement or dispute regarding the meaning or application of the rules, the interpretation and application of the Officials at the event will prevail.
- E.) Finality of Interpretation and Application The interpretation and application of the Rules by Officials at the event shall be final and non-appealable, except as provided in Section(s) K and L of the rulebook herein, ALL MEMBERS, INCLUDING COMPETITORS AND OFFICIALS, EXPRESSLY AGREE THAT DETERMINATIONS BY RACE OF CHAMPIONS OFFICIALS AS THE APPLICATION AND INTERPRETATION OF THE RULES ARE NON LITIGABLE, AND THEY COVENANT THAT THEY WILL NOT INITIATE OR MAINTAIN LITIGATION OF ANY KIND AGAINST THE RACE OF CHAMPIONS OR ANYONE ACTING ON BEHALF OF THE RACE OF CHAMPIONS, TO REVERSE OR MODFIFY SUCH DETERMINATIONS OR TO RECOVER DAMAGES OR TO SEEK ANY OTHER KIND OF RELIEF AS A RESULT OF SUCH DETERMINATIONS, UNLESS THE OFFICIALS MADE SUCH DETERMINATIONS FOR NO PURPOSE OTHER THAN A BAD FAITH INTENT TO HARM OR CAUSE ECONOMIC LOSS TO THE MEMBER, COMPETITOR OR OFFICIAL. IF THE MEMBER, COMPETITOR OR OFFICIAL INITIATES OR MAINTAINS LITIGATION IN VIOLATION OF THE COVENANT, THAT MEMBER, COMPETITOR OR OFFICAL AGREES TO REIMBURSE RACE OF CHAMPIONS FOR THE COSTS OF SUCH LITIGATION, INCLUDING ATTORNEY'S FEES. EACH MEMBER, COMPETITOR OR OFFICIAL FURTHER COVENANTS THAT IN ANY LITIGATION BROUGHT AGAINST RACE OF CHAMPIONS FOR ANY REASON, IF THE LITIGATION IS NOT DISMISSED PURSUANT TO THIS COVENANT THE MATTER WILL BE TRIED BEFORE A JUDGE OF COMPETENT JURISDICTION AND HEREBY WAIVES ANY RIGHT TO TRIAL BY JURY IN SUCH ACTION.
- **F.)** Principal Rule of Interpretation and Application The rules are intended to ensure that sanctioned events are conducted in a manner that is as fair as possible for all competitors, consistent with prompt finality in competition results. On occasion, circumstances will be presented that are either unforeseen and/or otherwise extraordinary, in which strict application of the Race of Champions rules may not achieve this goal. In such rare circumstances, the Officials, as a practical matter, may make a determination regarding the conduct of an event, the eligibility of a Competitor or similar matters that are not contemplated by or are inconsistent with the Race of Champions rules, in order to achieve this goal. From time-to-time in particular rules, Official Entry Blanks, Bulletins and elsewhere, Race of Champions may use the term "EIRI" meaning "Except in Rare Instances" to indicate the likelihood that such a determination may be made.
- **G.)** Special Rules Special rules may be made by the Race of Champions Officials for an event. Such special rules shall apply to the conduct of the event if they are published or announced prior to or during the event by means of Bulletin, newsletter, telephone, e-mail and/or pre-race meeting.

# **Section B - Membership**

# b.1 Membership Eligibility

- **A.) Eligibility** Race of Champions may, but is not required to accept as a Member, any individual or business entity interested in racing so long as the individual entity has properly and truthfully filed a Race of Champions application, has agreed to abide the rules and paid the required fee as prescribed for membership as a part of the Race of Champions.
  - a.) At any time once a Membership has been approved, the Member by receiving and accepting the Membership Package has agreed to remain a Member in good standing. Any Membership maybe terminated involuntarily and/or suspended and/or voluntarily terminated. The

Membership will also expire each calendar year on the final day of the year – December 31<sup>st</sup>, and it is required to complete the required application for Membership acceptance in the new calendar year beginning on January 1.

**B.)** Competitive Eligibility – All drivers competing in on-track activity at any event, including but not limited to practice, time trials, qualifying races and/or the race/feature, must sign a participant waiver form at the designated registration area prior to any on track participation in any Race of Champions sanctioned event.

#### C.) Membership Cards

- a.) All Race of Champions team Members in good standing, who carry a Membership Card, will be admitted into the pits at the announced price for the event. Membership Cards must be presented for any discounted price.
- b.) Each Member is responsible for lost or unauthorized use of the Team Membership Cards. Each time a Card is requested to be replaced a \$125 fee will be charged.
- c.) Corporate Sponsorship, guest cards and/or any other valid membership card may not be used by any race participants, team members, relatives and/or friends of participants.
- d.) Any misuse of the Membership Card(s) will result in the Card being revoked from its listed member. Race of Champions Officials may and do reserve the right to confiscate and suspend the use of any Member(s) card as a disciplinary action.

#### D.) Restrictions

Restrictions may apply to any driver (dirt or asphalt) based on past experience, current penalties and/or any driver who may not be qualified to participate in a divisional event within any Race of Champions sanctioned event as determined by Race of Champions officials.

#### E.) Minimum Age Requirement

To be considered for approval, the applicant must secure and maintain a Race of Champions Drivers Membership a member at minimum must;

- a. Be at least 16 years of age to participate on tracks less than 5/8-mile in length. Tracks that are 5/8-mile or longer, a participant must be a minimum of 18 years of age. From time-to-time, there may be situations addressed on a case-by-case basis, where a participant may be permitted to compete at an age younger than the stated minimum age.
- b. Complete the "Youth Membership Resume and Application" requesting to compete in the appropriate Series and/or Event(s), in addition to any additional requirements, including, but not limited to the required training modules (www.motorsportssafety.org), etc...
- c. Execute and deliver to Race of Champions such authorizations, releases, applications, consents, waivers, resumes and other documents as maybe required from time-to-time.
- d. Be and remain in compliance with the Race of Champions Substance Abuse Policy.
- e. Following completion of all documentation, waivers, consents, resumes, other documents and/or training modules (www.motorsportssafety.org), a driver must be approved for competition before eligible to participate in any sanctioned event
- f. Failure to meet any criteria may result in an indefinite suspension from Race of Champions sanctioned events.

#### b.2 Conduct

- **A.) General -** All Members agree to act in a professional manner as determined by Race of Champions Officials. The professional manner includes, but is not limited to verbal representation, written representation, any representation that may represent the Race of Champions and/or motorsports in general and/or any affiliates.
  - All Members must arrive at Series races in a timely manner so that they may participate
    in the entirety of the racing event.
  - b.) All Members will not be permitted to compete and/or participate while under the influence of any alcoholic beverages and/or illegal substances. If a member is found to

be participating in such a manner an immediate suspension of Membership will be activated as per the definition of the rules in Sub-Section b.5.

- **B.)** Any member, during an event; a competitor, crew chief, car owner, crew member and/or team representative may be requested to report to the meet with Series Officials at a designated location for consultation with Race of Champions officials. The request may be communicated over the one-way radio and/or verbally. Failure to comply with the request will be subject to fine and/or suspension and/or any other action deemed appropriate by Race of Champions Officials.
- **C.)** Parking As a disciplinary action a driver and/or race team may be parked during and/or after any Race of Champions event. Parking is a directive from a supervisory official that is a directive to cease competition and may include a directive for the competitor(s) to not participate in an event for a set number of laps and/or complete event(s) and/or future events and/or leave the premises in order to promote the orderly conduct of any Race of Champions sanctioned event. This directive will only be given in extraordinary circumstances by supervisory officials. Parking will not be construed and/or deemed to be a disqualification and/or suspension and/or other "penalty" as referenced in section 11 and is not appealable under section 12 of this rule book.
- D.) Non-Member Suspension / Removal As a disciplinary action any "entrant" (member or non-member) into the restricted or fan area(s) may be removed and if that entrant is associated with any race team, that team may be parked during and/or after any Race of Champions event. In the event of an entrant being removed during any event, it will be a directive from a supervisory official that is a directive to leave the event and all properties immediately. In the event that the entrant is with a race team and the order effects a race team, the race team must cease competition and may include a directive for the competitor(s) to not participate in an event for a set number of laps and/or complete event(s) and/or future events and/or leave the premises in order to promote the orderly conduct of any Race of Champions sanctioned event. This directive will only be given in extraordinary circumstances by supervisory officials. Removal will not be construed and/or deemed to be a disqualification and/or suspension and/or other "penalty" as referenced in section 11 and is not appealable under section 12 of this rule book. An "entrant" will be defined as any member that enters the proper through the purchase of a ticket, a pit pass and/or granted a credential to the event.

# b.3 Race of Champions Series Championship

- **A.)** Championship The Race of Champions will award drivers points as based upon their finish in each Series race as set forth in Section J of this rulebook. At the end of the series scheduled season, the Race of Champions shall announce one Race of Champions Driver's Champion per division and they will be awarded championship prize money as posted, based upon their cumulative point total for the series.
- **B.)** Race of Champions Team Member Status On January 1, 2021 a Race of Champions Team Member Status plan may be established and activated as part of each Series. The teams that are selected will be required to submit and complete all proper documentation. Race of Champions Team Members may lose their status if they are in violation of any part of the Agreement, which includes the rules as stated herein. Race of Champions Team Member Status will be established during the 2021 calendar year.
- **C.) Championship Celebration –** Banquet attendance is mandatory, unless extenuating circumstances present themselves, for the receipt of point fund and/or any bonus post season awards.
- D.) Race of Champions Home Track Points will not count toward a driver earning the Race of Champions asphalt and/or Race of Champions dirt Modified Series Championship. If any driver declares to compete for any other Race of Championps championship then a driver must declare and participate at a home track. Points will be considered from May 1 and be awarded until Labor Day weekend each calendar year.

For a driver to be eligible to earn a minimum Race of Champions Home Track Award toward the series championship the driver must participate in a percentage of scheduled events at the driver's declared Home Track in the respective division in which the driver is participating in for the championship;

Race of Champions Sportsman Modified (dirt or asphalt) - 75%

#### Race of Champions Stock Car / Street Stock - 75%

#### b.4 Medical Exemption

- **A.)** Any Race of Champions Driver that is injured and/or has a medical issue that restricts any driver from participation in a Race of Champions Series event and/or may be unable to compete as a result, that team/driver will be granted a medical exemption. The medical exemption may apply to any sanctioned Race of Champions event. The driver may be required at the discretion of the Race of Champions Officials to produce medical documentation.
  - a.) In the event of driver medical exemption the driver has a 6-race (or 14-day) grace period, whichever occurs first, to return. If the driver does not return within the specified time period, the driver could forfeit their Benefits to include but not limited to points, year end awards and/or the provisional starting positions for the next season. The determination of forfeiture will be at the discretion of Race of Champions Supervisory Officials.
  - b.) Any Race of Champions Series member driver and/or team unable to compete because of any unforeseen circumstance, as determined by Race of Champions Officials may qualify for show-up points.

# b.5 Substance Abuse Policy/Explanation

**A.) Substance Abuse Policy/Explanation –** The Race of Champions will distribute to all participants and/or members at the beginning of each calendar year a specified Substance Abuse Policy and hold in place. To be a member in good standing, the policy must be completed and returned. The Substance Abuse Policy is an addition to the 'reasonable suspicion' policy. Reasonable suspicion will be determined at the discretion of Race of Champions Officials.

# C. Personal Safety Equipment – ALL DIVISIONS

#### c.1 General

- **A.)** Each competitor is solely responsible of for the effectiveness and proper installation, per the manufacturer's specifications, of personal safety equipment and determining it to be adequate for competition at every event. Each competitor is expected to investigate and educate themselves for continuing improvement regarding their own personal safety equipment.
- **B.)** Different safety regulations may be in place depending on the local and/or state government rules and/or laws and/or regulations in the specific location of the race track. Helmet and seat belt dates and/or specified equipment requirements, worn, utilized and/or otherwise may be different than specified in the Race of Champions rule book. Contact your local track officials for more information regarding this.
- **C.)** All rules as stated in this section may be superceded by the rules as specified for each division in their specific section of this rule book.

# c.2 Seat Belt/Restraint System

- **A.)** Each car will be equipped with minimum five (5) point SFI 16.5 or SFI 16.1 approved restraint system, until the date of the belt expiration (two years from the date of manufacturer). Seat belt restraint systems shall be installed and used in accordance with manufacturer's instructions. Two inch (2"-inch) wide belts that meet the SFI 16.5 and/or SFI 16.1 specifications will be permitted.
- **B.)** Seat belt material should not be permitted to come in contact with any sharp or metal edge, including when the material passes through the seat.
- **C.)** Rolled and/or deburred and/or flanged edges or anywhere seat belt webbing passes through and may come in contact with abrasive edges are recommended.

#### c.3 Protective Clothing

- **A.)** All drivers will be required to wear a fire resistant driving uniform meeting minimum of the SFI 3.2A/5 specification and display a valid SFI 3.2A/5 label.
- **B.)** All drivers should wear fire resistant accessories including but not limited to; head sock, under garments, shoes, and socks. All drivers will be required to wear fire resistant gloves. Shoes and gloves will be required to meet minimum of the SFI 3.3 specifications and display a valid SFI 3.3 label.

#### c.4 Seats

- **A.)** Aluminum and/or carbon fiber-type composite seats only will be permitted. If a carbon fiber-type composite seat is used it must meet the SFI 39.2 ratings. Aluminum seats with an FIA and/or SFI 39.2 rating are recommended. All seats must be mounted to the frame as required by the seat and chassis manufacturer. Full containment seat(s) and/or aftermarket bolt on head restraints are recommended.
- B.) All areas surrounding the head should have padding.
- **C.)** A right side head restraint net and/or support is recommended. All head restraint nets should be equipped with quick release mechanisms.
- **D.)** The driver's seat must be securely fastened to the frame and/or cage in six positions with a minimum of six (6) 3/8"-inch bolts. There should be a minimum of four (4) bolts on the bottom and two (2) in the back of the seat. All seats must be a minimum of 1/8"-inch magnetic steel plate under and up the back 4"inches and be as wide as the seat. Only single piece high back type seats will be permitted.

#### c.5 Helmets

- **A.)** All drivers will be required to wear a full-face helmet with a minimum Snell safety rating of FIA 8860-2004; FIA 8860-2010; FIA 8860-2018; Snell SA 2010; Snell SA 2015, SFI 31.1/2005 and/or SFI 31.2 label.
- **B.)** At all times during any event (practice, qualifying and competition) driver's that participate in the Race of Champions events must wear a head and neck restraint system with a valid SFI 38.1 label. For all other Race of Champions competitors a Head and Neck restraint system are recommended. The head and neck restraint system must be mounted and connected to the helmet per the helmet manufacturer and head and neck manufacturer instructions.
- **C.)** Arm restraints are recommended and must be connected and used as instructed by the manufacturer.

#### c.6 Other General Safety Items

- A.) Sharp and/or protruding edges in and around the cockpit will not be permitted.
- **B.)** Windshield screens should be a minimum thickness of 0.090 inch and should be securely fastened to the roll cage.
- C.) A clearly marked electrical engine shut off switch within the reach of the driver.
- **D.)** A clearly marked fuel shut off valve, labeled On and Off, must be mounted within reach of the driver. It must be labeled with the word(s) "Fuel Shut Off". Refer to the drawing in the drawing section of this rule book.
- **E.)** SFI-approved and labeled seat, roll bar, knee and steering pads and/or padding is recommended.
- **F.)** All cars must have a driveline U-Joint scatter shields.
- **G.)** All teams must have a fire extinguisher in the rear of their transporter with the car number clearly visible on the extinguisher. The fire extinguisher must be a minimum of 20lbs and is recommended to FFF type chemical and/or Dupont FE-36 and/or equivalent.

# D. Licenses / Memberships

- **A.)** Any driver that intends to participate in any racing event must possess a valid membership and also be approved for competition in the Race of Champions. Approval for competition will be made by Race of Champions Modified Series Supervisory Officials.
- **B.)** Minimum age of participation in any Race of Champions event is 16 years of age. Any drivers that are under 16-years of age and seek to participate in any racing event must be approved in advance. Driver must participate in Youthful Driver approval process. The driver must also be approved for competition by the Race of Champions Supervisory Officials.
- C.) Any documents may be requested to prove date of birth. In the event that any document is found to be false and/or falseified the competitor and/or family member submitting the document may be indefinitely suspended.

#### d.1 Rookie Status

- A.) A "Rookie" is determined by the criteria as set forth by Race of Champions Officials:
  - 1,) A "Rookie" is determined by a driver not starting in a division more than six (6) total times during the driver's career. A "Rookie" candidate may not have won and/or been eligible for the Rookie of the Year Award in any prior season within the specific division declared for eligibility. Rookie Status may only move upwards by division, ie; a modified driver will not be a rookie in the Sportsman or Stock Car divisions. A driver may not regress to be eligible for Rookie of the Year in any division.

To be eligible a driver must submit their declaration for Rookie of the Year in writing prior to the first event of the season or May 1st, whichever may come first, to receive approval to participate for the award.

- 2.) The minimum number of races to be eligible for the Rookie of the Year Award will be 50% of the scheduled races as of the season opener, although those competitors not competing in 50% of the scheduled races will remain in the accumulated standings.
- 3.) The Rookie of the Year Standings will be maintained based on the average feature event finish from each event. Driver's failing to qualify for the feature event, but making an attempt to qualify for the feature event, will receive a last place average finish in those events.
- 4.) An Eligibility Panel will endorse Rookie of the Year candidates following the declaration(s) and will also vote on the season ending award to determine the Rookie of the Year. The Rookie of the Year Award will not be based solely in regard to on track performance. The Eligibility Panel will include: the Race of Champions Officials, the Media, Race of Champions Management, the defending Series Champion and the preceding year Rookie of the Year. The vote will be determined by simple majority. Ties will be broken by another vote.
- 5.) The Rookie of the Year and the Rookie driver, if different drivers, who posts the best average finish will be recognized at the season ending championship celebration. The Rookie of the Year Award is a divisional based award and is based on the performance within the division overall to include weekly sanctioned as well as touring series events.

# E. Racing Event Procedures

The rules as stated herein will cover the rules of the racing event. Rules of the racing event may be altered from time-to-time by Race of Champions Officials. Racing event procedures and/or racing event rules are final and non-appealable.

# e.1 Pre-Race Inspection(s)

- **A.)** All cars entered and present at any Race of Champions sanctioned event that are intended to compete in the racing event, must pass pre-race inspection prior to any on-track activity. Pre-race inspection may take place in a specified area and/or in the regards of space directly at the team's transporter. Refusal to present vehicle or preventing officials from completing pre-race inspection will result in disqualification from that event and possible penalty and fines.
- **B.)** At all Race of Champions sanctioned events, only one entry may be presented for pre-race inspection. Multiple cars entered for one (1) driver will not be permitted.

#### e.2 Driver's Meeting(s)

- **A.)** All drivers' or drivers representative, must attend the driver's meeting. A roll call may be taken. Drivers in violation of not attending the Driver's Meeting could face a fine, loss of starting position, loss of driver's points, owner's points and/or suspension.
- **B.)** The number of racecars starting each event and the number of laps for each event may be announced at the driver's meeting.

**D.)** Any changes in the basic event night program due to car count, track conditions and/or any other circumstances may be announced at the driver's meeting.

#### e.3 Inspection Procedures/Legality

- **A.)** Engines, chassis, suspension, ignition/electrical, tires, fuel and/or sound/mufflers may be inspected at any time.
- **B.)** Fuel may be inspected during periodic intervals utilizing but not limited to a hydrometer and a dielectric tester. If by chance Race of Champions Officials cannot positively identify the proper fuel at the track, all winnings and points of that particular car from that particular event will be held up until the fuel sample is sent to the refinery and/or a Laboratory for chemical analysis through a fuel chemist. If a fuel sample is determined to be chemically altered, all winnings of that particular car from that particular racing event will be held until the analysis has been completed and a determination has been made by the Race of Champions Officials. Upon completion of the laboratory findings a decision will be made by Race of Champions Officials.
- **C.)** Race of Champions Officials may at their discretion, inspect any car entered for competition in any racing event at any time.
- **D.)** Race of Champions Officials may at their discretion, impound a part/component, engine and/or any other components and/or the complete car for competitive and/or data analysis.

#### e.4 Post Race Inspection(s)

- **A.)** At the conclusion of each race, cars mayl be instructed over the two-way and one-way radio to report directly to the scale and/or inspection area. At the conclusion of the feature race, the winner must report to the scales first. The number of cars to report to the scale / technical inspection area will be announced at the driver's meeting in addition to the one-way radio.
- **B.)** Failure to report immediately to the scale / technical inspection area may result in a disqualification.
- **C.)** If applicable, once the winner has cleared the scales, he must proceed to victory lane and may be required after the conclusion of the victory lane ceremony, to return to the scale / technical inspection area.
- **D.)** The Race of Champions Officials at the event shall inform and/or release cars from inspection upon conclusion of inspection. Any car removed from inspection prior to the conclusion of inspection may be penalized.

# e.5 Restrictions

- **A.)** Once the racing program (in-turn qualifying) has begun on any racing event, the changing of any tire on any corner will be governed by the rule specifications set forth herein the Tire Section of this rule book.
- **B.)** All work on the racecar, once any race has been begun, must be completed in the designated work/pit area unless informed otherwise.
- **C.)** All cars will receive only one (1) opportunity to start each race. If a car needs more then one (1) opportunity, except for safety reasons, during any race, that car must start at the rear of the field in that particular race.
- **D.)** Drivers and/or team members will not be permitted to tamper with track racing surface.

# e.6 Entry/Pill Draw

- **A.)** An entry fee <u>may</u> be charged by the Race of Champions at selected events, announced prior to the specified event.
- **B.)** All drivers and/or teams entered in any event must draw for a position in time trial qualifying and/or qualifying race position at the designated location. The drivers and/or teams are responsible for their own pill draw. Only one (1) car may be entered per driver in any event.
  - a.) At all Race of Champions dirt Modified events, drivers must declare at the pill draw whether they are entering as a Big Block or 358 for the duration of the event.
- **C.)** All pills will be drawn prior to the driver's meeting. If a driver and/or team entered and present at the event does not draw, that team will be placed at the end of the qualifying order. In the event that

there are no time trials, then the driver and/or team will start at the rear of their specified qualifying race.

# e.7 Hot Laps/Practice

- **A.)** All entered cars must practice. Cars may be required tohot lap in their specified group and/or by the time trial/qualifying (group format) order. Example; the first ten (1-10) cars in the time trial qualifying order will hot lap followed (11-20) and so on. The AMB Scoring Transponder must be mounted on the race car prior to hot laps. In the event a car does not practice, Race of Champions Officials may permit that car to compete in the event.
- **B.)** If track packing is required. Any car that does not participate will be given only one (1) time trial lap for that event.

#### e.8 Qualifying/Time Trials/Heat Races/B-Mains

- **A.)** In all events, the driver qualifies. If for any reason, a driver and car match-up in any race is separated then only the driver is considered qualified. **B.)** If a car/team switches cars, for any reason, that car must start at the rear of all races in which that car/team has qualified for on the same day. If, for any reason, a race must be run on a different day after qualifying is completed, the driver may start the race in the earned qualifying position even if not in the car originally presented for qualifying.
- **C.)** Qualifying will consist of a group format time trial session with consecutive timed laps unless otherwise noted. Changes to the qualifying procedure will be at the discretion of the Race of Champions Officials. Any type of 'wave-off' is not permitted. Once the car enters the racing surface that is their qualifying attempt if the car does not post a time or fails to complete a lap and posts 'no time' they will start last in a heat race and not be eligible for qualifying race points.
- **D.)** Qualifying will take place in the order of the pill draw. In events that utilize group qualifying the pill draw will be utilized to establish each qualifying group. Each car and/or team must qualify with their specified group for their own qualifying opportunity. If the group is missed by more than two spots the late car will take time at the end of the group and will receive only one qualifying lap. The best position a car that does not qualify in its specified group will be 17<sup>th</sup> position or one (1) spot beyond half of the overall car count if the car count is 40 or greater.
- **E.)** The cars and/or teams that are late must be in line before the last scheduled group begins its qualifying attempt. Time trials will be closed once the final group is in line and has started their qualifying attempt and have started their time trial.
- **F.)** In the event of two or more cars post the same time in time trials, the tie breaker will be the fastest other lap time recorded in time trials. If this does not break the tie, the tie will be broken by the qualifying order draw. In the event that one (1) lap qualifying is utilized the tie breaker will be the qualifying order draw.
- **G.)** In the event that a qualified car for the feature is unable to take the initial green, the first non-qualified car will be taken as the alternate starter for the feature event. The original qualified car will not receive points for the feature race. If a qualified car takes the initial green flag and then falls out of the race, there will not be an alternate starter added to the race and the original qualified car will receive only last place points for the feature.
- **H.)** Once any driver has completed their qualifying attempt by taking the checkered flag, that driver must drive to the technical inspection area to scale the car for the minimum weight requirement. (From time-to-time, some events may require scaling the cars prior to qualifying).
- **I.)** In the event of inclement weather, it is at the discretion of the Race of Champions Officials to alter the qualifying process.
- **J.)** In the event of inclement weather, following the conclusion of time trials each driver present receives show up points.
- K.) For all Race of Champions asphalt Modified Series, Race of Champiions Late Models, Race of Champions Sportsman (dirt and asphalt) events, time trials may be required. There will be one practice session, followed by a second green-white-checker hot lap session in which the qualifying race line up will be determined, based on fastest to slowest time and the car count for the event.

# e.9 Heat Races

A.) All drivers entered in any event will be scheduled to compete in a heat race.

- **B.)** The heat race lineups may be determined by pill draw or the results of time trials. The fastest time driver in time trials will draw a pill to determine the inversion for the starting position of the heat races.
- 1.) For Race of Champion asphalt Modified Series events; A minimum of three (3) qualifying races will be run for any event. The lineups for those qualifying racers may be determined by "group time trials" or the car establishing the fastest time will be placed in the first qualifying race, the second fastest time will be placed in the second qualifying race, the third qualifying time in the third qualifying race and so on, until all qualifying race line ups have been established. The fastest overall qualifier may then draw an inversion pill 0, 2, 4 or "All" to determine how many positions are inverted for each qualifying race.
- **C.)** The number of laps in the heat races and amount of cars transferring from the heat race(s) will be announced at the drivers meeting by Race of Champions Officials.
- **D.)** All cars that transfer from the qualifying race(s) must report to the technical inspection area immediately following the completion of their heat race to scale the car for the minimum weight requirement. In the event that a competitor fails to report to the scale area following the completion of the event, the driver will be immediately disqualified from that race, unless otherwise directed by Race of Champion Officials.
- **E.)** There will be a redraw for starting position amongst the top finishers in each qualifying/heat race. The number of drivers that participate in the redraw will be determined by the number of heat race(s) run during any given event night and will be announced at the driver's meeting.
- **F.)** Any driver transferring from the qualifying race(s) to the feature race that does not qualify for the redraw will line up for the feature race based upon the driver's finish in the heat race.
- **G.)** Any driver that does not transfer from the qualifying race(s) to the feature race will be assigned to compete in a 'B'-Main and/or consolation event/race(s).

# e.10 'B-Main(s)'

- A.) The 'B-Main' race(s) line up will be determined by the finishing order of the qualifying race(s).
- **B.)** The number of laps of the B-Main will be based on the overall car count for the event and announced at the driver's meeting.
- **C.)** All cars that transfer from the 'B-Main' must report to the technical inspection area immediately following the completion of the race to scale the car for the minimum weight requirement. In the event that a competitor fails to report to the scale area following the completion of the event, the driver will be immediately disqualified from that race, unless otherwise directed by Race of Champions Officials.
- **D.)** The lineup(s) for multiple day events will be determined once it has been determined how many cars have returned for the second day of competition and announced at the driver's meeting.

# e.11 Backup Cars

**A.)** A backup car may be introduced at any time between qualifying and the start of the A-feature, with permission from the Race of Champions Supervisory Officials. An additional entry/inspection fee will be due for the introduction of any backup car where applicable. Any such change will result in the driver starting at the rear of the race in which the driver has qualified for. If a driver changes cars after practice, that driver will remain in his drawn position for time trial qualifying. If a backup car is introduced, the car must pass pre-race technical inspection prior to any competition. Once a car has been withdrawn from an event, that car will not be allowed to be resubmitted to competition during that event. If a driver starts the race in a backup car and does not start the event from the rear of the field a penalty may be issued.

#### e.12 Starts

**A.)** The start of each race will be preceded with a ten (10) minute warning to begin the ten (10) minute period. The ten (10) minute sound will be followed by another warning five (5) minutes prior to the start of the race. All cars and drivers must be on the starting grid for driver introductions at the completion of the ten (10) minute period. If the driver is not present that driver's starting position will be forfeited and that driver will start from the tail of the field. If more than one (1) driver is late, the drivers will start at the tail of the feature in the order of their qualified position.

- **B.)** The race will begin immediately once the racing surface is clear and the cars are properly aligned in their assigned starting positions. The number of pace laps will be announced at the driver's meeting.
- **C.)** Any driver, team, and/or car, who purposely attempts to hold up the start of any race will be placed at the rear of the lineup and may be disqualified from the event, suspended and/or fined at the discretion of the Race of Champions Officials. Any car that needs to be push started must start at the rear of the field.
- **D.)** Once the allotted time (announced at the driver's meeting) allowed for being on the track, ready to race, has expired, any late car will be penalized. Any car that starts after the field has started assembling must start at the rear of the field. This rule may be adjusted from time-to-time, "EIRI", at the discretion of the Race of Champions Officials.
- **E.)** All double-file starts/restarts will take place at a consistent speed, with cars side-by-side in rows of two throughout the field. Consistent speed will be at the discretion of Race of Champions Officials. The initial start will take place at a designated area that will be identified at the driver's meeting. Any car out of line and/or passing before this point will be penalized. If an offending car is located on the last row of the starting grid then that car is allowed to restart but will be penalized 2 positions from its finishing position. If the same car commits a second offense it may be disqualified from that event.
- **F.)** In the event that the race is not properly started by the two (2) front row cars, the responsible car(s) will be moved to the last positions in the field, with the rest of the field moving forward. Failure to acknowledge and comply with the "move back" signal will result in instant disqualification from the racing event.
- **G.)** The field may accelerate when the green flag is displayed, but the leader is the control car and must fire first. Any passing before the green flag is displayed will not be permitted. Only the leader has the choice to start on the inside or the outside of the front row.
- **H.)** Alternate starters for any race will not be permitted to start any race after the original start has taken place.
- **I.)** If only one (1) car is involved in a caution on the original start or before one (1) lap is completed, the car and/or car(s) that brought out the caution will lineup at the rear of the field and the race will have a complete restart for the remainder of the field
- J.) One (1) complete lap must be completed before the race is restarted using a restart lineup.
- **K.)** In the event that car(s) move to the back of the field, cars move forward by row and do not 'crossover' to fill in the original starting lineup.

#### e.13 Restarts

- **A.)** All restarts will be a double-file after the completion of the first lap of competition in any race. The leader on all double-file restarts will have the choice to start on the inside or outside of the front row. In all restarts lead lap cars will move to the front with lap down cars moving to the tail end of the field. All restarts that take place with 25-laps or less remaining in any feature event that exceeding 51-laps in distance, will be single file with lead lap cars to the front with lapped cars moving to the tail end of the field, unless designated otherwise at the driver's meeting.
- **B.)** All restarts will take place with the lead lap cars moved to the front of the field. Lapped cars will pull to the inside and fall in behind the last car on the lead lap in their order of running.
- C.) The restart area will be designated at the driver's meeting.

# D.) All restarts will take place at a consistent speed. Consistent speed will be at the discretion of Race of Champions Officials.

- **E.)** Passing may begin once the leader accelerates and passes the designated restart point and the green flag is displayed.
- **F.)** If a car passes to the left of the designated restart point and/or passes another car before reaching the designated restart point and/or is not in a proper nose-to-tail alignment and/or is guilty of an excessive gap between cars, then that car will be penalized. If there are multiple violations, the car may be disqualified from the event.
- **G.)** If the leader is unable to properly restart the race after the one (1) attempt, the leader will be penalized and moved to the rear of the field.

- **H.)** When an infraction occurs on a restart, Race of Champions Officials shall exercise their discretion and allow the race to continue, not calling for another restart, and then penalize the offending car(s) under yellow flag conditions or at the conclusion of the race. The offending car(s) will be penalized.
- **I.)** Any cars that require a push start during a caution period, will be considered involved in the incident which brought out the yellow flag and that car will have to restart at the rear of the field.
- **J.)** Any cars that stop, either on the racing surface and/or in the pit/designated work area, during a caution period will be required to restart from the rear of the field.
- **K.)** Any cars that are involved in causing a red flag situation will be required to restart at the rear of the field, including cars that go to the pits during a red flag situation.
- **L.)** Any car that stops due to the red flag being displayed will be permitted one (1) opportunity at a push start provided the car was not involved in the incident. If the car does not fire it will be pushed back to the designated pit/work area and once restarted must start from the rear of the field.
- **M.)** Any car that stops because of a blocked track, at the discretion of the Race of Champions Officials, may not be considered involved in the red or yellow flag.
- **N.)** Any car that is black flagged for consultation during a caution period will retain its position only if the Race of Champions Officials deem the car 'clear' and permit it to return directly to competition without adjustment.

#### e.14 Racing

- **A.)** Any car that does not race on the designated racing surface in order to better its position will be black flagged and penalized at the discretion of the Race of Champions Officials.
- **B.)** Prior to the start of the feature race, on-track, outside the car introductions will be scheduled. In the event of inclement weather and/or other schedules the Race of Champions Officials may change this.
- **C.)** A pace car may be utilized to pace the field prior to the start of the event and on all restarts. Passing of the pace car, unless otherwise instructed to do so by the Race of Champions Officials will not be permitted.
- **D.)** Any car that spins during green flag racing conditions and is involved in an incident and/or has a problem, but does not bring out the yellow flag and/or create a caution period, will blend back into the field where the driver is able to do so. If there is a caution period the Race of Champions Officials will determine the placement of the car(s) involved. The placement of the car will be where the car blended back into the field.
- **E.)** At the discretion of the Race of Champions Official any car that is involved in two (2) single car spins that are unaided may be disqualified from the event. If the car spins unaided for third time it will result in automatic disqualification from the event.
- **F.)** At the discretion of the Race of Champions Officials any car that intentionally brings out a caution period may be penalized and/or disqualified from the event.
- **G.)** All races must be completed in a "green-white-checker" finish. Any race may be extended past its advertised distance with a "green-white-checker" finish. This means if the yellow flag is displayed or caution lights illuminated prior to the leader receiving the checkered flag, that race will be restarted and run for two consecutive laps before completion.
- **H.)** In events where it is noted in the event entry blank, the competition format and/or the driver's meeting a race may be finished and not restarted once the leader crosses the start/finish line and receives the white flag signifying the last lap of the race. If the leader receives the white flag and then the yellow flag is displayed and/or yellow lights illuminated, cars will be scored in their respective position and must not race back. Cars that receive the yellow and white flag simultaneously will be scored based on their last completed green flag lap. Cars must proceed back to the checkered and caution flags at a reasonable speed. Involved cars and/or cars unable to maintain reasonable speed will be scored based on their last completed lap and/or involvement in the caution. Passing will not be permitted and the race will not resume.
- **I.)** If a race is red flagged due to weather conditions and cars are sent to the pits, then any and all work is permitted, unless otherwise informed and announced by Race of Champions Officials.

- **J.)** Cars that pit during the course of a race for service and/or repair may re-enter the race under green flag conditions once release and instructed to do so by Race of Champions Officials.
- **K.)** For specified Race of Champions sanctioned events hand signals, colored gloves and pit boards will be permitted during the event for the sole purpose of communicating with drivers. Flashlight and/or two-way radio communication with drivers will not be permitted.

#### e.15 General Racing Equipment and/or Requirements

- **A.)** Two-way radios will be permitted at specified events for specified divisions, including events that have and/or include pitstops, whether required or mandatory.
- **B.)** All competitors in all Race of Champions divisions are required to have, in working condition, an approved (Raceceiver and/or Racing Electronics) one-way radio system to aid in line ups and/or the use of race control to manage the racing event.
- **C.)** All cars must have and/or provide the adequate hardware for the attachment of the AMB TRANS X 260 Transponder. Please refer to the drawing/diagram.

#### e.16 Special Event (Events that require Pit Stops) - Cars, Equipment and/or Procedures

- **A.)** In any event that requires a pit stop and/or refueling, the use of two (2) dump/refueling cans at the same time will not be permitted. Only one (1) dump/refueling can, which may not exceed 12 US Gallons in capacity, will be permitted at one time. After the first fuel can has been used to refuel the car during the pitstop only then will the second fuel can be able to enter into the car servicing area from behind the pit wall.
- B.) Car(s) may not be pushed past the flagman located at the end/exit of pit road.
- **C.)** Once a race has taken the original green flag and laps have started counting, cars may be started by hand pushing in the pit area and/or on pit road only. Push trucks may be available and will be signaled by race control for a mechanical push start if required. In events that utilize a pit road for servicing the car with a pit crew, push trucks will not be permitted to push start and/or push cars off of pit road and back into competition, unless directed to do so by the Race of Champions Officials.
- **D.)** Cars may only enter pit road for pit stops from the defined pit road entrance Cars must travel on pit road in a counter-clockwise direction only.
- **E.)** When multiple cars are pitting and enter pit road, they must enter in single file. Passing on pit road will not be permitted. Cars must stay as far to the rights as possible on pit lane before entering the required pit stall and must maintain 'pit road speed' as designated by the pace car on pace laps. Exceeding the pit road speed and/or passing on pit road may result in a penalty at the discretion of Race of Champions Officials. 'Pit road speed' will be in effect for entering and exiting the pit road.
- **F.)** All pit stop service must be completed in the assigned pit stall.
- **G.)** Only a maximum of four (4) pit crew members will be permitted over the wall to service the vehicle at any time. The use of any additional crew members may result in a penalty. Three (3) pit crew members to service the car and one (1) to handle the catch can. All crew members going over the wall (limit three plus the catch can person) should be equipped with helmets. All fueling personnel (gasman and catch can person) must have a full-faced helmet, fire resistant gloves and fire resistant fire suit and/or a uniform that has been treated with a fire resistant substance. It is recommended that the gasman with dump can and catch can man have a fire retardant apron in addition to the fire retardant suit. This rule applies for all Race of Champions sanctioned events where refueling is required during a pitsop.
- I.) For a pit stop to be considered official, the car must come to a complete stop in its assigned pit stall.
- **J.)** In events were pit stops may be required, pit road will remain closed until the pace vehicle has control of the field. If a car enters pit road prior to pit road being 'opened' the minimum penalty will be that car being placed to the tail end of the field and the maximum penalty will be the loss of one (1) lap. Cars that have been damaged and/or require repairs and/or assistance will be permitted on pit road before it is open, however, if they are able to return to the race, they must restart at the rear of the field.
- **K.)** In an event that requires two-way radio communication, the one-way radio must be used 'in-line' with the two-way radio system.

- **L.)** It is recommended that all teams have a sign posted approximately ten (10') feet in the air in front of the air assigned pit areas displaying their car number and color scheme. The sign should be legible for officials to facilitate the delivery of messages from race control.
- **M.)** In the event of inclement weather and/or unforeseen circumstances that prevent the completion of the advertised distance of the event, the race will be considered official after half of the event has been completed. The car leading at the time of the red flag and/or signal of the event completion, will be considered the winner regardless of whether the car has made the mandatory pit stop before that time.
- **N.)** During post-race inspection at specified events, only the driver, two (2) crew members and the car owner will be permitted in the designated post-race inspection area.

# e.17 Flag Rules/Officials Signals

#### A.) Green Flag;

- 1.) When the starter displays the green flag, the track is open for racing.
- 2.) The green flag signifies the start of any race and/or time trial run.
- 3.) Passing will not be permitted before the green flag is displayed at the designated point.

# B.) Yellow Flag;

- 1.) When the yellow flag is displayed and/or the yellow caution lights are illuminated, this signifies a caution period.
- 2.) When the yellow flag is displayed and/or caution lights illuminated passing will not be permitted unless instructed to do so by Race of Champions Officials.

#### C.) Red Flag;

- 1.) When the red flag is displayed all cars on the racing surface and in the pit areas must come to a complete stop in a controlled manner, while not stopping and/or driving through the area of the incident.
- At the discretion of the Race of Champions Officials a work area may be designated on the racing surface. All cars will be moved to the designated work area on the racing surface before work begins.
- 3.) During any red flag situation all drivers, unless involved in the incident, must remain in their car unless otherwise instructed by Race of Champions Officials.
- 4.) If any car enters and/or moves during a red flag period, including entering the pit and/or designated work area, the car will be penalized a minimum of one (1) lap and will restart the race at the rear of the field.
- 5.) If the race is red flagged due to inclement weather conditions work and tire changes may be permitted.
- 6.) If the race is 'called' due to inclement weather conditions and/or any other circumstances any car that enters the pits/work area prior to the end of the event, that car will be scored at the rear of the field.
- 7.) During any red flag, once the field is stopped, the race director may offer the opportunity for any car to pit by signaling to do so with instruction over the one-way radio. Any car that pits for service during the red flag period will surrender it's running position and have to restart at the rear of the field and/or if the race is cancelled due to inclement weather, the car will be scored behind those cars which did not pit.

# D.) Black Flag;

- If the black flag is displayed, then the driver that the flag is being displayed toward must bring their car to designated pit/work area immediately for consultation. The car will not be scored after three consecutive laps from the point that the black flag originally had been displayed.
- 2.) In the event that the black flag is displayed toward a car during a caution period and the car is cleared by Race of Champions officials, the car will maintain and/or return to its position in the running order of the race as instructed to do so by the officials.

#### E.) White Flag:

1.) When the white flag is displayed this signifies that the leader of the race and/or the car that is qualifying has started the last lap of that event.

#### F.) Checkered Flag;

1.) The checkered flag signifies the completion of the event. All cars must pass underneath the checkered flag to be scored correctly on the final lap of the event.

Any race and/or qualifying attempt is not completed until the checkered flag is displayed.

# G.) Officials Signals;

 All drivers must obey signals, communications, blackboard(s) and/or any other Official's communications that assist in the direction and facilitation of creating proper lineups and/or the process of completing the event.

# F. Scoring Procedures

- A.) All races are scored at the designated start/finish line.
- **B.)** The original starting lineup will be posted by Race of Champions Officials after the completion of all qualifying events.
- **C.)** The restart lineups will be derived from the official scorer's lap and line scored sheets. <u>In the event that there is a discrepancy in scoring to reset any lineup position scoring will revert to the last completed green flag lap to derive the lineup.</u>
- D.) In feature races in which laps run during a caution period count toward the completion of an event, the counting of laps will begin once the initial green flag is displayed. In the event that a red flag is displayed, counting laps will not resume until the green flag is displayed, at that point laps will begin counting toward the completion of the event.
- **E.)** After the first completed green flag lap, when the caution is displayed all cars that were scored under green flag conditions will hold that scored position with all other cars lining up according to their last completed green flag scored lap. This partial lap will count toward the event's total number of laps. Racing back to the start/finish line will not be permitted and in the event that there is an ontrack scoring dispute, the chief scorer will refer to the last completed green flag lap to resolve the dispute.
- **F.)** A lap will not be scored on the original start and/or any restart unless all cars complete the lap by passing through the start/finish line except for the cars involved in the incident.
- **G.)** In the event that caution and/or red flag is displayed with the checkered flag simultaneously that race is completed. The cars crossing the finish line will be scored according to their position in their last completed green flag lap. Any car that is involved will be scored behind the cars that are not involved in caution and/or red flag.
- **H.)** In the event of inclement weather and/or unforeseen circumstances, a race may be called complete short of its entire distance, once it has reached half of the scheduled distance. The race at that point will be scored by the restart lineup.
- ${\bf l.)}$  In the event of unforeseen circumstances, the specified laps of any race may change from the original posted number of laps.
- **J.)** All cars are required to be equipped with an AMB tranx260 transponder securely mounted on the specified location. It is the competitor's responsibility to ensure proper installation and working condition of the transponder.

#### f.2 Handicapping

- **A.)** The number of cars to be qualified will be decided by the track handicapper and announced before the first heat race of each night.
- **B.)** A driver may attempt to qualify only once during qualifying heats. Any driver may attempt to qualify a second car during the consolation events.
- **C.)** A driver must drive the last car that the driver qualified in the feature. The car(s), even if qualified are not eligible for competition. In the event a driver qualifies a car and the car must be scratched, a driver may switch to a back-up car but must start from the rear of the field.
- **D.)** In the event of twin features, a driver may use one car in the first feature and may use a different car in the next feature but must start the second feature at the back of the field if the driver switches cars.
- **E.)** It is the responsibility of the driver and/or car owner to report driver changes Race of Champions Officials.

- **F.)** Drivers that change cars must start the feature from the rear. Failure to do so may result in a penalty and/or disqualification and/or not being scored in the race.
- **G.)** Cars and/or drivers must only compete in one division at any given sanctioned event, unless by invitation or with approval from the handicapper.
- **H.)** The driver must have a current license/membership for each division and/or purchase a single-event license in order to compete.
- **I.)** For all Race of Champions Modified Series races only: Provisional starting positions will be available in championship series races. A provisional start must start behind all other cars. Provisional starters must have attempted to qualify in a preliminary event in order to start the main event or feature race.
- **J.)** At all Race of Champions sanctioned events and selected events for other Race of Champions divisions, time trials will be used as a basis for qualifying procedures. All drivers will draw for time trial order and/or heat line up.
- **K.)** Points are official when posted on the pit board. If there is a mistake, the owner and/or driver has five (5) days from the posting to protest.

# G. Payoff and Pit Procedures

**A.)** All paid purses, appearance money and/or other awards and/or funds as outlined in the promoter's contract shall be paid to the car owner and/or designated owner's representative.

# H. Provisional and Alternate Starting Positions

- **A.)** If provisional's are permitted in the Feature event; the car(s) will earn full Race of Champions points.
- B.) The top fifteen (15) finishing drivers in the previous season's championship in standings in the Race of Champions asphalt and Race of Champions dirt Modified standings will be eligible for provisional starting positions in the first event of the respective season. Following the completion of the first event of the respective season the top fifteen (15) in the current season championship standings will be eligible for a provisional starting position. The provisional starting positions will be available to the first four (4) drivers who fail to qualify for the feature race. After those four (4) provisional starting positions are exhausted no other provisional starting positions will be awarded. To be eligible for a provisional starting position a driver must attempt to qualify for the feature. A maximum of four (4) provisional starting positions will be awarded to a driver throughout any season.
  - 1.) Other divisions/series that have provisional starting positions will be noted on the Competition Format information sheets that our posted prior to each event.
- C.) Any provisional starters will fall in line at the rear of the Feature.
- **D.)** In the event that provisional positions are not used by any driver attempting to qualify for the feature event and there are no more transfer positions available to have enough positions to fill the number of starting positions for the number of posted starting positions for the race, the remaining available positions open for the feature will be awarded to the next fastest qualifier(s) from time trials or next driver in the finishing order of the qualifying races (including B-Main's) who have attempted to qualify for the feature.
- **G.)** In the event that a car qualified for the Feature is unable to present itself no later than the final pace lap prior to the initial green flag, the first non qualified car will be taken as the alternate for the Feature event. The original qualified car will not receive points for the Feature race. If a qualified car takes the initial green flag and then falls out of the race, no alternate will be taken and that car will receive only last place points for the Feature.

# I. Racing Programs Special Event Shows

**A.)** There may be special event shows during the year that do not follow the standard Race of Champions sanctioned event formats. When such events occur all teams will be informed of specific program and/or procedural changes for that particular event. All racing programs are subject to change and any such changes will be explained at the driver's meeting.

- **B.)** All cars entered in a Race of Champions sanctioned event must have the Race of Champions decals and contingency program decals displayed in a visible area on both sides of the car located in the specified designated locations.
- **C.)** From time-to-time mandatory autograph sessions will be scheduled. Drivers will be notified of attendance and location at selected events.
- **D.)** The top four (4) drivers in the Race of Champions Championship Point Standings entering the event may be required to be present for the autograph session.
- **E.)** If any driver fails to report to any autograph session a written penalty may be issued, which could result in loss of points and/or fine(s).

# J. Points Breakdown

	Special	Standard Series 100	Championship Series
1	60	90	<u>150</u>
2	56	<u>85</u>	140
3	52	80	135
4	50	75	130
5	48	<del>72</del>	<u>125</u>
6	46	69	120
7	44	66	<u>116</u>
8	42	<u>63</u>	112
9	40	<u>60</u>	<u>108</u>
10	38	<u>58</u>	<u>104</u>
11	36	<u>56</u>	<u>100</u>
12	34	<u>54</u>	<u>96</u>
13	32	<u>52</u>	<u>92</u>
14	30	<u>50</u>	<u>88</u>
15	28	<u>48</u>	<u>85</u>
16	27	<u>47</u>	<u>82</u>
17	26	<u>46</u>	<u>79</u>
18	25	<u>45</u>	<u>76</u>
19	24	<u>44</u>	<u>74</u>
20	23	<u>43</u>	<u>71</u>
21	22	<u>42</u>	<u>68</u>
22	21	<u>41</u>	<u>65</u>
23	20	<u>40</u>	<u>62</u>
24	20	<u>40</u>	<u>60</u>
25	20	<u>40</u>	<u>58</u>
26	20	<u>40</u>	<u>56</u>
27	20	<u>40</u>	<u>54</u>
28	20	<u>40</u>	<u>52</u>
29	20	<u>40</u>	<u>51</u>
30	20	40	<u>50</u>
		40	50
		10	50
		10	20
		show up	20
		Points	show up

#### **Points**

- A.) 10 (show-up) points will be awarded to all members in good standing, who attempt to qualify a car, but fails to qualify for the feature event. In certain events there may be 20 (show-up) points awarded.
- B.) If a race is cancelled and rescheduled and a member in good standing is unable to return due to extenuating circumstances then that member may be awarded show-up points if they were present and prepared to race on the original date with prior notification to Race of Champions Officials.
- C.) If a race is cancelled after time trials have been completed due to inclement weather 'show up' points will be awarded to each driver in attendance.
- D.) For Race of Champions asphalt and Race of Champions dirt Modified Series events, unless otherwise noted, fastest time and qualifying race points will be awarded. The driver posting the fastest time in time trials, 5-points will be awarded. Qualifying race points will be as follows: 1,) 15-points 2,) 5-points 3.) 3-points. Any driver in the top-ten in the championship standings that finishes in 6th position or lower and is considered not to be in full competition based on the lap times and/or observation, may be subject to a penalty, including but not limited to loss of change tire in the feature event, one-lap in the feature event and/or a loss of fifteen (15) championship points in the overall standings.
- E.) In any Race of Champions sanctioned event(s) where there are a set number of drivers that qualify for the feature event based on time trials, these drivers may not be required to participate in a qualifying race, but will be awarded 5-points for qualifying through time trials. Once a driver is qualified for the feature event through an event that has a set number of drivers that qualify for the feature event through time trials they may not earn in any other points in any other qualifying race and/or event.
- F.) In the event that a tie should occur in the final Championship Point Standings at the end of the season, the tie will be broken by referencing and ranking the tied competitors by the greatest number of first (1st) place finishes. If the tie still exists then the tie will be broken by the greatest number of second (2<sup>nd</sup>) place, third (3<sup>rd</sup>) place, etc..., finishes until the tie is broken.

#### **Bonus Point Schedule;**

Race of Champions Overall Point Standings may be computed by adding points earned at Series races to Track Bonus Points, issued after Labor Day Weekend. Track Bonus points are based on a driver's best "home" track standings. A driver must compete in a minimum of 75% of the scheduled events at an individual track to earn "Home" Track Bonus Points.

Home Track Bonus Points will be awarded on the following schedule

Track	Bonus	Points
		4000

- 1st 1000
- 985 2nd
- 3rd 975
- 4th 965
- 5th 955
- 945 6th
- 940 7th
- 935 8th
- 9th 932 930 10th
- 11th 928
- 12th 926
- 924 13th
- 14th 922
- 15th 920
- 16th 918
- 17th 916 18th 914
- 19th 912
- 20th 910 21st 908

- 22nd 906
- 23rd 904
- 24th 902
- 25th 900

# K. Penalties, Fine Schedules and Protests

A.) The Race of Champions Series conducts itself as the top Modified Racing Series in North America and expects its members to conduct themselves in a professional manner at all times during any event and/or when representing the series. Car Owners, Drivers and Crew Chiefs, that are Race of Champions Members in good standing will be responsible for the conduct of their team members and/or anyone connected to or affiliated with that owner's team, in addition to being responsible for all infractions, technical and/or non-technical in nature. In the event that a Car Owner or Crew Chief, is not a Race of Champions Member, the driver will be responsible for the conduct of all team members and/or anyone connected to or affiliated with that race team in addition to being responsible for all infractions, technical and/or non-technical in nature. In the event that a penalty is issued, only active Race of Champions Members in good standing, have the right to an appeal, if the penalty is appealable. All fines that are listed in sub-section k.1 are in regard to the initial penalty. Multiple infractions of the same type will increase the severity of the penalty.

#### k.1 Penalties and Fine Schedules

- A.) All fines may be collected from prize money on the day of the infraction. If the competitor has not won appropriate money, the fine must be paid in full before the car and/or driver participates in another Race of Champions sanctioned event.
- B.) Any member that attempts to and/or does physically abuse any event official and/or another competitor, including pushing, punching, touching, grabbing and/or grabbing the official's equipment, and/or any form of altercation, and/or distrupts any event in any manner, etc., will be subject to disqualification and/or fine and/or suspension and/or legal action and/or any other action deemed appropriate by Race of Champions Officials. Minimum = \$50; Maximum = \$5,000.
- C.) Any member that verbally abuses any event official will be subject to disqualification and/or fine and/or suspension and/or legal action and/or any other action deemed appropriate by Race of Champions Officials. Minimum = \$50; Maximum = \$500
- D.) Any member that attempts to push and/or start their racecar off from the wrong area and/or does not stop in the designated area as to cause undue confusion and/or delay will be subject to fine and/or suspension and/or any other action deemed appropriate by Race of Champions Officials.

  Minimum = \$50; Maximum = \$500
- E.) Any member who fails to stop for and/or allow post-race inspection will be subject to disqualification and/or fine and/or suspension and/or any other action deemed appropriate by Race of Champions Officials. Minimum = \$50; Maximum = \$500.
- F.) Any member that attempts to and/or passes the pace vehicle (unless instructed to do so) will be subject to disqualification and/or fine and/or suspension and/or any other action deemed appropriate by Race of Champions Officials. Maximum = \$100.
- G.) Any member that attempts to drive roughly and/or bumps another competitor unnecessarily will be subject to disqualification and/or fine and/or suspension and/or any other action deemed appropriate by Race of Champions Officials. Minimum = \$50; Maximum = \$5,000.
- H.) Any member that attempts to use illegal fuel will be subject to disqualification and/or fine and/or suspension and/or loss of points and/or any other action deemed appropriate by Race of Champions Officials. Minimum = \$100; Maximum = \$5,000.
  - a.) The following penalty schedule applies to any "fuel violations". The penalty schedule will be as follows:
    - In the event any competitor is found to have non-compliant fuel per the Race of Champions Rule Book and/or any issued Race of Champions document, the competitor will be fined a minimum of \$250 for the first offense. In addition a competitor

- may lose up to one half of the points earned for the race and be placed on probation.
- 2. In the event any competitor is found to have non-compliant fuel per the Race of Champions Rule Book and/or any issued Race of Champions document, the competitor will be fined a minimum of \$500 for the second offense. In addition a competitor will be disqualified from the race and be placed on probation.
- In the event any competitor is found to have non-compliant fuel
  per the Race of Champions Rule Book and/or any issued Race
  of Champions document, the competitor will be fined a
  minimum of \$1,500 for the third offense. In addition a competitor
  will be disqualified from the race and will be suspended
  indefinitely.
- I.) Any member that violates any technical rule as presented within the rulebook and/or issued in a written bulletin will be subject to <u>loss of qualifying position</u>, <u>loss of privilege</u>, <u>and/or loss of starting position</u>, disqualification and/or fine and/or suspension and/or loss of points and/or any other action deemed appropriate by Race of Champions Officials. Minimum = \$50.
  - a.) The penalty schedule for any violations "technical in nature" will be as follows;
    - 1. In the event of any illegal internal modification to any Chevrolet Performance Parts Crate Engine and/or "Spec" Engine and/or tampering of any manufacturer and/or Race of Champions seal a suspension of 365 consecutive days in duration from the date of the issued penalty and indefinite probation period and/or the engine may be impounded immediately and/or a minimum penalty of \$4,000 and/or loss of all earnings based on the current race season, including but not limited to points, point fund awards and/or or race winnings. In the event a driver is suspended from the division utilizing the GM Crate Engine and/or Spec Engine, the driver may be offered the opportunity to move up in division to continue participation. This decision is final and non-appealable.
    - For subsequent violations in regard to any illegal internal modification to any Chevrolet Performance Parts Crate Engine and/or Spec Engine an indefinite suspension will be issued.
    - 3. For any violation in weight following any scaling process a loss of position, loss of qualified and/or qualifying position, disqualification and/or loss of points and/or loss of purse and prize money awarded and/or suspension and/or probation will be issued and based solely at the discretion of Race of Champions officials based on the severity, nature and intent of the violation.

# **Recommended Penalty structure for Scaling Violations:**

- a.) Any weight violation that occurs following timed hot laps, time trials and/or a qualifying event will eliminate any qualifying result for the violation, with the competitor required to forfeit their qualifying position and start last in the next race. If the next race is the feature, the competitor may use a provisional to the feature race, only if eligible for a provisional starting position. In the event the competitor is not eligible for a provisional, the competitor will not be permitted to start the feature race.
- b.) For any weight violation, regardless of the amount of weight, the competitor will be fined of all earnings and points from the event. In the event of subsequent violations the penalty may increase.

- 4. For any other violation that is "technical in nature" the penalty that is issued will be based solely at the discretion of Race of Champions officials, based on the severity, nature and intent of the violation.
- 5. For any violation in which a competitor is found to be using an electronic and/or data recording device and/or telemetry and/or device that indicates any form of traction control an immediate indefinite suspension and/or loss of points and/or loss of purse and prize money awarded based solely at the discretion of Race of Champions officials based on the severity, nature and intent of the violation.
- J.) Any member that attempts and/or is found to be using tires that are found to be illegal in any manner will be suspect to disqualification and/or fine and/or suspension and/or loss of points and/or any other action deemed appropriate by Race of Champions Officials. The minimum penalty for any (chemically) altered tire will be as follows: disqualification from the event, a fine of 1,000 championship points, loss of all earned purse and/or reward money from the event, a fine equal to and/or more than the purse money rewarded for the event and/or a minimum suspension up to 365 consecutive days in duration from the date of the issued penalty.
- K.) Any member that attempts to or uses an illegal motor will be subject to disqualification and/or fine and/or suspension and/or loss of points and/or any other action deemed appropriate by Race of Champions Officials. Minimum = \$500; Maximum = \$5,000.
- L.) Any member that fails to stop for a red flag or drives through the incident area will be subject to disqualification and/or fine and/or suspension and/or loss of points and/or any other action deemed appropriate by Race of Champions Officials. Minimum = \$50; Maximum = \$500.
- M.) Any member that goes into another competitors pit area or to another competitors car and becomes involved in any type of altercation will be subject to disqualification and/or fine and/or suspension and/or loss of points and/or any other action deemed appropriate by Race of Champions Officials. Minimum = \$50; Maximum = \$5,000.
- N.) Any member involved in an altercation that results in physical contact will be subject to disqualification and/or fine and/or suspension and/or loss of points and/or any other action deemed appropriate by Race of Champions Officials. Minimum = \$50; Maximum = \$5,000.
- O.) Any member who drives a racecar in an area that is closed to racecar traffic or drives through the pit area at excessive speed with either a racecar, scooter, 4-wheeler or similar type vehicle will be subject to disqualification and/or fine and/or suspension and/or loss of points and/or any other action deemed appropriate by Race of Champions Officials. Minimum = \$50; Maximum = \$500.
- P.) Any team member who goes out onto the racing surface without permission under a controlled period will be subject to disqualification and/or fine and/or suspension and/or loss of points and/or any other action deemed appropriate by Race of Champions Officials. Minimum = \$50; Maximum = \$500.
- Q.) Any member who ignores a flag or official signal will be subject to disqualification and/or fine and/or suspension and/or loss of points and/or any other action deemed appropriate by Race of Champions Officials. Minimum = \$50; Maximum = \$500.
- R.) Any member who is found to be in violation of the substance abuse policy at any event will be subject to disqualification and/or fine and/or suspension and/or loss of points and/or any other action deemed appropriate by Race of Champions Officials. Maximum = \$10,000.
- S.) Any member who drives or causes to be driven: a race car, pit mule, ATV, 4-Wheeler, personal vehicle or transporter in a dangerous and aggressive manner in the restricted area will be subject to Team Disqualification and/or fine and/or suspension and/or loss of points and/or any other action deemed appropriate by Race of Champions Officials. Minimum = \$100.
- T.) Any member who intentionally attempts and/or maliciously attempts to disregard, intimidate, manipulate and/or otherwise harass a Race of Champions official decision verbally, electronically, via telephone and/or social media and/or degrades the Race of Champions maliciously will be subject to Team Disqualification and/or fine and/or suspension and/or loss of points and/or other action deemed appropriate by Race of Champions Officials. Minimum = \$500.

U.) Any member who utilizes social media in a negative manner and/or as an explotation for negative publicity in regard to the Race of Champions Series in any manner will be subject to Team Disqualification and/or fine and/or suspension and/or loss of points and/or other action deemed appropriate by Race of Champions Officials. Minimum = \$500.

#### k.2 Protests

- **A.)** All protests must be turned into the Race of Champions Officials within ten (10) minutes of the checkered flag and/or conclusion of the race. If it is determined by "Race of Champions Officials" that it is a "Grudge Protest", the Protest may not be accepted and other penalties toward the individuals filling the Protest may occur.
- **B.)** The protest fee must be paid at the time of the protest.
- **C.)** Only the car owner, the driver and/or the designated team representative of the car owner may turn in an official protest.
- **D.)** Any refusal of inspection and/or non-compliance during an official protest will result in the disqualification of the protested car and the prescribed penalties.
- **E.)** If the car protested is found legal, the protesting fees will be released to the protested team less the protest filing fee.
- **F.)** If the car protested is found to be illegal, the protesting fees will be returned to the team filing the protest less the filing fee.
- **G.)** The protesting car will also be inspected. If the protesting car is found to be illegal, there will be an immediate disqualification from the event and the protesting car and team members will be subject to all penalties pursuant and relevant to the infraction as stated within this rulebook, herein.
- **G.)** Any altercation relating to the incident with Officials and/or any other racing participants by the team filing the protest will nullify the objection.
- H.) PROTESTING FEES: (Figures in parentheses are filing fees): Motor tear down involving cylinder head removal and inspection and cylinders inspected; \$1,000 (\$100): Fuel test including chemical analysis and all other technical protests; \$1,000 (\$100). The GM 602 and/or GM 525 Crate Engine motor tear down involving cylinder head removal and inspection of cylinders and other internal components including camshaft and/or crankshaft \$1,000 (\$100). On any crate engine protest, Race of Champions reserves the right to declare where, when and who will inspect the engine. For any additional protesting, the protest fee will include any and all applicable inspections, testing, analysis and/or repair and/or rebuilding that is necessary.
- **I.)** The Race of Champions Officials reserve the right to ask for a legality test at any time (sealed motor and/or otherwise). If through testing procedures a car is found to be illegal, responsibility for proving otherwise is solely with the team that was checked. There will be no exchange of money for tests asked for by officials when a formal protest is not turned in.
- **J.)** The Race of Champions Officials reserve the right to accept or deny any protest based on their sole discretion. 'Grudge' protests and/or any protest that are 'not in the spirit of good standing' will be denied.

# L. Race of Champions Appeal Commission:

The Race of Champions sanctioned events has established an independent Board to hear and review any penalty determination by MEMBER drivers and owners in a sanctioned event that has been deemed appropriate for appeal. Only Race of Champions MEMBERS in Good Standing during the current calendar year have the right to appeal.

#### **Section I.1: Jurisdiction**

- **A.)** The Race of Champions Appeal Commission may hear appeals of any penalty determination made pursuant to the any of the Race of Champions rulebook.
- **B.)** Only the Member, as the named party to the penalty, shall be able to make a written request for an action to the Race of Champions Appeal Commission.
- 1. Requests, Appeals, Demands, or correspondence from third parties or any other person, entity, agent, or representative, that is not the named Member as identified in the Penalty Notice, shall not be accepted except as presentation within the administrative hearing process.

- 2. If a third party submits an appeal request it will subsequently be denied and not be considered as a request.
- 3. The following deadlines must be met for each series;
  - a. Race of Champions seven (7) calendar days of the issuance of the penalty.

The written request must be accompanied by a \$250 non-refundable hearing fee.

The written request and the scheduled fee must be hand delivered via an international recognized courier (the Appellant must obtain and retain a receipt showing date of deposit with courier) to the following for the appeal hearing to be processed:

C/O – Race of Champions Appeal Commissioner 1670 Hall Road Elma, NY 14059

Electronically, verbally, or any other type of appeal, including without limitations, faxes, e-mails, and voice mails will not be accepted and processed as an official appeal to the Race of Champions Appeal and Rules Commission

# C.) Commission Members:

AJ Moore Dan Ballard
Bob Sargent Daniel Grill
Dan Ballard Mark Mockovak
Steve York

- a. The Chairman of the Commission will be appointed upon approval of the Board of Directors of the Race of Champions. The Chairman shall be an administrative member and will designate an alternate Chairman who shall, in the event of death, retirement, or incapacity of the Chairman, perform the duties of the Chairman until the Board of Directors of the Race of Champions appoints a new Chairman or the Chairman is able to resume his/her duties.
- b. From time-to-time Commission Members may vacate the board, be added and/or adjusted at the discretion of the Race of Champions Commission Chairman.
- **D.) Meetings –** The Race of Champions Appeal Commission shall meet at such places and at such times as are necessary for the efficient and prompt disposition of its business. Three (3) members, including the Chairman, constitute a quorum. Meetings may take place with members participating via telephone, teleconference, video-conference, computer conference, in person and/or any other forum as designated by the Chairman.

# E.) Hearing Procedures -

- a.) In order for an appeal to be presented to the Race of Champions Commission, the appellant must have standing to appeal. Any decision determined as non-appealable and final during any sanctioned event by Officials employed and/or contracted by the Race of Champions will be considered as a final decision that is non-appealable. Standing is defined as subject matter that is being appealed is not precluded by any Rules as set forth by the sanctioning body and/or specific event and that the appellant has actually been penalized by a decision that is specifically issued to the appellant.
- b.) The Race of Champions Commission will establish and communicate the most appropriate procedure and/or manner for hearing any particular appeal and shall inform all involved parties how to proceed prior to the hearing. Members/appellants may appear in person at hearings before the Commission (but not through a representative or attorney).
- c.) When conducting a hearing and deciding an appeal, the Race of Champions Appeal Commission shall not be bound by technical or formal rules of evidence and/or procedure, except as otherwise provided herein, but shall conduct its proceedings in the manner best suited to establishing the relevant facts and the merits of the parties positions.
- d.) Unless contacted by a member of the Race of Champions Commission, the appellant, any competitor, the car owner, car sponsor and/or any other representative(s) involved, may not discuss the subject matter of the appeal hearing with any Commission Member, including the Chairman, outside of the hearing.

- e.) All appeals shall be docketed when received via courier to the Chairman of the Race of Champions Appeal Commission and shall be set for hearing at an appropriate time and location as determined by the Commission Chairman.
- f.) The Race of Champions Appeal Commission may require/summon, either orally or in writing, in its sole discretion any Race of Champions member and/or official to testify in and/or at a hearing. Any member who is required / summoned to testify and refuses or fails to appear and/or testify may be subject to indefinite suspension or other disciplinary action as deemed appropriate by the Race of Champions Appeal Commission.
- g.) If the Race of Champions Commission finds any Member and/or Official to be "in contempt" during a hearing, the Member and/or Official may be subject to indefinite suspension or other disciplinary action as deemed appropriate by the Race of Champions Appeal Commission.
- h.) In the event that the Chairman and/or Race of Champions Appea; Commission Member is involved in the appeal the Chairman and/or Commission Member shall disqualify themselves from participating as a Commission Member on the appeal and the remaining Members of the Commission shall select a replacement.
- i.) A majority of the members of the Race of Champions Appeal Commission / Quorum must concur to modify any penalty (including, but not limited to, imposing different or increased penalties) or determine any appeal. If a majority cannot not agree on the action the appeal shall be referred to the Chairman of the Race of Champions Appeal Commission for decision.
- j.) In each appeal the relevant item shall be the accuracy of the decision by the Official(s) in light of the facts and not the results and/or ramifications of the ruling.
- k.) If the Race of Champions Appeal Commission determines that the proceedings in respect to any appeal have been instituted or continued without reasonable grounds, the cost of such proceedings shall be assessed against the Appellant who instituted or continued such proceedings.
- I.) The Race of Champions Appeal Commission shall have the right and will publish the judgment of the Commission and the names of the parties involved. A party shall have no claim or cause of action of any kind against the Race of Champions, the Race of Champions Appeal Commission or the publisher.
- m.) If the appeal involves a component of any racing vehicle, equipment and/or any other technical element, the piece(s) will be placed into a chain of custody, until the Race of Champions Appeal Commission has heard the appeal and made a decision. A receipt will be given to the Appellant regarding the piece(s) until the conclusion of the hearing. The piece(s) may be confiscated following the hearing as per the determination of the Race of Champions Commission.
- **F.)** Execution of Penalty and Pending Appeal At the request of the affected Member, the Race of Champions Commission Chairman may determine in the interest of all involved parties that the penalty under review shall be temporarily deferred until the appeal of such penalty has been resolved. Otherwise, the penalty shall be executed promptly. If the Commission temporarily defers execution of the penalty, but later denies the appeal in whole or in part, it may reinstate the original penalty as of the date of issue of the original Penalty and/or Penalty Notice, or take such action as it deems appropriate to effectuate in whole or in part the Penalty and/or Penalty Notice, including disallowance of finishing position, points, or prize money otherwise earned in any Event during the period of temporary deferral of the penalty.

#### G.) Execution Steps for Hearing -

- a. The decision of the official(s) being appealed shall be put into the record.
- b. The contents of the written appeal shall be put into the record.
- c. The Appellant will put forth their statement to the Race of Champions Commission Chairman and present Commission Members presenting any witness(es) and/or other elements regarding their appeal.
- d. The official(s) will put forth their statement regarding the decision and issuance of the appealed penalty to the Race of Champions Chairman and present Commission Members presenting any witness(es) and/or other elements regarding their appeal.

- e. The Appellant will be permitted to present any rebuttals, additions to the records and/or summations to the Race of Champions Commission Chairman and present Commission Members.
- f. The official(s) will be permitted to present any rebuttals, additions to the records and/or summations to the Race of Champions Commission Chairman and present Commission Members.
- g. At any time during the hearing at the discretion of the Race of Champions Chairman and/or present Commission Members may request information of anyone present at the hearing.
- h. At the conclusion of the hearing, the Race of Champions Chairman and/or present Commission Members will deliberate in private and make any determination, decision and/or recommendation regarding the presented appeal by a majority vote of those members present. The Race of Champions Commission may:
  - reverse the decision
  - modify to increase or decrease penalty
  - uphold the original issued penalty.
- i. All interested parties shall be reasonably notified of the Board's decision.

#### H.) Bond for Costs

- a.) The Race of Champions Commission may require the Appellant to post a sufficient bond to cover the costs of the appeal or any reasonably foreseeable economic impairment presented to the Race of Champions or other Member(s) that might be caused by the appeal. If such a bond is required, its form and substance will be in the discretion of the Race of Champions Commission Chairman.
- b.) The administrative remedies for any appeal included here represent the complete and final process. If the appealing member seeks remedy through the court systems, the member agrees to the exclusive jurisdiction of the courts in the state of New York, city of Buffalo for the adjudication of any suit, action or proceeding. All costs and expenses incurred by the Race of Champions in responding to the action (including attorneys' fees) shall be borne by the appealing Member.
- c.) If the member initiates within any court whether administrative appeal commission process is completed or in process a suspension penalty, if applicable, may be extended by the time passed to reach the final resolution of the administrative appeal panel and/or any court action.

#### I.) Finality -

- a. An appeal hearing will be 'heard' if the Chairman, in his sole discretion, determines that the Appellant(s) request is appealable. Matters that will not be heard include; matters where there are no triable facts, frivolity, lack of standing, matters which are not subject to protest or appeal pursuant to the rules, appeals filed in any form of harassment and/or any appeal determined as 'non-appealable' by the Race of Champions Commission Chairman.
- b. The determination of the Race of Champions Commission at the conclusion of any hearing is final and is not for appeal and/or further mediation.

# I.2: Executive Chairman

**A.)** In the event that the Race of Champions Commission does not reach a conclusion and/or the appealing member in good standing requests an additional hearing, then the Executive Chairman (Rollie Helmling) may be considered for assistance and/or a second appeal, Acceptance of the appeal will be at the sole decision of the Executive Chairman without further board involvement.

- If the Member requests an additional hearing, the Member shall make a written request for such action to the Executive Chairman within seven (7) days of the conclusion of the originating hearing.
- The written request must be accompanied by a \$1,000 non-refundable fee.
- The written request and the scheduled fee must be hand delivered via an international recognized courier (the Appellant must obtain and retain a receipt showing date of deposit with courier) to one of the following for the final appearing

hearing to be processed:

C/O – Race of Champions Appeal Post – Executive Chairman 174 Main Street, Box 161 East Aurora, NY 14052

- **B.)** The Executive Chairman will determine whether or not the appeal will be heard after reception of the written request and the \$1,000 non-refundable fee and inform all parties involved of the determination.
- **C.)** The Executive Chairman may conduct a hearing within a reasonable and practical date, notifying the parties of the appeal and hearing. The Executive Chairman will determine the date and location (if any) for the Executive Chairman appeal hearing.
- **D.)** If requested by Executive Chairman, Members may be asked to appear in person, but not through a representative and/or an attorney. The subject matter may not be discussed outside the hearing unless specifically contacted by the Executive Chairman in regard to the appeal hearing.
- **E.)** Hearings performed by the Executive Chairman will be conducted according to the procedures disseminated by the Executive Chairman.
- **F.)** If the Executive Chairman determines that the proceedings in respect to any appeal have been instituted or continued by a Member without reasonable grounds, the chairman may disqualify the procedure and such cost, in addition to the appeal fee, shall be assessed against the Member who instituted or continued the proceeding.
- **G.)** At the request of the filing Member, the Executive Chairman may determine that the penalty under review shall not be executed until the appeal of the said penalty has been resolved. Otherwise the penalty shall be executed promptly. If the Executive Chairman temporarily defers execution of the penalty, but later denies the appeal in whole or part, the Executive Chairman may reinstate the original penalty as of the of the Penalty Notice or take such other action as the Executive Chairman deems appropriate to place into effect in whole or in part the Penalty Notice including disallowance of finishing position, points and/or prize money otherwise earned in any Event during the period of temporary deferral of the penalty.
- **H.)** The Executive Chairman may require the appellant to post a bond to cover the costs of the appeal and/or any reasonable and foreseeable economic impact to the sanction and/or series and/or other Members that may be caused by the appeal. If the Executive Chairman requires such a bond, its form and substance shall be at the discretion of the Executive Chairman.
- **I.)** The Executive Chairman may summon, either orally and/or in writing at the Executive Chairman sole discretion any Race of Champions Member and/or participant and/or Official to testify at a hearing. Any Member who is summoned to testify in a hearing and fails to do so may be subject to indefinite suspension and/or other penalties as deemed appropriate by the Executive Chairman and Race of Champions.
- **J.)** The Race of Champions has the right to and will publish the judgment of the Executive Chairman and the names of the parties involved. A party shall have no claim and/or cause of action of any kind against the Race of Champions, the Executive Chairman and/or the publisher.
- **K.)** The administrative remedies for any appeal included here represent the complete and final process. If the appealing member seeks remedy through the court systems, the member agrees to the exclusive jurisdiction of the courts in the state of New York, city of Buffalo for the adjudication of any suit, action or proceeding. All costs and expenses incurred by the Race of Champions in responding to the action (including attorneys' fees) shall be borne by the appealing Member.
- **L.)** If the member initiates within any court whether administrative appeal commission process is completed or in process a suspension penalty, if applicable, may be extended by the time passed to reach the final resolution of the administrative appeal panel and/or any court action.
- M.) All decision of the Executive Chairman shall be final.

# M.1.A Race of Champions Asphalt Modified

ANY CAR, TEAM AND/OR DRIVER THAT DOES NOT MEET THESE SPECIFICATIONS AND/OR EQUIPMENT REQUIREMENTS WILL BE SUBJECT TO PENALTIES AS DETERMINED BY THE Race of Champions OFFICIALS. Any new components, including engine components, body designs, frame designs and/or components of any type utilized in competition must be approved by Race of Champions Officials prior to being introduced into competition.

Open to Race of Champions-approved automobile manufacturers provided they comply with, and adhere to specifications as outlined for this Series.

#### NOTICE

ALL MODEL, ENGINE OR EQUIPMENT CHANGES OR MODIFICATIONS NOT SPECIFICALLY ADDRESSED IN THIS RULE BOOK BY RACE OF CHAMPIONS MUST BE SUBMITTED, IN A COMPLETED FORM/ASSEMBLY, TO RACE OF CHAMPIONS FOR CONSIDERATION OF APPROVAL ON OR PRIOR TO NOVEMBER 1, 2020 UNLESS OTHERWISE AUTHORIZED BY RACE OF CHAMPIONS, TO BE CONSIDERED FOR COMPETITION FOR THE 2021 SEASON. THE APPLICANT WILL BE NOTIFIED OF APPROVAL OR REJECTION FROM RACE OF CHAMPIONS. RACE EQUIPMENT WILL NOT BE CONSIDERED AS HAVING BEEN APPROVED BY REASON OF HAVING PASSED THROUGH INSPECTION AT ANY TIME OR ANY NUMBER OF TIMES UNOBSERVED OR UNDETECTED. ANY RACE EQUIPMENT WHICH DOES NOT CONFORM TO SPECIFICATIONS OR TOLERANCES CONTAINED IN THE RACE OF CHAMPIONS RULE BOOK, OR IS NOT OTHERWISE APPROVED BY RACE OF CHAMPIONS, MAY NOT BE USED IN COMPETITION IN 2020. ALL SUBMITTED RACE EQUIPMENT MUST BE ACCOMPANIED BY COMPUTER AIDED DESIGN (CAD) FILES AND/OR MECHANICAL DRAWINGS AND REQUISITE FEE AS DETERMINED BY RACE OF CHAMPIONS.

# 1.0 Engines

#### **General Engine Rules**

The following characteristics of the production engine must be maintained in any engine used in competition in a manner acceptable to Race of Champions Officials. All parts listed below must originate from approved production castings and forgings. All parts, except spark plugs, should utilize fractional English measurement system fasteners and dimensions (non-metric).

#### **ENGINE BLOCK:**

Material
Number of Cylinders
Angle of Cylinders
Cylinder Bore Centerline Spacing
Number of Main Bearings and Type
Number of Camshaft Bearings and Type
Integral or Separate Cylinder Sleeves
Location of Camshaft
Overall Configuration

#### CYLINDER HEAD:

Material

Number of Valves per Cylinder Type of Combustion Chamber Location of Spark Plug

Orientation of Spark Plug

Arrangement of Valves

Valve Location in Relation to the Cylinder Bore

Angle of Valves

Type of Valve Actuation

Number of Intake Ports

Number of Exhaust Ports

Center Distances of Intake Ports Referenced to the Cylinder Bore

Center Distances of Exhaust Ports Referenced to the Cylinder Bore

Angle of Port Face Relative to Mating Face of Head to Block

# Firing Order

- a.) Unless otherwise specified by the Race of Champions, the same long block engine assembly (engine block, crankshaft, camshaft, connecting rods, pistons, cylinder heads, and valves) must be used for the entire Event, including practice, qualifying and the Race. An engine must not be removed from a car without the approval of the Race of Champions Officials. The Race of Champions Officials may require any team that removes an engine to start at the rear of the field, providing the car earns a starting position in the Race. The engine may be removed from a back-up car, without a penalty, at the discretion of the Series Director as follows:
  - (1) If a car is wrecked beyond repair in practice before qualifying and a back-up car is used, then an engine change may be permitted provided the change can be accomplished in a timely manner before qualifying.
  - (2) If a car is wrecked beyond repair during qualifying and a back-up car is used, an engine change may be permitted, however, the engine change must be completed before the beginning of practice(s), if practice(s) is scheduled, that follow qualifying.
  - (3) If a car is wrecked beyond repair after qualifying and a back-up car is used, then an engine change may be permitted without an additional penalty.
  - (4) If a Competitor violates this Rule, in addition to imposition of a penalty pursuant to Section K, the Race of Champions may take such action during the Event as he deems appropriate, including but not limited to loss of practice time and/or loss of the opportunity to qualify and/or confiscation of the engine or engine components. Such action shall be deemed an inspection decision not subject to Section K.

NOTE: In an effort to save time during at track inspections, it is highly recommended that all built engines have the forward most right side and forward most left side intake manifold bolts and the forward most right side and forward most left side lower cylinder head bolts cross drilled for engine sealing. If cylinder head studs are used, it is recommended that the studs be cross drilled above the cylinder head nut or through cylinder head nut and stud. If the cylinder head bolts or studs are drilled, the holes must be drilled a minimum diameter of 0.063 inch to accept the Race of Champions engine seal.

It is highly recommended that all NASCAR-approved "Spec Engines" have the forward most right side and forward most left side intake manifold bolts, the forward most right side and the forward most left side lower cylinder head bolts and the right side and left side (second from bottom) front timing cover bolts cross drilled for engine sealing. If the bolts are drilled, the holes must be drilled a minimum diameter of 0.063 inch to accept the Race of Champions engine seal.

The right side front and left side rear carburetor studs must be drilled a minimum diameter of 0.063 inch to accept the Race of Champions carburetor seal on all engines. All built engines must have the closest intake manifold bolt to each drilled carburetor stud on

both the right side and left side drilled a minimum diameter of 0.063 inch to accept the Race of Champions carburetor seal.

# 1.0-2 358 Steel Cylinder Head Modified Engine Rules

- 1. Chevrolet or DART Engine Block
  - a.) DART Comp Series little (M) No. 31131111 will be permitted.
  - b.) Bowtie cast iron blocks 10051183, 10185047 or stock block will be permitted.
  - c.) A Bore size of 4.00 to 4.060 plus or minus .005 will be permitted.
  - d.) Angle cutting of the block deck will not be permitted.
  - f.) The engine block must be mounted within 2"-inch of centerline of the lower ball joints and must be securely mounted to the frame.
  - g.) Tilted blocks will not be permitted.
  - h.) There will be a minimum of 2"inch ground clearance on the oil pan.
  - i.) All bolt holes and bores must remain in the stock OEM location.

#### 2. Crankshaft

- a.) Only a standard magnetic steel production design crankshaft will be permitted. The crankshaft must be a minimum of 48lbs with a 2.100 rod journal 2.448 main journal. Undersizing of crank journals will be permitted to .040 providing the rod bore remains 2.225.
- b.) Only a stock stroke of 3.480 +.005 / -.010 will be permitted.

- c.) Crankshaft counterweights must be same shape as the original stock OEM Mass production crankshaft used with this block.
- d.) Only the leading and trailing edges may be round nosed or knife edged.
- e.) Mains & Rod journals may be drilled.
- f.) The outside diameter of the counter weights may be drilled or machined or ground for balancing
- g.) Undercut or tapered counterweights will not be permitted. Counterweights must be same width from main and rod journals to outside diameter of counterweight.

### 3. Connecting Rods

- a.) Only solid magnetic steel connecting rods will be permitted.
- b.) A maximum length of 6"-inches will be permitted.
- c.) Stainless steel, aluminum, titanium and/or any other materials that are considered exotic materials will not be permitted.

#### Pistons

- a.) Flat top, dished aluminum round pistons and dome pistons will be permitted.
- b.) Only pistons with three (3) functioning ring grooves will be permitted.
- c.) A maximum overbore of 0.060 will be permitted.
- d.) Only aluminum pistons will be permitted. Ceramic, plastics and/or any other type of material pistons will not be permitted.
- e.) Coatings of any type will not be permitted.

#### 5. Cylinder Heads 2009 Steel head Engines

- a.) The GM Bowtie casting 14011034, 14011058 or 12480034 will be permitted.
- b.) The DART Platinum 10310010P will be permitted.
- c.) The maximum valve size that will be permitted is 2.05 intake and 1.60 exhaust
- d.) The cylinder head must remain in the stock OEM location. Repositioning and/or relocating the cylinder head on the engine block will not be permitted.
- e.) The valve centerline and guide angle in relationship to the cylinder heads must be remain stock OFM.
- f.) Porting and polishing by the removal or grinding of the original casting in runners will be permitted. Epoxy fillers, welding, spray welding and/or any other coating or materials on or in the cylinder heads will not be permitted.
- g.) External painting will be permitted.
- h.) Air directional devices of any type on any valve surface will not be permitted.
- i.) Only magnetic steel push rod and valve springs will be permitted. Titanium and/or any other exotic type material will not be permitted.
- j.) Titaniaium valve spring retainers will be permitted.
- k.) The maximum compression permitted will be 12.0:1.

# 6. Cam / Lifters

- a.) The camshaft, bores and lifters must remain in the original stock OEM location.
- b.) Only magnetic steel lifters will be permitted. Solid or hydraulic lifters with roller tappets or mushroom tapers will be permitted.
- c.) Rev kits will be permitted.
- d.) Roller rocker, stud girdles, shaft rockers will be permitted.
- e.) Gear drives or belt drives will not be permitted.
- f.) Roller cam bearings will be permitted.

# 7. Ignition

- a.) HEI, MSD, or magneto will be permittd. If an MSD style ignition is utilized it must be mounted to the right of the driver and in plain view. The MSD style ignition system must have a lexan cover, which is removable for ease of inspection. The MSD style ignition system must be removable for ease of inspection. Ignition components in the driver's compartment will not be permitted.
- b.) Only the MSD 6ALN box will be permitted. MSD components of any type may be submitted to the manufacturer for testing from time-to-time. In the event that a component, which has been submitted to the manufacturer for inspection has not been returned a suitable replacement component will be provided by Race of Champions Officials until the inspection is completed. Refusal and/or denial of inspection will result in a penalty to be determined by section k of the Race of Champions rulebook.
- c.) The distributor must mount in the OEM stock location. Rotation and firing order must remain in the stock OEM firing order for the engine. GM Firing Order: 1-8-4-3-6-5-7-2

d.) Adjustable timing controls will not be permitted.

#### 8. Intake manifold

- a.) The following intake manifolds will be permitted competition:
  - . Brodix HV 1000
  - ii. Edelbrock 2975 / 2999 / 2925 / 2926
  - iii. Bowtie 2972 / 2996
  - iv. Weiland Team G 7530 / 7532
  - v. Holly 300-25
  - vi. GM 10051102 / 10093374
  - vii. HVH 10003
  - viii. DART No. 42411000
- b.) Porting of 2009 Intake Manifolds will be permited.
- c.) Welding and/or epoxy and/or filling of any type will not be permitted.
- d.) Painting and/or coating and/or the application of coating will not be permitted.
- e.) The maximum material thickness for an intake manifold gasket will be .125"-inch.
- f.) Spacers between intake manifold and cylinder heads will not be permitted.

#### 9. Carburetor

- a.) Only the Holley 4777 650 CFM will be permitted for competition.
- b.) Alterations of any type, machined, coating and/or other wise; internal or external to the carburetor base and/or any of its components will not be permitted.
- c.) Changing and/or tuning of the power valve and/or accelerator pump and/or jets will be permitted, but must be Holley components and manufactured for the carburetor; OEM. Aftermarket and/or components that fit the carburetor that are not Holley OEM components for the part number of the carburetor will not be permitted.
- d.) The choke plate and horn may be removed. The gasket ring must remain unaltered from the manufacturer.
- e.) The carburetor boosters may be aligned. The carburetor boosters must maintain their stock OEM size and must remain in their original mounting location in the main carburetor body. Any alteration to the booster, the booster bridge, including but not limited to the tapering, raising or lowering of the booster height, will not be permitted.

# 10. Carburetor Spacer

- a.) A single one piece carburetor spacer with a maximum thickness of 2"-inches will be permitted. Taper and/or beveled shapes will not be permitted. The spacer must conform to the base ofcarburetor and use two (2) paper gaskets. The maximum thickness for either gasket will be .065-inches.
- b.) The carburetor spacer must remain in the same position as the original carburetor mouting position on the intake manifold.

# 11. Air Cleaner

- a.) Only one (1) round paper type (dry) air cleaner will be permitted. The air cleaner may be a minimum of 12"-inches and a maximum of 14"-inches in diameter, with a minimum of 1-1/2"-inches and a maximum of 5"-inches in height. The top and bottom of the air cleaner housing must be round and solid. Openings on the top of the air cleaner will not be permitted.
- b.) All air that enters engine must pass through air cleaner. Any type of device that directs and/or ducts air to or from the air cleaner will not be permitted.
- c.) The filter must be mounted in the center of the carburetor.
- d.) A single shield for the purpose of protecting the air cleaner from debris which may cover up to one half of the air cleaner circumference on the front of the air cleaner will be permitted.
- e.) Performance enhancing additives and/or chemical and/or freezing or cooling of, on and/or in the air cleaner and/or any of the air cleaner components will not be permitted.

#### 12. Oiling System

- a.) A single dry sump pump will be permitted.
- b.) Oil, tanks and/or lines in the driver compartment will not be permitted.
- c.) The maximum number stages in the dry sump pump will be five (5). The maximum length of the dry sump pump will be 10"-inches x 3"-inches wide.
- d.) Oil deflecting to individual rod and/or main journals will not be permitted.

- e.) A single oil cooler permitted. If the oil cooler is mounted above the interior sheet metal the maximum height will be 5"-inches and maximum with will be 10"-inches. The outside edges of the oil cooler must be enclosed and sealed in sheet metal.
- f.) Partitions of any kind in the oil pan will not be permitted. Oil pans must be approved prior to entry into competition by Race of Champions Officials.

# g.) A minimum one (1) inch and maximum one and a half (1-1/2") inspection plug must be must be placed in the bottom of oil pan for visual and mechanical inspection.

# 13. Engine / Car Electrical System / Ignition System

- a.) Approved ignition systems may be used in competition. If a crank trigger ignition system is being used, triggering devices and/or pick ups will not be permitted inside of the distributor housing.
- b.) Ignition amplifier boxes and RPM limiting devices that are analog only which <u>do not</u> contain programmable, computerized, or memory circuits will be permitted.
- c.) Magnetos and Magneto type ignition systems will be permitted.
- e.) Crank trigger ignition systems that use a triggering device on the crankshaft plate will be permitted. Crank trigger ignition systems that use a triggering device within the distributor will not be permitted.
- f.) Ignition system equipment and/or wiring may not be located in the driver's side door area and/or within reach of the driver with the exception of the ignition button or ignition switch. All ignition system equipment must be mounted to the right of the driver.
- g.) Adjustable timing controls will not be permitted.
- h.) Ignition delay devices will not be permitted.
- i.) RPM limiting devices must be submitted to Race of Champions Officials prior to introduction into competition and be approved prior to competition. The RPM limiting device must be wired in a visible manner to the ignition amplifier box.

#### 14. Alternator

a.) The alternator system, if used, must be working within specifications and mounted on the front of the engine.

#### 15. Starter

a.) The self-starter must be in working order. Gear reduction starters that have been approved by Race of Champoins Officials will be permitted. After the race is underway, cars may be started by hand pushing on pit road and/or in the pit area only. Cars may not be hand pushed onto and/or on the race track during competition. In the event that any car is hand pushed onto or on the track during competition that car will be immediately disqualified from the event.

# 16. Cooling System

- a.) The radiator must appear and work like an OEM radiator and be centered in front of engine.
- b.) Cooling or icing type chemicals in the engine compartment will not be permitted.
- c.) Only a single mechanical water pump mounted in the stock location with the same rotation of the crankshaft will be permitted.
- e.) The coolant must flow in same direction as production engine.

#### 1.0-3 23 and 18 degree aluminum cylinder head engine rules

#### 1. Detailed Engine Requirements

a.) For purposes of construction, some elements of this sub-section are listed below. Changes from the approved standard production automobiles or component parts will not be permitted except as specified in the following rules for engine preparation. In addition to the General Engine Requirements specified in the "Spec" engine sub-section, the engines must also conform to the following Detailed Engine Requirements.

#### 2. Detailed Engine Requirements

a.) The engine location must be approved by Race of Champions Officials. The engine must be mounted between the frame rails in front of the driver. The longitudinal centerline of the crankshaft when measured to the centerline of the lower ball joint, on both the left side and right side, must be within two (2) inches in distance. The engine must not be tilted in any direction.

# 3. Engine Ground Clearance

a.) The engine ground clearance will be measured (with the driver in the car) at the oil pan. A minimum height of two (2) inches from the bottom of the oil pan to the ground must be maintained at all times during the inspection process.

#### 4. Engine Ground Clearance

- a.) All engine mounts must be acceptable to Race of Champions Officials and meet the following minimum requirements:
  - 1. Engine mounts must be reinforced steel or aluminum.
  - 2. All engine mounts must be securely bolted.

# 5. Engine Displacement / Compression Ratio

**Engine Displacement** 

- a.) Only "small block" V8 engines with a minimum of 350.000 cubic inch displacement will be permitted.
- b.) To clarify the identification of a "small block" engine, listed below are the basic engines designated and approved as "small block" engines.

Any engine not listed will be designated as a large block engine and will not be permitted, regardless of the engine size.

DÖDGE GENERAL MOTORS FORD

360 CID 350 CID 351C CID

c.) The engine displacement may be increased or decreased by boring or stroking. The formula for determining cubic inch displacement is as follows: Bore x Bore x Stroke x .7854 equals cubic inch displacement of each cylinder. The cubic inch displacement of each cylinder added together will determine the total cubic inch displacement of the engine. Unless otherwise permitted by Race of Champions Officials, a maximum cooling down time of two (2) hours from the official completion time of the Race will be permitted prior to measuring the total cubic inch displacement.

### Compression Ratio:

- a.) For all Events, the maximum compression ratio permitted on any cylinder will be 12.0 to 1 on all engines except the NASCAR-type and approved "Spec Engine". When calculating the compression ratio, an allowance of one (1) cubic centimeter will be added to the volume for the area around the top of the piston down to the top of the piston ring that will be sealed with grease.
- b.) The procedure for calculating the compression ratio is as follows: Bore x Bore x Stroke x .7854 x 16.387 equals the Cylinder Volume of a cylinder at Bottom Dead Center (BDC) in cubic centimeters. The Cylinder Head Pour Volume minus (-) the known volume of the cylinder head plate plus (+) Head Gasket Volume plus (+) 1.00 cc for sealing the piston ring plus (+) the Cylinder Block Volume minus (-) the known volume of the block plate equals (=) Chamber Volume. Compression Ratio = Cylinder Volume plus (+) Chamber Volume.

#### 6. Engine Blocks

a.) All engine blocks must be acceptable to Race of Champions Officials and meet the following requirements. Race of Champions Officials may use an engine block provided by the respective manufacturer as a guide in determining whether a Competitor's engine block conforms to the specifications of the Rule Book.

#### Eligibility

- a.) A. Engine blocks must be a product of the manufacturer for the approved engine being used in competition. Approved manufacturers' identification and part numbers and/or casting numbers in the form of cast-in numbers must remain unaltered on the engine block being used in competition.
- b.) Only the Dodge 360 engine blocks, the Ford 351 Cleveland-type engine blocks and General Motors 350 engine blocks will be permitted. Aftermarket engine blocks will not be permitted
- c.) The engine block must retain all standard external dimensions with the exception of the surfacing of the engine block deck. Angle cutting of the engine block deck will not be permitted.
- d.) Engine blocks must use individual magnetic steel crankshaft main bearing caps. The main bearing bore size must be the same for all main bearings.
- e.) Aluminum engine blocks will not be permitted.
- f.) The General Motors cast iron engine blocks, part numbers 22551657, 22551659, 22551788 and 22551790, will not be permitted.

#### 7. Internal Engine Block Changes

- a.) Boring and honing of the cylinders will be permitted. Cylinder bores must remain round.
- b.) Internal polishing of the engine block will be permitted.
- c.) Relocation of the camshaft will not be permitted.

# 8. Pistons / Connecting Rods

- a.) Only round aluminum pistons will be permitted.
- b.) All pistons must be configured with two (2) separate compression piston ring grooves located near the top of the piston and one (1) oil ring groove located below the compression ring grooves. A piston compression ring must be used in each compression ring groove and one (1) oil ring assembly must be used in the oil ring groove.
- c.) Only solid magnetic steel connecting rods will be permitted.
- d.) Only round piston pin holes with a fixed location in the piston and the connecting rods will be permitted.
- e.) Titanium and stainless steel connecting rods will not be permitted.
- f.) Only two-piece insert style connecting rod bearings will be permitted. Roller bearings will not be permitted.

#### 9. Oil Pans / Oil Coolers

- a.) The oil pans and oil coolers must be acceptable to Race of Champions Officials and meet the following minimum requirements:
- b.) Oil pans must be made of magnetic steel. Spacers, other than sealing gaskets, will not be permitted between the oil pan side rails and the engine block surface.
- c.) Segmented oil pans and/or crankcases will not be permitted. The oil pan and crankcase area must remain open. Additions of materials to the engine block, engine block components, and/or the oil pan to separate the crankcase area from front to rear will not be permitted.
- d.) A maximum of four (4) oil pump scavenging pick-ups will be permitted into the oil pan. The scavenging pick-ups must draw oil from the inside bottom of the oil pan.
- e.) Sealed windage trays will not be permitted.
- f.) A single baffle (windage screen) may be used inside the oil pan providing it is constructed of wire mesh or louvered metal. The baffle (windage screen) must be installed in a straight line from the front to the rear of the oil pan. The baffle (windage screen) must attach to the upper sidewall and to the bottom of the oil pan on the same side. Clearance between the baffle (windage screen) and the engine main bearing caps must not be less than 1-1/2 inches when viewed horizontally. Directional baffles in the bottom of the oil pan must not be higher than one (1) inch.
- g.) Engine oil coolers must be either an oil to air or an oil to water heat exchanger mounted adjacent to the engine. The oil cooler must be mounted inside the body panels. The oil cooler may be mounted in front of the engine firewall or to the right of the driver beneath the angled interior sheet metal. The oil cooler air intakes mounted in the front body panels must not be larger than five (5) inches in width and 10 inches in length. A maximum of two (2) cooling ducts with a maximum three (3) inch diameter flexible hose in the front body panels will be permitted. Any outward facing lips on the cooling ducts must only be bent once and the lip must not exceed one (1) inch. The oil cooler air intake mounted above the interior sheet metal must not be larger than five (5) inches in width and 10 inches in length. The outside edges of the oil cooler must be completely sealed with sheet metal. All oil coolers and their installation must be acceptable to Race of Champion Officials.

# 10. Cylinder Heads

a.) All modifications must be submitted to the Race of Champions before any proposed modification will be eligible for approval. Approved manufacturers' identification in the form of cast-in part numbers must remain unaltered on the cylinder heads being used in competition. b.) OEM Cylinder Heads:

The following cylinder heads are the only OEM cylinder heads that have been approved for use in competition:

# MANUFACTURER PART NUMBER CASTING NUMBER

The Dart (Clone) 18 degree #14100000C (GM Casting Cylinder Head Clone) will be approved as a repair and/or replacement cylinder head.

Dodge W8 P4876281 P4532933 P4876697 (CNC) P4532933 P4876281 P4510019 Ford (dated 9/9/91 or later) E3ZM6049C3 E3ZM6049C3 M6049C3 E3ZM6049C3 E3ZM6049C3 General Motors 18 Degree 10134364 10134363 24502580 10134363

c.) At all Race of Champions Events, previously approved 22 and 23 degree valve angle aluminum V-8 cylinder head are eligible for General Motors engines. Previously approved Ford and Dodge aluminum V-8 cylinder heads are eligible for Ford and Dodge engines. Previously approved cylinder heads with manufacturers' identification and part numbers are as listed:

# MANUFACTURER PART NUMBER CASTING NUMBER

Air Flow Research AFR215; All Pro AP227; Brodix 3941075; Chevrolet 10051101; Dodge W 7; P5249958 (Unported) P4532442B; P5249850 (CNC ported) P453244B; Ford M 6049 C302

With 4 Degree Valve Cant; Pontiac 10033867

Race of Champions Officials may use a cylinder head provided by the respective manufacturer as a guide in determining whether a Competitor's cylinder head conforms to the specifications of the Rule Book.

### 11. Cylinder Head Eligibility

- a.) To be eligible, the approved cylinder heads must be acceptable to Race of Champions Officials and meet the following requirements:
- b.) The following requirements are for the approved OEM cylinder heads described in the above sub-section:
- c.) The valve angle and valve location must remain as approved by Race of Champions Officials. Spacing between the valves measured center to center is:

MANUFACTURER VALVE ANGLE SPACING

Dodge W8 15 Degrees 1.936 inches

Ford Intake 7-1/2 Degrees 1.900 inches

Exhaust 8 Degrees

General Motors 18 Degrees 1.935 inches

Valves must remain in the approved location in relation to the cylinder bore centerline.

- d.) The top of the intake ports must remain in the approved location measured on the inside top of the port.
- e.) The vertical centerline of the intake port entrance must be straight and perpendicular to the cylinder head gasket surface. The vertical centerline of the intake port must remain in the approved location. The horizontal centerline of the intake port must be straight and parallel to the cylinder head gasket surface.
- f.) The vertical and horizontal centerlines of the exhaust port exit must remain in the approved location. The vertical and horizontal centerlines must be straight lines. The horizontal centerline must be parallel to, and the vertical centerline must be perpendicular to, the cylinder head gasket surface. If material is removed from the top or side of the exhaust port, the same amount must be removed from the bottom or opposite side of the port.
- g.) The rocker arm fastener bolt holes must remain in the approved location.
- h.) Only stainless steel or titanium valves are permitted. Exotic materials will not be permitted
- i.) Only magnetic steel valve springs are permitted.
- j.) Only two (2) valves per cylinder will be permitted.
- k.) There are no restrictions on the valve size.
- I.) Internal polishing and porting will be permitted.
- m.) Spark plug holes must remain in the approved location.
- n.) Angle cutting of the cylinder head to the engine block mating surface will not be permitted.
- o.) Milling of the heads will be permitted, but not to exceed 0.175 inch.
- p.) "O" rings will not be permitted for sealing the cylinder head to the engine block.
- q.) At all Race of Champions Events, when the previously approved cylinder heads are used, the cylinder heads must meet the following requirements:
- r.) Only steel or titanium valves will be permitted.
- s.) Only magnetic steel valve springs will be permitted.
- t.) Only two (2) valves per cylinder will be permitted.
- u.) There are no restrictions on the valve size.
- v.) Internal polishing and porting will be permitted.
- w.) Spark plug holes must remain in the approved location.
- x.) Valve angle must remain as manufactured within two (2) degrees from the approved valve angle on the previously approved cylinder heads in the Race of Champions possession and/or as assembled by the manufacturer.
- y.) Valves must remain in the approved location in relation to the cylinder bore centerline.
- z.) "O" rings will not be permitted for sealing the cylinder head to the engine block.

### 12. External Cylinder Head Changes

- a.) External modifications for the approved OEM cylinder heads will be permitted providing the external dimensions of the cylinder head have not been changed in respect to original height (0.000 inch for Dodge, plus 0.100 inch for Ford and 0.080 inch for General Motors or minus 0.175 inch for all engines), original length, and original width as compared to the cylinder heads described in the above sub-section.
- b.) External modifications for the OEM Ford cylinder head, part number E3ZM6049C3L and the OEM 18 degree General Motors cylinder head, part number 24502580 will be limited to milling of the head not to exceed 0.175 inch.

- c.) External modifications for the previously approved 22 and 23 degree General Motors cylinder heads will be permitted providing the external dimensions of the cylinder head have not been changed in respect to original height (plus or minus 0.100 inch) original length and original width. A maximum of 3.000 inches height must be maintained on intake flange side of head from the cylinder head to block surface to the valve cover rail. On cylinder heads manufactured with a raised valve cover rail for oil retention purposes a maximum of 3.200 inches will be permitted.
- d.) Painting or coating of the cylinder heads will not be permitted.

# 13. Internal Cylinder Head Changes

- a.) Internal changes for the OEM cylinder heads are as follows:
- b.) Air flow improvements by internally polishing and porting will be permitted.
- c.) Improvements or modifications to the cylinder head may be done by removing material from the production casting.
- d.) The addition of foreign material (i.e., epoxy, plastics, etc.) to the production casting will not be permitted.
- e.) Internal porting and/or polishing will be permitted. The original internal shape and configuration of the port must not be notched, grooved, channeled, or ridged in any way. After porting and/or polishing the intake port walls, port roof and port floor from the intake manifold mating surface to the centerline of the intake valve, air can flow over one (1) surface each. When the manufacturer has cast a valve guide support into the roof of the intake port the valve guide support must be blended into the roof of the intake port, eliminating all sharp edges. The maximum port floor height, maximum port roof height, port centerline, and spark plug locations must conform to the approved manufacturer template.

### 14. Crankshaft / Harmonic Balancer

Crankshaft

- a.) Only one-piece magnetic steel crankshafts will be permitted.
- b.) Aftermarket crankshafts must have the same design as an OEM type crankshaft for the approved engine and must be acceptable to Race of Champions Officials.
- c.) Only two-piece insert style crankshaft main bearings will be permitted. Roller bearings will not be permitted.
- d.) Crankshafts may be lightened and balanced. A solid material must be used to balance crankshafts.

Harmonic Balancers

a.) Harmonic balancers must be used and must be used as manufactured. Only SFI 18.1-approved magnetic steel harmonic balancers and balancer hubs, acceptable to Race of Champions Officials, will be permitted.

## 15. Camshaft / Valve Lifters / Rocker Arms

Camshaft

- a.) Any magnetic steel roller or flat tappet camshaft will be permitted. The maximum camshaft journal size must not be more than 2.362 inches (60mm).
- b.) Only standard production design timing chains, gear drives, and belt drives will be permitted for operating the camshaft on all engines. Camshaft timing must be fixed; variable timing devices will not be permitted. All camshaft timing drive systems must be acceptable to Race of Champion Officials.
- c.) Camshafts must be driven in the same direction of rotation as the Race of Champions approved standard production engine crankshaft. The camshaft must maintain the same firing order as the Race of Champions approved production engine.

The approved firing orders using approved cylinder identification are as follows:

Dodge 1-8-4-3-6-5-7-2

Ford 1-3-7-2-6-5-4-8

General Motors 1-8-4-3-6-5-7-2

d.) The manufacturer's cylinder identification sequence is as follows:

Dodge and General Motors Ford

(Front) (Front)

1251

3462

5673

7884

Valve Lifters

- a.) Valve actuation must be limited to one (1) lifter, one (1) push rod and one (1) rocker arm per valve. All valve actuation systems must be acceptable to Race of Champions Officials.
- b.) Solid magnetic steel flat tappet straight barrel valve lifters will be permitted. Roller tappets, mushroom valve lifters and any type of mechanical assistance exerting a force to assist in closing the valve, commonly known as rev-kits will be permitted.
- c.) Only magnetic steel one-piece, push rod assemblies without any moving parts, will be permitted.

### Rocker Arms / Valve Covers

- a.) Only steel or aluminum roller bearings rocker arms, one (1) per valve, that are acceptable to Race of Champions Officials may be used. Split shaft rocker arm assemblies will be permitted.
- b.) The rocker arm fastener bolt holes may not be relocated more than 0.100 inch in any direction measured from the centerline of the approved rocker arm fastener hole.
- c.) Valve covers must be made of steel or aluminum. Magnesium and other exotic materials will not be permitted.

### 16. Intake Manifold

- a.) The intake manifold must be approved by Race of Champions Officials. The approved manufacturers' identification in the form of cast-in part numbers must remain unaltered on the intake manifold.
- b.) The intake manifolds must conform to the Race of Champions-approved templates, gauges, scales and other measuring devices.
- c.) Race of Champions Officials may use an intake manifold provided by the respective manufacturer as a guide in determining whether a Competitor's intake manifold conforms to the specifications of the Rule Book.
- d.) Only open plenum intake manifolds will be permitted. The plenum opening must not be smaller than a minimum size of 3-5/8 inches in width by 3-9/16 inches in length. The maximum plenum opening size must not be larger than 3-3/4 inches in width by 3-11/16 inches in length. The plenum opening must have radiused corners that maintain the shape and configuration of an open four (4) barrel carburetor gasket.
- e.) The inside floor of the plenum and the carburetor mounting flange must remain in the approved location.
- f.) The plenum will be defined as the area inside the opening of the intake manifold from the plenum opening at the carburetor mounting flange down to the floor of the plenum. Included in the plenum area will be where the runner walls attach at the top and bottom in the plenum. The intake manifold runners will be defined as starting at the point of attachment both at the top and the bottom in the plenum area of the intake manifold.
- g.) The intake runners must maintain the same length as compared to the approved intake manifold with the same part number.
- h.) The centerline of the intake ports, as seen from above, must remain in the approved location.
- i.) Each engine will be permitted a maximum of two (2) approved intake manifolds. New approvals must be preceded by deleting a currently approved manifold. The following intake manifolds are approved for use in competition:

MANUFACTURER PART NUMBER DODGE Dodge P4532598 Dodge/Arrington – P4532590 FORD Ford Edelbrock 2991-Victor 351Y Ford M9424-W351 GENERAL MOTORS 18 DEGREE Edelbrock 2995 GM 24502653 Spider

## Intake Manifold Modifications Permitted:

- j.) Polishing in the plenum area will be permitted only to "clean up" imperfections in the castings in a manner acceptable to Race of Champions Officials.
- k.) Polishing of ports in the intake manifold will be permitted.

### Intake Manifold Modifications Not Permitted:

- I.) Added air directional devices will not be permitted inside the intake manifold.
- m.) The length of the intake manifold runners must not be changed and remain as manufactured.
- n.) Epoxy or fillers will not be permitted on the plenum floor or on the walls of the plenum.
- o.) Air holes will not be permitted to be opened in the intake manifold.

- p.) External modifications to the intake manifold will not be permitted unless approved by Race of Champions Officials.
- q.) Painting and/or coating of the intake manifold will not be permitted.
- r.) Drilling or tapping of the intake manifold plenum or intake runners will not be permitted unless approved by the Race of Champions Officials.
- s.) At all Events, previously approved intake manifolds may be used. These intake manifolds must meet the following requirements:
- t.) Only open plenum intake manifolds will be permitted. The plenum opening must not be smaller than a minimum size of 3-5/8 inches in width by 3-9/16 inches in length. The plenum opening must have radiused corners that maintain the shape and configuration of an open four (4) barrel carburetor gasket.
- u.) The plenum will be defined as the area inside the opening of the intake manifold from the plenum opening at the carburetor mounting flange down to the floor of the plenum. Included in the plenum area will be where the runner walls attach at the top and bottom in the plenum. The intake manifold runners will be defined as starting at the point of attachment both at the top and the bottom in the plenum area of the intake manifold.
- v.) In the center of the plenum, from the base of the carburetor to the floor of the intake manifold between the intake runners, there must be an open area of 1-3/4 inches minimum diameter. This will be checked with a gauge.
- w.) The inside floor of the plenum must remain in the approved location and be the same shape as compared to the approved manifold with the same part number.
- x.) The floor of the intake manifold between the intake runners must have a single plane, smooth, unaltered surface.
- y.) The carburetor mounting flange must remain in the approved location and maintain the same configuration as compared to the approved intake manifold with the same part number.
- z.) The centerline of the intake ports, as seen from above, must remain in the approved location.

aa.) At all Events the following intake manifolds have been approved for competition:

MANUFACTURER PART NUMBER DESCRIPTION

Brodix HV-1005 HV-1-H 0.625 inch Flange

HV-1013 HV-SP-1 0.590 inch Flange

Chevrolet GM 10051103

Dodge Dodge W-7 P4532598

Dodge/Arrington P4532590

Edelbrock 2926 General Motors, High Port

2990 Ford Victor 351-AH-11

2981 Ford Victor Jr 351-W

Ford M-9424 - A351 M-9424 - E351

Holley 30041

300-105

Pontiac GM 10093374

Previously Approved Intake Manifold Modifications Permitted:

- bb.) Polishing in the plenum area will be permitted.
- cc.) Polishing of ports in the intake manifold will be permitted.

Previously Approved Intake Manifold Modifications Not Permitted:

- dd.) Added air directional devices will not be permitted inside the intake manifold.
- ee.) Air holes will not be permitted to be opened in the intake manifold.
- ff.) External modifications to the intake manifold will not be permitted.
- gg.) Painting and/or coating of the intake manifold will not be permitted.
- hh.) Drilling or tapping of the intake manifold plenum or intake runners will not be permitted unless approved by Race of Champions Officials.
- ii.) Spacers between the engine block and the intake manifold will not be permitted.
- jj.) Spacers between the intake manifold and the cylinder head will not be permitted.
- kk.) The intake manifold must have a minimum of 1/4 inch of surface on all sides to seal the intake manifold to the cylinder head.
- II.) The carburetor mounting studs must be solid and remain in the approved location and maintain a stud size of 5/16 inch diameter.

mm.) Any spacer added between the carburetor (per the above sub-section) and the intake manifold must be mounted using the approved 5/16 inch diameter, solid carburetor mounting studs and must not be welded to the intake manifold.

nn.) The intake manifold ports must be completely sealed to the cylinder head ports at all times. Intake manifold sealing must be done by using one (1) approved paper-type intake manifold gasket per side. Metal shim type or metal impregnated intake manifold gaskets will not be permitted. The as manufactured thickness of approved intake manifold gaskets must not be less than 0.060 inch and must not be more than 0.125 inch per side. Intake manifold gaskets must be secured to either sealing surface (intake manifold or cylinder head) with an approved adhesive. At the Race of Champions discretion the intake manifold and cylinder heads may be leak tested to ensure proper sealing at any time during the Event.

oo.) The intake manifold and the valley tray material must be aluminum. Magnesium or other exotic materials will not be permitted.

#### 17. Carburetor

a.) Race of Champions Officials may use a carburetor provided by the respective manufacturer as a guide in determining whether a Competitor's carburetor conforms to the specifications of the Rule Book.

## Eligibility

- b.) The following Series carburetors are eligible for use:
- c.) The Holley 4150 Series, list number 80507 (390 CFM), four (4) barrel carburetors with a maximum venturi size of 1-1/16 inches and a maximum throttle bore size of 1-7/16 inches are approved for use on all 18 and 23 degree aluminum cylinder head engines except the NASCAR-approved "Spec Engine". The venturis must maintain a circular (round) cross section. This is the only carburetor eligible for use on all engines except the NASCAR-approved "Spec Engine" in all Only Holley replacement or service parts can be used in any carburetor rework. All carburetor modifications must be acceptable to Race of Champions Officials. Carburetors and/or carburetor components machined from billet materials will not be permitted.

The Holley 4150HP Series, list number 80507 (390 CFM), four (4) barrel carburetor is the only carburetor approved for the NASCAR-approved "Spec Engine" in all Race of Champions Events. The carburetor must remain as supplied by the approved supplier (refer to the "Spec Engine subsection).

d.) Holley 4150HP Series, list number 80507 (390 CFM), rework guidelines are as follows:

### Carburetor Main Body

e.) The only carburetor main body that will be permitted for the Holley 4150 Series will be the Holley main body with casting number 6R-7879B. The Holley casting numbers must remain legible on the top of the main body. Main bodies must remain as manufactured. Machining, reshaping, grinding, polishing, or drilling holes will not be permitted. The addition of material(s) such as but not limited to, epoxies, sleeves, inserts, or tubes will not be permitted to the carburetor main body.

# Carburetor Boosters

f.) One (1), one-piece singular discharge booster per venturi must be used. The type of booster must not be changed. The Holley booster part number 45R-107-1, with the casting number 45R-107 and part number 45R-312R, with the casting number 45R-312 are the only boosters that will be permitted. The Holley casting numbers must remain legible on the top of all booster stems. Size and shape must not be altered. Height and location of the boosters must remain as manufactured. All boosters must maintain a minimum outside diameter of 0.616 inch. The maximum inside diameter of the booster stem passage must not to exceed 0.144 inch. The addition of material will not be permitted to the boosters. A bonding agent (epoxy) may be used to assist in adhering the carburetor booster to the carburetor main body, but it must not extend past the carburetor main body booster mounting hole into the carburetor venturis. Each carburetor booster must be secured by a steel wire not less than 0.025 inch in diameter. The wire must be installed in such a manner that in the case of a carburetor booster failure, the carburetor booster should remain suspended in the carburetor without any interference to the operation of the throttle shaft and the throttle plates (butterflies). A minimal size hole, acceptable to Race of Champions Officials, must be drilled through the top of the booster barrel, inboard of the booster attaching stem. The 0.025 inch steel wire must loop through the hole in the booster barrel and then be tied to the respective float bowl vent tube. As an alternative to drilling a hole in the booster, the 0.025 inch steel wire must pass

through the booster barrel from top to bottom and then be tied to the respective float bowl vent tube.

#### Carburetor Venturis

g.) The venturi is defined as a constricted throat in the main body air passage. The location of the venturi must remain as produced by the manufacturer. The venturis must not be raised or lowered in the body of the carburetor. The venturis must maintain a circular (round) cross section. The maximum diameter of the venturis must not exceed 1.064 inches. Altering or reshaping of the venturi in any manner will not be permitted.

# Carburetor Throttle Body (base plate)

h.) The only carburetor throttle bodies permitted will be the Holley throttle bodies with casting numbers 12R-6236B, 12R-11524B or 12R-11524M. The Holley casting number must remain legible on the left secondary "ear" of the carburetor throttle body with casting number 12R-6236B, and on the right secondary "ear" of the carburetor throttle body with casting number 12R-11524B or 12R-11524M. The carburetor throttle body must be used as provided by the manufacturer. The positioning of the throttle bores in the carburetor throttle body must be the same as provided by the manufacturer. The throttle bores must be completely round. The throttle bores must not be larger than 1.438 inches. The throttle bores must be straight without taper from top to bottom. The throttle bores must remain perpendicular to the top and bottom of the carburetor throttle body. The carburetor throttle body must not be altered in shape or size.

### Throttle Plates (butterflies)

i.) The throttle plates (butterflies) must be magnetic steel and must not be thinned or tapered. The type of screw used to retain the throttle plates (butterflies) to the throttle shafts must be pan head type either straight slotted, phillips head or allen type head. Idle holes may be drilled in the throttle plates (butterflies). The throttle plates (butterflies) must be mounted to the throttle shaft in the approved location.

### Throttle Shafts

j.) Holley magnetic steel throttle shafts must be used. Shafts must remain standard production size and must not be thinned or cut in any manner. Throttle shaft rotation must be in the same direction as produced by the manufacturer. The combined thickness of the throttle shaft and the throttle plate (butterflies) must not be less than 0.197 inch. Throttle shaft seals that prevent air leakage must be used on all throttle shafts where the shafts exit the carburetor throttle body. The primary and secondary throttle shafts must each have an independent travel stop to prevent the throttle plates (butterflies) from opening beyond vertical.

# Carburetor Metering Blocks

k.) Only Holley metering blocks will be permitted. Surfacing of the metering blocks for improved gasket seal will be permitted. A bonding agent (epoxy) may be used to assist in adhering the emulsion tube plugs to the carburetor metering blocks, if needed to help prevent fuel leakage only.

# Carburetor Floats

- l.) Carburetor floats must be a Holley replacement or service part acceptable to Race of Champion Officials. Carburetor floats designed for road courses, acceptable to Race of Champions Officials, will be permitted at road course Events only.
- m.) Alterations that, in the judgment of Race of Champions Officials, were made to allow additional air to be picked up below the opening of the venturi, such as but not limited to, altered gaskets, throttle bodies, drilling or machining holes into the carburetor will not be permitted.
- n.) External modifications and/or alterations to the carburetor will not be permitted.

### 18. Carburetor Spacer / Gaskets

a.) A one-piece, solid, four (4) hole or single hole, aluminum carburetor spacer, a maximum of two (2) inch in thickness, may be installed between the intake manifold and carburetor on all 18 and 23 degree aluminum cylinder head engines except the NASCAR-approved "Spec Engine". Two (2) one-piece, solid, four (4) hole or single hole, aluminum carburetor spacer, a maximum of one (1) inch in thickness, may be installed between the intake manifold and carburetor on all 18 and 23 degree aluminum cylinder head engines except the NASCAR-approved "Spec Engine". The carburetor spacer must seal with the only air passing through the internal openings. The gasket surfaces of the spacer must conform to the shape of the carburetor

base plate. The carburetor spacer used on the NASCAR-approved "Spec Engine" must remain as supplied by the approved supplier (as described in "spec" engine subsection).

b.) Only two (2) non-metallic gaskets (one (1) per side) a maximum thickness 0.065 inch will be permitted. Gaskets can only be altered to match the carburetor base opening. An additional gasket must be used, a maximum thickness of 0.065 inch, if using two (2) separate one (1) inch spacers.

### 19. Carburetor Restrictor

- a.) A carburetor restrictor must be used when required by Race of Champions Officials.
- b.) For Events where a carburetor restrictor is required:

## Currently approved Built Engines:

- c.) All model cars competing with a currently approved built engine will be required to use a 1/8 inch thick aluminum restrictor plate with four (4) holes, as specified using a maximum 0.065 inch thick gasket.
- d.) A restrictor plate, a four-hole spacer, one (1) inch thick, and necessary sealing gaskets will be issued by Race of Champions Officials for competition. Spacer(s) between the restrictor plate and the intake manifold or above the Race of Champions-issued four-hole spacer will not be permitted. e.) Restrictor plates and spacers used for practice must be furnished by the Competitors, unless otherwise authorized by Race of Champions Officials.

## NASCAR "Spec Engine":

- f.) All model cars competing with the NASCAR approved "Spec Engine" will be required to use a one (1) inch thick, four (4) hole aluminum tapered bore spacer, as specified, using maximum 0.065 inch thick gaskets.
- g.) Tapered bore spacers and necessary sealing gaskets will be issued by the Race of Champions for competition. Spacer(s) between the tapered bore spacer and the intake manifold or above the tapered bore spacer will not be permitted.
- h.) Tapered bore spacers used for testing must be furnished by the Competitors, unless otherwise authorized by the Race of Champions.
- i.) Competitors must use the carburetor restrictor as designated for the Event. A final carburetor restrictor size will be determined after the completion of the final practice prior to the Race. Any attempts to, and/or actions that result in, pulling air from sources other than normal approved methods through the air filter and carburetor venturis, such as, but not limited to, drilling of holes or altering of carburetor restrictor(s) or gaskets will not be permitted.

# 20. Carburetor Spacer / Gaskets

a.) Fuel filter(s) on the pressure side of the fuel pump must only be used at the carburetor fuel bowl inlets. The location and size of the filter(s) must be acceptable to Race of Champions Officials.

### 21. Forced Air Induction

a.) Fuel injection, superchargers or turbochargers will not be permitted.

### 22. Carburetor Air Filter / Air Intake

a.) The air filter housing, including the filter, must be installed at all times during practice or competition. Performance enhancing additives or chemicals will not be permitted in the air filter housing, air filter or the air intake area.

## 23. Carburetor Air Filter / Air Filter Housing

a.) Only a round dry type, unaltered, paper or dry type gauze air filter element maintaining a maximum 14 inches diameter will be permitted. The air filter element must maintain a minimum of 1-1/2 inches, maximum five (5) inches in height. The air filter element must maintain a consistent height when measured anywhere around the circumference of the air filter element. All air filter elements must remain as manufactured. All air must be filtered through element. Additional fabric elements and/or covers for the filter element will not be permitted.

b.) Only a round metal air filter housing acceptable to Race of Champions Officials will be permitted. The top and bottom of the air filter housing must be solid and must be the same outside diameter as the air filter element. The air filter housing must be centered on the carburetor and seated on the air filter housing gasket ring. The air filter housing carburetor mounting ring must have one (1) round hole. It is permissible to attach a shield to the front area of the air filter housing up to a maximum of one half of the air filter circumference. It must not be higher than the height of the air filter element. Tubes, funnels, spacers, or any other device that may control the flow of air will not be permitted inside of the air filter or between the air filter housing and the carburetor.

### 24. Air Intake

a.) Air ducts or baffles will not be permitted on or leading to the air filter housing or air filter.

### 25. Engine / Car Electrical System

- a.) All engine/car electrical system components must be approved by the Race of Champions. Prior to being used in competition, all major engine/car electrical system components must be submitted, in a completed form/assembly, to the Race of Champions for consideration of approval and approved the Race of Champions. Each such part may thereafter be used until the Race of Champions determines that such part is no longer eligible.
- b.) Either a crank trigger or distributor type ignition system may be used. If the crank trigger ignition system is being used, triggering devices or pick ups will not be permitted inside the distributor housing.
- c.) Magnetos or computerized systems will not be permitted with 23 and/or 18 degree cylinder head engines.
- d.) Adjustable timing controls will not be permitted.
- e.) Retard or ignition delay devices will not be permitted.
- f.) The ignition system wiring must not contain any open wires or terminals. Unused ignition amplifier box wires must be terminated and/or sealed to prevent connection in a manner acceptable to Race of Champion Officials.
- g.) Each car must have primary ignition system components and may have optional backup ignition system components. The backup ignition system components must be disconnected from the primary system components using primary/backup switch(s). The ignition systems must consist of an ignition amplifier box, coil, distributor pickup and optional rev limiter (internal/external).
- h.) Multiple primary/backup individual component switches will not be permitted, as described in the next sub-section.
- i.) Ignition system components, including but not limited to, ignition amplifier boxes, coils and external rev limiters must be mounted to the right of the driver out and out of the driver's reach in a fashion that is easily removed, clearly visible and for ease of inspection. In the event that the ignition box is not clearly visible, including accessible through a clear lexan panel then the ignition boxes, including those located in the driver's footbox area, must be moved to the right of the driver and out of the driver's reach for ease of inspection. j.) As an option a removable ignition system mounting plate, acceptable to Race of Champions Officials, may be attached to the right side floor panel and must be within four (4) inches of the right side door bars (#9B). The removable ignition system mounting plate must be made of solid (no holes) metal measuring a maximum size of 12 inches by 16 inches and installed using a minimum of four (4), minimum 1/4 inch diameter mounting bolts. As an option, the removable ignition system mounting plate may have an opening directly beneath the ignition amplifier box(es) for inspection purposes. When used the opening must be the length and width of the bottom of the ignition amplifier box. The right side floor pan must be reinforced at the mounting bolt holes. The installation must be acceptable to Race of Champion Officials, Ignition system components must be located on the removable ignition system mounting plate with the ignition amplifier box wires and connectors directed toward the front of the car. The ignition system mounting plate, ignition system components, wiring and connectors must be covered with a flat clear polycarbonate cover. The flat clear polycarbonate cover must be the same size as the ignition system mounting plate. The flat clear polycarbonate cover installation and size must be acceptable to Race of Champion Officials. The ignition system components, including wiring and connectors must be visible from above and be wired such that the ignition system mounting plate can be easily removed for inspection purposes.
- k.) Race of Champion Officials may, at their discretion, inspect, test and/or destructively test ignition system components including ignition amplifier boxes, tachometers, dry distributors, etc. l.) Race of Champions Officials may use approved ignition system components provided by the respective manufacturer as a guide in determining whether a Competitor's ignition system components conform to the approved components.

# 26. Ignition System Wiring

- a.) All ignition system wiring, including wiring to the ignition amplifier box, distributor and/or any gauges must be acceptable to the Race of Champion Officials.
- b.) Ignition system wires must be continuous from the start connector to the end connector. Splices, bare and punctured wires will not be permitted in the ignition system.
- c.) The distributor pickup signal must be carried by a shielded wire pair with one (1) shielded ground wire. The wire pair may be twisted within the shield. The shielded ground wire must be located and grounded at the end nearest the ignition amplifier box.

- d.) Only the distributor pickup wire pairs can be contained within a shielding wrap with one (1) wire pair per shielding wrap. Ignition system wiring must remain visible and accessible. Taping wires together, heat shrink wrap and/or banded wire looms will not be permitted in the ignition system wiring.
- e.) All connectors must allow for the application of a sealing device to prevent tampering and/or alteration
- f.) Additional connectors may be permitted at the Race of Champion Officials discretion to facilitate removal for inspection purposes.
- g.) A dedicated single ground stud must be used. All ignition system components must be grounded at this stud. Accessory components must not be connected to this stud. A ground wire may be run from this stud to the battery ground or main ground stud.
- h.) The use of tracer wire color schemes is acceptable to specify backup components.
- i.) Accessory component wiring, including power and ground wires, must remain completely separate from the ignition system wiring and away from ignition system components. Ignition system components must draw power from the battery side of the starter solenoid. Accessory components and switches will not be permitted to draw power from the ignition system wiring at any point.

## 27. Ignition Amplifier Box

- a.) Ignition amplifier boxes and rev limiters that are analog only, which **do not** contain programmable, computerized or memory circuits, will be permitted.
- b.) Rev limiting devices acceptable to Race of Champions Officials may be required and must be attached and wired to the ignition amplifier box(s) in a visible manner. Terminals and pin connections designed for the rev limiter connection must have the ability to apply a sealing device to prevent tampering and/or alteration. Rev limiter chips must have the ability to apply a sealing device to prevent tampering and/or alteration.
- c.) The ignition amplifier box(s) may have either an internal rev limiter or be connected to an external rev limiter.
- d.) Each ignition amplifier box is allowed six (6) ignition wires, two (2) powerleads and either a rev limiter pin connection or approved rev limiter connection terminal. If originally equipped with a single white points trigger wire and the white points trigger wire is not used with an interrupt switch/system or required by the distributor, the white points trigger wire must be terminated and sealed to prevent connection in a manner acceptable to Race of Champion Officials.
- e.) The ignition amplifier must have a six (6) pin female connector attached to its output leads of the Packard Electric type (MSD part #8170) or the Deutsch Connector type (MSD part #8180) to facilitate testing of the ignition components during inspection. The wiring sequence must be the same as the General Motors or Ford ignition amplifier boxes. The wire color, gage, and pin assignment must follow the table below:

## **Pin Description Color Gage**

### **MSD Deutsch**

- A 5 Power Red 16-18
- B 2 Tachometer Signal Green or Brown 16-18
- C 6 Coil (-) Black 16-18
- D 1 Coil (+) Orange 16-18
- E 3 Pickup (-) Green 16-18
- F 4 Pickup (+) Violet 16-18
- f.) The ground negative (-) lead wire must be a continuous single black minimum 12 gage wire and the positive (+) power lead must be a continuous single red minimum 12 gage wire.
- g.) Modifications to ignition amplifier boxes will not be permitted.

### 28. Distributor

- a.) The distributor must mount in the approved location and maintain the same firing order as the approved factory produced engine for the make and model engine as described in the previous sub-section.
- b.) Only two (2) ignition pick ups of the magnetic, optical or Hall effect type will be permitted in the distributor.
- c.) The distributor must have a single connection to the coil selector, two (2) shielded distributor pickup wire pairs connecting the distributor pickup to the ignition amplifier box, eight (8) spark plug wire connections, and may have two (2) power wires for distributor pickups that require a power source.
- d.) Distributors which use a remote interface control box will not be permitted.

### 29. Coils

- a.) The positive (+) coil wire must be a single continuous 16-18 gage orange wire and the negative (-) coil wire must be a single continuous 16-18 gage black wire. The coil wire pair may be twisted.
- b.) The coil wires may use a connector of the Packard Electric type (MSD part #8173) or approved equivalent. If used, Pin "A" must be the negative (-) pickup wire and Pin "B" must be the positive (+)
- c.) A coil secondary spark wire selector will be permitted.
- d.) A firewall feed through connector may be used between the coil and distributor.

### 30. Coils

- a.) Tachometers, if used, should be mounted to either the steering column or the dash gauge panel. The mounting must be acceptable to Race of Champions Officials. In all cases, tachometer wiring must be as visible as possible, and easily accessible for inspection.
- b.) Tachometers should have a maximum of three (3) wires connected to the ignition system allowing for a ground, power and a tachometer signal.
- c.) The tachometer must have a connector of the Packard Electric type (MSD part #8172), or approved equivalent, to facilitate testing during inspection. The tachometer connector must be located on or at the removable ignition system mounting plate. The wire color, gage, and pin assignment must follow the table below:

## **Pin Description Color Gage**

- A Ground Black 16-18
- B Power Red 16-18
- C Tachometer Signal Green or Brown 16-18
- d.) The tachometer signal wire must be run from the tachometer as a single continuous green or brown 16-18 gage wire to connect the primary and backup ignition amplifier boxes to the tachometer through blocking diode(s).
- e.) The tachometer power wire must be connected to the battery side of the starter solenoid.
- f.) If an illuminated tachometer is used, the light power and ground wires must connect into the tachometer power and ground between the tachometer and the tachometer connector.
- g.) Tachometers with integral shift lights, or pit road speed lights will be permitted.
- h.) If an external shift light or pit road speed light is used, its signal input must come from the primary and/or backup ignition amplifier boxes and not as an output from the tachometer.

### 31. Interrupt Switch

- a.) An auxiliary on/off button that will shut off the ignition system should be mounted on the steering wheel within reach of the driver's thumb when the hands are in the normal driving position. The auxiliary switch must shut off the engine immediately when depressed and the engine must not restart until the button is depressed again.
- b.) A Race of Champions approved ignition interrupt system which contains a manifold vacuum switch and a brake line pressure switch (and may include a brake pedal position switch) may be used at the crew chief's option, in conjunction with or to replace the auxiliary on/off button on the steering wheel.
- c.) The button/interrupter should be mounted inline of the red 16-18 gage power wire between the main ignition switch and the primary/backup switch. When the button/interrupter is engaged the ignition amplifier box must automatically shut off. If the ignition amplifier box is originally equipped with a single, white points trigger wire, this wire may be used with an interrupt switch/system.
- d.) The button/interrupter must use a connector of the Packard Electric type (MSD part # 8173), or approved equivalent, to facilitate testing of the ignition system during inspection.
- e.) Unless otherwise authorized by the Race of Champions Officials, switches and/or any device other than those described above that are designed to interrupt the operation of the engine will not be permitted.

# 32. Main Ignition Switch

a.) The main ignition switch must be an on/off toggle type and be located next to the starter switch in the main switch panel. The switch must connect power to the input of the interrupter device.

## 33. Primary / Backup Switch

a.) A single switch may be used to select the primary or backup ignition system and it must be mounted on the dash panel.

# 34. Spark Plugs

a.) Any make or brand of spark plugs may be used. All spark plugs must thread into the cylinder heads using only M14 x 1.25 threads.

#### 35. Alternator

a.) A single alternator system with an internal voltage regulator and one (1) output wire must be used. External voltage regulators will not be permitted. The alternator must be mounted on the front of the engine with the center higher than the center of the water pump. Only standard production V-type or flat type V-ribbed alternator drive belts will be permitted.

# 36. Starter

a.) The self-starter must be in working order and in the approved location. Gear reduction starters acceptable to Race of Champions Officials will be permitted.

## 37. Battery

- a.) Only Race of Champions approved batteries with a maximum nominal voltage of 12 volts will be permitted. Each battery(s) must be of the gel cell or absorption glass mat design, weighing a minimum of 17 pounds.
- b.) The battery must be located between the frame rails. The battery must be located under the hood or floor of the car. If located under the floor, the battery must be completely encased. If located under the hood, the battery must have a suitable cover. The battery must not be forward of the radiator or rear of the rear end housing of the car. The battery location must be acceptable to Race of Champion Officials.

### 38. Electrical Switch Location

- a.) A labeled on/off rotary-type master switch, with "on" being in the clockwise direction, must be located on the cowl or panel behind the windshield opening on the right side of the driver while remaining within reach of the driver when secured by the seat belts in the seat. The switch must be wired to the battery cable in a manner that will cut off all electrical power in the car. The switch must be easily accessible and in plain view.
- b.) All ignition, starter and accessory electrical switches must be located on the front of the dash panel or to the right of the driver in a manner acceptable to Race of Champions Officials. All electrical switches must be labeled.
- c.) Accessory wiring must remain separated from the ignition system wiring.

# 39. Engine Cooling System

- a.) All engine cooling system components must be approved by the Race of Champions. Prior to being used in competition, all major engine cooling system components must be submitted, in a completed form/assembly, to the office of the Race of Champoins for consideration of approval and approved by the Race of Champions. Each such part may thereafter be used until the Race of Champions determines that such part is no longer eligible.
- b.) Icing, freon type chemicals or refrigerants must not be used in or near the engine compartment.
- c.) Portable cooling machines or devices will not be permitted.

# 40. Water Pump

- a.) Only aluminum mechanical water pumps, turning in the same direction of crankshaft rotation and in the approved location, will be permitted.
- b.) Water pump impellers may be altered.
- c.) Coolant flow must be in the same direction as the approved production engine.

### 41. Fan

- a.) Engine-driven fans if used, must be operational and belt driven from the crankshaft. Free spin or clutch fans will not be permitted.
  - (1) The pitch of the fan blades may be changed.
  - (2) The minimum diameter of the fan must not be less than 14 inches.
  - (3) Engine-driven fans must have a minimum of four (4) blades.
  - (4) Flat fan blades will not be permitted.
- b.) Electric cooling fans will be permitted in place of a standard steel fan on the back side of the radiator only.
- c.) The installation, type, and location of the fan(s) must be acceptable to Race of Champion Officials.

# 42. Radiator Ducts

a.) When ducting air from the air intake housings to the radiator, air directional shields or dividers will be permitted within the duct. All air entering the air intake housing must pass through the radiator.

### 43. Radiator

- a.) The engine cooling radiator must be acceptable to Race of Champion Officials and meet the following minimum requirements:
- b.) The radiator must remain stock appearing. Radiator cores and tanks must be constructed from aluminum material. The radiator core must be a standard automotive fin and tube design acceptable to Race of Champion Officials. Bar and plate radiator cores will not be permitted. The radiator core must not be wider than the inside width of the front sub-frame rails. Radiator tanks must be installed on the sides of the radiator core. The radiator must remain in the standard position in front of the engine.
- b.) Radiator dust or shaker screens will be permitted.
- c.) Radiator installation must be acceptable to Race of Champion Officials.
- d.) The radiator overflow tube may be relocated to the rear of the car.
- e.) All radiator cooling tubes must be operational. All cooling fins and tubes must be evenly spaced top to bottom and side to side and must remain at a 90 degree angle to the side tanks. The spacing and width must be acceptable to Race of Champion Officials.
- f.) Radiator hoses or hose and pipe combinations, between the engine and the radiator, must not exceed a maximum of two (2) inches inside diameter for the entire length of the assembly.

# 44. Engine Lubrication

a.) All engine lubrication system components must be approved by Race of Champions Officials. Prior to being used in competition, all major engine lubrication system components must be submitted, in a completed form/assembly, to the Race of Champions for consideration of approval and approved by the Race of Champions. Each such part may thereafter be used until the Race of Champions determines that such part is no longer eligible.

#### 45. Oil

a.) Any oil is permissible. Combustion enhancing additives will not be permitted.

## 46. Oil Pressure

a.) Oil pressure may be regulated at the discretion of the crew chief.

### 47. Oil Filters

a.) Oil filters and breather caps acceptable to Race of Champions Officials will be permitted. Oil filter breather caps must not be mounted in the rear firewall.

### 48. Oiling System

- a.) A dry sump oiling system must be used consisting of a single oil pump, a metal lubrication oil reservoir tank, approved oil lines, and an overflow expansion tank.
- b.) A single engine-mounted, engine-driven, oil pump with a maximum of five (5) stages will be permitted. The body of the oil pump must not exceed 9-1/2 inches in length and 3-1/2 inches in cross-section. The maximum overall length of the oil pump including seals, bearings, adjusters, bolt on end plates and covers, not including the front end of the shaft, will be 10 inches maximum. The oil pump must be acceptable to Race of Champions Officials.
- c.) All oil must be pumped by the engine-driven engine oil pump. Additional oil pumps or recirculating pumps will not be permitted.
- d.) The lubrication oil reservoir tank must be located to the rear of the leading edge of the engine firewall or mounted behind the driver's compartment to the inside edge of the left frame rail or beneath the right side sheet metal and inside the edge of the right side frame rail. The lowest component of the lubrication oil reservoir tank, including all connectors, oil lines, and fittings must not be located lower than the bottom surface of the main frame rails. Oil lines must not pass through or against the exhaust pipes and must be located inside roll cage. Location, installation, venting and air ducting of the lubrication oil reservoir tank encasement must be acceptable to Race of Champion Officials. Unless otherwise authorized by Race of Champion Officials, the same lubrication oil reservoir tank must be used for the entire Event (practice, qualifying, and the Race). e.) The engine oil system must have a functional, vented, overflow, expansion tank (a minimum of 1/2 gallon capacity should be used). The vent hose from the lubrication oil reservoir tank to the overflow tank must be protected by a covering acceptable to Race of Champion Officials. Location and installation of the tank must be acceptable to Race of Champion Officials.

- f.) The oil pressure line to the oil pressure gauge and/or the oil pressure sending unit must be stainless steel, full coverage, outer braid protected synthetic rubber hose attached with threaded, nipple design hose end fittings and should be covered with flame resistant covering acceptable to Race of Champion Officials.
- g.) All gauge sending units and sensors must be located forward of the front firewall.

# 49. Engine Exhaust System

a.) The exhaust systems and components must be acceptable to Race of Champions Officials and meet the following minimum requirements.

### 50. Exhaust Headers

- a.) All cars must use tube header-type exhaust systems.
- b.) The exhaust header flange must mount directly to the cylinder head without any spacers between the flange and the cylinder head. A maximum header flange thickness of 1/2 inch will be permitted.
- c.) The exhaust header(s) must be round tube header-type. Materials used in the exhaust header must be either magnetic steel or stainless steel. A maximum header flange thickness of 1/2 inch will be permitted. Cast exhaust header flanges will not be permitted. The exhaust header collector size must be 3-1/2 inches outside diameter. Exhaust headers that are made from any type of exotic materials will not be permitted.
- d.) When the NASCAR-approved "Spec Engine" is used, teams will be permitted to use any exhaust header and it must be acceptable to Race of Champions Officials. The exhaust header must be round tube header-type. Materials used in the exhaust header must be either magnetic steel or stainless steel. A maximum header flange thickness of 1/2 inch will be permitted. Cast exhaust header flanges will not be permitted. The exhaust header collector size must be 3-1/2 inches outside diameter.
- d.) Exhaust header assemblies must remain outside of the body panels from the front fire wall rearward.

### 51. Exhaust Pipes

- a.) 180 degree exhaust systems will not be permitted.
- b.) Exhaust pipes must come out aft of the engine at the cowl and must extend a minimum of six (6) inches past the cowl.
- c.) Exhaust connectors will not be permitted between the left side exhaust pipe and the right side exhaust pipe.
- d.) Exhaust pipe assemblies must remain outside of the body panels from the front fire wall rearward.
- e.) Exhaust pipes made from exotic materials will not be permitted.

### 52. Heat Shields

a.) Heat shields, when used to cover the exhaust headers, must be a flat piece of metal not more than six (6) inches wide and not longer than the length of the valve cover.

### 53. Drive Trair

a.) All drive train systems and drive train system components must be approved by the Race of Champions. Prior to being used in competition, all drive train systems and drive train system components must be submitted, in a completed form/assembly, to the Race of Champions for consideration of approval and approved by the Race of Champions. Each such part may thereafter be used until the Race of Champions determines that such part is no longer eligible. All drive train fasteners and mounting hardware must be made of solid magnetic steel.

### 54. Clutch

- a.) Only mechanical foot pedal, cable or hydraulic operated clutches will be permitted. Pneumatic assisted clutches will not be permitted.
- b.)The clutch assembly must be bolted to the flywheel located inside the bell housing.
- c.) Multiple disc clutches will be permitted up to a maximum of three (3) discs. The disc clutch housing assembly and cover must be made from aluminum or steel. The clutch cover must be the push-type design.
- d.) Only solid magnetic steel pressure plates, and magnetic steel floater plates, without any holes will be permitted.
- e.) Only full circle, fully faced magnetic steel clutch discs with a minimum diameter of 5-1/2 inches will be permitted. Minimal cooling slots will be permitted in the clutch discs.

- f.) The clutch must be mounted inside the bell housing.
- g.) Clutches must be a positive engagement design. Slider or slipper clutch designs will not be permitted.
- h.) Dog clutch or direct drives will not be permitted.

# 55. Flywheel

a.) Any steel or aluminum flywheel, bolted to the crankshaft, will be permitted but must be acceptable to Race of Champions Officials. Holes and/or other modifications to the flywheel that in the judgment of Race of Champions Officials, are for weight reduction will not be permitted.

# 56. Bell Housing

- a.) Only special production aluminum or magnetic steel bell housings acceptable to Race of Champions Officials will be permitted.
- b.) The maximum distance from the machined surface at the back of the engine block to the machined surface at the front of the transmission case must not exceed 6-3/8 inches including any spacers.
- c.) It is recommended that a 3/4 inch hole be drilled in the top of the bell housing directly over the starter ring gear to manually turn the engine for checking the compression ratio limit. This will be the only modification permitted on the approved aluminum bell housings.
- d.) Holes and/or other modifications that, in the judgment of Race of Champions Officials, have been made with the intent of weight reduction will not be permitted.
- e.) For all engine block-mounted starters, the starter mounting position must remain on the right side for Ford and General Motors engines and the left side for Dodge engines.

### 57. Transmission

- a.) Transmissions must be standard production design. The transmission must be from an approved manufacturer. Only transmissions, previously approved by Race of Champions prior to introduction into competition will be permitted. Race of Champions Officials may use a transmission provided by the respective manufacturer as a guide in determining whether a Competitor's transmission conforms to the specifications of the Rule Book.
- b.) Unless otherwise specified by the Race of Champions Officials, the same transmission must be used for practice, qualifying, practice after qualifying and the start of the Race. A transmission must not be removed from a car without the approval of Race of Champions Officials. Race of Champions Officials may require any team that removes a transmission to start at the rear of the field, providing the car earns a starting position in the Race. The transmission may be removed from a backup car, without penalty, at the discretion of the Race of Champions Officials, as follows:
  - (1) If a car is wrecked beyond repair during qualifying and a backup car is used, a transmission change may be permitted, however, the transmission must be installed before the beginning of practice(s), if practice(s) is scheduled, that follow qualifying.

    (2) If a car is wrecked beyond repair during or after qualifying and a backup car is used, then a transmission change may be permitted without an additional penalty. If a competitor violates this Rule, in addition to imposition of a penalty pursuant to Section K, Race of Champions Officials may take such action during the Event as they deem appropriate, including but not limited to, loss of practice time and/or loss of the opportunity to qualify, and/or confiscation of the transmission or transmission components. Such action shall be deemed an inspection decision not subject to Section K.
- c.) Race of Champions Officials may, at its discretion, require that all cars compete with a final drive gear ratio specified by Race of Champions Officials for each Event.
- d.) The complete transmission assembly, as raced, must weigh a minimum of 50 pounds. This minimum weight will include the shifter assembly, internal oil pump assembly (if used) and lubricant. The minimum weight will not include the shift lever and rear mount. Material of any-type added to reach the minimum weight will not be permitted.
- e.) High gear must be 1.00:1 (direct) and be the primary gear engaged on all tracks, except road course Events, during competition. Overdrive gearswill not be permitted.
- f.) The transmission must be acceptable to Race of Champions Officials and meet the following requirements:
  - (1) Standard production OEM type Muncie or T-10 manual four (4) speed transmissions with OEM type angle cut forward gears will be permitted. Square cut forward gears will be permitted in OEM type Muncie or T-10 manual four (4) speed transmissions.
  - (2) The Jerico #2-SP two (2) speed manual transmission and the Jerico #3-SP three (3) speed manual transmission will be permitted. Straightcut forward gears will be permitted.

- (3) Race of Champions-approved four (4) speed conversions with gears removed will be permitted. Transmissions may be of the left side-load designs only. Top-load type transmissions will not be permitted.
- g.) Only aluminum or magnesium transmission housings will be permitted.
- h.) All transmissions must have the input shaft and its main gear constantly engaged. This assembly must be constantly engaged with the countershaft and its cluster and reverse gears. Gun drilled and/or lightened shafts will not be permitted.
- i.) Transmission gear ratios between 1.00:1 and 1.18:1 will not be permitted. The only high gear transmission ratio permitted will be 1.00:1. Transmissions with an "overdrive" and/or any other gear ratio that creates an overdrive gear, will not be permitted.
- j.) A forward gear and reverse gear must be in working order.
- k.) Only manual, left-side mounted, shift linkage using the H-pattern type will be permitted on the transmission. Shift linkage that enters at the top, rear and/or backside of the transmission case will not be permitted. Shift linkage of the "push rod" type will not be permitted. The shift lever must be metal. All shift rods connecting the shifter mechanism to the transmission must be made of metal.
- I.) Only fire resistant type shifter boots will be permitted. The shifter boots should meet the SFI 48.1 specification and should display a valid SFI 48.1 label visible on the outside of the shifter boot. Shifter boots should not be used beyond two (2) years from the date of manufacture. Quick release fasteners will not be permitted to secure the shifter boot to the transmission tunnel. The shifter boot, when installed, must mount directly to and must be completely sealed to the floor of the car. Installation of the shifter boot must be acceptable to Race of Champions Officials.
- m.) Heating pads and/or blankets will not be permitted for warming the transmission.
- n.) All transmissions must be prepared with two (2) top cover or side cover bolts and two (2) tail housing bolts and two (2) transmission to bell housing bolts drilled to accept installation of a 1/8 inch minimum diameter Race of Champions seal.
- o.) As determined by Race of Champions Officials, only wo (2) speed transmissions may be permitted for competition. Teams will be notified by written technical bulletin in event of this change. p.) On January 1, 2020, the measurement for the transmission from the front of the case to the rear of the case will be a maximum of 10 ½" inches. The measurement for the length of the tail shaft from the rear of the case will be 22" inches.

## 58. Drive Shaft

- a.) The drive shaft, universal joints and yokes must be magnetic steel. Only a one-piece magnetic steel drive shaft with a minimum outside diameter of two (2) inches and a minimum thickness of 0.090 inch or a minimum outside diameter of 2-1/2 inches and a minimum wall thickness of 0.065 inch will be permitted. All drive shafts must be painted white.
- b.) Two (2), 360 degree solid magnetic steel brackets, without holes or slots, not less than two (2) inches wide and 1/4 inch thick, must be placed around the drive shaft and be welded or fastened to the crossmember of the car. As an option the rear drive shaft bracket may be bolted directly to the torque arm using aminimum of two (2) high quality 3/8 inch minimum diameter bolts.
- 59. NASCAR "SPEC" Engine Option

## NASCAR "SPEC" ENGINE OPTION;

a.) As an option, Teams may compete in the Race of Champions with the NASCAR-approved "Spec Engine". If used, the "Spec Engine" must be completely assembled using only NASCAR-approved "Spec Engine" components without any modifications. All parts, pieces and components that are used in the "Spec Engine" must originate from an approved NASCAR supplier. If used, the "Spec Engine" may be purchased in kit form to be assembled by the engine builder of the Team's choice and remain as supplied, or may be purchased as a completely assembled engine. NASCAR-approved "Spec-

Engine" kits and assembled engines are available directly from Robert Yates Racing Engines, LLC. Weight adjustments (if any) will be made through NASCAR Technical Bulletins and/or announcements.

Robert Yates Racing Engines, LLC 159 Bevan Drive Mooresville, North Carolina 28115

Phone: 704-660-7015 Email: <u>dlewis@ryr.com</u> c.) Modifications Permitted

- (1) Wash and clean all parts HIGHLY RECOMMENDED
- (2) Fit Bearings
- (3) Fit Piston Ring End Gap
- (4) Match Gaskets Gasket material only
- (5) Carburetor Jetting
- (6) Distributor Timing
- (7) Carburetor floats designed for road courses, acceptable to NASCAR Officials, will be permitted at road course Events only.
- (8) The use of the crankcase windage tray supplied by the NASCAR-approved supplier is optional. If used, it must remain as supplied from the NASCAR-approved supplier with no modifications.
- (9) A maximum cylinder overbore size of 0.005 inch will be permitted on the NASCAR-approved "Spec Engine" block. The 0.005 inch overbore pistons, piston rings and wrist pins must be purchased from and remain as supplied by the NASCAR-approved supplier with no modifications.
- (10) The installation and fitting of valve guide liners will be permitted. The valve centerline and valve angle must remain the same as supplied by the NASCAR-approved supplier and manufacturer.
- (11) A bonding agent (epoxy) may be used to assist in adhering the emulsion tube plugs to the carburetor metering blocks, if needed to help prevent fuel leakage only. No other modifications to the carburetor metering blocks will be permitted. The carburetor metering blocks must remain as supplied by the NASCAR-approved supplier and manufacturer.
- (12) Decking (milling) of the engine block cylinder head surface to ensure proper sealing will be permitted. The engine block cylinder head surface may be decked (milled) up to a maximum of 0.005 inch. When installed the top of any piston must not be more than 0.015 inch at any point above the engine block cylinder head surface.
- (13) As an option, teams will be permitted to use the engine valley tray cover mounted breather system available **only through Robert Yates Racing Engines**. If used, it must remain as supplied from the NASCAR-approved supplier with no modifications.
- d.) Modifications Not Permitted
  - (1) No honing of engine cylinder bores. (Except as specified below)
  - (2) Any and all machine work done to the engine block, with the exception of the engine overbore and decking (milling) of the cylinder head surface, **must be performed by Robert Yates Racing Engines, LLC only.** An additional encryption must be placed on the engine block reflecting any machine work being done including the cylinder overbore.
  - (3) Pistons, piston rings and wrist pins must remain as supplied by the NASCAR-approved supplier. Modifications to the pistons will not be permitted.
  - (4) No valve guide fitting. (Except as specified below)
  - (5) No machine work to valve seats, valves or valve guides. (Except as specified below)
    - a. The following procedures and specifications must be followed when performing valve maintenance (valve job) on the Spec Engine. No modifications or deviations from the procedures or specifications will be permitted.
    - b. There are two (2) approved methods of valve seat maintenance for the Spec Engine.
  - (1) The use of a dedicated carbide cutting tool insert for the intake and exhaust valve seats are available **only through Robert Yates Racing Engines, LLC.** INTAKE EXHAUST Part number: WAR-IC-6527 Part number: WAR-EC-6528
  - (2) The programming and application of the supplied coordinates for use with the NEWEN Contour EPOC style machine using a single point cutter are available **only through Robert Yates Racing Engines, LLC.**
  - (6) The valves must not be serviced and must be replaced.
  - (7) The forged titanium valves utilize a Chrome Nitride coating and are **not** serviceable (including grinding of the valve face).
  - (8) Valve guide service with the exception of valve guide liner installation **must be performed by Robert Yates Racing Engines, LLC.** An additional encryption must be placed on the cylinder head reflectingany and all service work being done to the cylinder head.
  - (9) Valve Springs must be installed at 1.800 inches with an approximate seat pressure of 130 lbs.
  - (10) The combustion chamber volume must be 64cc's for compression after the valve maintenance (valve job) has been completed.

- (11) Valve seat replacement must only be completed by Robert Yates Racing Engines, LLC.
- (12)No modifications to rocker arms, valve lifters or valve train components Must remain as supplied by the NASCAR-approved supplier.
- (13) No crankshaft machining or balancing Must remain as received from the NASCAR-approved supplier.
- (14) No machining of the cylinder heads.
- (15) No modifications to the carburetor and carburetor spacer Must remain as supplied by the NASCAR- approved supplier.
- (16) No intake manifold modifications Must remain as supplied by the NASCAR-approved supplier.
- (17) No modifications to CAMSHAFT TIMING CAMSHAFT TIMING must be to manufacturer's specified settings.

NOTE: The use of a camshaft degree bushing will be permitted in the camshaft timing gear to obtain the manufacturer's camshaft timing specified settings. The manufacturer's camshaft specified settings for the intake centerline must be a minimum of 105.5 degrees and a maximum of 106.25 degrees. No other modifications to the camshaft timing will be permitted.

(18) No ignition system modifications – Ignition system must remain as supplied by the NASCAR-approved supplier

NOTE: As an option, teams will be permitted to use the crank trigger ignition system Part # 125004 available only through Robert Yates Racing Engines. If the crank trigger ignition system is being used, triggering devices or pickups will not be permitted inside the distributor housing. Teams will be permitted to use distributor Part # 187008 available only through Robert Yates Racing Engines with the crank trigger ignition system only.

- (19) No wiring modification Must remain as supplied by the NASCAR-approved supplier.
- (20) No alternator modification Must remain as supplied by the NASCAR-approved supplier.
- (21) No fuel pump modification Must remain as supplied by the NASCAR-approved supplier.

NOTE: As an option teams will be permitted to use fuel pump Part # 131001 or #131003 available only through Robert Yates Racing Engines.

- (22) No water pump modification Must remain as supplied by the NASCAR-approved supplier.
- (23) No oil pan modifications Must remain as supplied by the NASCARapproved supplier.

NOTE: Must use the NASCAR-approved "Spec Engine" oil pan Part #144010 available only through Robert Yates Racing Engines.

- (24) No oil scavenge or oil pump modification Must remain as supplied by the NASCAR-approved supplier. (Except as specified below)
- (25) The oil pump drive pulley may be changed at the team's discretion, using one (1) of the following approved oil pump drive pulleys:

MANUFACTURER PART NUMBER

- CV Products CVD11428
- CV Products CVD11430
- (26) No modifications will be permitted to the oil pump drive pulley Must remain as supplied by the NASCAR-approved supplier.
- (27) No accessory mount, drive belt or front timing cover modification Must remain as supplied by the NASCAR-approved supplier.
- (28) No modifications to the front drive assembly Must remain as supplied by the NASCAR-approved supplier.
- (29) No modification to part numbers or identification markings Must remain as supplied by the NASCAR-approved supplier.
- (30) No painting, coatings, polishing or addition of material of any kind.
- (31) Exhaust Headers (refer to sub-section 20D-9.1C)
- e.) If the "Spec Engine" bell housing, clutch assembly (including flywheel and starter ring) and starter are used they must remain as supplied by the NASCAR-approved supplier.

NOTE: The following will be the only intake manifold and carburetor spacers approved for use with the NASCAR-approved "Spec Engine".

**INTAKE MANIFOLD PART NUMBER** 

Edelbrock 2809

CARBURETOR SPACER PART NUMBER
CV Products (1/2 inch thickness) CV-166
CV Products (1/2 inch thickness) CV-166-1/8\* \*(drilled and tapped for use with approved ignition interrupt system)

## 2.0 Fuel, Fuel Cells and Fuel Systems

## 1. Fuel

a.) The Race of Champions reserves the right to have all cars use the same brand of fuel in a given Event. When this right is exercised, it will be stated on the Competition Format Sheet or in a Bulletin for that Event and the specific brand of fuel will be named the "Official Fuel". In all such cases, fuel used for practice, qualifying, and the Race itself will be supplied at the track by the "Official Fuel" supplier and must be used exactly as supplied by the "Official Fuel" suppliers dispensing equipment at the track. At an Event where an "Official Fuel" has been named, Race of Champions Officials will use a sample of the actual fuel provided at the track by the fuel supplier to determine whether the fuel used by a Competitor conforms to the specifications in the Rule Book.

#### 2. Fuel Definition

a.) In the event there is no "Official Fuel" at a given Event, the term "Fuel", wherever used in this document, shall be understood to mean automotive gasoline that complies with the specifications given in the ASTM guidelines (<a href="http://www.astm.org/Standards/D4814.htm">http://www.astm.org/Standards/D4814.htm</a>). Race of Champions Officials will use a sample of the actual fuel(s) provided at the track by the fuel supplier(s) to determine whether the fuel used by a Competitor conforms to the specifications in the Rule Book.

### 3. Fuel Specifications

- a.) The fuel must be automotive gasoline only.
- b.) The gasoline must comply with ASTM D-4814 entitled, "Standard Specification for Automotive Spark Ignition Engine Fuel," except limited to liquid hydrocarbons only, Class A, B, C, D, or E, but without regard to geographical or seasonal limitation.
- c.) The gasoline must not be blended with alcohols, ethers or other oxygenates and it must not be blended with aniline or its derivatives, nitro compounds or other nitrogen containing compounds.d.) Icing or cooling of the fuel system will not be permitted during the Event in the garage, pit, or racing premises.
- e.) At all Race of Champions Events only VP Racing Fuels (C12/Light Green) and VP Racing Fuels (VP110/Green) will be permitted for competition. Blending and/or mixing of the fuel will not be permitted with any other chemcicals, hydrocarbons, additives, nitrous, nitrous additives and/or any other fuel enhancement.

## 4. Fuel Samples

a.) The Race of Champions has the right to sample a Competitor's fuel at any time during the Event. Samples will be impounded for observation and/or testing by the Race of Champion's and/or any outside laboratories at the Race of Champions discretion.

# 5. Fuel System

- a.) All fuel systems and fuel system components must be approved by the Race of Champions. Prior to being used in competition, all fuel systems and fuel system components must be submitted, in a completed form/assembly, to the Race of Champions for consideration of approval and approved by the Race of Champions. Each such part may thereafter be used until the Race of Champions determines that such part is no longer eligible.
- b.) Race of Champions Officials will not permit the use of any previously approved fuel cells, containers, or check valves that appear to be damaged, defective or do not function properly. Fuel cell vent pipe check valves must be used. Check valves and the fuel cell must be acceptable to Race of Champions Officials.
- c.) Pressure systems will not be permitted. Any concealed pressure type containers, feed lines or actuating mechanism will not be permitted, even if inoperable. Icing, freon type chemicals or refrigerants must not be used in or near the fuel system.

# 6. Fuel Cell

a.) Only the following fuel cell bladders are approved and should be used in competition.

AERO TEC LABORATORIES, INC. (ATL) PART NUMBER

FB 222 B

FB 322 B

AIRCRAFT RUBBER MANUFACTURING, INC. (FUEL SAFE) PART NUMBER RB024  $\,$ 

**RB124** 

- b.) The Race of Champions-approved maximum fuel cell size should be 25-1/8 inches by 16-7/8 inches by 13-3/4 inches.
- c.) Modifications to the approved fuel cell bladders, including the nut ring, will not be permitted.
- d.) The maximum fuel cell capacity, including the filler spout and overflow, must not exceed 24 gallons.
- e.) Materials other than standard foam, as provided by an approved fuel cell manufacturer, will not be permitted.
- f.) All approved fuel cells must be equipped with a steel ball or fuel resistant flap type fuel filler and a steel ball or steel poppet fuel vent check valve assembly that meets the following minimum requirements:

# FUEL CELL CHECK VALVE HOUSING (STEEL BALL TYPE)

- (1) The fuel cell check valve housing must be manufactured of aluminum or magnetic steel plate not less than 1/4 inch thick. A cast aluminum check valve housing assembly will not be permitted. The bottom surface of the check valve plate must be flat. Spacers will not be permitted between the check valve plate and the fuel cell bladder. Only one (1) gasket, with a minimum thickness of 0.065 inch will be permitted between the check valve plate and the fuel cell container.
- (2) The solid steel ball check valve must be encased in a four (4) rail carriage. The carriage rails must be constructed of solid aluminum or magnetic steel not less than 1/4 inch thick by not less than 3/4 inch wide material. The carriage rails must be positioned such that the surface of the 1/4 inch thick edge rides against the steel check ball. Outside surfaces of the carriage must not have any sharp edges. The carriage must not be altered in any way and must remain perpendicular to the fuel cell check valve top flange plate.
- (3) The fuel filler check valve carriage must not exceed a maximum depth of 8-1/2 inches. The maximum inside diameter of the filler neck including the check ball seat must not exceed 2-1/8 inches. When seated at least 1/2 of the check ball must be visible. The diameter of the solid steel check ball must be 2-3/8 inches. The filler neck must not be made of cast aluminum.
- (4) The fuel vent check valve carriage must not exceed a maximum depth of 8-1/2 inches. The maximum inside diameter of the vent pipe neckincluding the check ball seat must not exceed 1-1/4 inches. When seated, at least 1/2 of the check ball must be visible. The diameter of the solid steel check ball must be 1-3/8 inches. The fuel vent check valve must not be made of cast aluminum.

## FUEL CELL CHECK VALVE HOUSING (FLAP TYPE)

- (1) The fuel cell check valve housing must be from an approved manufacturer and be made of aluminum or magnetic steel plate not less than 3/16 inch thick. A cast aluminum check valve housing assembly will not be permitted. The bottom surface of the check valve plate must be flat. Spacers will not be permitted between the check valve plate and the fuel cell bladder. Only one (1) gasket with a maximum thickness of 0.065 inch will be permitted between the check valve plate and the fuel cell bladder.
- (2) The fuel filler check valve assembly equipped with a fuel resistant flap (Viton) mounted in the center of its circumference must maintain a minimum outside diameter of 3-1/2 inches. The maximum inside diameter of the fuel filler inlet must not exceed 2-1/8 inches. The fuel filler check valve assembly must not be made of cast aluminum.
- (3) The fuel vent check valve carriage must not exceed a maximum depth of four (4) Inches. The maximum inside diameter of the vent pipe neck including the check ball seat must not exceed 1-1/4 inches. The diameter of the solid steel ball/poppet must be 1-3/8 inches. The fuel vent check valve neck must not be made of cast aluminum.
- g.) The fuel inlet tube and vent tube should have a bead around its circumference for hose retention.
- h.) Fuel cells should not be used beyond five (5) years after the date of manufacture.

### 7. Fuel Cell Container

- a.) The fuel cell container must be acceptable to Race of Champions Officials.
- b.) The fuel cell must be encased in a container of not less than 22 gage (0.031 inch thick) magnetic sheet steel. The fuel cell must be fitted within the container so that the maximum capacity, including the filler spout will not exceed 24 gallons.
- c.) The maximum fuel cell container size must be 25 inches in length by 16-3/4 inches in width by 13-5/8 inches in depth (inside dimensions).

- d.) Interior magnetic sheet steel must allow access to the top of the fuel cell for inspection.
- e.) The fuel cell should be coated bright red.

### 8. Fuel Cell / Fuel Cell Container Installation

- a.) The fuel cell and fuel cell container must be installed in a manner acceptable to Race of Champions Officials.
- b.) The fuel cell and fuel cell container must be installed as far forward as possible in the trunk compartment behind the rear axle and maintain a minimum ground clearance of six (6) inches.
- c.) The fuel cell container must be secured by one (1) inch by one (1) inch by0.065 inch minimum thick square steel tubing meeting the ASTM A-513 specification or one (1) inch by 1/8 inch thick magnetic steel straps two (2) lengthwise and two (2) crosswise. The straps must be located as close to the fuel filler check valve housing as possible.
- d.) A firewall of magnetic sheet steel not less than 22 gage (0.031 inch thick) must be located between the trunk and the driver's compartment.

### 9. Fuel Filler

- a.) At Events where refueling is required during the Event, the fuel filler must be acceptable to Race of Champions and meet the following minimum requirements:
- b.) Dry coupling systems, using a probe on the fuel filler cans and receptacle on the car, must be acceptable to Race of Champions Officials. Dry coupling receptacles must be bolted from the inside of the quarter panel and at an angle on the left rear quarter panel. The mounting must be as near to the top of the panel and as far back as possible.
- c.) The check valve filler neck inside diameter must not exceed 2-1/8 inches. The outside diameter must not be less than 2-1/4 inches and not more than 2-1/2 inches.
- d.) The maximum filler spout size is 4-1/4 inches outside diameter by eight (8) inches long, then tapering over the next 8-1/2 inches to 2-1/2 inches outside diameter, extending to an over all length of 18 inches.
- e.) A minimum of six (6) inches of 2-1/2 inches maximum diameter flex hose must be used between the end of the filler spout and the fuel cell neck.

### 10. Fuel Cell Vent

- a.) The fuel cell shall be vented as follows:
- b.) A single, one (1) inch minimum up to a 1-1/4 inch maximum inside diameter vent to outside of body must be installed at and sealed to the left rear corner in the taillight area only. The vent must have a self-closing flap-type valve at all tracks that can only be opened by inserting a wire or flat metal strip to allow refueling.
- c.) The fuel cell check valve vent hose neck inside diameter must not exceed 1-1/4 inches inside diameter and three (3) inches in length. The fuel cell check valve vent hose must have a bead around its outside circumference for hose retention. The fuel cell vent flexible hose must have a maximum inside diameter of 1-1/2 inches and a maximum length of 60 inches when measured from the outside end of the fuel vent pipe to the top of the fuel cell fill plate. The hose must be secured with two (2) clamps at the fuel cell fill plate.
- d.) When fuel is added during a pit stop, a crew member must catch any overflowing fuel into a container acceptable to Race of Champions Officials. The overflow container must be metal and coated red.

## 11. Fuel Lines / Fuel Pump

a.) Electrical devices or electrical connections will not be permitted on the fuel cell and fuel lines rearward of the engine block. Engine compartment mounted fuel pressure regulators must be mounted in an area on or forward of the front firewall above the engine block and between the cylinder heads. Fuel pressure may only be measured from a fuel line or engine mounted regulator at the intake manifold. Fuel lines from the carburetor will not be permitted on the cockpit side of the front firewall. Fuel pressure gauge isolators or sensors for electronic fuel pressure gauges must remain on the engine side of the front firewall.

# **FUEL LINES**

- b.) The fuel lines and fuel line connections must be acceptable to Race of Champions Officials and meet the following minimum requirements:
- c.) The size, material, and location of the fuel cell pickup must be acceptable to Race of Champions Officials.
- d.) Only one (1), maximum 5/8 inch inside diameter fuel line with a maximum AN-10 fitting, will be permitted from the fuel cell to the carburetor.

- e.) All fuel lines must be stainless steel, full coverage, outer braid protected synthetic rubber hose attached with threaded, nipple design hose end fittings and should be covered with flame resistant covering acceptable to Race of Champions Officials. This includes the fuel line to the fuel pressure gauge and/or sending unit.
- f.) The fuel line from the fuel cell to the fuel pump may be relocated to prevent vapor lock. If the fuel line runs through the right side of the driver's compartment, it must be enclosed in a straight or parallel to the drive shaft and transmission tunnel (as viewed from above) one (1) inch outside diameter metal tube, coated red and labeled "FUEL LINE".
- g.) A Race of Champion's-approved check valve mounted at the fuel line outlet on the fuel cell may be used.
- h.) Additional lines or extra length must not be used on the fuel system. Extra fuel lines or fuel cells, concealed or otherwise, will not be permitted.
- i.) An on / off, in-line fuel shutoff valve must be mounted within easy reach of the driver and labeled "FUEL SHUTOFF".
- j.) Quick disconnect fittings will not be permitted.
- k.) Only one (1) fuel filter may be used between the fuel cell and the fuel pump.
- I.) The fuel filter must be mounted on the same side as the fuel line. The size of the fuel filter must be acceptable to Race of Champions Officials.

### 12. Fuel Pump

- a.) Only one (1) fuel pump, acceptable to Race of Champions Officials meeting the following requirements, will be permitted.
- b.) Mechanical, lever-action, camshaft actuated fuel pumps in the approved location will be permitted.
- c.) A Race of Champions-approved remote, cable-driven mechanical fuel pump will be permitted. The pump must be driven off of the rear of the engine oil pump. The cable driven fuel pump must be mounted in the trunk area forward of the fuel cell container near the center of the chassis. If a remote fuel pump is used, the fuel line fitting on the inlet side of the remote fuel pump may be a manufacturer certified, crash-worthy, break-away, self sealing type. It is recommended that the remote cable assembly meet the SFI 8.1 specification.
- c.) Electric fuel pumps will not be permitted.
- d.) Liquid cooling of the fuel pump will not be permitted.

### 13. Fuel Filler Cans

- a.) Unless authorized by the Race of Champions, only two (2) approved maximum 12 gallon metal fuel filler cans will be permitted in pits for refueling at all tracks.
- b.) The metal fuel filler cans must be coated red and be acceptable to the Race of Champions Officials. The only decals used beyond those of Race of Champions Officials that will be permitted on any fuel filler can will be those of a participating fuel supplier that is approved by the Race of Champions. The fuel filler cans must be metal, ventilated and equipped with a flexible filler nozzle.
- c.) The use of two (2) fuel filler cans at the same time while refueling the car will not be permitted.
- e.) Elevated fuel drums or refueling towers will not be permitted.
- f.) Only metal fuel filler cans without dry coupling system fuel probes, coated red, acceptable to the Race of Champions Officials, will be permitted to be used to refuel the car in the garage or pit area. When adding or removing fuel to/from the car in the garage area, the car must be outside of the garage structure. When teams are parked behind the team's transporters in the garage area, the car must be moved away from the transporters before adding or removing fuel to/from the car. Race of Champions Officials may require that fuel be added or removed to/from the car in a designated area of the garage.
- f.) Fuel filler cans must not be stored in the garage structure.
- g.) Fuel filler cans must only be transported from the fuel station to the pit area in a cart acceptable to Race of Champions Officials.
- h.) When installing or removing fuel can couplers, power tools **MUST NOT** be used. It is recommended that a non-conductive nut driver be used.

### 3.0 Muffler and Sound Reduction Devices

# 1. Muffler and Sound Reduction Devices

a.) All cars must have working and unaltered mufflers. Exhaust pipes must have specific mufflers at designated tracks that will be noted on the Competition Format Sheet the specific Event. Kooks (part number QCN350-3 -1/2 inch) Quad Core mufflers will be permitted. The mufflers must be acceptable to Race of Champion Officials.

- b.) Several tracks have a locally enforced decibel rule, which preempt any particular muffler rule. Some tracks may have a maximum sound level rule of 95 decibels at 100 feet. This rule will be enforced by local government agencies. Such decibel rules preempt utilizing the required mufflers in sub-section m.3.
- c.) At determined events only the Lobak RCM 12" (12"-inch body length 3 1/2" inch diameter) spiral flow muffler (Part Number RCM351235) will be permitted for competition.
- d.) All mufflers must be able to be separated from the rest of the exhaust system for the purpose of inspection.

### 4.0 Traction Control Devices

- 1. Traction Control / Recording Devices / Data Acquisition
  - a.) Except as provided below, cars and drivers will not be permitted to carry onboard computers, automated electronic recording devices, electronically actuated devices, micro-processors, recording devices, filming devices, electronic digital memory chips, traction control devices, digital readout gauges and the like, even if inoperable or incomplete. Competitors will not be permitted to have or have had on his/her person or in his/her possession or in his/her car a device(s) at an Event designed specifically to enhance the traction capabilities of the car, even if inoperable or incomplete.
  - b.) Unapproved remote lap timing or speed sensing devices will not be permitted.
  - c.) All electrical wiring harnesses, switches, and connectors must be acceptable to Race of Champions Officials. All wiring must be point-to-point and each wiring connection must be easily traceable and removable from the car for inspection purposes.
  - d.) Competitor's use of filming and recording devices will be limited to internal review of pit stops only and not for promotion, resale or other commercial exploitation without the Race of Champion's prior, written approval. Filming or recording device(s) will not be permitted on board the race car at any time unless previously approved by the Race of Champions.
  - e.) Electronic oil, water and fuel pressure gauges and oil and water temperature gauges must be approved by the Race of Champions and they must be completely independent of the ignition system. All gauge sending units and sensors must be located forward of the front firewall.
  - f.) Gauges used in competition, including but not limited to tachometer, oil pressure gauge, oil temperature gauge, water temperature gauge and voltmeter, must be installed and functional at all times during competition. Ignition and accessory switches and interrupter system components must be installed at all times during competition.
  - g.) All electrical outlets used to connect the remote generator to the car must be in a location acceptable to Race of Champions Officials.

## 5.0 Chassis/Frame

- 1. Chassis / Frame
  - a.) All frames and frame components must be approved by the Race of Champions. Prior to being used in competition, all frames and frame components must be submitted to the office of the Race of Champions for consideration of approval and approved by the Race of Champions. Each such part may thereafter be used until the Race of Champions determines that such part is no longer eligible.
  - b.) All frames must be acceptable to the Race of Champions Officials. The frame used must meet the minimum requirements described in the following paragraphs. All frame designs must be submitted in blueprint form for acceptance to the office of the Race of Champions at least 60 days before the design can be entered in competition. If the Race of Champions accepts the modification as set forth in the submitted blueprints, the Competitor must submit for inspection a completed frame and roll cage at least 30 days prior to the intended date of competition. Acceptance of the submitted blueprint does not guarantee acceptance of the completed frame and roll cage design, and the Race of Champions may decide not to accept such design even if it is the same as the blueprint form. If the Race of Champions accepts the completed frame and roll cage, it may thereafter, be used in competition in the form accepted, unless and until the form is no longer approved by the Race of Champions.
  - c.) All frame components must be made of magnetic steel and welded. The frame must consist of a front and a rear sub-frame connected to the main frame on which the roll cage is welded. Holes and/or other modifications to the frames, frame supports, weight containers (if applicable), front and rear sub-frames, crossmembers, and any other frame components that, in the judgment of Race of Champions Officials, were made with the intent of weight reduction, will not be permitted. A minimum ground clearance of two (2) inches must be maintained on any part of the frame. Any frame rejected by Race of Champions Officials will not be permitted to compete.

- d.) Main Frame The side rails must be magnetic steel box tubing a minimum of two (2) inches in width by three (3) inches in height and a maximum of three (3) inches by four (4) inches and must have a minimum wall thickness of 1/8 inch meeting the ASTM A-500 specification. The distance from the centerline of the driveline to the left side frame rail, measured anywhere along the frame, must be within eight (8) inches of the distance from the centerline of the driveline to the right frame rail. A minimum width of 34 inches, and maximum 46 inches, measured from the center of the left frame rail to the center of the right frame rail, must be maintained in the driver's compartment. e.) Front Sub-Frame - The front sub-frame assembly must be made of magnetic steel box tubing two (2) inches in width and three (3) inches in height with a minimum wall thickness 0.083 inch meeting the ASTM A-500 specification. A minimum of 27 inches, and a maximum of 32 inches, measured from the center of the left frame rail to the center of the right frame rail, must be maintained from the mounting point of the upper A-frames forward. All front sub-frame assemblies must maintain a minimum of a 30 degree angle from the side frame rails up to the top of the subframe. All sub-frame assembly support bracing must be a minimum wall thickness 0.090 inch by 1-3/4 inches round magnetic steel seamless tubing. The front sub-frame bars (#16 A & B), left and right, must extend from the roll cage to the sub-frame and must have a downward radius bent into the bars before they are welded to the sub-frame. The left and right front sub-frame bars (#16 A & B) must not have any additional braces added between the front roll bar legs (#2 A & B) and where they attach to the front sub-frame assembly. A flex support tube may be added to the front subframe bars (#16 A & B) at the radius and extend forward and be attached to a crossmember. c.) Rear Sub-Frame - The rear sub-frame assembly must be made of magnetic steel box tubing two (2) inches in width and three (3) inches in height with a minimum wall thickness of 0.083 inch meeting the ASTM A-500 specification. A minimum width of 31 inches and a maximum of 46 inches, measured from the center of the left frame rail to the center of the right frame rail, must be maintained on the rear sub-frame assembly, with the exception for suspension and tire clearance. All rear sub-frame assemblies must maintain a minimum angle of 18 degrees from the rear axle housing up to the top of the sub-frame rail assembly.
- f.) A fuel cell reinforcement bar, using a minimum 1-1/2 inches seamless magnetic steel tubing, must be installed behind the fuel cell. This reinforcement bar must be as wide as the fuel cell and as low to the ground as the fuel cell with a minimum of two (2) uprights from the reinforcement bar to the rear frame crossmember, evenly spaced behind the fuel cell. The fuel cell reinforcement bar and vertical uprights should be 0.083 inch minimum wall thickness. NOTE: Effective January 1, 2020 the fuel cell reinforcement bar and vertical uprights must have a 0.083 inch minimum wall thickness. An X crossmember made of one (1) inch magnetic steel tubing must be installed beneath the fuel cell from corner to corner. The X crossmember must be welded or bolted to the rear frame rails in a secure manner. Two (2) additional support bars, one (1) at each corner of the reinforcement bar, must extend forward and be welded to the rear frame assembly.
- f.) The frame and roll cage assembly should be painted using only light/bright colors.

# 6.0 Overall Car Weight

### 1. Added Car Weight

a.) Added weight must be in approved block form of not less than five (5) pound blocks (no pellets). Tungsten and other unapproved metals or materials will not be permitted. Added weight must be securely bolted to the frame rail with a minimum of two (2), 3/8 inch diameter high quality bolts and painted white with the car number or team identification permanently legible on it. Dislodged weight will not be permitted to be returned to the car for weighing after the Race. Any added weight containers should be welded directly to the main frame rails, rear sub-frame rails and/or the crossmembers attached to the main frame rails. Added weight will not be permitted inside the driver's compartment. Material and mounting must be acceptable to Race of Champions Officials.

## 2. Car Weights After Competition

- a.) After a car has qualified, only fluids consumed, as determined by the Race of Champions Officials, may be replaced.
- b.) At the end of the Race, the minimum weight of the car must be within one half of one percent (.5%) of the minimum weight requirement of the car at the start of the Race. When cars are weighed after a Race, only water in the radiator, oil in the reservoir tank, and fuel in the fuel cell may be added. Wheels and tires may not be changed, unless otherwise authorized by the Race of Champions Officials.
- c.) The addition of ballast weight, after competition, will not be permitted.
- d.) All specified minimum weight requirements will be with fuel, oil, and water (with driver) and the car race ready. All cars must be scaled at the request of the Race of Champions Officials, pre and/or

post qualifying and/or pre and/or post race. There will be a pre-race weight minimum and a post-race minimum that must be meant as follows:

- 1.) Throughout the Event, the minimum weight requirement for the Race of Champions Steel Cylinder Head engine package with a maximum of 358 cubic inches will be **2,600 pounds** and a maximum weight requirement of 3,200 pounds will be required in this Series regardless of the cubic inch displacement. Left side weight percentage must be maintained; not be permitted to have more than 56% of the total weight as left side weight.
- 2.) Throughout the Event, the minimum weight requirement for the Race of Champions any 18 degree aluminum cylinder head engine package with a minimum of 350 cubic inches and a maximum of 376 cubic inches will be 6.8 pounds per cubic inch plus 175 pounds and a maximum weight requirement of 3,200 pounds will be required in this Series regardless of the cubic inch displacement. Left side weight percentage must be maintained; not be permitted to have more than 56% of the total weight as left side weight.
- 3.) Throughout the Event, the minimum weight requirement for the Race of Champions 23 degree aluminum cylinder head engine package with a maximum of 368 cubic inches of will be **2.600 pounds** and a maximum weight requirement of 3,200 pounds will be required in this Series regardless of the cubic inch displacement. Left side weight percentage must be maintained; not be permitted to have more than 56% of the total weight as left side weight.
- 4.) Throughout the Event, the minimum weight requirement for the Race of Champions 23 degree aluminum cylinder head engine package with a minimum of 369 cubic inches and a maximum of 376 cubic inches of will be 7.0 pounds per cubic inch, plus 175 pounds with a maximum weight requirement of 3,200 pounds will be required in this Series regardless of the cubic inch displacement. Left side weight percentage must be maintained; not be permitted to have more than 56% of the total weight as left side weight.
- 5.) Throughout the Event, the minimum weight requirement for the Race of Champions for any car using the "NASCAR approved Spec Engine" will be 2,700 pounds and a maximum weight requirement of 3,200 pounds will be required in this Series regardless of the cubic inch displacement. Left side weight percentage must be maintained; not be permitted to have more than 55% of the total weight as left side weight.
- 6.) During the 2021 racing season, Race of Champions Officials will be analyzing post-race minimum weight. The minimum weight will be 2,575 pounds. <<NEW WEIGHT>>. This rule will be utilized as a point of analysis for the development of tuture weight and scaling rules.
- e.) Unless otherwise authorized by the Race of Champions, at all times all weights will be measured by the Race of Champions Officials using the scales provided by the Race of Champions. It is the responsibility of each race team to insure that its car meets the specified minimum weight requirements for this Series on these scales.
- f.) On major components, the use of non-magnetic and/or hollow fasteners and component mounting hardware with the intent of weight reduction will not be permitted.
- g.) Unless otherwise approved, Race Equipment, including car parts and components, that in the judgment of Race of Champions Officials have been constructed to increase the components weight beyond normal standards, will not be permitted.
- h.) Before the use of any composite component(s), the component(s) must be submitted to and approved by the Race of Champions for use in competition.
- i.) Mechanical devices used for or intended to be used for the shifting of weight that may be activated by the driver and/or a crew member while the car is static or in motion will not be permitted.
- j.) From time-to-time and/or specific event(s), the weight rules for the Race of Champions may be adjusted based on maintaining the balance of competition and adjustments in regard to "home track rules". Those adjustments will be issued specifically on the "Event Competition Format".
- k.) All engine and weight packages claimed by any competitor must be clearly displayed on the right side of the hood.

### 7.0 Body

### 1. Body

- a.) The Race of Champions are open to eligible approved models of metal bodied passenger car production sedans.
- b.) The Race of Champions will with the rules as specified in Section m.7f the Rule Book. If authorized by the Race of Champions, deviations to these rules may be permitted for stand-alone Events only. All Events will be governed by the rules as published in Section m.7 of the Rule Book.

c.) Approved Competition Manufacturers for the 2020 season. The following are the only approved manufacturers for competition in the Race of Champions;

APPROVED MANUFACTURERS

CHEVROLET

DODGE

FORD

**PONTIAC** 

**TOYOTA** 

## OTHER APPROVED MANUFACTURERS

Other manufacturers may be selected when available providing they are the same in body configuration and meet the spirit and intent of competitive racing as currently evidenced in Race of Champions racing.

- d.) General Car Body Requirements; Car Bodies: The car body must be acceptable to Race of Champions Officials and meet the following minimum requirements:
- e.) Cars must be neat appearing. The interior and exterior of all floors, firewalls roll cage and frame assemblies and the interior of all body panels should be painted using only light/bright colors. The type of paint used, whether it be flat, satin or high gloss finish, must provide a smooth surface. The paint or vinyl must not be textured. Vinyl may only be used on the exterior of the body panels. Thermal barrier coatings applied to the immediate driver's area may be used The location of thermal coatings must be acceptable to Race of Champions Officials.
- f.) All bodies must be installed on the frame in a manner acceptable to Race of Champions Officials. Window openings should remain stock appearing and should maintain the original manufacturers' window opening configuration. Bodies must not be wider than the standard width from the front of the door panel to the rear of the quarter panels when measured beneath the car at the rocker panels. A minimum distance of 43 inches and a maximum distance of 45 inches will be permitted across the body at the bottom of the front windshield opening. A minimum of 43-1/2 inches and a maximum distance of 50 inches will be permitted across the body when measured at the bottom of the doors directly below the bottom of the front windshield opening. The outer vertical surface of the left side and right side door and quarter panel assemblies may only be a flat or convex surface. The distance from the outermost surface of any door or quarter panel to the top and bottom edge of that panel must not be more than four (4) inches. The outer surface of the right side door and quarter panel assembly must be straight from the leading edge of the door to the trailing edge of the quarter panel as viewed from the rear, front and above. The outer surface of the left side and right side door and quarter panel assemblies must be straight from front to back. Bodies must not extend below the frame at the side rails. Skirts or additional metal must not extend below the body.
- g.) The floor pan area directly beneath the seat forward to the front engine firewall must be made using a minimum 1/8 inch thick magnetic steel. The remainder of the floor area to the right and rear of the seat must be made from a minimum 22 gage (0.031 inch thick) magnetic sheet steel. The interior sheet metal from the right side of the seat to the right side door bars (#9B) and from the main roll bar (#1) to the right side vent window bar (#10B) and must not be lower than the second door bar (#9B) from the main frame rail or it may angle from the top of the drive shaft tunnel upwards to the top of the right side door. The removable ignition system mounting plate may be mouted to the interior sheet metal directly from the top of bottom of the floor pan. Interior sheet metal must not be higher than or enclose a standard window opening. No other floor panels will be permitted. All floor pan panels and interior sheet metal from the front firewall to the rear firewall and inside the main roll cage assembly must be completely sealed and welded in place. All floor pan panels must be acceptable to Race of Champions officials.
- h.) Streamlining of the contours of the car, unless approved by Race of Champions Officials will not be permitted. Installation of air directional devices, underpans, baffles, shields or the like beneath the car or the car's hood and front firewall, floor,rear firewall area, rear deck and quarter panel area will not be permitted. When fabricating the door and quarter panels, any accent lines or offsets whether they are tapered or flat will be limited to one (1) inch maximum in width. Should conditions require a larger window opening than 13-1/2 inches, a hinged door may be installed on the driver's side door. The door must be installed using a magnetic steel full length hinge and be equipped with a magnetic steel spring loaded latch. The maximum size shall be 22 inches in length by a maximum 5 inches in height. The door must be fabricated neatly without any protruding sides or edges and must be acceptable to Race of Champions Officials. If, in the judgment of Race of Champions Officials, any part or component of the car not previously approved by the Race of Champions that has been installed or modified to enhance aerodynamic performance, will not be permitted. Bodies must have a standard appearing windshield opening and the windshield "A" post must follow standard configuration.

- i.) Cars will not be permitted to compete with excessive body damage (excessive body damage to be determined by the Race of Champions Officials.)
- j.) Belly pans will not be permitted. A belly pan will be defined as any object or material that alters the flow of air under the car. Determination of whether any material or object is or is not a belly pan shall be in the discretion of the Race of Champions Officials. The bottom panel of the front nose panel must not extend rearward past the rear edge of the harmonic balancer.
- k.) The driver's compartment may be enclosed with additional sheet metal. All interior sheet metal should be a minimum 22 gage (0.031 inch thick) welded magnetic sheet steel. Interior sheet metal must not be higher than or enclose a standard window opening. All interior sheet metal withing reach of the driver must be a minimum 22 gage (0.031 inch thick) welded magnetic steel. Sheet metal in the driver's compartment must be horizontal from the top of the drive shaft tunnel to the right side door bars or angle from the top of the drive shaft tunnel upwards to the top of the right side door. Angled or horizontal sheet metal must extend from the rear firewall or the back of the seat a minimum of 26 inches forward. The interior sheet metal behind the main roll bar (#1) may be roll formed upward to the top of the shoulder bar (#7). The sheet metal must extend rearward and at the center of the rear axle housing, the sheet metal may angle upward and seal to the bottom of the rear window opening and extend rearward to the rear vertical panel. The use of quick release fastners (dzus) to install the sheet metal behind the main roll bar (#1) will be permitted. Interior spoilers, wings, or wind deflectors will not be permitted. Double panels will not be permitted. All interior sheet metal must be acceptable to Race of Champions Officials.
- l.) All seams of the floor pans, interior sheet metal and all interior sheet metal to exterior sheet metal contact points must be sealed. This includes, but is not limited to, floors, firewalls, crush panels.

## 2. Detailed Car Body Requirements

a.) In addition to the General Car Body Requirements specified in sub-section m.7, the following Detailed Car Body Requirements must be maintained.

### 3. Front Air Dam

a.) An approved air dam may be mounted to the front underside of the cars. The optional metal or vinyl front air dam must be mounted perpendicular to the ground and not more than three (3) inches behind the front edge of the nose panel. The front nose panel and air dam must not extend past the rear edge of the front bumper. The nose panel and air dam must not extend past the outside edge of the front frame rails. The nose panel and air dam must have a minimum ground clearance of two (2) inches. All support brackets must be mounted to the rear of the air dam. Horizontal or flat air deflectors must not extend past the outer edges of the front nose panel side walls.

## 4. Rear Spoilers

- a.) A Race of Champions-approved rear spoiler must be installed at all times during competition. All spoilers must be approved by Race of Champions Officials. An approved spoiler must be a flat non-adjustable part of the body which controls the flow of air over one (1) surface only. Spoiler sizes will be reviewed as testing and/or Race competition dictate, and adjustments may be made during testing, official practice, or prior to Events such as time trials and/or qualifying Races, etc.
- b.) All rear spoilers and spoiler mounting points must be acceptable to Race of Champions Officials. A solid rear spoiler of a minimum 1/4 inch thick clear polycarbonate only must be installed on the rear center panel where the center panel and the rear vertical body panel intersect and meet the requirements that follow:
- c.) The only rear spoiler size permitted will be eight (8) inches high by 48 inches wide, measured at the mounting point on top of the rear panel. The rear spoiler must be installed in the center at the rear of the quarter panels where the rear panel meets the center panel sheet metal. During the Race, the rear spoiler must not extend past the rear edge of the rear bumper. Decals or logos will not be permitted on the rear spoiler.
- d.) A maximum of two (2) one (1) inch wide adjustable supports will be permitted on the front of the spoiler.
- e.) A maximum of three (3) supports must be attached to the rear of the spoiler. The supports, front or rear, must be attached to the spoiler using a solid one piece of one (1) inch by one (1) inch aluminum angle mounted to the rear side and one (1) down from the top of the spoiler.
- f.) All cars must maintain a minimum height of 32 inches and a maximum height of 35 inches, measured from the ground to the spoiler mounting point at the top of the rear vertical body panel.

# 5. Windows / Lights / Mirrors / Windshield

### Windshield

- a.) A single one-piece flat 1/4 inch thick clear polycarbonate windshield should be used on the driver's side. A single piece rounded and/or shaped piece (traditional asphalt modified) of 1/4 inch thick polycarbonate type material (lexan) positively fastened to the cowl and roof or roof bar that covers the front of the driver area will be permitted.
- b.) The flat windshield must be mounted flush to the left side "A" post, the front edge of the roof panel and at the cowl or dash panel. The windshield must cover the area from the left side "A" post to the center windshield bar (#4A) and from the front edge of the roof panel to the cowl or dash panel. The windshield must be mounted using a minimum of three (3), evenly spaced, non-winged type quick release fasteners on each of the following, the left side "A" post, the front edge of the roof panel, the cowl or dash panel and the center windshield bar (#4A). Tabs welded to the center windshield bar (#4A) will be permitted. Hose clamps or tie wraps will not be permitted.
- c.) A complete steel windshield screen (with maximum openings of one (1) inch by two (2) inches) must be installed in the right side of the windshield opening. The windshield screen must cover the right side windshield opening from the center windshield bar (#4A) to the right side front roll bar leg (#2B) and from the front of roof bar (#3), at the top, down to the cowl or dash panel. The windshield screen must be mounted using only positive, non-winged type quick release fasteners. Tabs welded to the center windshield bar (#4A) and front roll bar leg (#2B), will be permitted.
- d.) Decals will not be permitted on the windshield.
- e.) All windshields, windshield screens and their installation must be acceptable to Race of Champions Officials.

#### 6. Rear Window

a.) Rear windows will not be permitted.

### 7. Side Window Glass

- a.) All side window glass must be removed.
- b.) The minimum side window opening on all models must be 13-1/2 inches when measured from the top of the door panel to the bottom of the roof bar (#3) or the roof drip rail (whichever is closest). Door panels must not be cut or notched to meet this specification.

# 8. Headlights / Parking Lights

a.) All cars must be equipped with a solid rear vertical body panel. The rear vertical body panel may extend down to the top of the frame and may be a maximum of one (1) inch from the top of the frame and have a maximum 1-1/2 inch lip/flange on the bottom edge.

### 9. Rear View Mirror

a.) Multi-view type mirrors, with a maximum size of 2-1/8 inches in height by 21-1/2 inches in width, must be installed at all times during competition and must be mounted in the upper center of the windshield opening. The rear view mirror must not extend outside of the car at any time or any position. A side mounted rear view mirror may be installed; however, it must be acceptable to Race of Champions Officials and must not extend outside of the car at any time or in any position. Composite material(s) will not be permitted on the rear view mirrors or the mounting hardware.

## 10. Dash Panel

a.) All dash panels must be acceptable to Race of Champions Officials. The dash panel must permit egress of the driver on the right side.

## 11. Firewalls

- a.) For driver protection, all firewalls, floors, tunnels, and access panels must be installed and completely secured in place when the car is in competition.
- b.) A front and rear firewall of not less than 22 gage (0.031 inch thick) magnetic sheet steel must separate the driver from the engine compartment and fuel cell.
- c.) The front firewall must be positioned below the leading edge of the windshield.
- d.) The front firewalls must be sealed and welded in place.
- e.) The rear fire wall center panel must be a minimum of 28 inches wide and must extend from the rear vertical body panel forward to the horizontal shoulder bar (#7).
- f.) The rear firewalls must be sealed and securely mounted in place and be acceptable to Race of Champions Officials.

# 12. Doors

- a.) All door panels must be magnetic sheet steel or aluminum (if aluminum is used it must be a minimum 0.040 inch thick) and mounted in a manner acceptable to the Race of Champions Officials. Any seams, creases or accent lines fabricated in the doors must be made parallel with the top of the door.
- b.) A minimum distance of 72 inches up to a maximum distance of 78 inches will be permitted when measured from the center of the rear axle housing forward to the front of the door. A minimum distance of 43 inches and a maximum distance of 45 inches will be permitted across the body at the bottom of the front windshield opening. A minimum of 43 ½" inches and a maximum of 50"-inches will be permitted across the body when measured at the bottom of the doors directly below the front windshield opening.
- c.) An inner panel must be installed from the left side door panel to the outside edge of the left side main frame rail. The inner panel must extend from the front firewall rearward to the rear firewall. The inner panel must be magnetic sheet steel or aluminum (if aluminum is used it must be a minimum 0.040 inch thick) and installed in a manner acceptable to the Race of Champions Officials. Aluminum crush panels must be installed at the front and rear firewalls and must extend outward to the left side door panel and extend upward from the inner panel to the top of the left side door panel.

## 13. Quarter Panels

- a.) Quarter panels must be acceptable to Race of Champions Officials and made of magnetic sheet steel or aluminum (if aluminum is used it must be a minimum of 0.040 inch thick) and meet the following minimum requirements:
- b.) The top of the quarter panels and door panels must maintain the same degree of rake from the front windshield "A" post to the rear vertical body panel on both the left side and right side.
- c.) All cars must have rear wheel openings on the right side a minimum of 11 inches and a maximum of 14 inches radius measured from the center of the rear axle housing.
- d.) The minimum size for any quarter window opening will be nine (9) inches high by 14 inches wide. If a "B" post is used on the rear roof quarter panel, the rear roof quarter panel must have the minimum quarter window opening. If a "B" post is not used, the leading edge of the rear roof quarter panel window opening must be located a maximum of 12 inches forward of the center of the rear axle housing. All quarter window openings and their location must be acceptable to Race of Champions Officials.
- e.) The lower edge of the rear roof quarter panel when measured at any point from the leading edge to the trailing edge must not be more than 2-1/2 inches inward from the upper edge of the rear quarter panel on both the left side and right side. The rear roof quarter panel must remain parallel with the upper edge of the rear quarter panel on both the left side and right side.
- f.) A minimum distance of 34 inches (measured any place at the rear of the quarter panels) and a maximum distance of 42 inches measured from the center of the rear axle to the rear vertical panel of the body will be permitted. Both the right and left side rear quarter panels must be equal in length. A minimum distance of 49 inches and a maximum distance of 56 inches will be permitted when measured across the body at the top of the door panels at the front of the rear wheel openings. A minimum distance of 55 inches and a maximum distance of 60 inches will be permitted when measured at the bottom of the door panels at the front of the rear wheel openings. A minimum distance of 58 inches and a maximum distance of 60 inches will be permitted between the outer edges of the quarter panels measured at the rear bumper height. The bottom edge of the left side and right side quarter panels must not be located inboard of the top edge.
- g.) The front lower edge of the rear quarter panel behind the rear wheels must be higher than the lower edge of the rear corner of the rail (nerf) bar. The rear lower edge of the rear quarter panel must not be higer than the lower edge of the rear vertical body panel. The lower edge of the rear quarter panels must not have a ground clearance of less than eight (8) inches at any point behind the rear wheels. The rear quarter panels when measured from the ground to the top of the rear quarter panel at the spoiler mounting location must be a minimum of 32 inches and a maximum of 35 inches.
- h.) The rear quarter panels must maintain a minimum of eight (8) inches ground clearance behind the rear wheels.
- i.) The rear vertical body panel (rear vertical panel) located between the quarter panels must maintain a minimum of 32 inches and a maximum of 35 inches when measured from the ground to the top of the panel at the rear spoiler mounting point. The panel must be solid with no open holes and be mounted flush at the rear of the quarter panels. The center panel must not be higher than the top of the rear quarter panels. The lower edge of the rear panel must not be more than one (1) inch above the top of the rear bumper or rear bumper mounts. The rear vertical body panel may extend down to the top of the frame and have a maximum 1-1/2 inch lip/flange on the bottom edge.

j.) The right side quarter panel assembly at any point must not extend outward beyond the inside edge of the right side rear tire contact patch as viewed from the rear and above. The right side rear quarter panel assembly behind the right side rear tire to the outside edge of the right side rear frame rail when measured must not be more than a maximum of 11-1/2 inches.

#### 14. Griiles

- a.) The grille air intake housing at the radiator must maintain a rectangular shape across the front of the nose with the opening being at least as wide as it is high and covering a minimum of 165 square inches. When a carburetor restrictor is required, the grille opening must be a minimum of 200 square inches.
- b.) Only a single layer of screen wire, with a minimum 1/4 inch by 1/4 inch opening, will be permitted in the opening to allow for proper cooling.
- c.) Only metal grille air intake housings will be permitted.
- d.) Horizontal or flat air deflectors must not extend past the outer edge of the grille air intake housing.
- e.) The top and bottom panel of the grille air intake housing must mount flush with the side panels. f.) During qualifying, the grille opening may not be closed off. The opening must remain unaltered and open. The use of tape will not be permitted on the grille opening.

#### 15. Hood / Roof

- a.) All cars must be equipped with a hood manufactured from a single piece of metal or fiberglass and be acceptable to Race of Champions Officials.
- b.) The hood must be manufactured so that it will completely cover the engine compartment from the left side to the right side, turn down a minimum of four (4) inches on each side, and cover (if used) the engine side panels. Only openings for the carburetor air filter housing, air filter, valve cover breathers (Sportsman Modified) and the distributor will be permitted. Holes for cooling the carburetor or engine will not be permitted. No portion of the hood may be higher than the bottom of the carburetor air filter housing and air filter. Hoods must be fastened with positive pin fasteners evenly spaced across the front and rear.
- c.) Engine cover side panels will be permitted. Louvers will be permitted.
- d.) The roof panel must be from an approved manufacturer and be made of magnetic steel. All roof panels and their installation must be acceptable to Race of Champions Officials. Unless otherwise authorized, the following are the only roof panels approved for competition:

MANUFACTURER PART NUMBER

General Motors 22699260

Ford F8RZ6350202AA

PTM Corporation NMT-111

Previously approved magnetic steel roofs will be permitted for competition if approved by Race of Champions Officials.

- e.) Roof support posts must remain stock appearing and maintain the original manufacturer's configuration. All "A" posts must maintain a maximum width of 3-3/4 inches from the top mounting point to the bottom mounting point. The panel at the bottom of the "A" post must maintain a maximum length of 18 inches (including any portion of the panel that is recessed into the hood). The rear "C" post must be mounted to the rear quarter panels and maintain a minimum width of 48 inches. All roof panels must be installed in a manner and a position that is acceptable to Race of Champions Officials. The front of the roof must be secured in three (3) places—one (1) in the center and one (1) on each side. The roof must be installed using non-winged type dzus fasteners.
- f.) The roof (body) height will be determined by measuring (with the driver) the overall height of the vehicle six (6) inches back from the leading edge of the roof at the roof centerline. The minimum roof (body) height must be 40 inches. The rear of the roof at the highest point must not be more than 3-1/4 inches higher than the actual front measurement.
- g.) An optional roof hatch may be installed above the driver to be used as an alternate exit. Installation of the roof hatch must be acceptable to Race of Champions Officials.
- h.) The rear roof quarter panel must be made from a single piece of metal without any creases, breaks or extra rolled designs. The quarter window panel must be neatly attached at the roof and the top of the quarter panels. The top of the rear quarter window panel must not be higher than a straight line when measured from the most rearward point of the roof down to the rear top of the quarter panel at the spoiler mounting point. The front edge of the "B" post must be located a maximum of 24 inches forward of the center of the rear axle housing. The installation of all rear quarter window panels and "B" posts must be symmetrical and acceptable to Race of Champions Officials.
- i.) Radio antennas should not be mounted on the roof panel.

#### 16. Rear Deck Lids

a.) The rear deck lid should be magnetic sheet steel.

## 17. Bumpers / Side Rails

a.) Any bumper or side rail that has been damaged or flattened beyond repair and/or is not functional during an Event will not be permitted. The bumper and side rails must be acceptable to Race of Champions Officials and meet the following minimum requirements:

b.) Front bumpers must be made of two (2) pieces of 1-1/2 inches minimum to 1-3/4 inches maximum round magnetic steel tubing four (4) inches to six (6) inches apart (six (6) inches apart is highly recommended), center to center, mounted to the front frame rails, spindle height, with a minimum of four (4) vertical connectors will be permitted. Two (2) vertical connectors must be welded in the center of the radiused corners with the remaining two (2) spaced between the corner uprights. The front bumper must be convex in shape with rounded corners, and mounted at the front frame rails. The maximum width of the front bumper must not exceed more than two (2) inches per side of the front frame rails. The maximum distance from the center of the front spindle to the front of the front bumper must not be less than 30 inches and not more than 30-1/2 inches.

NOTE: The upper and lower front bumper tubing may be six (6) inches apart when measured center to center.

- c.) Rear bumpers must be made from an I-beam extruded from aluminum. The width, when measured across the rear of the car must be a minimum of 48 inches and a maximum of 50 inches and be mounted on centerline of the rear sub-frame rails plus or minus (+/-) one (1) inch. Each end of the rear bumper (from the mounting side) must be cut square and capped with a minimum 0.125 inch thick aluminum. All bumper caps must be welded and sharp edges must be filed smoot. The minimum I-beam size permitted will be 2-3/4 inches by four (4) inches by 3/16 inch thick. The bumper must be mounted at rear axle height. A maximum distance of 46 inches measured at the center of the rear axle to the rear edge of the bumper will be permitted. Bumper extensions must be a minimum of 1-1/2 inch by 1-1/2 inch square magnetic steel tubing with a minimum wall thickness of 0.125 inches. Bumper extensions may be welded or bolted directly to the rear sub-frame crossmember. If bumper extensions are bolted to the rear sub-frame crossmember, four (4) bolts per bumper extension must be used and be a high quality minimum 3/8 inch diameter solid magnetic steel. Bumper extensions must have a rear bumper mounting flange a minimum of 1/4 inch thick flat magnetic steel welded completely to the bumper extension. Four (4) rear bumper mounting bolts per side must be used and be a high quality minimum 3/8 inch diameter solid magnetic steel. All mounting bolts must have a minimum of 1/2 inch of metal from the center of the mounting bolt to the edge of the mounting flange. When the rear bumper mounting bolts are fully tightened, mounting bolts must be completely flush with the mating surface, angled or beveled washers will be permitted. Grinding or machining of the rear bumper at the rear bumper mounting points will not be permitted (see Diagram #10, in the NASCAR Rule Book). Holes and/or modifications that, in the judgment of Race of Champions Officials, have been made with the intent of weight reduction, will not be permitted. Cars will not be permitted to compete without the front and rear bumper.
- d.) All cars must be equipped with rear corner rails and side rails. All rails must be constructed using a minimum 0.083 inch thick magnetic steel seamless tubing with an outside diameter of a minimum 1-1/4 inches and a maximum of 1-3/4 inches. Side rail bars must be constructed using the following guidelines:
  - (1) Right side bars must be constructed by using two (2) pieces of magnetic steel seamless tubing. The bottom bar must attach to the rear of the frame rail and extend upward and outward even with the outside of the tires, or up to a maximum of 1/2 inch outside of the tires. The bottom side bar must extend forward parallel with the frame rail and angle in to the front sub-frame rail with minimal tire clearance. The bottom bar must be mounted centerline with the rear axle and front spindle. The top side bar must be attached centerline with the main roll bar (#1) at the intersection with the horizontal shoulder bar (#7) extending outward and forward to the forward most point of the bottom bar. The top bar must turn down, be centered on, and attach to the bottom bar. The top bar must have an additional support bar attached to the front roll bar leg (#2B) centered on the dash panel bar (#8). An additional support bar must be added in the center. The bar must be attached to the frame rail and side bar. Two (2) additional vertical support bars must be added, one (1) at the rear and one (1) in the center of the side rail bar. The distance measured at the front, center to center, of the top and bottom bars at the turn

down area must be a minimum of six (6) inches. The distance measured at the rear center to center must be a maximum nine (9) inches and minimum six (6) inches. Right side rail bars must be attached using high quality minimum 5/16 inch diameter solid magnetic steel bolts. Pins or clips will not be permitted.

- (2) Left side rail bars must be constructed using the same guidelines described above except that the rear support bar may be a radiused bar that attaches to the main roll bar (#1) at the intersection with the horizontal shoulder bar (#7) extending down and attached to the frame rail. Left side rail bars must be mounted by centering the two (2) parallel side rail bars with the center of the rear axle and the front spindle or left side bars may be raised a maximum of two (2) inches from center. Left side rail bars must be attached using high quality minimum 5/16 inch diameter solid magnetic steel bolts. Pins or clips will not be permitted.
- (3) Rear corner rails must be constructed using two (2) pieces of magnetic steel seamless tubing a minimum of 1-1/4 inches and maximum 1-3/4 inches in diameter. Both pieces of tubing must be identically formed and welded to a steel bumper bracket at the rear. The left and right rear corner rail mounting brackets must be a minimum of two (2) inches by two (2) inches, minimum 1/8 inch thick magnetic extruded steel angle and must attach to the rear surface of the rear bumper with two (2) high quality minimum 3/8 inch diameter solid magnetic steel bolts per side. All mounting bolts must have a minimum of 1/2 inch of metal from the center of the mounting bolt to the edge of the rear corner rail mounting flange and must be a minimum of one (1) inch from the end of the rear bumper. When the rear corner rail mounting bolts are fully tightened, mounting bolts must be completely flush with the mating surface, angled or beveled washers will be permitted. Grinding or machining of the rear bumper at the rear corner rail mounting points will not be permitted (see Diagram #10, in the rear pages of the NASCAR Rule Book). The tubing must angle out and upward even with the outside of the tires, or up to a maximum of 1/2 inch outside of the tires and maintain a six (6) inch dimension measured center to center. The corner bumpers must then turn in with a minimal tire clearance to the rear quarter panels. Additional support bars must be installed behind the body panels to the rear frame rails and/or roll cage. The front mounting flanges of the rear corner rails must be attached using high quality minimum 5/16 inch diameter solid magnetic steel bolts. Pins or clips will not be permitted.
- (4) Cars will not be permitted to compete without side rails and rear corner rails.

# 18. Identification / Marking

# a.) Numbers / Graphics

- (1) All car number configuration and design is subject to approval by Race of Champions Officials. Only single or double-digit numbers will be permitted. The size, color, and style of numbers must be adequate to permit prompt identification by Race of Champions Officials at all times. Numbers must be a solid color, at least 18 inches high, measured vertically, excluding borders and silhouettes, must be neatly attached to or painted on both sides of the car on the center of the door. Door numbers must be a minimum of four (4) inches in width, and slant no more than 30 degrees from vertical. The tops and bottoms of all numbers must be even (not staggered). Two (2) digit numbers must not overlap and must have a minimum of 3/4 inch separation. A solid number 18 inches high, excluding borders and silhouettes, must be neatly attached to or painted on the center of the roof, reading from the passenger side. Solid numbers, as large as possible, must be attached to or painted on the right outer nose and taillight covers. The use of number decals is acceptable if Race of Champions Officials determine that the number is legible. Mirror foil numbers, and decals will not be permitted. Paint schemes using a mirrored or holographic appearance will not be permitted.
- (2) All Race of Champions asphalt Modified Series car numbers are owned by and will be assigned by Race of Champions Management for use by the car owner. Car numbers are not transferable or assignable by the car owner. Numbers on a car competing in these Series must correspond with the car owner's registration and membership that is on file with Race of Champions management, unless otherwise authorized the Race of Champions Management.
- (3) Race of Champions Management and/or Officials may require a Competitor to use a different number in order to avoid duplication or confusion at an Event.

## b.) Decals / Advertising

(1) Race of Champions management may, in its sole discretion, refuse to permit for any reason, or it may restrict or assign the size or placement of decals, identification, and

advertising of any kind including but not limited to the car, equipment, personnel, uniforms, garage and pit areas, promotional materials, and/or support vehicles. All Race of Champions Members agree to accept the Race of Champions decision in this regard.

- (2) Race of Champions management may refuse to permit a Competitor to participate in an Event if the Race of Champions determines that any advertising, sponsorship or similar agreement to which the Competitor (or a car owner, driver or crew member associated with the Competitor) is or will be a party, is detrimental to the sport, to the Race of Champions, Series Sponsor or to the Promoter for any reason, including without limitation, the public image of the sport.
- (3) Decals, advertising slogans, paint schemes and other graphic designs and text on the car that have not been previously approved by the Race of Champions must not be used unless and until they have been submitted by the crew chief to Race of Champions Management and approved by the Race of Champions prior to the Event. The review and approval of decals, advertising slogans, paint schemes and other graphic designs and text on the car that have not been previously approved by the Race of Champions is at the sole discretion of Race of Champions Management and such approval may be withheld for any reason. All Race of Champions Members agree to accept the decision of Race of Champions management in this regard.
- (4) Decals, advertising logos, text or identification of sponsors must not be placed on the front of each door and/or each side of the hood (between the front of the car, the front of the door and the wide base of the "a" pillar) other than (a) decals, advertising logos, text or identification of series sponsors, (b) decals, advertising logos, text or identification of Race of Champions contingency program sponsors, or (c) such other decals, advertising logos, text, or identification as the Race of Champions may in its sole discretion permit or require.
- (5) All decals or adhesive-backed emblems supplied by the Race of Champions contingency program sponsors for advertising or identification on Race of Champions race cars are limited in size to the area of a 32 square inch rectangle. Decal sizes will be determined by multiplying the full width and full length of any decal, regardless of the decal shape. Only decals of participating Race of Champions contingency program sponsors will be permitted.
- (6) Decals, advertising logos, text or identification of sponsors will not be permitted on the windshield or rear spoiler.
- (7) Decals, advertising logos, text, or identification of sponsors, other than the car number, will not be permitted on the door of the car from the front edge of the door to the front edge of the "B" post.
- (8) The Series sponsors decals "VP Racing Fuels" "Hoosier" must be displayed in the contingency location and may be displayed and centered on the front edge of the roof.
- (9) A yellow stripe must be displayed on the vertical portion of the rear bumper of any car driven by a rookie driver as determined by Race of Champions Officials.

# 8.0 Suspension

## 1. Suspension

a.) All suspension systems and components must be approved by Race of Champions Officials. Prior to being used in competition, all suspension systems and components must be submitted, in a completed form/assembly, to Race of Champions Officials for consideration of approval and approved by the Race of Champions. Each such part may thereafter be used until the Race of Champions determines that such part is no longer eligible. All suspension fasteners and mounting hardware must be made of solid magnetic steel.

### 2. Coil Springs

a.) All downward chassis movement while the race car is in competition must be limited only by the normal increasing stiffness of the springs or the bottoming of the chassis against the race track, whichever occurs first. Intentional mechanical binding of any type will not be permitted. Any device or procedure that in the judgment of Race of Champions Officials attempts to detract from or compromise the above will not be permitted. Only coil spring suspension will be permitted. All coil springs must be constructed using round magnetic steel wire, wound in a clockwise direction. Ovate and flat wire will not be permitted. The coil spring wire diameter must be the same size from the top to the bottom of the springs. All of the coils in a spring must be active. The coil springs at all four (4)

wheels must be active and permit suspension movement. All coil springs must not be colder than ambient temperature.

- b.) Coil Over Front Springs
  - (1) Coil over springs must mount to the lower A-frames.
  - (2) Strut bars will not be permitted for mounting of coil over front springs.
  - (3) Coil over springs must be heavy-duty magnetic steel and must be constructed with both coil ends closed and ground.
  - (4) Only one (1) spring per wheel will be permitted.
  - (5) Coil springs may be coated but coating thickness and material must be acceptable to Race of Champions Officials.
  - (6) Unless otherwise authorized by the Race of Champions Officials, coil spring rubber inserts will not be permitted for qualifying or prior to the start of the Race. After the completion of one (1) green flag lap in a Race, one (1) coil spring rubber insert, not to exceed one (1) full coil of the front coil spring, acceptable to Race of Champions Officials, will be permitted.
  - (7) Progressive or digressive rate springs will not be permitted.
- c.) Coil Over Rear Springs
  - (1) The rear spring position may be changed, but both rear springs must be located either inside or outside of the frame rails.
  - (2) Coil over springs must be heavy-duty magnetic steel and must be constructed with both coil ends closed and ground.
  - (3) Only one (1) spring per wheel will be permitted.
  - (4) Coil spring rubber inserts not to exceed two (2) full coils of the rear coil spring at any time, acceptable to Race of Champions Officials, will be permitted. The smallest allowable spring inserts will be 1/2 of a full coil.
  - (5) Progressive or digressive rate springs will not be permitted.

d.) All coil over springs and shocks must remain visible at all times. Covering of the coil over springs and shocks will not be permitted.

### 3. Sway Bars (Anti-Roll Bars)

- a.) Front sway bar(s), when used, must be for the purpose anti-roll only. The front sway bars must freely rotate in their mounts. The movement of the front sway bar arms must not be prevented or restricted beyond that of normal use as an anti-roll bar.
- b.) Only magnetic steel front sway bars will be permitted.
- c.) Rear sway bars (anti-roll bars) will not be permitted.

### 4. Shock Absorbers

- a.) Coil over shock absorbers may be used. Shock absorbers and coil over shock and spring, by visual reference, must remain within the outline of the body and no holes can be cut in the outer body for the mounting of shocks.
- b.) Shock absorbers must provide a resultant force dependent upon piston velocity and must be acceptable to Race of Champions Officials. Shock absorbers and components must be acceptable to Race of Champions Officials. Shock absorbers and components must be used as supplied by a manufacturer and approved by the Race of Champions. Shock absorbers and components must be available to all Competitors and must meet the following minimum requirements:
  - (1) Shock absorbers must be either a mono-tube or twin-tube telescoping type. Mono-tube shock absorbers must be of the nitrogen-gas pressurized, deflective disc valve type with an integral gas reservoir and with steel deflective disc valve shims sealing the primary metering faces of the single piston in the main shock body. Shock absorber bodies must be made of aluminum or magnetic steel. If the shock absorber is of the twintube type then it must use a maximum 1.375 inch diameter piston with compression bypass valves that are the coil-spring loaded disc type or the coil-spring loaded spool or poppet valve type and a compression head (may also be called foot valve or head valve). The twin-tube shock absorber may use a gas cell located between the tubes. An external gas reservoir will not be permitted. Inertial valves will not be permitted. Twin-tube shock absorbers and internal components must remain as produced by the manufacturer, approved by the Race of Champions and as displayed on the approved component shock board and as such, are not considered to be interchangeable and will not be permitted to be modified by the Competitor.
  - (2) Mono-tube shock absorbers must meet the following dimensions: Overall Length (Extended) 23.60 Inches Maximum (center to center) Piston/Shock Body Outside Diameter 2.16 Inches Maximum Piston/Shock Body Length 10.00 Inches Maximum Gas

Reservoir Outside Diameter 2.60 Inches Maximum Gas Reservoir Length 3.80 Inches Maximum Shock Shaft Diameter 0.500 Inches Minimum and 0.630 Inches Maximum NOTE: The internal bore of the shock absorber body must remain as supplied by the manufacturer. The internal bore diameter of the shock absorber body must be the same from top to bottom. Tapers, steps, grooves and other misalignments will not be permitted. Modifications which provide position sensitive piston travel will not be permitted.

- (3) Changes in shock absorber force must not be made by the position of the shock absorber shaft, only by the velocity of the shaft through the compression and rebound stroke. Only one (1) piston per shock with one (1) shim stack on compression side and one (1) shim stack on the rebound side of piston, will be permitted.
- (4) Only a single, manual, external shaft bleed adjustment through a tapered needle into a fixed orifice in the hollow shaft, acceptable to Race of Champions Officials, will be permitted on the shock absorbers of the mono-tube type.
- (5) Only a single manual external adjustment, with an adjusting pin (allen head screw) tapered to regulate bleed and pressure of the spring on the valve will be permitted on the shock absorbers of the twin tube type.
- (6) The shock absorber shaft must not have any sleeves or spacers that could limit the travel of the shaft into or out of the main body.
- c.) Shock absorbers and internal components are subject to inspections.
- d.) Race of Champions Officials may use a shock absorber provided by the respective manufacturer as a guide in determining whether a Competitor's shock absorber conforms to the specifications in the Rule Book.
- e.) A maximum of one (1) shock absorber per wheel will be permitted.
- f.) Quick disconnect shock mounts will not be permitted. The shocks must be attached with nuts and bolts.
- g.) External shock absorber reservoirs will not be permitted.
- h.) Remote or electronically controlled shock absorbers will not be permitted.
- i.) Heating pads and/or blankets will not be permitted for warming the shock absorbers.
- j.) Air scoops, covers or any aerodynamic devices on or around the front shock absorbers will not be permitted.
- k.) All coil over springs and shocks must remain visible at all times. Covering of the coil over springs and shocks will not be permitted.
- I.) It is the responsibility of the crew chief, not the Race of Champions, to ensure the shock absorbers are used in accordance with the manufacturer's instructions and specifications.

# 5. A-Frames

- a.) The upper A-frames, lower A-frames and ball joints must be acceptable to Race of Champions Officials and meet the following minimum requirements.
- b.) All A-frames must be made of magnetic steel.
- c.) The ball joints must not have any adjustment with the exception of a free play adjustment in the housing for the ball and socket.
- d.) When attaching the upper A-frames to the mounting plate, only standard type castor-camber shims or washers will be permitted.

## 6. Spindles / Wheel Bearings / Hubs

- a.) The spindles, wheel bearings, and hubs must be acceptable to Race of Champions Officials and meet the following minimum requirements:
- b.) Heavy-duty magnetic steel spindles must be used.
- c.) The front spindles should be equipped with two (2) tether attachment brackets mounted on the front of the spindle as shown and described in Diagram (#15) in the rear pages of the NASCAR Rule Book. A single tether is required for competition in any Race of Champions event. The tether attachment brackets must be 3/16 inch thick magnetic steel and be completely welded to the spindle tower and spindle steering arm. The tether attachment brackets must have a 1/2 inch minimum diameter mounting hole and use a 1/2 inch minimum diameter bolt for the attachment of the front spindle tethers. The mounting holes must have a minimum of 3/4 inch of metal from the center of the mounting bolt to the edge of the bracket.
- d.) Wheel bearings must be magnetic steel, tapered roller bearings and bearing races. The bearings, races and seals must be assembled separately in the hubs.
- e.) Aluminum or magnetic steel hubs will be permitted. Only standard type wide five hubs using an inner bearing race with a maximum inside dimension of 1.995 inches and an outer bearing with a maximum inside dimension of 1.885 inches will be permitted. This does not apply to the 5 X 5

design steel hub designs. All hubs must use a moly type grease. Hubs that require oil as a lubricant will not be permitted.

- f.) A single tether on the front spindle linked to the frame must be used.
- g.) The front spindles should be linked to the frame using two (2) Vectran® HS V-12 fiber cables on both the left side and right side. The fiber cables must be attached around the frame rearward of the upper A-frame mounts and forward of the front sub-frame bars (#16 A&B) using a choker-type hitch. The fiber cables should be attached to the tether attachment brackets mounted on the front spindles as described in 12-5B using a 1/2 inch minimum diameter magnetic steel bolt. The fiber cables must be constructed from a continuous loop of 5/16 inch diameter 12 strand cable (with a red tracer thread) woven from Vectran® HS V-12 fiber. The fiber cables should have the dated sleeve attached to the center of the continuous loop. The fiber cables must be from the approved manufacturer listed below:

## MANUFACTURER PART NUMBER

Amick Industries MD-103R2

The fiber cables and components (including expiration date and part number) must be in good quality condition and must remain as manufactured. The fiber cables must not be used past their expiration date which is three (3) years after the date of manufacture.

## 7. Tread Width Requirements

- a.) All cars must maintain the following tread width requirements. A minimum front and rear tread width of 82 inches and a maximum tread width of 83-3/4 inches will be permitted. The tread width will be determined by measuring the left outside wheel bead surface to the right outside wheel bead surface at spindle height.
- b.) Aluminum or steel spacers will be permitted to utilize the maximum allowable tread width.

## 8. Wheelbase Requirements

- a.) On either side of the car the minimum wheelbase that will be permitted is 106 inches and the maximum wheelbase that will be permitted is 108 inches.
- b.) When measuring the wheelbase, the maximum allowable difference must not exceed one (1) inch plus or minus (+/-) on the opposite side. Any device or procedure which has the ability to dynamically change the wheelbase beyond normal travel parameters will not be permitted.

## 9. Body Height / Ground Clearance Requirements

**Body Height Requirements** 

- a.) Body height will be determined by measuring (with the driver) the overall height of the car six (6) inches back from the leading edge of the roof at the roof centerline. The minimum height must be 40 inches. The rear of the roof at the highest point must not be more than 3-1/4 inches higher than the actual front measurement.
- b.) Competitors presenting cars for inspection must have their tires inflated to the recommended technical inspection air pressure as specified by the participating tire manufacturer for the Event. If tire pressure(s) are not at the recommended technical inspection pressure(s) after competition, tires will be reinflated to the recommended technical inspection pressure(s) as specified by the participating tire manufacturer for the Event.

## **Ground Clearance Requirements**

a.) The frame rail and sheet metal ground clearance will be a minimum of two (2) inches. All ground clearance requirements will be measured with the driver in the car.

## 10. Car Height Adjustment / Handling Devices

- a.) The only device permitted for adjusting the height of a car will be the front and rear coil over spring units as described in sub-section m.8.2. Adjustments will be permitted during an Event but must be done in a manner that results in the car maintaining body height requirements, as described in sub-section m.8.9.
- b.) Any device(s) for adjusting the handling characteristics or the car's height, which can be activated by the driver, will not be permitted inside of the driver's compartment.
- c.) Electrical, pneumatic, hydraulic, remote control, or any other devices, which change the handling characteristics or height of the car, will not be permitted.
- d.) Devices and/or procedures to, or used to, reduce or hold the car lower than the normal stiffness of the springs will not be permitted.
- e.) Car height adjustments will not be permitted on the left front suspension during a Race unless approved by Race of Champions Officials.

## 11. Steering Components

- a.) All steering components must be approved by the Race of Champions. Prior to being used in competition, all major steering components must be submitted, in a completed form/assembly, to the Race of Champions Officials for consideration of approval and approved by the Race of Champions. Each such part may thereafter be used until Race of Champions determines that such part is no longer eligible.
- b.) Rack and pinion steering will be permitted.
- c.) All cars must be equipped with a magnetic steel steering shaft.
- d.) Tie rods, drag links and steering component parts must be heavy-duty. Holes and/or other modifications in steering components that, in the judgment of Race of Champions Officials, have been made with the intent of weight reduction, will not be permitted.
- e.) The center top of the steering post must be padded with at least two (2) inches of resilient material acceptable to Race of Champions Officials.
- f.) A quick-release steering wheel coupling with a magnetic steel housing acceptable to Race of Champions Officials must be used. The steering wheel coupling must meet the SFI 42.1 specification and display a valid SFI 42.1 label on the outside surface. The magnetic steel housing must not be covered with plastics or coatings.
- g.) The use of universal joints in the steering shaft must be acceptable to Race of Champions Officials. It is recommended that a minimum of two (2) universal joints be used forward of the firewall.
- h.) Steering wheels must have solid, magnetic steel spokes.
- i.) The power steering pressure pump must be mounted and driven off the front of the engine.

## 12. Brakes / Brake Cooling

a.) All brakes and brake cooling components must be approved by Race of Champions Officials. Prior to being used in competition, all brakes and brake cooling components must be submitted, in a completed form/assembly, to Race of Champions Officials for consideration of approval and approved by the Race of Champions. Each such part may thereafter be used until the Race of Champions determines that such part is no longer eligible. Holes and/or other modifications in the braking system or components that, in the judgment of Race of Champions Officials, have been made with the intent of weight reduction will not be permitted.

## 13. Brake Components

- a.) Only disc brakes with magnetic cast iron or cast steel round rotors will be permitted. Only metal brake calipers will be permitted.
- b.) Brakes must be operational on all four (4) wheels at all times. Valves of any type will not be permitted in the brake lines that will reduce or cut off the flow of brake fluid to a single wheel.
- c.) Inboard brakes will not be permitted.
- d.) Only one (1) brake caliper per wheel using only two (2) brake pads per caliper will be permitted. Front brake calipers must be mounted on the rear of the spindles on both the left side and right side. Brake calipers and mounting must be acceptable to Race of Champions Officials. Brake calipers must be from an approved manufacturer. Race of Champions Officials may use a brake caliper provided by the respective manufacturer as a guide in determining whether a Competitor's brake caliper conforms to the specifications of the Rule Book.
- e.) A maximum of six (6) pistons will be permitted in all brake calipers.
- f.) Brake pads must have a magnetic steel backing plate.
- g.) **Brake rotors must be used as manufactured.** Brake rotors must be acceptable to Race of Champions Officials.
- h.) Master cylinder(s) and reservoir(s) should be mounted on the engine side of the front firewall. The master cylinder(s) must be metal and must be the pushpiston type. Only single-stage master cylinders will be permitted. Only one (1) bore size, per master cylinder, will be permitted. Pull type master cylinders will not be permitted.
- i.) Holes and/or other modifications in the brake pedal arm that, in the judgment of Race of Champions Officials, have been made with the intent of weight reduction will not be permitted.
- j.) Only mechanical, hand operated, cable driven brake bias adjustment systems will be permitted.
- k.) Inline brake proportioning systems will not be permitted.
- I.) Electronic wheel speed sensors or brake actuators will not be permitted.
- m.) Power assisted braking systems will not be permitted.
- n.) Quick disconnect fittings on the brake lines will not be permitted.
- o.) Brake pad retraction devices will not be permitted.

# 14. Brake Cooling

- a.) One (1) air duct per wheel may be used for brake cooling using a maximum three (3) inch diameter brake hose. All scoops must be acceptable to Race of Champions Officials. The maximum dimension of the front and rear brake air scoops will be three (3) inches by eight (8) inches. Front air scoops may be mounted to the outside of the front frame rails with the leading edge of the brake scoops not farther forward than the frame rail at the rear edge of the front bumper mount. Front air scoops may also be mounted to the sway bar arm or spindle. All brake scoops must be mounted vertical and must be operational. The rear brake air scoops mounted in the quarter panel or door must be painted the same color as the car. If the rear brake ducts are routed beneath the car, they must not be mounted lower than the bottom of the frame rail and must be mounted in a 1/2 inch by 1/2 inch angle frame. Only maximum three (3) inch brake blowers, one (1) per rear wheel, will be permitted. Brake scoops (NACA duct) mounted in the door or quarter panels must be flush with the outside of the body. A 1/2 inch air deflector may be attached to the rear brake scoops. If the brake scoops are not operational, they must be blocked off. Screens and air ducts, from the opening to the brakes, must be acceptable to Race of Champions Officials. b.) Only mechanical type brake fluid recirculating systems will be permitted. Motor driven brake fluid recirculators will not be permitted.
- fluid recirculators will not be permitted.
- c.) Liquid or gas cooling of the brakes will not be permitted.

#### 15. Rear Axle

- a.) The rear axle must be acceptable to Race of Champions Officials and meet the following requirements:
- b.) Only aluminum or magnesium quick change rear end center sections equipped with aluminum or magnesium side bells will be permitted. Quick change rear end center sections must have a minimum cross section height of 12 inches at the center of the rear axle with a side bell minimum diameter of 12 inches and magnetic steel spur gears on the back side.
- c.) For specified events as noted in the Competition Format Sheet a 9"-inch type rearend may be permitted with a specified Race of Champions Series point and weight penalty for any competition utilizing this rear end.
- d.) A 10"-inch or 8"-inch ring and pinion will be permitted. A specific size of the ring and pinion may be determined and issued in bulletin format.
- c.) Only a magnetic steel lower jackshaft and driveshaft yoke will be permitted in the quick change rear end center section.
- d.) Full floating magnetic steel double splined rear axles will be permitted for competition.
- e.) Only locked rear drive axle assemblies will be permitted at all times during an Event.
- f.) Only magnetic steel axle tubes will be permitted.
- g.) The distance, measured from the center of the rear end housing to the rear hubs, left and right, at the point the wheels bolt on, must be within three (3) inches in length.
- h.) The rear end must be mounted so that the inside edge of the left rear tire is even with or outside the outermost edge of the left side frame rail.
- i.) Heating pads and/or blankets will not be permitted for warming the rear end assembly.
- j.) Any method or transmission gear higher than 1.18:1 designed to override the gear rule will not be permitted. The only high gear transmission ratio permitted will be 1.00:1. A tire circumference and air pressure minimum limit may also be in effect.
- k.) Race of Champions Officials may, at its discretion, require that all cars compete with a final drive gear ratio specified by Race of Champions Officials for each Event.
- I.) For purposes of checking a pre-determined final drive gear ratio, when jacked up both rear wheels must rotate in the same direction with each traveling the same rotational distance.

# Race of Champions Asphalt Modified Gear Rule Chart for Reference ONLY (Track Size) 2020 For all tracks that are 1/2-mile and/or 5/8-mile in length the maximum gear ratio / gear rule will be 4:87 unless otherwise stated by Race of Champions Officials

Track Type 1/4 mile 3/8 mile 1/2 mile	Quick Change Only	Maximum 5.97 5.42 4.87	Minimum 5.60 5.11 4.60
5/8 mile		4.87	4.42
3/4 mile		4.34	4.42
1 mile		3.96	3.79

# 9.0 Roll Cage

#### 1. Roll Bars

a.) As a minimum, all cars are required to have the basic and typical roll cage configured as shown in the NASCAR Diagrams #11A, B & C. Unless otherwise specified below, all roll bars must be made from round magnetic steel seamless tubing 1-3/4 inches by 0.090 inch minimum wall thickness meeting the ASTM A-519 specification. Electric resistance welded tubing, aluminum and/or other soft metals will not be permitted. Roll bar joints and intersections must be welded according to the ASTM specification for the material being welded. A maximum of one (1), maximum 1/8 inch diameter hole may be drilled at each welded roll cage joint for the purpose of purging the tubes when welding. Once constructed and installed, the roll cage must be acceptable to Race of Champions Officials. Holes and/or other modifications that, in the judgment of Race of Champions Officials, were made with the intent of weight reduction will not be permitted. Modifications or alterations which detract from or compromise the integrity or effectiveness of any roll cage component will not be permitted.

## b.) Basic Roll Cage Structure:

- (1) The main roll bar (#1 in Diagrams #11A & B) must be a continuous length of tubing with one end welded to the top of the right frame rail and one end welded to the top of the left frame rail and with both rising to maintain a minimum clearance with the "B" posts and follow along the inner surface of the roof panel with a minimum clearance for the roof panel. The main roll bar (#1) may be tilted a maximum of 20 degrees rearward. The main roll bar (#1) must also be braced with one (1) diagonal bar (#5) and one (1) horizontal shoulder bar (#7). All bends in the main roll bar (#1) must be as symmetrical as minimum clearances permit.
- (2) The distance from the center of each of the front roll bar legs (#2 A & B) to the center of the main roll bar (#1) must not measure less than 39-1/2 inches. Each of the front roll bar legs (#2 A & B) must be constructed from a continuous length of tubing. One leg must be welded perpendicular to the top of the right frame rail and one leg welded perpendicular to the top of the left frame rail with both legs rising vertically a minimum of 21-1/4 inches before bending inward and rearward to maintain a minimum clearance with the "A" posts. Both legs must follow along the inner surface of each respective "A" post. The front roll bar legs (#2 A & B) must be welded to the roof bar (#3) near the upper corners of the windshield opening or extend rearward along the outer edge of the roof and be welded to the main roll bar (#1).
- (3) The roof bar (#3) which may be incorporated into the front roll bar legs (#2A & B) extends forward from the outer edges of the main roll bar (#1) with minimum clearance to the roof panel and remain parallel to the main frame rails. The roof bar must follow the contour of the windshield opening as it bends across the front and be within four (4) inches to the top of the windshield opening. The roof bar (#3) must extend from the edge of the roof on the left side across to the right side. The center to center width of the roof bar (#3) must be a minimum of 39 inches, and a minimum distance of 37-1/2 inches must be maintained from the center of the roof bar (#3) to the center of the main roll bar (#1). (4) The centerline roof bar (#4) must be a continuous length of tubing, extending from the main roll bar (#1) forward to the roof bar (#3) near the car's centerline or be a diagonal bar from the intersection of the main roll bar (#1) and the roof bar (#3) on the right side and extend to the intersection of the roof bar (#3) and the left front roll bar leg (#2A) on the left side. The center windshield bar (#4A) must extend forward from the roof bar (#3) near the car's centerline and bend downward and be welded to the dash panel bar (#8) near the car's centerline.
- (5) The main roll bar diagonal bar (#5), must form a straight line, with no bends and must begin near the upper left bend of the main roll bar (#1) behind the driver's head and after intersecting the horizontal shoulder bar (#7), it must be welded to the lower right side of the main roll bar (#1).
- (6) One (1) horizontal shoulder bar (#7) must be a continuous length of tubing and must be welded, with no bends, inside the vertical legs of the main roll bar (#1) at a minimum height of 15-1/2 inches above the main frame rails. An additional shoulder belt bar (#7B) must be a continuous length of tubing and may be added above the horizontal shoulder bar (#7) to facilitate shoulder harness mounting height. The shoulder belt bar (#7B) must be welded to the main roll bar (#1) and the main roll diagonal bar (#5) or it may be bent tube constructed of 1-3/4 inches by 0.090 minimum wall thickness steel, round tubing, meeting ASTM A-519 specification, welded at each end to the horizontal shoulder bar (#7) to form a loop above the horizontal shoulder bar (#7).

- (7) The dash panel bar (#8) must be a continuous length of tubing, with no bends, welded beneath the dash panel between the two (2) front roll barlegs (#2 A & B) at a minimum height of 15-1/2 inches above the main frame rail.
- (8) (a) The door bars (#9 A & B), on both the left and right sides, must have a minimum of four (4) bars equally spaced from top to bottom that must be welded horizontally between the vertical uprights of the main roll bar (#1) and the front roll bar legs (#2 A & B). The top door bar on each side must maintain a minimum vertical height of 15-1/2 inches from the top of the main frame rails to its centerline and match up with the intersection of the dash panel bar (#8) at the roll bar legs (#2A & B) at the front and the intersection of the horizontal shoulder bar (#7) at the main roll bar (#1) at the rear. All door bars must be convex in shape. The door bars (#9 A & B) must have a minimum of six (6) vertical supports per side with two (2) equally spaced between each door bar. These supports must be made from a minimum of 1-3/4 inches by 0.090 inch wall thickness magnetic steel seamless round tubing (not numbered but shown in the left side view of diagram #3). Right side door bars must cover a minimum of 25 inches of door length and may be either four (4) horizontal bars with six (6) vertical studs or two (2) horizontal bars and two (2) bars configured in an X design. If the X design is used, a vertical bar must connect through the center of the X from the top horizontal bar to the frame.
  - (b) A 13 gage (0.0897 inch thick) magnetic steel anti-intrusion plate(s) must be securely welded to the outside of the left side door bars. The anti-intrusion plate(s) must fill the area between the horizontal centerlines of the top and bottom door bars, and vertical centerlines of main roll bar (#1), and the left front roll bar leg (#2A). The plate(s) must be formed to match the curvature of the door bars. Plate(s) welded between the vertical upright bars should b as large as possible. All plate(s) must have the corners welded with one (1) inch of weld followed by a maximum of three (3) inches of surface not welded and followed again by a minimum one (1) inch weld. To facilitate emergency removal of the left side door bars (#9A), the anti-intrusion plate should have six (6), 2-1/8 inch diameter holes cut in the anti-intrusion plate, with three (3) holes forward of the front vertical supports and three (3) holes rearward of the rear vertical supports in the following locations: The upper two (2) holes must be centered vertically between the left side door bars (#9A-1&2), at an on-center distance of three (3) inches from the center of the front vertical support and the rear vertical support. The middle two (2) holes must be centered vertically between the left side door bars (#9A-2&3), at an on-center distance of three (3) inches from the center of the front vertical support and the rear vertical support. The lower two (2) holes must be centered vertically between the left side door bars (#9A-3&4), at an oncenter distance of three (3) inches from the center of the front vertical support and the rear vertical support (see Diagram #9A).
- (9) All cars must have a foot protection bar acceptable to the Race of Champions Officials installed on the left side of the roll cage. The foot protection bar must be located at or in front of the pedal assembly, when viewed from the side and above. The foot protection bar must be completely welded to the left front roll bar leg (#2A) and extend forward and be completely welded to the main frame rail or front sub-frame.
- (10) The vertical vent window bars (#10 A & B) must each be a continuous length of tubing welded from the upper surface of the top door bars on the right side and left side to the front roll bar legs (#2 A & B). The vertical vent window bars (#10 A & B) must be perpendicular to the top door bars (#9 A & B). A minimum of one (1) vertical bar must extend from the roof bar (#3) radiused outward and turn down to the top horizontal door bar (#9A) on the driver's side. The vertical bar must be a minimum 1-1/2 inch diameter by 0.090 inch wall thickness magnetic steel seamless round tubing and must be located in line with the driver and must not extend forward of the left side headrest/head surround assembly.
- (11) The two (2) angular supports (#11 A & B) must be welded to the top of the main frame rail and to the bottom surface of the bottom door bar on both the left and right side. (12) The rear support bars (#13 A & B) must be continuous lengths of tubing welded to the left and the right back side of the main roll bar (#1) near the roof panel at the top. They must extend to and be welded to the top of the rear sub-frame rail within one (1) inch of the rear edge of the fuel cell.
- (13) The two (2) front sub-frame bars (#16 A & B) must be a minimum 1-3/4 inch diameter by 0.083 inch wall thickness magnetic steel seamless round tubing. They must be welded

to the right side and the left side of the front roll bar legs (#2 A & B) at a minimum height of 15-1/2 inches. The front sub-frame bars (#16 A & B) must extend forward, turn down, and must be welded to the front sub-frame rails.

#### 3. Gussets

- (1) Gussets must be used at the intersection where the main roll bar (#1) and the front roll bar legs (#2 A & B) meet the main frame, and the gussets must be constructed using a minimum one (1) inch wide by two (2) inches high magnetic steel box tubing.
- (2) Gussets must be used at the intersection where the front roll bar legs (#2 A & B) intersect the roof bar (#3), and the gussets must be constructed from a minimum 0.095 inch minimum thickness triangular shaped magnetic steel flat plate measuring a minimum of 1-1/2 inches long on each side that is to be welded.
- (3) Gussets must be used at the intersection of main roll bar (#1) and the front roll bar legs (#2 A & B) with door bars (#9 A & B) and the gussets must be constructed from a minimum 0.095 inch minimum thickness triangular-shaped magnetic steel flat plate measuring a minimum of 1-1/2 inches long on each side that is to be welded.
- (4) Gussets must be used at the intersection of main roll bar (#1) and the rear support bars (#13 A & B), and the gussets must be constructed from a minimum 0.095 inch minimum thickness triangular-shaped magnetic steel flat plate measuring a minimum of 1-1/2 inches long on each side that is to be welded.

#### 4. Roll Bar Design

- a.) For the approved location of the various roll bars, please reference both the basic roll cage diagrams and the typical roll cage diagrams in the rear pages of the NASCAR Rule Book.
  b.) Modifications to the basic and typical roll cage design described above must be submitted in blueprint and/or computer aided design (CAD) files for acceptance to the office of the Race of Champions at least 60 days before the design can be entered in competition. If the Race of Champions accepts the modification as set forth in the submitted files the Competitor must submit for inspection a completed frame and roll cage at least 30 days prior to the date of intended competition. Acceptance of the submitted blueprint and/or computer aided design (CAD) files does not guarantee acceptance of the completed frame and roll cage design, and the Race of Champiosns may decide not to accept such design even if it is the same as the submitted files. If the Competition Administrator accepts the completed frame and roll cage, it may then be used in competition in the form accepted, unless and until the form is no longer approved by the Race of Champions.
- c.) All roll bars within the driver's reach must be covered with impact absorbent material manufactured to the SFI 45.1 specification and be acceptable to the Race of Champions Officials. Impact absorbent material used on roll bars should meet the SFI 45.1 specification and be imprinted on the outside surface with the SFI logo.
- d.) All references to the roll cage, roll bars, roll cage bars or the roll cage bar design specified in other sub-sections of the Rule Book must refer to sub-section this sub-section.
- h.) At the discretion of the Race of Champions Officials, additional material and/or tubing may be required to be welded to any car that does not conform to the January 1, 2020 roll cage or roll bar specifications as described in this sub-section.

## 10.0 Wheels

#### 1. Wheels

- a.) The wheels must be acceptable to Race of Champions Officials and meet the following requirements:
- b.) Only 15 inch diameter five (5) lug reinforced magnetic steel wheels with a maximum width of 15 inches will be permitted.
- c.) Any offset (backspacing) will be permitted.
- d.) Steel valve stem hardware recommended by the manufacturer must be used. Valve stem caps must be installed at all times during competition.
- e.) Only solid, one-piece, heavy-duty 5/8 inch magnetic steel lug bolts and standard one (1) inch hex, fully threaded, solid, one-piece magnetic steel lug nuts, tapered on at least one (1) side, will be permitted. The first thread on each lug bolt must be visible from the front of the lug nut when the lug nut is installed. The same style lug bolt must be used for practice, qualifying and the Race. Design modifications to the lug bolts will not be permitted.
- f.) Bead locks will not be permitted.

g.) Any device, modification or procedure to the tire, wheel or valve stem hardware, that in the judgment of Race of Champions Officials is used to release pressure (beyond normal pressure adjustments) from the tire and/or inner shield, will not be permitted.

#### 11.0 Tires

#### 1. Tires

a.) Only approved tires will be permitted. Approved tires are those tires that comply with the requirements of this rule and are recommended in writing, with prior notification to the Race of Champions by the Race of Champions-approved tire manufacturer for use by Competitors in the Event.

#### 2. Physical Requirments

- a.) All four (4) tires must be the same make and the same tread design.
- b.) Any approved tire will be permitted provided the tire does not exceed the maximum sidewall measurement of 16.45 inches at 20 pounds air pressure mounted on a 15 inch width rim.

## 3. Tire Manufacturer Obligations

- a.) The tire manufacturer must provide the Race of Champions with the following information in writing two (2) weeks prior to the date of the Event. (1) Tire identification markings for each tire must be unique to one (1) particular size, construction, and rubber compound combination.
- (2) The recommended position on the car for each tire being used in the Event.
- b.) The same tires must be made available to each Competitor.

#### 4. Tire Measurement Procedure

a.) A Race of Champions-approved measuring device will be used to determine the maximum size of the tire. Tires may be selected at each Event by Race of Champions Officials for measurements. Tires to be measured must be mounted on a 15 inch wheel of the proper rim width. Twenty pounds air pressure will be required for the measurements.

#### 5. Tire Usage Rules

- a.) All tires must be used in approved positions. Approved positions are those positions on the car recommended in writing with prior notification to the Race of Champions, by the Race of Champions-approved tire manufacturer for its tires used by Competitors in the Event.
- b.) Unless otherwise authorized by the Race of Champions, all tires to be used for practice or qualifying must be purchased and mounted at the Event from the Race of Champions-approved tire supplier.
- c.) Unless otherwise authorized by the Race of Champions Officials, at all tracks teams will be required to use sticker tires (new tires) for qualifying and/or group qualifying, purchased on the day of the event.
- d.) Immediately following a qualifying attempt, wheels and tires from all qualified cars may be impounded and/or marked by Race of Champions Officials. Unless otherwise authorized by Race of Champions Officials, all tires used in qualifying must be used for the start of the Race. The impounded tires will be returned when the cars are prepared for the Race. The tires must be replaced in the positions from which they were removed.
- e.) Unless otherwise authorized by Race of Champions Officials, Competitors will not be permitted to make tire changes prior to the completion of the first official green flag lap of the Race.
- f.) The Race of Champions Officials may approve the replacement of an impounded tire when recommended by the tire manufacturer's representative without a starting position penalty provided the replacement tire carries the same manufacturer identification number as the tire used for qualifying.
- g.) The Race of Champions-approved tire supplier may re-balance or re-mount tires under the supervision of Race of Champions Officials.
- h.) Tire or wheel warming, using heaters, blankets, micro-wave or any other method will not be permitted.
- i.) Should identification numbers or serial numbers be defaced on any previously approved tire, this tire will be ruled ineligible for competition.
- j.) Tires that, in the judgment of Race of Champions Officials, have been altered by unauthorized treatment will not be permitted.
- k.) Hand grooving, buffing, grinding, and/or cutting on any area of the racing tire will not be permitted.

I.) The Race of Champions Officials may establish a tire change rule for the particular Event being run. This rule shall be made known to all the Competitors at the Pre-Race driver's meeting. m.) Competitors presenting cars for inspection must have their tires inflated to the recommended technical inspection inflation pressures as specified by the participating tire manufacturer for the Event. If tire pressure(s) are not at the recommended technical inspection inflation pressures after competition, tires will be adjusted to the recommended technical inspection inflation pressures as specified by the participating tire manufacturer for the Event.

#### 12.0 Safety

- 1. Personal Safety Equipment
  - a.) General
    - (1) Each Competitor is solely responsible for the effectiveness of personal safety equipment used during an Event. The Race of Champions and/or Race of Champions Officials ARE NOT RESPONSIBLE FOR THE EFFECTIVENESS OF ANY PERSONAL SAFETY EQUIPMENT.
    - (2) Each Competitor is expected to investigate and educate himself/herself fully with respect to the availability and effectiveness of personal safety equipment. The Race of Champions may, from time to time, schedule information sessions with Competitors and safety experts. Each Competitor is expected to attend and participate in such sessions. Sessions may include training from the Motorsports Safety Education Foundation, Inc. (http://www.motorsportssafety.org/)

# b.) Protective Clothing

(1) IT IS THE RESPONSIBILITY OF THE DRIVER AND CREW MEMBER, NOT THE RACE OF CHAMPIONS, TO ENSURE THAT HE/SHE MAINTAINS, WEARS AND PROPERLY USES PROTECTIVE CLOTHING.

**DRIVERS** – Unless otherwise authorized, while on the track during the Event, Drivers should comply with the following:

_	se equired	Use Recommended	SFI Specification (minimum)	SFI Specification (recommended)	SFI Label Visibly Displayed
					Outside
Uniform	X		3.2A/5		Surface of
					Left Sleeve
Shoes	X		3.3		Χ
Gloves	X		3.3		Χ
Head Sock	S	X	3.3		Χ
Helmet Ski	rts	X	3.3		Χ
Underwear	•	X	3.3		
Socks		Χ	3.3		
Helmets	X Refe	r to Helmet Section			

**CREW MEMBERS** – During race conditions where servicing of the car is required, any crew member who steps into the car servicing area should comply with the following:

	Use Require	d	Use Recommended	SFI Specification (minimum)	SFI Specification (recommended)	SFI Label Visibly Displayed
Uniform		X		3.2A/1 3.2A/5		Outside Surface of Left Sleeve
Shoes		Χ		3.3		X
Gloves			X			Χ
Head So	cks		X			Χ
Helmet S	kirts		Χ			Χ
Underwe	ar		Χ	3.3		
Socks			Χ	3.3		
Helmets		X Refer	to Helmet Section			

**FUEL HANDLER (CREW MEMBER)** – During race conditions, any crew member involved in fueling the car or handling or transporting fuel in the garage or pit area should during racing conditions should comply with the following:

Use Requi	red	Use Recommended	SFI Specification (minimum)	SFI Specification (recommended)	SFI Label Visibly Displayed
Uniform	X		3.2A/5		Outside Surface of Left Sleeve
One-Piece					Outside
Uniform		Χ		3.2A/5	Surface of Left Sleeve
Shoes	Χ		3.3		Χ
Gloves		Χ			Χ
Apron	Χ		52.1		
Head Socks	Χ		3.3		Χ
Helmet Skirts	Χ		3.3		Χ
Underwear		Χ	3.3		
Socks Full Face		X	3.3		
Helmet with Covering Face Shield	X Refer	to Helmet Section			

## c.) Other Safety Devices

(1) Each car should have, within the driver's reach, a manually controlled push or pull knob which activates a built-in, fully charged fire extinguishing pressurized cylinder with a visible, operating pressure gauge. It is recommended that an automatic thermally activated discharge nozzle be used in addition to the manually controlled push or pull knob. This extinguisher system must meet the SFI 17.1 specification and display a valid SFI 17.1 label. This extinguisher should be certified by the manufacturer every two (2) years. An additional manufacturer's label with a visible date code must be located directly below the pressure gauge on the surface of the cylinder. This fire extinguisher cylinder must be securely mounted beyond the right side of the driver's seat, above the interior sheet metal on the horizontal shoulder bar (#7) or on the top right side door bar. Mounts must be secured to the horizontal shoulder bar (#7) or the top right side door bar and it must use a mounting system acceptable to the Race of Champions Officials which secures both ends of the cylinder for its full circumference and attaches securely to the roll cage structure of the car. Hose clamps, worm drive clamps or cable ties will not be permitted. A device(s) must be installed to keep the cylinder from sliding out of the mounting system. Clamp style or "figure eight" mounts must completely encircle the circumference of the 1-3/4 inch outside diameter of the roll bar. This cylinder must contain a minimum of five (5) pounds of fire extinguishing agent, visibly designated on the label as DuPont FE-36, 3M NOVEC 1230 or equivalent type agent. The primary purpose of this system is to protect the driver. Nozzle(s) must be designed for the extinguishing agent used and should not be pointed directly at the driver, but should be mounted to provide flooding of the driver's compartment to the manufacturer's recommendation. If engine compartment nozzle(s) are used with this cylinder, the fire extinguishing cylinder size must be increased to a minimum of 10 pounds of fire extinguishing agent, visibly designated on the label as DuPont FE-36, 3M NOVEC 1230 or equivalent type agent to be used for this system. All discharge lines and fittings must be steel or steel reinforced hose although nozzles may be aluminum. Cylinders for all agents must be DOT-approved steel or aluminum. Carbon fiber or composite cylinders will not be permitted. (2) It is recommended that each car have an additional fire extinguishing cylinder solely dedicated to extinguish the fuel cell area (trunk) and as an option, the same fire extinguishing cylinder may also be directed to the engine compartment area with the use of a T-type fitting and thermally activated discharge nozzles. This extinguisher must meet the SFI 17.1 specifications and display a valid SFI 17.1 label. This extinguisher should be certified by the manufacturer every two (2) years. An additional manufacturer's label with a visible date code must be located directly below the pressure gauge on the surface of the

cylinder. This cylinder must be mounted beyond the right side of the driver's seat above the interior sheet metal on the horizontal shoulder bar (#7) or the top right side door bar in the driver's compartment and it must use a mounting system acceptable to Race of Champions Officials which secures both ends of the cylinder for its full circumference and securely attaches to the roll cage structure of the car. Hose clamps, worm drive clamps or cable ties will not be permitted. A device(s) must be installed to keep the cylinder from sliding out of the mounting system. Clamp style or "figure eight" mounts must completely encircle the circumference of the 1-3/4 inch outside diameter of the roll bar. This cylinder must contain a minimum of 10 pounds of fire extinguishing agent, visibly designated on the label as DuPont FE-36, 3M NOVEC 1230 or equivalent type agent. This cylinder must be activated by an automatic, thermally activated discharge nozzle(s) recommended by the manufacturer for this application. This automatic system may have a manual and/or pneumatic override from the driver-activated system. If the engine compartment discharge option is used, then an additional automatic, thermally activated discharge nozzle must be located under the hood forward of the firewall. All discharge lines and fittings must be steel or steel reinforced hose although nozzles may be aluminum. When routing pressurized fire extinguisher lines (thermally activated) either to the trunk area or the engine compartment, the lines will only be permitted to pass through the firewall near the longitudinal centerline of the vehicle. All cylinders must have an indicator gauge and identifying label readily visible for inspection purposes. The gauge must be compatible with the agent used in the cylinder. Cylinders for all agents must be DOT-approved steel or aluminum. Carbon fiber or composite cylinders will not be permitted.

- (3) All entrants should have in their garage or pit area as part of their equipment, at all times, a fully charged minimum 10 pound Class B fire extinguisher with a visible, operating pressure gauge.
- (4). The use of portable pneumatic jacks (air jacks) will be permitted in the garage area only. When pneumatic jacks (air jacks) are used jack stands under the vehicle are required. At all times, when a vehicle is jacked up and crew member(s) go underneath the vehicle a jack stand(s) must be used.
- d.) Passengers will not be permitted in or on a race car at any time.

# 2. Helmets / Head and Neck Restraint Devices / Systems

a.) Helmets

(1) Drivers must wear a full-face helmet carrying at least one (1) of the following certifications:

FIA 8860-2010

FIA 8860-2018

Snell SA 2010

Snell SA 2015

Snell SA 2020

Snell SAH 2010

SFI 31.1/2005

Helmet certification (label) must be affixed to the helmet at all times. Helmets should be fitted with a Race of Champions-approved helmet removal system. The following systems are currently approved:

Eject™ Helmet Removal System

- (2) The driver must wear the helmet in accordance with the directions provided by the helmet supplier and/or manufacturer. Any modification to the helmet for any purpose should not detract from its effectiveness. Helmet surface protrusions such as visor tear-off posts should be removed.
- (3) During Race conditions, any crew member who steps into the car servicing area should wear a helmet.
- (4) During Race conditions, any crew member involved in fueling the car must wear a full face helmet with a covering face shield and a fire resistant head sock or helmet skirt. The head socks and/or helmet skirts must meet the SFI 3.3 specification and must visibly display a valid SFI 3.3 label. Helmets should be fitted with a Race of Champions-approved helmet removal system. The following systems are currently approved: Eiect™ Helmet Removal System
- (5) IT IS THE RESPONSIBILITY OF THE DRIVER/CREW MEMBER, NOT THE RACE OF CHAMPIONS, TO ENSURE THAT HIS/HER HELMET IS APPROVED, CORRECTLY WORN, MAINTAINED AND PROPERLY USED.
- b.) Head and Neck Restraint Devices/Systems

- (1) At all times during an Event (practice, qualifying and competition), drivers must connect their helmet to an approved head and neck restraint device/system which is SFI-approved and acceptable to the Race of Champions. The device/system must meet the SFI 38.1 specification and must display a valid SFI 38.1 label. The head and neck restraint device/system, when connected, must conform to the manufacturer's mounting instructions, and it must be configured, maintained and used in accordance with the manufacturer's instructions.
- (2) IT IS THE RESPONSIBILITY OF THE DRIVER, NOT THE RACE OF CHAMPIONS, TO ENSURE THAT HIS/HER DEVICE/SYSTEM IS RACE OF CHAMPIONS APPROVED, CORRECTLY INSTALLED, MAINTAINED AND PROPERLY USED.
- (3) The following are the SFI-approved Head and Neck Restraint Devices/Systems that are currently acceptable to be utilized in competition with the Race of Champions:

MANUFACTURER MODEL OPTIONS

HANS Professional Series Fixed or Sliding Tethers

HANS Extra/Economy Series Fixed or Sliding Tethers

HANS Pro Ultra Sliding Tethers

HANS Sport Series Fixed or Sliding Tethers

HANS Sport II Series Sliding Tethers

Simpson Hybrid Fixed Tethers (formerly Hutchens)

Simpson Hybrid Pro, carbon Fixed Tethers

c.) SFI 38.1-approved head and neck restraint devices/systems will remain approved for use in competition until their expiration date which is five (5) years after the date of manufacture. At this time, the head and neck restraint device/system must be returned to the manufacturer for inspection and re-certification.

#### 3. Seat Belts

- a.) Each car must be equipped with an SFI 16.5-approved, minimum 5-point seat belt restraint system that displays a valid SFI 16.5 label. It is recommened that a SFI 16.6 seat belt restraint system that displays a valid SFI 16.6 label be used. It is recommended that a 6-point (second antisubmarine belt) or 7-point (third anti-submarine belt) seat belt restraint system be used. The shoulder harness and lap belt assembly must not be more than three (3) inches (nominal) in width. The shoulder harness must not be less than two (2) inches wide (nominal) as it passes over the approved head and neck restraint system. Approved seat belt restraint systems must have a latching mechanism attached to the lap belt or, if a cam lock latching mechanism is used, it must be attached to the lap belt, the shoulder harness or the anti-submarine belts. This latching mechanism must provide a common connection and release for the lap belt, shoulder harnesses and the antisubmarine belts, and must be designed with a quick and easy one-handed, gloved release of all belts in all conditions. It must have one (1) of two (2) approved release designs:
  - (1) **Latch/Lever:** Utilizes a lever opening away from the body in a right to left hand movement, parallel to the lap belt with a complete release of all belts. The lever must have a provision to prevent an unintentional release.
  - (2) **Cam Lock**: A circular handle or raised surface that turns in both directions for a motion of not less than 30 degrees before completely releasing all belts. A downward facing tab or toggle may be used, provided that its length does not extend more than 1/2 inch beyond the outer diameter of the release mechanism unless a provision to prevent unintentional rotation or release is provided.
- b.) The seat belt restraint system must be installed in accordance with the directions provided by the system supplier and/or manufacturer. In addition, please note the following guidelines:
  - (1) Lap belts must be installed and used in such a manner that, when secured to the latching mechanism, the seat belt webbing travels in a straight, clear and free path from the belt mount through the seat opening to the latching mechanism. Lap belt mounts must be able to swivel without binding or interference. When a driver is buckled in the seat, the free end of the seat belt webbing must rest in a position clearly aligned over the seat belt webbing entering any adjustment or latch release hardware.
  - (2) On the left lap belt, if a roller adjuster is used, it must have tension springs installed and it must be attached to and be a part of the latch release mechanism directly without any webbing loop. The roller adjuster must not be attached to the lap belt mounting tab at the frame. A 3-bar slider, threaded to the manufacturer's instructions, may be used for the left lap belt length adjustment, in the absence of the roller adjuster. The 3-bar slider must be positioned outside the seat opening and as close to the mounting tab as possible. On the right lap belt, if a roller adjuster is used, it must have tension springs installed and the

adjuster may be located anywhere on the belt except at the frame mounting tab. A webbing link may be used to connect the roller adjuster to the latching mechanism or a 3-bar slider, threaded to the manufacturer's instructions, may be used for the right lap belt length adjustment, in the absence of the roller adjuster. The 3-bar slider must be positioned outside the seat opening and as close to the mounting tab as possible. Wraparound style lap belt mounts and clipon/hook/eyebolt style mounts will not be permitted; only tab style lap belt mounts secured with a nut and bolt will be permitted for aluminum seats. Race of Champions-approved composite material seats must use the lap belt mounts which are integral with the seat and must be of the same mount style as approved with the seat.

- (3) Shoulder belts must mount to horizontal shoulder bar (#7) or shoulder bar (#7B) only (as shown in the Diagram in the rear pages of the NASCAR Rule Book). If shoulder belt mounting brackets are used, the shoulder belt mounting brackets must not exceed three (3) inches in length and be a minimum 1-3/4 inches in width. The shoulder belt mounting brackets must be made of solid magnetic steel with a minimum thickness of 3/16 inch welded to the horizontal shoulder bar (#7) or shoulder belt bar (#7B). The shoulder belt mounting holes must have a minimum edge to-hole distance of 1/4 inch. If the shoulder belt bar (#7B) is used, and the center-to-center distance from the horizontal shoulder bar (#7) is more than four (4) inches, then the shoulder belts must mount directly to the shoulder belt bar (#7B) or to tabs welded directly to the shoulder belt bar (#7B). The opening in the seat for this type of belt must be either a single or double open slot with a finished inside edge or a grommet installed. Only individual shoulder harness belts will be permitted. Y-type shoulder harnesses will not be permitted. Wraparound shoulder harness mounts will be permitted provided the belts do not cross behind the driver and all wraparound mount style shoulder belts must be retained by a guide on horizontal shoulder belt bar (#7) or shoulder belt bar (#7B) to prevent lateral movement of the belt on the roll bar. Shoulder belts may cross behind the driver provided they use a tab-style mount and not a wrap-around mount. The seat opening for these crossed shoulder belts must be a single. open slot with a finished inside edge or grommet where the shoulder belts cross behind the driver. Each shoulder belt using a tab mount must use an individual mounting tab or steel sleeve welded through horizontal shoulder bar (#7) or shoulder belt bar (#7B) and be secured with a nut and bolt. Roller adjusters on the shoulder harnesses must have tension springs installed. Sternum or cross belts using metal or hard surface hardware will not be permitted.
- (4) Approved anti-submarine belts must be mounted to the seat frame or a steel reinforced seat bottom mount. Either wrap-around or tab-style anti-submarine belt mounts will be permitted and must be installed in accordance with the directions provided by the system supplier and/or manufacturer.
- c.) The manufacturer's label must not be located under the adjusting mechanism when the driver is buckled in the seat and has tightened the seat belts and shoulder harness. If the label is under the adjusting mechanism, the label must be removed and relocated in a manner that does not affect the integrity of the belt material. The date of manufacture must remain visible on the belts at all times. Seat belt restraint systems should not be used beyond two (2) years after their date of manufacture.
- d.) The driver must use the seat belt restraint system at all times on the race track, in accordance with the instructions and/or recommendations of the system supplier and/or manufacturer, as set forth above.
- e.) The SFI 16.5-approved seat belt restraint systems will remain approved for use in competition until their expiration date which is two (2) years after the date of manufacture. The seat belt restraint systems must be used as a complete restraint system. Brands may not be mixed. f.) IT IS THE RESPONSIBILITY OF THE DRIVER, NOT THE RACE OF CHAMPIONS, TO ENSURE THAT HIS/HER SEAT BELT RESTRAINT SYSTEM AND ALL COMPONENTS ARE SFI 16.5-APPROVED AND LABELED, CORRECTLY INSTALLED, MAINTAINED AND PROPERLY USED.

#### 4. Seats

a.) IT IS THE RESPONSIBILITY OF THE DRIVER, NOT THE RACE OF CHAMPIONS, TO ENSURE THAT HIS/HER SEAT, HEADREST/HEAD SURROUND ASSEMBLY AND ALL SEAT COMPONENTS ARE CORRECTLY INSTALLED, MAINTAINED AND PROPERLY USED.
b.) Each car should be equipped with an SFI 39.1 seat and headrest/head surround assembly displaying valid SFI 39.1 labels and be acceptable to Race of Champions Officials. Custommanufactured aluminum seats constructed from solid aluminum sheet material from the seat

bottom to above the driver's shoulders, acceptable to Race of Champions Officials, will be permitted. Race of Champions (SFI 39.1)-approved composite material seats will be permitted. Composite material seats and/or seats which incorporate lap and/or shoulder belt anchorages are subject to additional testing with documentation supplied to the Race of Champions. Each composite seat must have a unique, identifier that matches records on file with the Race of Champions. Seats constructed of multiple materials, including composite materials, must be 39.1approved and must be acceptable to the Race of Champions. The SFI 39.1-approved seat and headrest/surround assembly will remain approved for use in competition until their expiration date which is two (2) years after the date of manufacture. Once a seat and headrest/head surround assembly has reached the expiration date, the seat and headrest/head surround assembly must be inspected and recertified by the seat manufacturer. All seat interiors must be lined with inserts and/or padding. It is recommended that a minimum thickness of two (2) inches of SFI 45.2 insert/padding be used. It is recommended that the padding meet the SFI 45.2 specification and display a valid SFI 45.2 label. All non-SFI 45.2 insert/padding materials must be 1/2 inch thick or less. No gaps or non-SFI 45.2 specification approved material(s) may be present between the seat structure and driver's uniform in the area directly under the driver with the exception of standard seat cover upholstery (1/4 inch thick maximum) or flame retardant knit materials. The area directly under the driver extends from the driver's waist (belt line) forward to the front edge of the sub-strap pass through holes, or four (4) inches forward of the lap belt mount, whichever is greater, as well as extends five (5) inches to both the left and right of the driver's centerline. It is recommended, a minimum thickness of 3/4 inches of insert/padding meeting the SFI 45.2 specification be used in this area directly under the driver. The area directly under the driver is shown in Diagram #13, in the rear pages of the NASCAR Rule Book. A 3/8 inch diameter inspection through-hole must be located on the driver's centerline between the leading edge of the lap belt pass through holes as shown in Diagram #13, in the rear pages of the NASCAR Rule Book. All seat coverings and/or upholstery should be flame retardant.

- c.) Seats manufactured or recertified after January 1, 2014, should use the insert/padding meeting the SFI 45.2 specification and display a valid SFI 45.2 label. All non-SFI 45.2 insert/padding materials must be 1/2 inch thick or less. No gaps or non-SFI 45.2 specification approved material(s) may be present between the seat structure and driver's uniform in the area directly under the driver with the exception of standard seat cover upholstery (1/4 inch thick maximum) or flame retardant knit materials. A minimum thickness of 3/4 inches of insert padding meeting the SFI 45.2 specification should be used in this area directly under the driver. The area directly under the driver extends from the driver's waist (belt line) forward to the front edge of the sub-strap pass through holes or four (4) inches forward of the lap belt mount, whichever is greater, as well as extends five (5) inches to both the left and right of the driver's centerline. A minimum thickness of 3/4 inches of insert/padding meeting the SFI 45.2 specification must be used in this area directly under the driver. The area directly under the driver is shown in Diagram #13, in the rear pages of the NASCAR Rule Book. A 3/8 inch diameter inspection through-hole must be located on the driver's centerline between the leading edge of the lap belt pass through holes as shown in Diagram #13, in the rear pages of the NASCAR Rule Book. All seat coverings and/or upholstery should be flame retardant.
- d.) The seat and headrest/head surround assembly must be installed in accordance with the directions provided by the system supplier and/or manufacturer. SFI 39.1 seats and headrest/head surround assemblies must not be modified or altered. The back of the seat, at shoulder level, must be positioned as close to the horizontal shoulder bar (#7) as possible.
- e.) All seats should have padded seat leg extensions on the left side and right side. Leg extensions must be securely mounted to the seat and car structure. Leg extensions must be padded. It is recommended that the padding meet the SFI 45.2 specification and display a valid SFI 45.2 label. Composite material seat leg extensions should meet the SFI 56.1 specification for flammability. All leg extension coverings and/or upholstery should be flame retardant.
- f.) Headrests/head surround assemblies should be designed to provide rigid support around both sides of the helmet and across the back and to the forward most point of the helmet chin bar. Extra length on the head surround must also account for forward head motion during an impact. The left side of the headrest/head surround assembly may be shortened to permit egress of the driver but must not be shortened to a location rearward of the helmet chin bar. Foam, tape or other nonoriginal coverings may not be added to the headrest without the approval of the seat manufacturer and must be acceptable to Race of Champions Officials. The headrest/head surround assembly must be rigidly bolted to the top of the seat using a minimum of 5/16 inch diameter bolts, except for the Race of Champions-accepted composite seats. Steel brackets welded to the roll cage must be a minimum of 1/8 inch thick and aluminum brackets welded to the headrest/head surround assembly should be a minimum of 3/16 inch thick. All bolts must have a minimum of 3/4

inch of metal from the center of the mounting bolt to the edge of the bracket. In addition, it is recommended that the headrest/surround assembly be bolted to the shoulder supports with a minimum 3/16 inch thick brackets and a minimum 5/16 inch diameter bolts. The headrest/head surround assembly must not extend into the window opening beyond the area defined by the upper roll cage. All headrests must be fabricated in a rigid construction and of materials which provide adequate support in an impact.

- g.) All headrest/head surround assembly on both the left side and right side should be padded with flat impact absorbent material, a minimum of 2-1/2 inches thick, meeting the SFI 45.2 specification and display a valid SFI 45.2 label. On all headrest/head surround assemblies the area between the side of the driver's helmet and the flat impact absorbent material must not be more than  $\frac{1}{2}$  inch on both the left side and right side.
- h.) Optional strap-type headrest supports or nets must be equipped with a quick release fastener accessible by the driver.
- i.) The upper seat back must be secured to horizontal shoulder bar (#7) or to a bracket that is secured to horizontal shoulder bar (#7) with a minimum of three (3) high quality 5/16 inch minimum diameter bolts through the horizontal shoulder bar (#7). For aluminum seats, if a seat bracket is used to attach the seat to the horizontal shoulder bar (#7), the bracket must be constructed using a minimum of 3/16 inch thick metal plate and it must have a minimum of 3/4 inch of metal from the center of the mounting bolt to the edge of the bracket or the bracket may utilize the composite seat bracket design. For composite seats, the seat bracket must attach the seat to the horizontal shoulder bar (#7) and must be constructed from magnetic steel.

Minimum upper seat bracket thicknesses:

Hendrick: 0.090 inch Sabelt: 3/16 inch Spraco: 3/16 inch

The magnetic steel seat bracket to be used with a composite seat must be constructed according to the manufacturer's instructions, including all required gussets and reinforcements (see Diagrams # 12A & B, in the rear pages of the NASCAR Rule Book). All gussets must be solid and must run from the centerline of the seat mounting hole to the centerline of the roll cage mounting hole. The outer diagonal gusset edge must be straight unless the gusset is relieved to make room for the horizontal shoulder bar (#7). Holes and or other modifications that, in the judgment of Race of Champions Officials, were made with the intent of weight reduction will not be permitted. The seat bracket must be fastened to the seat with a minimum of four (4) high quality 5/16 inch minimum diameter bolts for composite seats.

j.) The seat bottom must be secured to the car's structure with a minimum of two (2) high quality 5/16 inch minimum diameter bolts per side. Seat mount brackets or slotted mounting systems welded to the seat frame must be a minimum of 1/4 inch thick. All mounting brackets must have a minimum of 1/2 inch of metal from the center of the mounting bolt to the edge of the bracket. All seat mounting brackets, welded to the frame rail, frame crossmembers, floors, roll bars, or removable seat mounting frame assemblies, must be made of a minimum 1/4 inch magnetic steel if single shear or a minimum of 3/16 inch if the double shear configuration is used. If a slotted mount is used to mount the seat to the seat frame, the seat must be bolted to the seat frame bracket using an additional bolt to prevent sliding. When mounting through the aluminum seats or brackets large diameter washers must be used.

When an ABTS (All Belts To Seat) seat is used the seat must be secured to the vehicle's frame/roll cage assembly with a tubular seat frame which includes the seat mounting brackets. The tubular set frame must be constructed from ASTM A513 type 5 round magnetic steel tubing with a 1-1/4 inch outside diameter and a 0.115 inch minimum wall thickness. The tubular seat frame must be secured at each end in a double shear configuration or must be welded at each end. If welded, a gusset must be used at each end. If using tubular seat frame mounting brackets, the tubular seat frame must have welded bungs with a 3/8 inch inside diameter installed. The welded bung must use a 3/8 inch magnetic steel hex head bolt or the welded bung may be threaded the entire length and welded around the entire circumference. A 5/8 inch maximum diameter through hole may be used on main frame assembly to locate weld bung. If tubular seat frame mounting brackets are used the mounting brackets must solid magnetic steel with a minimum thickness of 3/16 inch and a minimum bottom width of 1-1/4 inch. The seat frame mounting brackets must be completely welded to the main frame assembly and/or the horizontal tunnel bar (#6). Each mounting bracket must have a 3/8 inch seat frame mounting hole to attach the seat frame to the bracket. Slots will not be permitted in the seat frame mounting hole. The mounting hole must not be higher than 2-1/2 inches from the lower edge of the mounting bracket. The mounting bracket must have a minimum of 5/16 inch of metal from the edge of the mounting bolt to the outer edge of the bracket. All seat mounting

frame configurations and specifications are shown in diagrams #12C and 12D in the rear pages of the Rule Book.

When an ABTS (All Belts To Seat) seat is used the seat must be secured to the vehicle's tubular seat frame assembly and horizontal shoulder bar (#7). An approved upper seat mounting bracket shown in diagram 12A in the rear pages of the Rule Book must be used. All upper seat brackets must be a minimum thickness of 0.090 inch. The upper seat bracket must be secured to the seat with a minimum of three (3) high quality 5/16 inch minimum magnetic steel bolts. The upper seat bracket must be secured to the horizontal shoulder bar (#7) with a minimum of three (3) high quality 5/16 inch minimum magnetic steel hex head bolts through the horizontal shoulder bar (#7). The seat bottom must be secured to the seat mounting brackets with a high quality 5/16 inch minimum magnetic steel hex head bolt two (2) per side using the seat manufacturer's designated mounting locations. The seat mounting brackets must be completely welded to the tubular seat frame. The seat bottom mounting brackets must be solid magnetic steel with a minimum thickness of 1/4 inch. The seat mounting bracket must have a minimum width of 1-1/2 inch or a maximum width of 2-1/2 inches at the bottom. The seat mounting bracket must have a 5/16 inch minimum mounting hole to attach the seat to the bracket. Slots will not be permitted in the seat mounting hole. The mounting hole must not be higher than four (4) inches from the lower edge of the mounting bracket. The mounting bracket must have a minimum of 5/16 inch of metal from the edge of the mounting bolt to the outer edge of the bracket. Seat mounting bracket configurations and specifications are shown in diagram 12D in the rear pages of the Rule Book.

k.) The seat shoulder support angle should not exceed 25 degrees from vertical when measured where the driver's shoulder contacts the seat with the seat installed in the car. Additional angle may be added to the bottom of the shoulder support for driver arm clearance, if necessary. The interior shoulder support surface should be positioned perpendicular to the seat back in a plan view. I.) Rib/chest support structures, if used, should not interfere with the natural ingress and egress of the driver from the seat. Rib/chest support structures, if used, should provide full coverage from the seat back to the front of the driver's chest. Partial rib/chest supports constructed of foam, meeting the SFI 45.2 specification, will be permitted. Rib/chest support structures should not continue forward past the front of the driver's chest and should not curve or wrap around the front of the driver's chest. Rib/chest support foam, meeting the SFI 45.2 specification will be permitted to curve or wrap around the front of the driver's chest.

#### 5. Window Net

- a.) A window net meeting the SFI 27.1 specification and displaying a valid SFI 27.1 label should be installed in the left side door window opening. The window net should not be used beyond two (2) years from the date of manufacture.
- b.) The window net must be a rib-type construction made from minimum 3/4 inch, maximum one (1) inch wide material, with a minimum one (1) inch square opening between the ribs. The minimum window screen size must be 22 inches wide by 16 inches high.
- c.) All window net mounts must be welded directly to the roll cage and must not attach to the door top or body exterior sheet metal. All window net mounts must be a minimum 1/2 inch diameter solid magnetic steel rod or a minimum one (1) inch wide by 1/8 inch thick flat magnetic steel and must be acceptable to Race of Champions Officials. The lower window net mounting bar must not extend above the door top.
- d.) The window net, when in the closed position, must fit tightly and be secured with a lever-type quick release latch acceptable to Race of Champions Officials. The lever must be secured by a detent ball in the lever and may be supplemented by a Velcro®, fastener only, pins or clips will not be permitted. The latch must be mounted at the top in the front to the roof bar (#3) or at the top of front roll bar leg (#2A) near roof bar (#3). The forward edge of the window screen, when in the closed position, must be in line with or forward of the steering wheel.

## 13.0 Other

### 1. Accessories

a.) Except as provided below, cars and drivers will not be permitted to carry onboard computers, automated electronic recording devices, electronically actuated devices, smartphones/cell phones, smart watches, watches, micro-processors, recording devices, filming devices, electronic digital memory chips, traction control devices, digital readout gauges and the like, even if inoperable or incomplete. Competitors will not be permitted

to have or have had on his/her person or in his/her possession or in his/her car a device(s) at an Event designed specifically to enhance the traction capabilities of the car, even if inoperable or incomplete.

- b.) For broadcasting and media-related purposes, the Race of Champions may permit or require selected cars to compete with broadcast telemetry or other positioning and informational systems. Unless otherwise authorized or required by the Race of Champions, the broadcast telemetry signal from these systems will be limited to the following parameters:
  - (1) RPM (inductive pickup on the secondary wire only).
  - (2) Transmission gear selection.
  - (3) MPH (taken from sensors on the driveshaft or rear wheel only).
  - (4) Brake pedal application.
  - (5) Throttle position indicator (must not be attached to the carburetor).
  - (6) Camera positioning and video switching.
  - (7) All camera locations and styles must be acceptable to the Race of Champions.
  - (8) Upon request of the Race of Champions Officials, Competitors must install the required camera(s) and broadcast system(s) in a manner and location acceptable to Race of Champions Officials.
- c.) The Race of Champions may require cars to carry the Race of Champions-approved on-board impact accelerometers mounted in a standard location and manner approved by the Race of Champions. It is recommended that the mounting bracket be installed in the car. The mounting bracket must be welded to the floor near the left side frame rail at the forward edge of the front of the seat and must be parallel with the bottom of the seat with the arrow on the bracket pointing forward. The Race of Champions shall own any and all data generated and/or collected by such accelerometers and shall control the use and dissemination of such data.
- d.) One (1) Race of Champions approved timing and scoring transponder mounting bracket must be installed. Two (2) Race of Champions-approved timing and scoring transponder mounting brackets may be installed. One (1) on the left and one (1) on the right side rear frame rail, 150 inches rearward of the leading edge of the front bumper to the front edge of the transponder bracket, mounted vertically with square tab on the bottom, not higher than the bottom of the frame, unless otherwise authorized by the Race of Champions. The bracket will be fastened to the frame with 3/16 inch diameter small head pop rivets (from the outside) through the holes in the center of the bracket. When approved weight containers interfere, the transponder bracket must be welded to the outside vertical surface of the weight container.
- e.) The Race of Champions may require cars to carry approved on-board data loggers equipped with designated sensors mounted in a standard location and manner approved by the Race of Champions. The Race of Champions shall own any and all data generatedand/or collected by such data loggers and shall control the use and dissemination of such data. All Competitors must cooperate with Race of Champions Officials with the installation and operation of such data logging systems.
- f.) Unapproved remote lap timing or speed sensing devices will not be permitted.
- g.) All electrical wiring harnesses, switches, and connectors must be acceptable to Race of Champions Officials. All wiring must be point-to-point and each wiring connection must be easily traceable and removable from the car for inspection purposes.
- h.) Competitor's use of filming and recording devices will be limited to internal review of pit stops only and not for promotion, resale or other commercial exploitation without the Race of Champion's prior, written approval. Filming or recording device(s) will not be permitted on board the race car at any time unless previously approved by the Race of Champions.
- i.) Electronic oil, water and fuel pressure gauges and oil and water temperature gauges must be approved by the Race of Champions and they must be completely independent of the ignition system. All gauge sending units and sensors must be located forward of the front firewall.
- j.) Gauges used in competition, including but not limited to tachometer, oil pressure gauge, oil temperature gauge, water temperature gauge and voltmeter, must be installed and functional at all times during competition. Ignition and accessory switches and interrupter system components must be installed at all times during competition.
- k.) All electrical outlets used to connect the remote generator to the car must be in a location acceptable to Race of Champions Officials.
- I.) Any devices which are intended as a driver aid and/or driver control to enhance the handling of the vehicle during competition will not be permitted.
- m.) Water bottles must not be in the car during qualifying. Hydration systems, when used, must be installed in the same location for qualifying and the Race. The containers must be securely mounted to the chassis in a manner acceptable to Race of Champions Officials.

#### 2. In-Car Radio Communications

- a.) The in-car radio must be analog only and must not be capable of transmitting or receiving in a digitized, encrypted or scrambled format as determined by the Race of Champions. Keypad style and/or password protected radios will not be permitted. Only scanning of the one-way frequency 454.000 will be permitted. Scanning and/or channel hopping transmissions to or from the in-car radio will not be permitted other than the one-way frequency of 454.000. All transmissions to and from the in-car radio must be in the 450.000MHz-470.000MHz range, and all in-car radio transmitting and receiving frequencies including squelch codes should be registered annually in a Radio Data Base. All frequency changes must be updated prior to being used during an Event and confirmed by the Race of Champion's Official Radio Supplier. The in-car radio is not permitted to transmit or receive any type of telemetry (data) signal or information other than audio communications and must remain independent from any electronic system in the car. Teams will not be permitted to rebroadcast transmissions to or from the in-car radio at any time during an Event. It is strongly recommended that all in-car radio frequencies be licensed for use by the Federal Communications Commission (FCC) and meet all applicable regulations and guidelines. b.) Only one (1) Race of Champions-approved, two-way radio and one (1) radio push to talk button will be permitted. It is not permitted to have any frequency of any Competitor installed in the radio at any time The car is permitted only one (1), approved radio wiring harness system. c.) Other than antennas that are approved for broadcasting and media related purposes only, a single, Race of Champions-approved, radio antenna will be permitted inside the car or on the roof. It is suggested that radio antennas should not be mounted on the roof panel.
- d.) At all times during practice(s), qualifying and the Race the spotter must have radio communications with the driver and must monitor the Race of Champions frequency and the one-way driver radio frequency of 454.000. Spotters must be in the designated spotter location at all times during competition. The radio frequency being used will be made available by the Race of Champions Officials.
- e.) A one-way driver radio is mandatory utilizing the frequency 454.000MHz. From time-to-time that frequency may be adjusted at specific events. The radio frequency being used will be made available prior to the event by Race of Champions Officials. It is mandatory that the spotter monitor (scan) the one-way driver radio frequency for official communication.
- f.) Driver to driver radio communications will not be permitted.

## 14.0 Series Decal and Patches

- 1. Series Decals and Patches
  - a.) There will be mandatory decals to be displayed on all cars entering into competition at all times as designated on the competition format sheet. Failure to display decals may result in a penalty as referenced in sub section K of the Race of Champions rule book.
  - b.) There will be mandatory patches to be displayed on all drivers uniforms entering into competition at all times as designated on the competition format sheet. Failure to display patches may result in a penalty as referenced in sub section K of the Race of Champions rule book.

# M.1.B Race of Champions Asphalt Sportsman Modifieds

ANY CAR, TEAM AND/OR DRIVER THAT DOES NOT MEET THESE SPECIFICATIONS AND/OR EQUIPMENT REQUIREMENTS WILL BE SUBJECT TO PENALTIES AS DETERMINED BY THE Race of Champions OFFICIALS. <u>Any new components, including engine components, body designs, frame designs and/or components of any type utilized in competition must be approved by Race of Champions Officials prior to being introduced into competition.</u>

Any components for participants competing in Ontario, in events that may be held in accordance to rules other than Race of Champions Asphalt Sportsman Modified rules which are not defined by the following rules will be defined as pursuant to the 2021 Delaware Speedway and/or OSSCAR Rule Book.

Open to Race of Champions-approved automobile manufacturers provided they comply with, and adhere to specifications as outlined for this Series.

## NOTICE

ALL MODEL, ENGINE OR EQUIPMENT CHANGES OR MODIFICATIONS NOT SPECIFICALLY ADDRESSED IN THIS RULE BOOK BY RACE OF CHAMPIONS MUST BE SUBMITTED, IN A COMPLETED FORM/ASSEMBLY, TO RACE OF CHAMPIONS FOR CONSIDERATION OF APPROVAL ON OR PRIOR TO NOVEMBER 1, 2021 UNLESS OTHERWISE AUTHORIZED BY RACE OF CHAMPIONS, TO BE CONSIDERED FOR COMPETITION FOR THE 2022 SEASON. THE APPLICANT WILL BE NOTIFIED OF APPROVAL OR REJECTION FROM RACE OF CHAMPIONS. RACE EQUIPMENT WILL NOT BE CONSIDERED AS HAVING BEEN APPROVED BY REASON OF HAVING PASSED THROUGH INSPECTION AT ANY TIME OR ANY NUMBER OF TIMES UNOBSERVED OR UNDETECTED. ANY RACE EQUIPMENT WHICH DOES NOT CONFORM TO SPECIFICATIONS OR TOLERANCES CONTAINED IN THE RACE OF CHAMPIONS RULE BOOK, OR IS NOT OTHERWISE APPROVED BY RACE OF CHAMPIONS, MAY NOT BE USED IN COMPETITION IN 2021. ALL SUBMITTED RACE EQUIPMENT MUST BE ACCOMPANIED BY COMPUTER AIDED DESIGN (CAD) FILES AND/OR MECHANICAL DRAWINGS AND REQUISITE FEE AS DETERMINED BY RACE OF CHAMPIONS.

NOTE: Unless otherwise specified within Section M.1.B, the rules shall remain as published in section M.1.A. Only specified Race of Champions asphalt Sportsman Modified rules will appear in section M.1.B

## 1.0 Engines

## **General Engine Rules**

The following characteristics of the production engine must be maintained in any engine used in competition in a manner acceptable to Race of Champions Officials. All parts listed below must originate from approved production castings and forgings. All parts, except spark plugs, should utilize fractional English measurement system fasteners and dimensions (non-metric).

ENGINE BLOCK:

Material

**Number of Cylinders** 

Angle of Cylinders

Cylinder Bore Centerline Spacing

Number of Main Bearings and Type

Number of Camshaft Bearings and Type

Integral or Separate Cylinder Sleeves

Location of Camshaft

**Overall Configuration** 

## CYLINDER HEAD:

Material

Number of Valves per Cylinder

Type of Combustion Chamber

Location of Spark Plug

Orientation of Spark Plug

Arrangement of Valves

Valve Location in Relation to the Cylinder Bore

Angle of Valves

Type of Valve Actuation

Number of Intake Ports

Number of Exhaust Ports

Center Distances of Intake Ports Referenced to the Cylinder Bore

Center Distances of Exhaust Ports Referenced to the Cylinder Bore

Angle of Port Face Relative to Mating Face of Head to Block

Firing Order

a.) Unless otherwise specified by the Race of Champions, the same long block engine assembly (engine block, crankshaft, camshaft, connecting rods, pistons, cylinder heads, and valves) must be used for the entire Event, including practice, qualifying and the Race. An engine must not be removed from a car without the approval of the Race of Champions Officials. The Race of Champions Officials may require any team that removes an engine to start at the rear of the field, providing the car earns a starting position in the Race. The engine may be removed from a back-up car, without a penalty, at the discretion of the Series Director as follows:

- (1) If a car is wrecked beyond repair in practice before qualifying and a back-up car is used, then an engine change may be permitted provided the change can be accomplished in a timely manner before qualifying.
- (2) If a car is wrecked beyond repair during qualifying and a back-up car is used, an engine change may be permitted, however, the engine change must be completed before the beginning of practice(s), if practice(s) is scheduled, that follow qualifying.
- (3) If a car is wrecked beyond repair after qualifying and a back-up car is used, then an engine change may be permitted without an additional penalty.
- (4) If a Competitor violates this Rule, in addition to imposition of a penalty pursuant to Section K, the Race of Champions may take such action during the Event as he deems appropriate, including but not limited to loss of practice time and/or loss of the opportunity to qualify and/or confiscation of the engine or engine components. Such action shall be deemed an inspection decision not subject to Section K.

NOTE: In an effort to save time during at track inspections, it is highly recommended that all built engines have the forward most right side and forward most left side intake manifold bolts and the forward most right side and forward most left side lower cylinder head bolts cross drilled for engine sealing. If cylinder head studs are used, it is recommended that the studs be cross drilled above the cylinder head nut or through cylinder head nut and stud. If the cylinder head bolts or studs are drilled, the holes must be drilled a minimum diameter of 0.063 inch to accept the Race of Champions engine seal.

The right side front and left side rear carburetor studs must be drilled a minimum diameter of 0.063 inch to accept the Race of Champions carburetor seal on all engines. All built engines must have the closest intake manifold bolt to each drilled carburetor stud on both the right side and left side drilled a minimum diameter of 0.063 inch to accept the Race of

## Chevrolet or DART Engine Block

Champions carburetor seal.

- a.) Only GM Chevrolet type 350 cubic inch or Ford 351 cubic inch blocks will be permitted.
- b.) DART production block part number: 3116111 (DART SHP Ford 31365135) will be permitted.
- b.) Bowtie cast iron blocks part number 124800474 or stock block will be permitted.
- c.) A Bore size of 4.00 to 4.060 plus or minus .005 will be permitted.
- d.) Angle cutting of the block deck will not be permitted.
- f.) The engine block must be mounted within 2"-inch of centerline of the lower ball joints and must be securely mounted to the frame.
- g.) The minimum height of the engine when measured from the horizontal centerline of the crankshaft to the ground will be  $9\,1/2$ " inches.
- g.) Tilted blocks will not be permitted.
- h.) There will be a minimum of 2"inch ground clearance on the oil pan.
- i.) All bolt holes and bores must remain in the stock OEM location.
- j.) MOPAR, Chrysler, Dodge, American Motors type engines will not be permitted for competition. Alumimum, aluminium billet and/or any other type of exotic material as determined by the Race of Champions Officials will not be permitted.
- k.) The engine displacement may be increased by increasing the bore size. The formula for determining the cubic inch displacement of the engine will be: Bore X Bore X .7854 X Stroke which will equal the cubic inch displacement of each cylinder. The cubic inch displacement of each cylinder added together will determine the total cubic inch displacement for the engine.
- I.) The maximum compression ratio permitted for any engine will be 11.0 to 1. When calculating the compression ratio a tolerance of one (1) cubic centimeter will be added to the volume for the area around the top of the piston down to the top of the piston ring that will be sealed with grease.

  m.) In the event that the compression ratio must be confirmed in a circumstance that requires calculation the following formula will be utilized; Bore X Bore X .7854 X Stroke equals the volume for each cylinder at Bottom Dead Center (BDC) in cubic centimeters. The cylinder head pour volume minus (-) the known volume of the cylinder head plate plus (+) the cylinder head gasket volume plus (+) 1.00 cubic centimeters for sealing the piston ring plus (+) the cylinder block volume minus (-) the known volume of the block plate equals the chamber volume. (Compress ratio = Cylinder Volume (+) Chamber Volume).

#### 2. Crankshaft

- a.) Only a standard magnetic steel or cast iron production design crankshaft will be permitted. The crankshaft must be a minimum of 48lbs. The crankshaft journals, journal size, construction and/or appearance must remain as manufactured. Undersizing of crank journals will not be permitted.
- b.) A tolerance of (+/- .020) on the crankshaft rod journals will be permitted.
- c.) The crankshaft may be balanced by drilling, turning and/or the addition of weight. Deburring of the crankshaft will be permitted, however forging and/or casting flashing must remain.
- d.) Any Chevrolet / GM engine must use the large journal size crankshaft.
- e.) Only a stock stroke of 3.480 +.005 / -.005 will be permitted.
- f.) Crankshaft counterweights must be same shape and size as the original stock OEM Mass production crankshaft used with this block.
- g.) Round nosed, knife edging, tapering and/or any type of alteration will not be permitted.
- h.) Undercut or tapered counterweights will not be permitted.
- i.) A fluid dampener will be permitted.
- j.) The minimum diameter for the harmonic balancer will be 6.25" inches.

#### Connecting Rods

- a.) Only solid magnetic steel connecting rods (OEM or aftermarket) will be permitted.
- b.) Forged or billet connecting rods measuring a minimum of 5.700" inches and a maximum of 6.000" inches will be permitted for Chevrolet engines. The minimum weight for the aftermarket 5.700" connecting rod (forged or billet) will be a total of 575 grams. The minimum weight for the aftermarket connecting rod (forget or billet) will be a total of 600 grams.
- c.) The maximum Ford connecting rod length will be 6.000" inches.
- d.) A maximum length of 6"-inches will be permitted.
- e.) Machining for bushing or full floating connecting rod will be permitted.
- f.) Deburring, removal of flashing, polishing, abrasive cleaning or any attempt at weight removal will not be permitted.
- c.) Stainless steel, aluminum, titanium and/or any other materials that are considered exotic materials will not be permitted.

#### Pistons

- a.) Flat top and dished aluminum round pistons will be permitted. Dome pistons will not be permitted.
- b.) Only pistons with three (3) functioning ring grooves will be permitted. All three (3) rings must be in place.
- c.) A maximum overbore of 0.060 will be permitted.
- d.) Ceramic, plastics and/or any other type of exotic type material pistons will not be permitted.
- e.) Coatings of any type will not be permitted.
- f.) Valve reliefs may be machined in the pistions.
- g.) Any magnetic steel connecting pin may be used.

# 5. Cylinder Heads

- a.) Only 23 degree cast iron cylinder heads as listed from the manufacturer will be permitted:
  - 1.) Chevrolet World Casting #011150 (Angle Plug)
  - 2.) Chevrolet World Casting #011250 (Straight Plug)
  - 3.) DART Iron Eagle #10310010 (Angle Plug)
  - 4.) DART Iron Eagle #10320010 (Straight Plug)
  - 5.) Proaction #2234-00000A (Angle Plug)
  - 6.) Proaction #2234-00000 (Straight Plug)
  - 7.) Proaction #12320 (Angle Plug) (this line includes the RHS Proaction #12320)
  - 8.) Proaction #12319 (Straight Plug)
  - 9.) GM Bowtie #14011034,
  - 10.) GM Bowtie #14011058
  - 11.) GM Bowtie #10134392
  - 12.) Chevrolet SBC #492
  - 13.) Chevrolet SBC #462
  - 14.) Chevrolet SBC #461
  - 15.) Chevrolet SBC #461x
  - 16.) DART Platinum #10310010P
  - 17.) Engine Quest #12334
  - 18.) Ford #M-6049-N351
  - 19.) Ford #M-6059-N352
  - 20.) Dart Iron Eagle Ford #13300000

NOTE: The cylinders heads listed may have limited availability and may become unavailable for retail in the future. Previously approved cylinder heads will be permitted for competition, however may be removed from the list and inspected as necessary to maintain that the correct cylinder is being used for competition based on the part number submitted for competition.

- b.) The GM Vortec Cylinder Heads of any type will not be permitted.
- c.) The maximum intake runner volume will be 200 cubic centimeters. Porting to reach the maximum runner volume will not be permitted.
- d.) The cylinder heads must remain stock as manufactured, including but not limited to internal and external measurements. Port matching, blending, porting, polishing, removal or addition of material to cylinder head will not be permitted.
- e.) Hand grinding and/or acid dipping will not be permitted.
- f.) The manufacturer specification and intake runner CC size must remain unaltered as specified for all approved cylinder heads with no tolerance.
- g.) All valves must remain identical in appearance and construction as a stock OEM type valve. The minimum vale stem diameter is 11/32"-inch. The valve stem diameter may be undercut to a minmum diameter of 15/16"-inch in the area of the valve stem from the head of valve to the bottom of the valve guide.
- h.) Only solid stainless steel valves will be permitted.
- i.) Only magnetic steel valve springs and/or push rods will be permitted.
- j.) Only thread in studs will be permitted.
- k.) Roller rockers and stud girdles will be permitted. Shaft rocker arms and/or shaft mounted roller rocker arm systems of any type will not be permitted.
- I.) The following are the maximum valve size (Intake and Exhaust) permitted for specific cylinder heads:
  - 1.) Chevrolet Intake Valve 2.020 / Exhaust Valve 1.600
  - 2.) Ford Windsor Intake Valve 1.844 / Exhaust Valve 1.546
  - 3.) Ford Cleveland Intake Valve 2.046 / Exhaust Valve 1.546
  - 4.) Ford #M-6049-N351 (N352) Intake Valve 2.020 / Exhaust Valve 1.600
- d.) The cylinder head must remain in the stock OEM location. Repositioning and/or relocating the cylinder head on the engine block will not be permitted.
- e.) The valve centerline and guide angle in relationship to the cylinder heads must be remain in the stock OEM position.
- f.) Porting and polishing by the removal or grinding of the original casting in runners will not be permitted. Epoxy fillers, welding, spray welding and/or any other coating or materials on or in the cylinder heads will not be permitted.
- g.) External painting will be permitted.
- h.) Air directional devices of any type on any valve surface will not be permitted.
- i.) Only magnetic steel push rods and valve springs will be permitted. Titanium and/or any other exotic type material will not be permitted.
- j.) Titaniaium valve spring retainers will not be permitted.
- k.) A 1/2"-inch under the valve seat to complete the valve job will be permitted. Only machine cut will be permitted. Polishing and/or blending will not be permitted.
- I.) Heat risers may be filled.
- m.) Multiple angle valve job with valve centerline and valve guide angle in the stock OEM location in relationship to the cylinder head will be permitted.
- n.) Combusion chamber modifications will not be permitted.
- k.) The maximum compression permitted will be 11.0:1

## 5 - A. "Spec" Cylinder Heads Option (2016)

- a.) The DART cylinder head part number 10024266 is the only cylinder head that will be permitted for this engine package option. The cylinder head must remain as produced and remain unaltered as cast by the manufacturer.
- b.) The DART production casting must maintain a minimum 60 cubic centimeter (cc) combustion chamber, a 2.02"-inch intake valve and a 1.60"-inch exhaust valve. The casting must remain unaltered.
- c.) Machining of the valve guide bosses and the gasket surfaces for seals and sealing will be permitted.
- d.) The addition of thread-in studs, guide plates, valve spring seats, valve seals, poly-locks and/or jam nuts will be permitted.
- e.) Coolant lines on the front or rear ends of the cylinder heads will be permitted. Coolant lines of the side of the cylinder head will not be permitted.

- f.) The maximum intake valve port volume will be 177 cubic centimeters (CC) and the maximum exhaust valve port volume will be 71 cubic centimeters (CC).
- g.) The cylinder head gasket surface for the purpose milling will have a tolerance of (+/- .050" inch) from the 23.00 degree stock valve position.
- h.) The intake pin measurement must be no less than 6.050" inches. Machining and/or any other modifications of any type will not be permitted.
- i.) The ports, runners, combustion chambers, the valve angle and must remain unaltered.
- j.) The EGR port may be blocked or sealed off at the intake gasket by use a single metal shim on the surface of the gasket material.
- k.) A maximum of two (2) intake manifold mounting holes may have helicoils. Intake and exhaust mounting holes may not be added and/or relocated. All holes must remain unaltered for standard dimension fasteners.
- l.) Only the Manley intake valve (Part Number 11596 111 grams), Manley intake valve (Part Number 11864 114 grams), Manley exhaust valve (Part Number 11543 95 grams) or Manley exhaust valve (Part Number 11863 102 grams) will be permitted. Valve stems must have a minimum diameter of 11/32"-inch. The valve lifter weight is a minimum of 85 grams. All valve components must remain unaltered from the manufacturer.
- m.) When cutting the valve seat angles, stone and/or grinding marks above the bottom of the valve guide will not be permitted. All cutting in reference to the valve job must be centered off the centerline of the valve guide. A competition style multi-angle valve job will be permitted. The bowl are must the 360 degree "ball" check. The intake valve side is a .787"-inch ball. The exhaust valve side is a .531" inch ball. Polishing on any cut and/or surface that has been touched with a stone will not be permitted. Hand grinding and/or polishing will not be permitted on any part of the cylinder head
- n.) Only stock OEM magnetic steel retainers that weigh a minimum of 30 grams (retainer only) will be permitted. Only single or double parallel wound valve springs will be permitted. Barrel, conical, beehive wound valve springs will not be permitted. The double wound valve springs must have a minimum diameter of 1.437"-inches and a maximum of 1.450"-inches. The valve springs must have a minimum height of 1.700"-inches and a maximum height 1.800"-inches. Only magnetic steel retainer locks; Machine 7 degree, Super 7 degree or 10 degree type will be permitted.

  o.) The engine utilizing the "Spec" Cylinder Head option must maintain the maximum 11.0 to 1

# compresssion ratio and all other defined engine rules. 5 - B. GM / CHEVROLET PERFORMANCE CRATE ENGINE OPTION:

NOTE: In the interest of preserving the opportunity of an affordable entry into asphalt modified type competition, the Race of Champions reserves the right to create, introduce and/or specify the GM / Chevrolet Performance Crate Engine Option as the only option in the Race of Champions Sportsman modified division.

- a.) The Chevrolet Performance / GM Performance "604" and the Chevrolet Performance / GM Performance "602" Crate Engines will be permitted for competition.
- b.) The GM / Chevrolet Performance "604" Crate Engine will not received a weight break unless otherwise posted in a bulletin and/or the Race of Champions rule book. In the event that a competitor chooses the Chevrolet Performance / GM Performance "602" Engine is being used a 75 lb weight break will be permitted from the total weight.
- c.) Any Chevrolet Performance and/or GM Crate engine and all components must remain in their original configuration and form as purchased and/or delivered from the factory. Any alterations to the engine will not be permitted. The Engine must remain as manufactured by General Motors. Overbore(s) will not be permitted. Repairs may be permitted with written permission from Race of Champions Officials.
- d.) All engines are to remain sealed from the factory. The original factory seals must remain unaltered, Tampering, removal, modifications of any type and/or broken factory seals will not be permitted. The GM Engine must remain unaltered in any way.
- e.) The GM Crate Engine seals (bolt-type) must remain unaltered. Race of Champions Officials may require specific sealing and verification of all seals on any Chevrolet Performance and/or GM Crate Engine. Tampering with and/or alteration of any seals will not be permitted and is subject to immediate penalty and/or suspension.
- f.) Only GM replacement parts of any type will be permitted for any type of replacement and/or repair work. Only GM Crate Engine specific valve springs may be used for replacement and/or repair.

- g.) The maximum RPM of the Chevrolet Performance and/or GM "604" engine will be 6,400 as controlled by part number# MSD 83647. The maximum RPM of the Chevrolet Performance and/or GM "602" engine will be 6,800 as controlled by part number# MSD 83647.
- h.) GM Crate Engine repairs must be authorized by Race of Champions Officials. GM Crate Engine repair procedure works as follows:
  - 1.) Contact the Race of Champions administrative office.
  - 2.) A repair location will be specified and instruct the driver/owner where to take the engine to get an estimate.
  - 3.) Based on the estimate and the detail of the repair, officials will determine if the repairs may be made or if a new engine must be purchased.
  - 4.) If a repair is approved, a specified inspector will inspect the engine and work with the engine repair facility throughout the duration of the repair to ensure that the engine maintains the Chevrolet / GM Specifications.
  - 5.) Upon completion of the repair(s) the engine will be 'resealed' before being released for competition.
  - 6.) All parts including the gasket repair kit(s) must be stock OEM Chevrolet Performance replacement parts. The receipt(s) generated from the GM / Chevrolet Performance Dealer and/or parts department must be retained and a copy presented to Race of Champions Officials for verification.
  - 7.) Overbores will not be permitted. If a cylinder has scoring and/or needs repair it must be communicated to Race of Champions officials before being sleeved to maintain the original bore size.
  - 8.) Valve jobs will not be permitted.
  - 9.) If the cylinder head requires resurfacing and/or valve seats, a new cylinder head must be purchased. Machine work of any type will not be permitted to the cylinder heads.
  - 10.) Bead blasting and/or any polishing and/or any alteration to the intake manifold and/or cylinder heads will not be permitted.
  - 11.) The distributor advance curve and/or all parts must remain stock as manufactured.
  - 12.) All engine information regarding repairs and/or engine introduction must be retained and turned into Race of Champions Officials, to track and manage engine database, including the driver, serial number, repair, type of repair and/or what type of service was performed to any engine.
  - 13.) If any repair estimates come back to the Race of Champions Officials that meet and/or exceed 60% of the actual price of a new engine, a new engine must be purchased. The engine that was damaged will no longer be eligible for competition.
- j.) Only the Chevrolet Performance "604" Engine may use an unaltered Holley stock (part#0-80583, "4412" 500 CFM). Exceptions to this rule will not be permitted. The carburetor must be securely fastened to the intake manifold in the stock location with one .0625(1/16th) or smaller gasket. Spacers or drop in spacers, alterations, physical changes, machining, reshaping or tampering with any part of the original parts, internal or external will not be permitted. Only genuine Holley replacement parts will be permitted.
- k.) Only the Chevrolet Performance "602" Engine may use an unaltered Holley stock (part#0-80541-1), (Series 4150, 650 CFM). Exceptions to this rule will not be permitted. The carburetor must be securely fastened to the intake manifold in the stock location with one .0625(1/16th) or smaller gasket. Spacers or drop in spacers, alterations, physical changes, machining, reshaping or tampering with any part of the original parts, internal or external will not be permitted. Only genuine Holley replacement parts will be permitted.
- I.) Only Chevrolet Performance or GM Crate Engine specific valve springs may be used for replacement and/or repair, Part Number # 12551483 for the "604" engine.
- m.) In the event a "Crate" engine is found illegal and has been tampered with, a one (1) calendar year, suspension will be issued from the date of infraction for the first offense. An indefinite suspension will be issued for any offense after the first.
- n.) Race of Champions Officials reserve the right to technically inspect, exchange and/or confiscate any GM Crate Engine at any time. Failure to surrender the engine and/or submit the engine for inspection equals disqualification from the event and/or suspension.
- o.) The intended direction of the Chevrolet Performance / GM Crate Engine program is to maintain a cost-effective, affordable racing program. Rebuilding, balancing, blue printing and/or any other alteration made in an attempt to influence the integrity of this program will not be permitted. The judgment and determination of any such decision will be at the sole discretion of Race of Champions Officials.

## 6. Cam / Lifters / Timing Chain

- a.) The camshaft, bores and lifters must remain in the original stock OEM location.
- b.) Only flat tappet camshaft will be permitted. Roller camshaft(s) of any type will not be permitted.
- b.) Only magnetic steel lifters with a stock diameter will be permitted. Solid or hydraulic lifters with roller tappets or mushroom tapers will not be permitted.
- c.) Rev kits will be permitted.
- d.) Any timing chain or gear drive will be permitted.
- e.) A degree bushing and/or offset crank gear key(s) will be permitted.
- e.) Belt drives will not be permitted.
- f.) Roller cam bearings will not be permitted.

## 7. Ignition

- a.) Only stock point type distributor or electronic ignition systems will be permitted. Ignition components of any type in the driver's compartment will not be permitted. An aftermarket HEI stock replacement type distributor will be permitted. The MSD HEI Part Number #8635 will be permitted. Aftermarket coils that fit in the traditional stock OEM location will be permitted.
- b.) Ignition boxes and/or multi-spark type ignition systems will not be permitted.
- c.) The distributor must mount in the OEM stock location. Rotation and firing order must remain in the stock OEM firing order for the engine. GM Firing Order: 1-8-4-3-6-5-7-2
- d.) Adjustable timing controls will not be permitted.

#### 8. Intake manifold

- a.) The following intake manifolds will be permitted competition:
  - i. Chevrolet Edelbrock #2101
  - ii. Ford #M-9424-C358
  - iii. Edelbrock #2181
  - iv. Edelbrock #2750
- b.) Alterations and/or modifications of any type to the intake manifold including porting, acid dipping, polishing deburring, removal of flashing, abrasive cleaning, painting, milling, cutting, drilling, enlarging bolt holes, matching, welding or any other type of alteration will not be permitted.
- c.) Welding and/or epoxy and/or filling of any type will not be permitted.
- d.) Painting and/or coating and/or the application of coating will not be permitted.
- e.) Identificiation and/or part numbers on the intake manifold must remain unaltered in their stock OEM position.

#### 8.-A "Spec" Intake Option (2016)

- a.) Only the Second Generation Edelbrock #7101 intake manifold will be permitted with the "Spec" DART cylinder head part number 10024266.
- b.) Alterations and/or modifications of any type to the intake manifold including porting, acid dipping, polishing, deburring, removal of flashing, abrasive cleaning, painting, milling, cutting, drilling, enlarging bolt holes, matching, welding or any other type of alteration will not be permitted.
- c.) All bolt holes must remain stock OEM unaltered in alignment and size.
- d.) Coolant lines from the water neck to the back side of the cylinder heads will be permitted.
- e.) A maximum thickness of .064" inch will be permitted for the intake manifold gasket.9

## 10. Carburetor

- a.) Only the Holley 4412 500 CFM or the 4412 500 CFM HP will be permitted for competition. The 4412 500 CFM and 4412 500 CFM HP are separate carburetors and the interchanging of parts from one to the other will not be permitted. Only Holley replacement parts as designated by the part number will be permitted.
- b.) Alterations of any type, grinding, polishing, machined, coating and/or other wise; internal or external to the carburetor base and/or any of its components will not be permitted.
- c.) The carburetor must be mounted in the standard position on the intake manifold. Sideways mounting of the carburetor will not be permitted.
- d.) The venturis must remain unalterted.
- e.) Removal of the casting ring will not be permitted.
- f.) The base plate must remain unaltered.
- g.) The throttle shafts must remain unaltered. Machining, polishing, cutting and/or thinning of the throttle shafts will not be permitted.

- h.) The throttle plates (butterflies) may be drilled for idle holes only. Alteration to the shape, thinning, knife edging, rounding, tapering and/or any other type of alteration to the throttle plate will not be permitted.
- i.) Changing and/or tuning of the power valve, pump cam and/or accelerator pump and/or jets will be permitted, but must be Holley components and manufactured for the carburetor; OEM. Aftermarket and/or components that fit the carburetor that are not Holley OEM components for the part number of the carburetor will not be permitted.
- j.) Removal of the choke horn will not be permitted. Removal of the choke plate and choke linkage will be permitted. The gasket ring must remain unaltered from the manufacturer.
- k.) The carburetor boosters must maintain their stock OEM size and must remain in their original mounting location in the main carburetor body. Any alteration to the booster, the booster bridge, including but not limited to the raising or lowering of the booster height, will not be permitted.
- I.) Alterations that permit additional air to be introduced below the opening of the venturis such as altered gaskets, base plates and/or drilling holes into the carburetor will not be permitted.
- m.) Epoxy fillers of any type will not be permitted.
- n.) Only mechanical throttle type linkage will be permitted. Two (2) throttle return springs must be utilized. Cable type and/or any other type of throttle linkage will not be permitted.
- o.) A toe strap is mandatory.

# 11. Carburetor Spacer / Adaptor Plate

- a.) A single one piece carburetor spacer with a maximum thickness of 1"-inches will be permitted. The spacer may only be aluminum or pheonolic plastic material. Other materials will not be permitted. Taper and/or beveled shapes will not be permitted. The spacer must conform to the base ofcarburetor and use two (2) paper gaskets. The maximum thickness for either gasket will be .075"-inches.
- b.) The carburetor spacer must remain in the same position as the original carburetor mounting position on the intake manifold.
- c.) Wedge shaped mounting surfaces will not be permitted. The top and bottom surfaces must remain parallel.
- d.) The carburetor spacer must have two (2) holes a maximum of 1.750"-inches with a straight bore (perpendicular to the top and bottom surfaces) and match the base of the carburetor.
- e.) Any type of air flow modifications will not be permitted.

#### 12. Air Cleaner

- a.) Only one (1) round paper type (dry) air cleaner will be permitted. The air cleaner may be a minimum of 12"-inches and a maximum of 14"-inches in diameter, with a minimum of 1-1/2"-inches and a maximum of 5"-inches in height. The top and bottom of the air cleaner housing must be round, the same diameter and solid. Openings on the top of the air cleaner will not be permitted. Plastic type (K&N) type top and bottom air cleaner housing components will not be permitted.
- b.) The filter base must have a minimum round opening of 5"-inches.
- b.) All air that enters engine must pass through air cleaner. Any type of device that directs and/or ducts air to or from the air cleaner will not be permitted. Air induction, ducts, baffles, tubes, funnels, hats and/or any other device that controls air entering the carburetor will not be permitted.
- c.) The filter must be mounted in the center of the carburetor. A maximum one (1) inch spacer will be permitted between the carburetor and the air cleaner.
- d.) A single shield for the purpose of protecting the air cleaner from debris which may cover up to one half of the air cleaner circumference on the front of the air cleaner will be permitted. The shield must be no wider than the height of the element.
- e.) Performance enhancing additives and/or chemical and/or freezing or cooling of, on and/or in the air cleaner and/or any of the air cleaner components will not be permitted.

### 13. Oiling System

- a.) Only wet sump type oiling systems will be permitted. Dry sump type systems will not be permitted.
- b.) Only internal oil pumps driven from the distributor will be permitted.
- c.) Only standard type magnetic steel oil pans will be permitted.
- d.) Oil deflecting to individual rod and/or main journals will not be permitted.
- e.) Partitions of any kind in the oil pan will not be permitted. Oil pans must be approved prior to entry into competition by Race of Champions Officials.
- f.) A one (1) inch inspection plug must be must be placed in the bottom of oil pan for visual and mechanical inspection. The inspection plug must be a minimum of 1 1/4" inch located 9 1/2" inches from the rear of the block face to the centerline of the inspection hole and 1 1/4" inches from the oil

pan rail. Obstructed views from the inspection hole to the crank and rods will not be permitted. If the view is obstructed from the inspection hole, removal of the oil pan will be required.

- g.) Only stock-type magnetic steel or cast iron dampers will be permitted. Maching and/or any alteration to the damper will not be permitted.
- 14. Engine / Car Electrical System / Ignition System
  - a.) Only stock point type distributor or electronic ignition systems will be permitted. Ignition components of any type in the driver's compartment will not be permitted. An aftermarket HEI stock replacement type distributor will be permitted. The MSD HEI Part Number #8635 will be permitted. Aftermarket coils that fit in the traditional stock OEM location will be permitted.
  - b.) Ignition boxes and/or multi-spark type ignition systems will not be permitted.
  - c.) Adjustable timing controls will not be permitted.
  - d.) Magnetos and Magneto type ignition systems will not be permitted.
  - e.) Ignition system equipment and/or wiring may not be located in the driver's side door area and/or within reach of the driver with the exception of the ignition button or ignition switch.
  - f.) Adjustable timing controls will not be permitted.
  - g.) Ignition delay devices will not be permitted.
  - h.) All electrical switches must be located on the dash panel or within reach of the driver and labeled. A labeled on and off master switch to the battery cable must be installed on the cowl behind the windshield opening to the right side of the driver. The switch must be easily accessible and in plain view.
  - i.) There must be an operational ignition cut off (interrupt) switch. The tigor type switch is recommended.
  - j.) Tachometers, if used, should be mounted to either the steering column or the dash gauge panel. The mounting must be acceptable to Race of Champions Officials. In all cases, tachometer wiring must be as visible as possible, and easily accessible for inspection.
  - k.) Tachometers should have a maximum of three (3) wires connected to the ignition system allowing for a ground, power and a tachometer signal.
  - I.) The tachometer must have a connector of the Packard Electric type (MSD part #8172), or approved equivalent, to facilitate testing during inspection. The tachometer connector must be located on or at the removable ignition system mounting plate. The wire color, gage, and pin assignment must follow the table below:

## **Pin Description Color Gage**

- A Ground Black 16-18
- B Power Red 16-18
- C Tachometer Signal Green or Brown 16-18
- m.) The tachometer signal wire must be run from the tachometer as a single continuous green or brown 16-18 gage wire to connect the primary and backup ignition amplifier boxes to the tachometer through blocking diode(s).
- n.) The tachometer power wire must be connected to the battery side of the starter solenoid.
- o.) If an illuminated tachometer is used, the light power and ground wires must connect into the tachometer power and ground between the tachometer and the tachometer connector.

AS AN OPTION, THE STAFFORD MOTOR SPEEDWAY SPEC ENGINE MAY BE INTRODUCED INTO THE RACE OF CHAMPIONS ASPHALT SPORTSMAN MODIFIED DIVISION. THE RULES ARE AS FOLLOWS AND THERE ARE NO VARIABLES. IN THE EVENT ENGINE HOLDS A COMPETITIVE ADVANTAGE, THE RULES MAY BE ADJUSTED AND/OR WEIGHT ADDED TO THIS ENGINE OPTION TO MAINTAIN THE INTEGRITY OF COMPETITION.

These SMS Spec Engine rules are intended and designed to create a standardized rule package to reduce cost, increase the level of competition, and to promote a better technical atmosphere by involving the engine builders in the process of technical inspection. To help keep the full integrity of the Spec Engine program intact, any published engine builder whose engine finishes in the top three may be involved in the tech process.

SMS SPEC- 5 GENERAL SPEC ENGINE REQUIREMENTS- The only approved engine for Spec use is the Chevrolet 350. All parts for the Spec Engine must maintain manufacturers overall dimensions and weight. All Spec Engine parts must be installed as supplied, with no machining or modification except where noted. These SMS Spec Engine rules are intended to create a standardized rule package to reduce cost and increase the level of competition. With the exception of engine machined components, all Spec Engine listed parts and components must be used as

purchased, with no modifications permitted, unless otherwise noted. We will add a list of Spec Engine component part numbers.

#### **DETAILED SPEC ENGINE REQUIREMENTS-**

All Spec Engines must use the following parts, approved part numbers are as follows: GM BLOCK – 10066034, 3970010, 3970014, 14010207, 14010209, 14011064, 14016379, the DART SHP, or any pre-existing GM Bow-Tie block. PISTONS- Wiseco Pro Tru-PT003H, JE SPR-157076, or Manley 5915 must be used. The ring package used (type and thickness) must be the one designed for the piston used.

RODS- Manley-14101-8, 14050R-8, or Crower Sports Rods- SP3205

OIL PAN – Any pre-approved aluminum pan or Canton 11-196.

VALVES- Manley Intake 11596 or 11864, Manley Exhaust 11543 or 11863

CRANK- Scat Cast or Steel – 9-350-3480-5700, Callies Comp Star Series, or Manley 190190. INTAKE- Edelbrock 7101

Carb Spacer- Big Haus USA part #002

HARMONIC BALANCER- ATI 917260 or 917320 or BHJ CH-IBF-6-C or Power Bond PB1012-SS. The maximum decking of the block is 9.00". Angle milling of block deck is not permitted. Offset dowel pins are not permitted. De-flashing, grinding, welding or painting of any internal area is not permitted. Maximum overbore is .060". A maximum static compression ratio of 11.0 to 1 is permitted.

SMS SPEC- 5.5 PISTONS/RODS Wiseco Pro Tru -PT003H, JE SPR- 157076, or Manley-5915 piston must be used. Manley-14104-8 or 14050R-8, or the Crower Sport Rod- SP3205 must be used.

A. The approved piston must retain all its manufactured dimensions and weight. The JE and Manley pistons must maintain a 2.50" pin length. Wiseco pistons must maintain a 3.00" pin length. Additional gas porting of any type is not permitted. All rings must be installed, working and of magnetic steel. Stainless, z-gap, gapless, or Dykes type rings are not permitted. No portion of piston may protrude above the top of the block. The minimum ring thickness permitted is as follows: Compression rings .043" Oil ring assembly 3mm.

- B. Only magnetic steel non-coated piston pins maintaining a minimum diameter of .927" inch are permitted. They must be contained by bushings only (no bearings of any type). Full floating pins are permitted. Wrist pins may not be coated.
- C. Piston pin holes must be in a fixed location in the piston and connecting rods.
- D. Only two-piece insert style connecting rod bearings are permitted.
- E. The approved rod must retain all of its manufactured dimensions and weight. Only normal engine balancing and the use of after-market bolts and nuts are permitted. No de-burring, deflashing, polishing, grinding or lightening is permitted. Rod length must be 5.700".
- G. Minimum weight for piston, pin, ring, bearing and rod assembly is 1168 grams.

SMS SPEC- 5.5.4 OIL PAN – Dry sumps, external oil pumps or tanks or accu-sump systems are not permitted. The Canton #11-196 steel pan or any pre-approved existing aluminum oil pan may be used. Oil coolers are permitted. Only OEM in the pan magnetic steel type oil pumps are permitted. No pumps of any type may be used in the evacuation systems.

SMS SPEC -5.6 HEADS – Dart part number 10024266 cylinder head casting must be used. The casting part number must be purchased as completely produced by Dart, custom ordering of partial production/finishing is not permitted. The Dart casting is produced with, and must maintain a 60cc combustion chamber, a 2.02" intake valve and a 1.60" exhaust valve. Machining the valve guide bosses for seals and machining the gasket surfaces is permitted. The addition of screw-in studs, guide plates, valve spring seats, valve seals, poly-locks or jam-nuts is permitted. Coolant lines are permitted on the front/rear ends of the heads. Coolant lines are not permitted on the side of the head. Max Intake port volume is 177cc. Max Exhaust port volume is 71cc. Head gasket surface milling tolerance for SK Modified® is 0.00" to 0.050" from true 23.00 degrees of stock valve position. The Intake to pin measurement must be no less than 6.050". No other machining or modifications of any kind are permitted. The ports/runners, combustion chamber, the valve angle and location must remain as produced by Dart. The EGR port may be blocked off at the intake gasket area only, by use of a metal shim on one surface of the gasket. The exterior of the casting may be painted. A maximum of 2 intake mounting holes may have HeliCoils. Intake and exhaust mounting holes may not be added or relocated. Holes must take standard dimension bolts.

VALVES- The Manley intake valve #11596 (111 grams), Manley intake valve #11864 (114 grams), Manley exhaust valve #11543 (95 grams) or Manley exhaust valve #11863 (102 grams) must be used. Valve stems must have a minimum diameter of 11/32 inch. Valve lifter weight is 85 grams minimum. All parts must maintain production dimension and weight.

VALVE JOB- When cutting the valve seat angles, no stone or grinding marks are permitted above the bottom of the valve guide. All cutting in reference to the valve job must be centered off the centerline of the valve guide. Competition style multi-angle valve job is permitted. The bowl area must pass the 360 degree "ball" check (the appropriate sized ball must not fall into the guide area when rolling around on the valve stem). Intake is a .787" ball. Exhaust is a .531" ball. Surfaces and/or edges where the cutter or stone has touched must not be polished. No hand grinding or polishing is permitted on any part of the head.

VALVE SPRINGS & RETAINERS- OEM Stock type magnetic steel retainers that weigh a minimum of 30 grams (retainer only) must be used. Valve springs may be single or double springs, but must be parallel wound. Barrel wound, conical wound springs, or beehive type springs are not permitted. Double springs must have a diameter between 1.450" and 1.437". Valve springs must have a height of 1.700" to 1.800". Retainer locks must be magnetic steel, and must be Machine 7 degree, Super 7 degree, or 10-degree types only.

## SMS SPEC - 5.7 CRANKSHAFT

A. The Scat Cast or Steel Crank # 9-350-3480-5700, Callies Comp Star series crankshaft, or the Manley #190190 may be used. The main and rod journal sizes are .020" under for the main and .030" under for the rod journals. Stroke must be 3.480". If you are currently converting an existing SK Engine over to the SK Spec Engine, you may use your existing GM cast or forged steel crankshaft, and it must weigh a minimum of 50 pounds and must be 3.480" to 3.495" in stroke. You must contact the SMS Tech Staff to notify them of your intent to run this pre-existing crankshaft. NOTE: The GM style crankshaft will be allowed until the conclusion of the 2013 season.

- B. Small journal or Honda pin crankshafts are not permitted.
- C. Machining or polishing of the crankshaft counterweights is not permitted. Normal standard engine balancing is the only acceptable modification that can be performed on this component. No painting or Teflon coating. No capping of the counterweight holes. Crankshafts must maintain the manufacturer's dimensions.
- D. Minimum crankshaft weight is 45 lbs for the SCAT, Callies, or Manley crankshaft, and 50 lbs for the old style SK pre-existing crankshaft.
- E. The Power Bond # PB1012-ss, ATI 917260, 917320, or the BHJ CH-IBF-6-C harmonic balancer must be used.

SMS SPEC - CAMSHAFT- K15 or P55 cast core camshafts must be used (Billet steel cores are not permitted). The maximum camshaft bearing journal size is 1.875" (475mm). Camshaft may not exceed .550" +/- .005" lift at the valve with zero lash.

# SMS SPEC - 5.8.2 VALVE LIFTERS-

A. An 842" diameter magnetic solid steel valve lifter must be used. Roller tappets, ceramic valve lifters, tool steel solid lifters, mushroom valve lifters, and any type of mechanical assistance exerting a force to assist in closing the valve and/or push rod commonly known as rev-kits are not permitted.

B. Valve lifters can weigh no less than 85 grams.

SMS SPEC - 5.8.3 ROCKER ARMS- Aluminum or stainless stud mounted roller rocker arms are permitted. 7/16" studs may be used. Steel 5/16" x .080" minimum wall push rods must be used. Chevrolet must run 1.5 ratio rockers. Stud-girdles are permitted, aftermarket shaft rocker systems are not permitted. Competition Cams rocker part number 1604 will be permitted.

SMS SPEC - 5.9 INTAKE MANIFOLD—A second generation Edelbrock #7101 intake manifold must be used. There are no modifications or alterations permitted to the intake manifold. No porting, polishing, acid dipping, deburring, de-flashing, abrasive cleaning, internal painting, milling, cutting, drilling holes, enlarging bolt holes, matching of ports or welding. An SMS supplied intake manifold must fit your engine complete with stock gaskets. All bolt holes must be in alignment and same size as stock. Coolant lines are only approved from the water neck to the back side of heads. The maximum thickness allowed for the Intake gasket is .064". Note: SMS / Race of Champions Officials reserve the right to swap competitors intake manifolds as part of their routine post-race tech process.

#### SMS SPEC - 5.10.2 CARBURETOR SPACER -

The Big Haus USA part #002 spacer must be used. One gasket per side, maximum gasket thickness of .075" permitted. The spacer may not be modified in any way. Additional openings for the induction of air is not permitted.

#### SMS SPEC- 9 ENGINE EXHAUST SYSTEM-

A. SK Spec Engine must use the following headers:

Flowrite: Troyer #3025, CD #3035, Spafco #3055, Raceworks #3045

Kooks: Troyer #SMS1048, CD #SMS1438, Spafco #SMS1348, Raceworks #SMS1253

Beyea Performance # AMSST-23S1-SK

B. Headers must remain as manufactured, no modifications may be made to the headers.

C. The exhaust header flange must mount directly to the cylinder head with no spacers between the flange and the cylinder head. Header flange thickness may not be altered.

D. Inserts are not permitted in any part of the header or collector. Only one (1) collector allowed per side.

E. Turn-downs must be used after the mufflers, on each side. The turn-downs must be installed so that hot exhaust, engine debris, or engine flames are aimed at the ground (from pointing straight down to less than 90 degrees to horizon).

F. Kooks #R35-30-10 or #R35-35-10, the Flowrite #FR-300 or #FR-3500, or the Beyea Performance #MUF3.5-SK mufflers must be used. The Muffler must be 3.5" on the inlet and outlet. Modifications to the 3" flange on the existing mufflers to make them 3.5" will be permitted. Both muffler flanges must still be intact. Mufflers must be removable for inspection.

G. Thermal wrap is not permitted anywhere on exhaust system.

H. Only one muffler and exhaust pipe allowed per side.

Exhaust system subject to approval by SMS / Race of Champions Officials.

J. Interior coatings are permitted.

NOTE: The life expectancy for all mufflers are two years. All owners are responsible to make sure their mufflers are in proper working order. If found not to be, the muffler will be deemed illegal (i.e. missing one or more of the internal baffles).

### SMS SPEC- 10 ENGINE DRIVE TRAIN - FLYWHEEL AND CLUTCH - SPEC ENGINE-

The Quarter Master #298108 or #298158, 7-1/4" two disc V-Drive, with an SFI rated 153 tooth steel OEM type ring gear/flexplate that weighs a minimum of 4.1 pounds may be used with the SK Spec Engine. Optional stock type clutch rule: A Stock OEM dimension 153 tooth steel flywheel and 10" steel clutch and pressure plate may be used. OEM type steel pressure plate and steel disc only. Solid type disc only, no paddle or button type discs. Minimum diameter 10" clutch and pressure plate. Drilling or lightening of any part is not permitted. Steel bolts only. Flat surface machining allowed only on the face of the flywheel, any cutting on the back side of the flywheel will deem the part illegal. Spec Engine flywheels must weigh a minimum of 9 lbs (without bolts) and be one of the following part numbers:

10,000 RPM #1019-9.5 Magnus #MRPBF-95

Ram #851

SMS SPEC 5.10 CARBURETOR – A Holley two-barrel model #4412 carburetor must be used. Only Holley replacement or service parts can be used in any carburetor rework. Carburetors and/or carburetor components machined from billet materials are not permitted. All parts must be a Holley manufactured part for the 4412 model. Polishing, grinding, resizing or reshaping of any part or orifice is not permitted. The body, base plate, metering block, and bowl must be a standard Holley 4412 part, HP parts are not permitted. OEM type gaskets, jets and power valve must be used. The diameter of every hole in carburetor must pass the standard NASCAR /SMS/Race of Champions pin and tooling gauges as part of our routine tech process.

- (1) Body of carburetor and metering block: No polishing, grinding or reshaping of any part. Drilling of additional holes or plugging holes is not permitted.
- (2) The choke may be removed, but all screw holes must be permanently sealed.
- (3) Choke Horn: Choke horn may not be removed.
- (4) Boosters: Boosters may not be changed. Size or shape must not be altered. Height must remain standard.
- (5) Venturi: Venturi area must not be altered in any manner. Casting ring must not be removed.
- (6) Alterations to allow additional air to be picked up below the opening of the venturi such as altered gaskets, base plates and drilling holes into the carburetor will not be permitted.
- (7) Base Plate: Base plate must not be altered in shape or size.

(8) Butterflies: The stock Holley 4412 or Stainless Steel Holly part #346 butterflies must be used. They may not be thinned or tapered. The Butterflies must remain as manufactured, and must maintain the Holley production tolerance thickness of .0438" to .0398". Idle holes may be drilled in butterflies. Screw ends may be cut even with shaft but screw heads must remain standard.

(9) Throttle Shaft: Shaft must remain standard and must not be thinned or cut in any manner.

#### SMS SPEC 5.12.1 CARBURETOR AIR FILTER / AIR FILTER HOUSING

A. Only a round dry type paper air filter element maintaining a minimum 12 inches and maximum 14 inches diameter will be permitted. The air filter element must maintain a minimum of 1½" inches, maximum five (5) inches in height. All air must be filtered through the element.

B. Only a round metal filter housing will be permitted. The top and bottom of the air filter housing must be solid with no holes. A maximum of one (1) inch lip will be permitted from the air filter element to the outer edge of the air filter housing top and bottom. The air filter housing carburetor mounting ring must have only one (1) round hole a minimum of five (5) inches in diameter. It is permissible to attach a shield to the front area of the air filter housing up to a maximum of one half of the air filter circumference. The shield must not be higher than the height of the air filter element. The air filter housing metal top and bottom must be of the same diameter. The air filter housing must be centered side to side and set level on the carburetor. No air induction, ducts, baffles, tubes, funnels or anything else which may control the air entering inside of, or between the air filter and carburetor. No plastic air filter housings or parts.

C. The bottom of the air filter element must measure within one (1) inch of the carburetor's top flange. A spacer may be used between the carburetor and the air cleaner so long as the one (1) inch specification is not exceeded.

D. No portion of the hood may be higher than the bottom of the air cleaner.

SMS SPEC- 6.1 IGNITION SYSTEM – NASCAR approved ignition system must be used. Electronic distributors are permitted. All electronic distributors must be in stock type housings, have stock type controls and modules, be equipped with a magnetic pickup, be gear driven, and be mounted in the stock location. Billet distributor housings are permitted.

- B. Single or dual point camshaft driven distributors are permitted.
- C. Only one (1) ignition coil is permitted and must be mounted on engine side of the firewall.
- D. Electronic firing module amplifier box is not permitted.
- E. Computerized, multi-coil, dual electronic firing module box or crank trigger systems are not permitted. Magnetos are not permitted. All ignition systems are subject to approval by SMS Officials.
- F. Adjustable timing controls are not permitted.
- G. Retard or ignition delay devices will not be permitted.
- H. Only MSD #8727CT or #8728 External RPM limiters may be used. The violet wire must be cut back flush to the unit's housing, with the green and the white wires run directly to the coil negative, mounted on the engine side of the firewall in plain view.
- I. Accessories to regulate the power supply are not permitted.
- J. The tachometer wire must run from the distributor to the tachometer along the #8 dash bar separate from any other wires and in unobstructed view for inspection. The tachometer wire must be isolated from any other wires, connections or devices. The entire length of the tachometer wire must be visible from distributor to the gauge.
- K. The Vacuum advance unit may be replaced with a manual non-electronic timing adjuster that does not extend more than two inches beyond the distributor housing.

## 15. Alternator

a.) The alternator system, if used, must be working within specifications and mounted on the front of the engine in the stock OEM location.

## 16. Starter

a.) The self-starter must be in working order. After the race is underway, cars may be started by hand pushing on pit road and/or in the pit area only. Cars may not be hand pushed onto and/or on the race track during competition. In the event that any car is hand pushed onto or on the track during competition that car will be immediately disqualified from the event.

#### 17. Battery

a.) Only Race of Champions approved batteries with a maximum nominal voltage of 12 volts will be permitted. Each battery(s) must be of the standard automotive type, gel cell or absorption glass mat design, weighing a minimum of 17 pounds.

b.) The battery must be located between the frame rails. The battery must be located under the hood or floor of the car. If located under the floor, the battery must be completely encased. If located under the hood, the battery must have a suitable cover. The battery must not be forward of the radiator or rear of the rear end housing of the car. The battery location must be acceptable to Race of Champion Officials.

## 18. Engine Cooling System

- a.) The radiator must appear and work like an OEM radiator and be centered in front of engine. Copper, brass or aluminum radiators will be permitted. An additional dust screen used in front of the radiator, approved by Race of Champions Officials will be permitted.
- b.) Cooling or icing type chemicals in the engine compartment will not be permitted.
- c.) The coolant must flow in same direction as production engine.
- d.) External portable machines that provide cooling of the cooling system will not be permitted.
- e.) The radiator overflow pipe may be relocated and must use a minimum one (1) gallon overflow can.

## 19. Water Pump

- a.) Only OEM type magnetic steel or aluminum mechanical water pumps, turning in the same direction of crankshaft rotation and in the approved location, will be permitted.
- b.) Water pump impellers may be altered.
- c.) Coolant flow must be in the same direction as the approved production engine.

#### 20. Fan

- a.) Engine-driven fans if used, must be operational and belt driven from the crankshaft. Free spin or clutch fans will not be permitted.
  - (1) The pitch of the fan blades may be changed.
  - (2) The minimum diameter of the fan must not be less than 14 inches.
  - (3) Engine-driven fans must have a minimum of four (4) blades.
  - (4) Flat fan blades will not be permitted.
- b.) Electric cooling fans will be permitted in place of a standard steel fan on the back side of the radiator only.
- c.) The installation, type, and location of the fan(s) must be acceptable to Race of Champions Officials.

# 21. Radiator Ducts

a.) When ducting air from the air intake housings to the radiator, air directional shields or dividers will be permitted within the duct. All air entering the air intake housing must pass through the radiator.

#### 22. Engine Exhaust System

a.) The exhaust systems and components must be acceptable to Race of Champions Officials and meet the following minimum requirements.

## 23. Exhaust Headers

- a.) All cars must use tube header-type exhaust systems.
- b.) The exhaust headers must be a manufacturered production header. Custom fabricated headers of any type will not be permitted. The exhaust header flange must mount directly to the cylinder head without any spacers between the flange and the cylinder head. A maximum header flange thickness of 3/8" inch will be permitted.
- c.) The exhaust header(s) must be round tube header-type. Materials used in the exhaust header must be magnetic steel with the primary tube size of a maximum 1 3/4" inch and a minmum of 1 5/8" inch outside diameter. 1 5/8" inch to 1 3/4" inch step exhaust header will be permitted. The exhaust must be a conventional four into one collector with a maximum diameter of 3 1/2" inches. Exhaust headers that are made from stainless steel and/or any type of exotic materials will not be permitted.
- e.) Adjustable exhaust headers, try-y type, collector type, 180 degree, merge type, pyramid type, exhaust headers will not be permitted.
- f.) Inserts in the exhaust headers or collectors will not be permitted.
- g.) Exhaust systems will not be permitted in the driver's compartment.
- h.) Cross over pipes will not be permitted anywhere on the header.
- i.) Thermal wrap on the exhaust headers will not be permitted.

d.) Exhaust header assemblies must remain outside of the body panels from the front fire wall rearward.

#### 24. Exhaust Pipes

- a.) 180 degree exhaust systems will not be permitted.
- b.) Exhaust pipes must be round magnetic steel 3 1/2" outside diameter come out aft of the engine at the cowl and must extend a minimum of six (6) inches past the cowl.
- c.) Exhaust connectors will not be permitted between the left side exhaust pipe and the right side exhaust pipe.
- d.) Exhaust pipe assemblies must remain outside of the body panels from the front fire wall rearward.

#### 25. Heat Shields

a.) Heat shields, when used to cover the exhaust headers, must be a flat piece of metal not more than six (6) inches wide and not longer than the length of the valve cover.

#### 26. Drive Train

a.) All drive train systems and drive train system components must be approved by the Race of Champions. Prior to being used in competition, all drive train systems and drive train system components must be submitted, in a completed form/assembly, to the Race of Champions for consideration of approval and approved by the Race of Champions. Each such part may thereafter be used until the Race of Champions determines that such part is no longer eligible. All drive train fasteners and mounting hardware must be made of solid magnetic steel.

#### 27. Clutch

- a.) Only mechanical foot pedal, cable or hydraulic operated clutches will be permitted. Pneumatic assisted clutches will not be permitted.
- b.)The clutch assembly must be bolted to the flywheel located inside the bell housing.
- c.) Only disc / pressure plate design type clutch assembly will be permitted for competition. Multiple disc clutches will be permitted up to a maximum of three (3) discs. The disc clutch housing assembly and cover must be made from aluminum or magnetic steel. The clutch cover must be the push-type design.
- d.) Only solid magnetic steel or aluminum pressure plates, and magnetic steel floater plates, without any holes will be permitted.
- e.) Only full circle, fully faced magnetic steel clutch discs with a minimum diameter of 7-1/4" inches will be permitted. Minimal cooling slots will be permitted in the clutch discs.
- f.) The clutch must be mounted inside the bell housing.
- g.) Clutches must be a positive engagement design. Slider or slipper clutch designs will not be permitted.
- h.) Any single disc OEM production type clutch assembly with a minimum 10-1/2" inch diameter steel hub disc will be permitted.
- h.) Dog clutch, couple type or direct drives will not be permitted.

## 28. Bell Housing

- a.) Only special production aluminum or magnetic steel bell housings acceptable to Race of Champions Officials will be permitted.
- c.) It is recommended that a 3/4 inch hole be drilled in the top of the bell housing directly over the starter ring gear to manually turn the engine for checking the compression ratio limit. This will be the only modification permitted on the approved aluminum bell housings.
- d.) Holes and/or other modifications that, in the judgment of Race of Champions Officials, have been made with the intent of weight reduction will not be permitted.
- e.) For all engine block-mounted starters, the starter mounting position must remain on the right side for Ford and General Motors engines.

## 29. Transmission

- a.) Transmissions must be standard production OEM type design Muncie or T-10, manual three (3) or four (4) speed transmission will be permitted. The transmission must be from an approved manufacturer. Race of Champions Officials may use a transmission provided by the respective manufacturer as a guide in determining whether a Competitor's transmission conforms to the specifications of the Rule Book.
- b.) Unless otherwise specified by the Race of Champions Officials, the same transmission must be used for practice, qualifying, practice after qualifying and the start of the Race. A transmission must

not be removed from a car without the approval of Race of Champions Officials. Race of Champions Officials may require any team that removes a transmission to start at the rear of the field, providing the car earns a starting position in the Race. The transmission may be removed from a backup car, without penalty, at the discretion of the Race of Champions Officials, as follows:

- (1) If a car is wrecked beyond repair during qualifying and a backup car is used, a transmission change may be permitted, however, the transmission must be installed before the beginning of practice(s), if practice(s) is scheduled, that follow qualifying.

  (2) If a car is wrecked beyond repair during or after qualifying and a backup car is used, then a transmission change may be permitted without an additional penalty. If a competitor violates this Rule, in addition to imposition of a penalty pursuant to Section K, Race of Champions Officials may take such action during the Event as they deem appropriate, including but not limited to, loss of practice time and/or loss of the opportunity to qualify, and/or confiscation of the transmission or transmission components. Such action shall be deemed an inspection decision not subject to Section K.
- c.) Race of Champions Officials may, at its discretion, require that all cars compete with a final drive gear ratio specified by Race of Champions Officials for each Event.
- d.) High gear must be 1.00:1 (direct) and be the primary gear engaged on all tracks, except road course Events, during competition.
- e.) The transmission must be acceptable to Race of Champions Officials and meet the following requirements:
  - (1) Standard production OEM type Muncie or T-10 manual four (4) speed transmissions with OEM type gears will be permitted. Square cut forward gears will be permitted in OEM type Muncie or T-10 manual four (4) speed transmissions.
  - (2) First gear may be removed and replaced with a spacer.
  - (2) Jerico or Jerico type transmissions will not be permitted.
  - (3) Automatic type transmissions will not be permitted.
- f.) Only aluminum or magnetic steel transmission housings will be permitted. Magnesium or any other type of exotic material transmission housing as determined by Race of Champions Officials will not be permitted.
- g.) All transmissions must have the input shaft and its main gear constantly engaged. This assembly must be constantly engaged with the countershaft and its cluster and reverse gears.
- h.) Transmission gear ratios between 1.00:1 and 1.18:1 will not be permitted. The only high gear transmission ratio permitted will be 1.00:1.
- i.) A forward gear and reverse gear must be in working order.
- j.) Only manual, left-side mounted, shift linkage will be permitted on the transmission. The shift lever must be metal. All shift rods connecting the shifter mechanism to the transmission must be made of metal.
- k.) Only fire resistant type shifter boots will be permitted. The shifter boots should meet the SFI 48.1 specification and should display a valid SFI 48.1 label visible on the outside of the shifter boot. Shifter boots should not be used beyond two (2) years from the date of manufacture. Quick release fasteners will not be permitted to secure the shifter boot to the transmission tunnel. The shifter boot, when installed, must mount directly to and must be completely sealed to the floor of the car. Installation of the shifter boot must be acceptable to Race of Champions Officials.
- I.) Heating pads and/or blankets will not be permitted for warming the transmission.

## 30. Drive Shaft

- a.) The drive shaft, universal joints and yokes must be magnetic steel and similar in design to standard OEM production type drive shaft components. Only a one-piece magnetic steel drive shaft with a minimum outside diameter of two (2) inches and a minimum thickness of 0.090 inch or a minimum outside diameter of 2-1/2 inches and a minimum wall thickness of 0.065 inch will be permitted. All drive shafts must be painted white.
- b.) Two (2), 360 degree solid magnetic steel brackets, without holes or slots, not less than two (2) inches wide and 1/4 inch thick, must be placed around the drive shaft and be welded or fastened to the crossmember of the car. As an option the rear drive shaft bracket may be bolted directly to the torque arm using aminimum of two (2) high quality 3/8 inch minimum diameter bolts.

#### m.2 Fuel, Fuel Cells and Fuel Systems

NOTE: Unless otherwise specified within Section M.1.B, the rules shall remain as published in section M.1.A. Only specified Race of Champions asphalt Sportsman Modified rules will appear in section M.1.B

## 3. Fuel Specifications

- e.) At all Race of Champions Events only VP Racing Fuels (VP110/Green) will be permitted for competition. Blending and/or mixing of the fuel will not be permitted with any other chemcicals, hydrocarbons, additives, nitrous, nitrous additives and/or any other fuel enhancement.
- f.) A designated VP Racing Fuels designated "Crate Fuel" may be permitted for competition

### 5. Fuel System

- a.) All fuel systems and fuel system components must be approved by the Race of Champions. Prior to being used in competition, all fuel systems and fuel system components must be submitted, in a completed form/assembly, to the Race of Champions for consideration of approval and approved by the Race of Champions. Each such part may thereafter be used until the Race of Champions determines that such part is no longer eligible.
- b.) Race of Champions Officials will not permit the use of any previously approved fuel cells, containers, or check valves that appear to be damaged, defective or do not function properly. Fuel cell vent pipe check valves must be used. Check valves and the fuel cell must be acceptable to Race of Champions Officials.
- c.) Pressure systems will not be permitted. Any concealed pressure type containers, feed lines or actuating mechanism will not be permitted, even if inoperable. Icing, freon type chemicals or refrigerants must not be used in or near the fuel system.

#### 6. Fuel Cell

- b.) The Race of Champions-approved nominal fuel cell size shall be 24-1/4 inches by 16-3/8 inches by 13-1/4 inches.
- b.) Modifications to the approved fuel cell bladders, including the nut ring, will not be permitted.
- c.) The maximum fuel cell capacity, including the filler spout and overflow, must not exceed 24 gallons.
- d.) Materials other than standard foam, as provided by an approved fuel cell manufacturer, will not be permitted.
- h.) Fuel cells should not be used beyond five (5) years after the date of manufacture.

## 12. Fuel Pump

- a.) Only one (1) mechanical fuel pump in the stock location, acceptable to Race of Champions Officials will be permitted.
- b.) Electric, piston type, Mechanical, lever-action, camshaft actuated fuel pumps in the approved location will not be permitted.
- c.) Electric fuel pumps will not be permitted.
- d.) Liquid cooling of the fuel pump will not be permitted.

## m.3 Muffler and Sound Reduction Devices

#### 1. Muffler and Sound Reduction Devices

- a.) All cars must have working and unaltered mufflers. Exhaust pipes must have specific mufflers at designated tracks that will be noted on the Competition Format Sheet the specific Event. Kooks (part number R300-10) or Lobak (part number 30-12-30, 35-12-35) will be permitted. The mufflers must be acceptable to Race of Champion Officials.
- b.) Several tracks have a locally enforced decibel rule, which preempt any particular muffler rule. Some tracks may have a maximum sound level rule of 95 decibels at 100 feet. This rule will be enforced by local government agencies. Such decibel rules preempt utilizing the required mufflers in sub-section m.3.
- c.) At determined events only the Lobak RCM 12" (12"-inch body length 3 1/2" inch diameter) spiral flow muffler (Part Number RCM351235) will be permitted for competition.
- d.) Any car that fails to meet the decibel rule may be disqualified and/or "parked" from the event.

#### m.4 Traction Control Devices

NOTE: Unless otherwise specified within Section M.1.B, the rules shall remain as published in section M.1.A. Only specified Race of Champions asphalt Sportsman Modified rules will appear in section M.1.B

# m.6 Overall Car Weight

1. Added Car Weight

a.) Added weight must be in approved block form of not less than five (5) pound blocks (no pellets). Tungsten and other unapproved metals or materials will not be permitted. Added weight must be securely bolted to the frame rail with a minimum of two (2), 3/8 inch diameter high quality bolts and painted white with the car number or team identification permanently legible on it. Dislodged weight will not be permitted to be returned to the car for weighing after the Race. Any added weight containers should be welded directly to the main frame rails, rear sub-frame rails and/or the crossmembers attached to the main frame rails. Added weight will not be permitted inside the driver's compartment. Material and mounting must be acceptable to Race of Champions Officials.

## 2. Car Weights After Competition

- c.) The addition of ballast weight, after competition, will not be permitted.
- d.) All specified minimum weight requirements will be with fuel, oil, and water (with driver) and the car race ready. All cars must be scaled at the request of the Race of Champions Officials, pre and/or post qualifying and/or pre and/or post race. There will be a pre-race weight minimum and a post-race minimum that must be meant as follows:
  - 1.) Throughout the Event, the minimum post race weight requirement for the Race of Champions engine package for cars using all listed Cylinder Head and Intake Manifolds as specified including the Dart Platinum Cylinder Head or the "Spec" Cylinder Head and 'Spec" Intake Manifold will be 2,600 pounds. A maximum weight requirement of 3,200 pounds will be permitted in this Series regardless of the cubic inch displacement. Left side weight percentage must be maintained; not be permitted to have more than 56% of the total weight as left side weight.
  - 2.) Throughout the Event, the minimum post race weight requirement for the Race of Champions engine package for cars using an engine that has a maximum compression ratio of 9.6:1 or any car following the traditional OSCAAR "stock-type" rules will be 2,550 pounds. A maximum weight requirement of 3,200 pounds will be permitted in this Series regardless of the cubic inch displacement. Left side weight percentage must be maintained; not be permitted to have more than 56% of the total weight as left side weight.
  - 3.) Throughout the Event, the minimum post race weight requirement for the Race of Champions engine package utilizing the GM / Chevrolet Performance 604 Engine will be 2,600 pounds and a maximum weight requirement of 3,200 pounds will be required in this Series. Left side weight percentage must be maintained; not be permitted to have more than 56% of the total weight as left side weight.
  - 4.) Throughout the Event, the minimum post weight requirement for the Race of Champions engine package utilizing the GM / Chevrolet Performance 602 Engine will be 2,500 pounds and a maximum weight requirement of 3,200 pounds will be required in this Series. Left side weight percentage must be maintained; not be permitted to have more than 56% of the total weight as left side weight.
- e.) Unless otherwise authorized by the Race of Champions, at all times all weights will be measured by the Race of Champions Officials using the scales provided by the Race of Champions. It is the responsibility of each race team to insure that its car meets the specified minimum weight requirements for this Series on these scales.
- f.) On major components, the use of non-magnetic and/or hollow fasteners and component mounting hardware with the intent of weight reduction will not be permitted.
- g.) Unless otherwise approved, Race Equipment, including car parts and components, that in the judgment of Race of Champions Officials have been constructed to increase the components weight beyond normal standards, will not be permitted.
- h.) Before the use of any composite component(s), the component(s) must be submitted to and approved by the Race of Champions for use in competition.
- i.) Mechanical devices used for or intended to be used for the shifting of weight that may be activated by the driver and/or a crew member while the car is static or in motion will not be permitted.
- j.) From time-to-time and/or specific event(s), the weight rules for the Race of Champions may be adjusted based on maintaining the balance of competition and adjustments in regard to "home track rules". Those adjustments will be issued specifically on the "Event Competition Format".

#### m.7 Body

# NOTE: Unless otherwise specified within Section M.1.B, the rules shall remain as published in section M.1.A. Only specified Race of Champions asphalt Sportsman Modified rules will appear in section M.1.B

## 1. Body

b.) The Race of Champions will with the rules as specified in Section m.7f the Rule Book. If authorized by the Race of Champions, deviations to these rules may be permitted for stand-alone Events only. All Events will be governed by the rules as published in Section m.7 of the Rule Book.

#### 15. Hood / Roof

d.) The roof panel should be from an approved manufacturer and be made of magnetic steel or fiberglass. All roof panels and their installation must be acceptable to Race of Champions Officials. The following are magnetic steel roof panels that are approved for competition:

MANUFACTURER PART NUMBER

General Motors 22699260 Ford F8RZ6350202AA

PTM Corporation NMT-111

Previously approved magnetic steel roofs will be permitted for competition if approved by Race of Champions Officials.

# m.8 Suspension

NOTE: Unless otherwise specified within Section M.1.B, the rules shall remain as published in section M.1.A. Only specified Race of Champions asphalt Sportsman Modified rules will appear in section M.1.B

#### 1. Suspension

a.) All suspension systems and components must be approved by Race of Champions Officials. Prior to being used in competition, all suspension systems and components must be submitted, in a completed form/assembly, to Race of Champions Officials for consideration of approval and approved by the Race of Champions. Each such part may thereafter be used until the Race of Champions determines that such part is no longer eligible. All suspension fasteners and mounting hardware must be made of solid magnetic steel.

#### 4. Shock Absorbers

- a.) Coil over shock absorbers may be used. Shock absorbers and coil over shock and spring, by visual reference, must remain within the outline of the body and no holes can be cut in the outer body for the mounting of shocks.
- b.) Shock absorbers must provide a resultant force dependent upon piston velocity and must be acceptable to Race of Champions Officials. Shock absorbers and components must be acceptable to Race of Champions Officials. Shock absorbers and components must be used as supplied by a manufacturer and approved by the Race of Champions. Shock absorbers and components must be available to all Competitors and must meet the following minimum requirements:
  - (1) Shock absorbers must be either a mono-tube or twin-tube telescoping type. Mono-tube shock absorbers must be of the nitrogen-gas pressurized, deflective disc valve type with an integral gas reservoir and with steel deflective disc valve shims sealing the primary metering faces of the single piston in the main shock body. Shock absorber bodies may be made of aluminum or magnetic steel. If the shock absorber is of the twintube type then it must use a maximum 1.375 inch diameter piston with compression bypass valves that are the coil-spring loaded disc type or the coil-spring loaded spool or poppet valve type and a compression head (may also be called foot valve or head valve). The twin-tube shock absorber may use a gas cell located between the tubes. An external gas reservoir will not be permitted. Inertial valves will not be permitted. Twin-tube shock absorbers and internal components must remain as produced by the manufacturer, approved by the Race of Champions and as displayed on the approved component shock board and as such, are not considered to be interchangeable and will not be permitted to be modified by the Competitor.
  - (2) Mono-tube shock absorbers must meet the following dimensions: Overall Length (Extended) 23.60 Inches Maximum (center to center) Piston/Shock Body Outside Diameter 2.16 Inches Maximum Piston/Shock Body Length 10.00 Inches Maximum Gas Reservoir Outside Diameter 2.60 Inches Maximum Gas Reservoir Length 3.80 Inches Maximum Shock Shaft Diameter 0.500 Inches Minimum and 0.630 Inches Maximum

**NOTE:** The internal bore of the shock absorber body must remain as supplied by the manufacturer. The internal bore diameter of the shock absorber body must be the same from top to bottom. Tapers, steps, grooves and other misalignments will not be permitted. Modifications which provide position sensitive piston travel will not be permitted.

- (3) Changes in shock absorber force must not be made by the position of the shock absorber shaft, only by the velocity of the shaft through the compression and rebound stroke. Only one (1) piston per shock with one (1) shim stack on compression side and one (1) shim stack on the rebound side of piston, will be permitted.
- (4) Only a single, manual, external shaft bleed adjustment through a tapered needle into a fixed orifice in the hollow shaft, acceptable to Race of Champions Officials, will be permitted on the shock absorbers of the mono-tube type.
- (5) Only a single manual external adjustment, with an adjusting pin (allen head screw) tapered to regulate bleed and pressure of the spring on the valve will be permitted on the shock absorbers of the twin tube type.
- (6) The shock absorber shaft must not have any sleeves or spacers that could limit the travel of the shaft into or out of the main body.
- c.) Shock absorbers and internal components are subject to inspections.
- d.) Race of Champions Officials may use a shock absorber provided by the respective manufacturer as a guide in determining whether a Competitor's shock absorber conforms to the specifications in the Rule Book.
- e.) A maximum of one (1) shock absorber per wheel will be permitted.
- f.) Quick disconnect shock mounts will not be permitted. The shocks must be attached with nuts and bolts.
- g.) External shock absorber reservoirs will not be permitted.
- h.) Remote or electronically controlled shock absorbers will not be permitted.
- i.) Heating pads and/or blankets will not be permitted for warming the shock absorbers.
- j.) Air scoops, covers or any aerodynamic devices on or around the front shock absorbers will not be permitted.
- k.) It is the responsibility of the crew chief, not the Race of Champions, to ensure the shock absorbers are used in accordance with the manufacturer's instructions and specifications.
- I.) There will be a maximum "racer retail" price per shock absorber, per corner of the car of \$350.00. The shock absorber will be searched by part number in three catalog locations and the mean price of the shock absorber will be used to determine the overall "racer retail" price of the shock absorber.
- m.) A shock absorber claim rule will be in effect for all shock absorbers. The claim will be \$350.00 per shock absorber claimed. The rules for the claim will be as follows;
  - 1.) In order for a competitor to claim another competitors shock absorber, the competitor initializing the claim must complete the race on the lead lap and must not have finished in the top five finishing positions of the race.
  - 2.) All claims must be made in writing within 15 minutes of the conclusion of the feature race.
  - 3.) The competitor who is having his shock absorbers claimed must surrender the shock absorbers to a Race of Champions Official for the claim and will receive payment from the Race of Champions.
  - 4.) In the event that any competitor refuses a written and acceptable claim, the competitor will be disqualified from the event.
  - 5.) The price of claiming each shock absorber will be \$350.00.
  - 6.) Grudge claims will not be accepted. In the event that a grudge claim is threatened and/or placed, the competitor placing the claim may be penalized per the section K of the rule book.
  - 7.) The Race of Champions reserves the right to claim any competitors shock absorbers at any time during any event.

#### 6. Spindles / Wheel Bearings / Hubs

- a.) The spindles, wheel bearings, and hubs must be acceptable to Race of Champions Officials and meet the following minimum requirements:
- b.) Heavy-duty magnetic steel spindles must be used.
- c.) The front spindles should be equipped with a minimum of one (1) and a maximum of two (2) tether attachment brackets mounted on the front of the spindle as shown and described in Diagram (#15) in the rear pages of the NASCAR Rule Book. The tether attachment brackets must be 3/16 inch thick magnetic steel and be completely welded to the spindle tower and spindle steering arm. The tether attachment brackets must have a 1/2 inch minimum diameter mounting hole and use a

- 1/2 inch minimum diameter bolt for the attachment of the front spindle tethers. The mounting holes must have a minimum of 3/4 inch of metal from the center of the mounting bolt to the edge of the bracket.
- d.) Wheel bearings must be magnetic steel, tapered roller bearings and bearing races. The bearings, races and seals must be assembled separately in the hubs.
- e.) Aluminum or magnetic steel hubs will be permitted. Only standard type wide five hubs using an inner bearing race with a maximum inside dimension of 1.995 inches and an outer bearing with a maximum inside dimension of 1.885 inches will be permitted. This does not apply to the 5 X 5 design steel hub designs. All hubs must use a moly type grease. Hubs that require oil as a lubricant will not be permitted.
- f.) The front spindles must be linked to the frame using a minimum of one (1) and should use two (2) Vectran® HS V-12 fiber cables on both the left side and right side. The fiber cables must be attached around the frame rearward of the upper A-frame mounts and forward of the front subframe bars (#16 A&B) using a choker-type hitch. The fiber cables must be attached to the tether attachment brackets mounted on the front spindles as described in 12-5B using a 1/2 inch minimum diameter magnetic steel bolt. The fiber cables must be constructed from a continuous loop of 5/16 inch diameter 12 strand cable (with a red tracer thread) woven from Vectran® HS V-12 fiber. The fiber cables should have the dated sleeve attached to the center of the continuous loop. The fiber cables must be from the approved manufacturer listed below:

### MANUFACTURER PART NUMBER

Amick Industries MD-103R2

The fiber cables and components (including expiration date and part number) must be in good quality condition and must remain as manufactured. The fiber cables must not be used past their expiration date which is three (3) years after the date of manufacture.

### 7. Tread Width Requirements

- a.) All cars must maintain the following tread width requirements. A minimum front and rear tread width of 82 inches and a maximum tread width of 83-3/4 inches will be permitted. The tread width will be determined by measuring the left outside wheel bead surface to the right outside wheel bead surface at spindle height.
- b.) Aluminum or steel spacers will be permitted to utilize the maximum allowable tread width.

#### 8. Wheelbase Requirements

- a.) On either side of the car the minimum wheelbase that will be permitted is 106 inches and the maximum wheelbase that will be permitted is 108 inches.
- b.) When measuring the wheelbase, the maximum allowable difference must not exceed one (1) inch plus or minus (+/-) on the opposite side. Any device or procedure which has the ability to dynamically change the wheelbase beyond normal travel parameters will not be permitted.

#### 10. Car Height Adjustment / Handling Devices

- a.) The only device permitted for adjusting the height of a car will be the front and rear coil over spring units as described in sub-section m.8.2. Adjustments will be permitted during an Event but must be done in a manner that results in the car maintaining body height requirements, as described in sub-section m.8.9.
- b.) Any device(s) for adjusting the handling characteristics or the car's height, which can be activated by the driver, will not be permitted inside of the driver's compartment.
- c.) Electrical, pneumatic, hydraulic, remote control, or any other devices, which change the handling characteristics or height of the car, will not be permitted.
- d.) Devices and/or procedures to, or used to, reduce or hold the car lower than the normal stiffness of the springs will not be permitted.
- e.) Car height adjustments will not be permitted on the left front suspension during a Race unless approved by Race of Champions Officials.

#### 11. Steering Components

- a.) All steering components must be approved by the Race of Champions. Prior to being used in competition, all major steering components must be submitted, in a completed form/assembly, to the Race of Champions Officials for consideration of approval and approved by the Race of Champions. Each such part may thereafter be used until the Race of Champions determines that such part is no longer eligible.
- b.) Rack and pinion steering will be permitted.
- c.) All cars must be equipped with a magnetic steel steering shaft.

- d.) Tie rods, drag links and steering component parts must be heavy-duty. Pitman arms that may be interchanged will be permitted. Holes and/or other modifications in steering components that, in the judgment of Race of Champions Officials, have been made with the intent of weight reduction, will not be permitted.
- e.) The center top of the steering post must be padded with at least two (2) inches of resilient material acceptable to Race of Champions Officials.
- f.) A quick-release steering wheel coupling with a magnetic steel housing acceptable to Race of Champions Officials must be used. The steering wheel coupling should meet the SFI 42.1 specification and display a valid SFI 42.1 label on the outside surface. The magnetic steel housing must not be covered with plastics or coatings.
- g.) The use of universal joints in the steering shaft must be acceptable to Race of Champions Officials. It is recommended that a minimum of two (2) universal joints be used forward of the firewall.
- h.) Only magnetic steel or aluminum steering wheels will be permitted.
- i.) The power steering pressure pump must be mounted and driven off the front of the engine.

#### 15. Rear Axle

- a.) The rear axle must be acceptable to Race of Champions Officials and meet the following requirements:
- b.) Aluminum or magnesium quick change rear end center sections equipped with aluminum or magnesium side bells will be permitted. Only quick change center sections with magnetic steel spur gears on the back side will be permitted.
- c.) Front loading type, mini type quick change rear ends will not be permitted.
- d.) Aftermarket racing magnetic steel or aluminum spool or magnetic steel aluminum mini spool will be permitted.
- e.) Only the 10"-inch ring and pinion will be permitted.
- f.) Only a magnetic steel lower jackshaft and driveshaft yoke will be permitted in the quick change rear end center section.
- g.) Only full floating magnetic steel double splined rear axles will be permitted. Any axles that require clips must be welded in place.
- h.) Only locked rear drive axle assemblies will be permitted at all times during an Event. Limited slip differentials will not be permitted.
- i.) Only magnetic steel axle tubes will be permitted. If axle housing support(s) are being used, the support must not have any type of adjustment and must maintain a solid mount on either end of the support.
- j.) The distance, measured from the center of the rear end housing to the rear hubs, left and right, at the point the wheels bolt on, must be within three (3) inches in length.
- h.) The rear end must be mounted so that the inside edge of the left rear tire is even with or outside the outermost edge of the left side frame rail.
- k.) Heating pads and/or blankets will not be permitted for warming the rear end assembly.
- I.) Any method or transmission gear higher than 1.18:1 designed to override the gear rule will not be permitted. The only high gear transmission ratio permitted will be 1.00:1. A tire circumference and air pressure minimum limit may also be in effect.
- m.) Race of Champions Officials may, at its discretion, require that all cars compete with a final drive gear ratio specified by Race of Champions Officials for each Event.
- I.) For purposes of checking a pre-determined final drive gear ratio, when jacked up both rear wheels must rotate in the same direction with each traveling the same rotational distance.

Race of Champions Asphalt Modified Gear Rule Chart for Reference (Track Size) 2020

For non-quick change type rear ends;

Track Type
1/2 mile 4.87
5/8 mile 4.87

Note: In 2020 a maximum short track gear will be established and issued via a technical bulletin.

# m.9 Roll Cage

NOTE: Unless otherwise specified within Section M.1.B, the rules shall remain as published in section M.1.A. Only specified Race of Champions asphalt Sportsman Modified rules will appear in section M.1.B

### m.10 Wheels

#### 1. Wheels

- a.) The wheels must be acceptable to Race of Champions Officials and meet the following requirements:
- b.) Only 15 inch diameter five (5) lug reinforced magnetic steel wheels with a maximum width of 13 inches will be permitted. A 12 inch maximum width is recommended.
- c.) Any offset (backspacing) will be permitted.
- d.) Steel valve stem hardware recommended by the manufacturer must be used. Valve stem caps must be installed at all times during competition.
- e.) Only solid, one-piece, heavy-duty 1/2-inch to 5/8-inch magnetic steel lug bolts and standard one (1) inch hex, fully threaded, solid, one-piece magnetic steel lug nuts, tapered on at least one (1) side, will be permitted. The first thread on each lug bolt must be visible from the front of the lug nut when the lug nut is installed. The same style lug bolt must be used for practice, qualifying and the Race. Design modifications to the lug bolts will not be permitted.
- f.) Bead locks will not be permitted.
- g.) Any device, modification or procedure to the tire, wheel or valve stem hardware, that in the judgment of Race of Champions Officials is used to release pressure (beyond normal pressure adjustments) from the tire and/or inner shield, will not be permitted.

### m.11 Tires

#### 1. Tires

a.) Only approved tires will be permitted. Approved tires are those tires that comply with the requirements of this rule and are recommended in writing, with prior notification to the Race of Champions by the Race of Champions-approved tire manufacturer for use by Competitors in the Event.

## 2. Physical Requirments

a.) All four (4) tires must be the same make and the same tread design.

#### 3. Tire Manufacturer Obligations

- a.) The tire manufacturer must provide the Race of Champions with the following information in writing two (2) weeks prior to the date of the Event. (1) Tire identification markings for each tire must be unique to one (1) particular size, construction, and rubber compound combination.
- (2) The recommended position on the car for each tire being used in the Event.
- b.) The same tires must be made available to each Competitor.
- c.) The Hoosier Racing Tire designation 1070 will be the only tire permitted for competition in Race of Champions Sportsman Modified events unless otherwise indicated in a bulletin and/or rule change as designated by Race of Champions Officials.

## 4. Tire Measurement Procedure

a.) A Race of Champions-approved measuring device will be used to determine the maximum size of the tire. Tires may be selected at each Event by Race of Champions Officials for measurements. Tires to be measured must be mounted on a 15 inch wheel of the proper rim width. Twenty pounds air pressure will be required for the measurements.

# 5. Tire Usage Rules

- a.) All tires must be used in approved positions. Approved positions are those positions on the car recommended in writing with prior notification to the Race of Champions, by the Race of Champions-approved tire manufacturer for its tires used by Competitors in the Event.
- b.) Unless otherwise authorized by the Race of Champions, all tires to be used for practice or qualifying must be purchased and mounted at the Event from the Race of Champions-approved tire supplier.
- c.) Unless otherwise authorized by the Race of Champions Officials, at all tracks teams will be required to use sticker tires (new tires) for qualifying and/or group qualifying, purchased on the day of the event.

- d.) Immediately following a qualifying attempt, wheels and tires from all qualified cars may be impounded and/or marked by Race of Champions Officials. Unless otherwise authorized by Race of Champions Officials, all tires used in qualifying must be used for the start of the Race. The impounded tires will be returned when the cars are prepared for the Race. The tires must be replaced in the positions from which they were removed.
- e.) Unless otherwise authorized by Race of Champions Officials, Competitors will not be permitted to make tire changes prior to the completion of the first official green flag lap of the Race.
- f.) The Race of Champions Officials may approve the replacement of an impounded tire when recommended by the tire manufacturer's representative without a starting position penalty provided the replacement tire carries the same manufacturer identification number as the tire used for qualifying.
- g.) The Race of Champions-approved tire supplier may re-balance or re-mount tires under the supervision of Race of Champions Officials.
- h.) Tire or wheel warming, using heaters, blankets, micro-wave or any other method will not be permitted.
- i.) Should identification numbers or serial numbers be defaced on any previously approved tire, this tire will be ruled ineligible for competition.
- j.) Tires that, in the judgment of Race of Champions Officials, have been altered by unauthorized treatment will not be permitted.
- k.) Hand grooving, buffing, grinding, and/or cutting on any area of the racing tire will not be permitted.
- I.) The Race of Champions Officials may establish a tire change rule for the particular Event being run. This rule shall be made known to all the Competitors at the Pre-Race driver's meeting. m.) Competitors presenting cars for inspection must have their tires inflated to the recommended technical inspection inflation pressures as specified by the participating tire manufacturer for the Event. If tire pressure(s) are not at the recommended technical inspection inflation pressures after competition, tires will be adjusted to the recommended technical inspection inflation pressures as specified by the participating tire manufacturer for the Event.

### m.12 Safety

NOTE: Unless otherwise specified within Section M.1.B, the rules shall remain as published in section M.1.A. Only specified Race of Champions asphalt Sportsman Modified rules will appear in section M.1.B

#### m.13 Other

NOTE: Unless otherwise specified within Section M.1.B, the rules shall remain as published in section M.1.A. Only specified Race of Champions asphalt Sportsman Modified rules will appear in section M.1.B

# m.14 Series Decal and Patches

NOTE: Unless otherwise specified within Section M.1.B, the rules shall remain as published in section M.1.A. Only specified Race of Champions asphalt Sportsman Modified rules will appear in section M.1.B

# M.1.B.b. Race of Champions "602" Asphalt Sportsman Modifieds

ANY CAR, TEAM AND/OR DRIVER THAT DOES NOT MEET THESE SPECIFICATIONS AND/OR EQUIPMENT REQUIREMENTS WILL BE SUBJECT TO PENALTIES AS DETERMINED BY THE Race of Champions OFFICIALS. Any new components, including engine components, body designs, frame designs and/or components of any type utilized in competition must be approved by Race of Champions Officials prior to being introduced into competition.

Any components for participants competing in Ontario, in events that may be held in accordance to rules other than Race of Champions Asphalt Sportsman Modified rules which are not defined by the following rules will be defined as pursuant to the 2021 Delaware Speedway and/or OSSCAR Rule Book.

Open to Race of Champions-approved automobile manufacturers provided they comply with, and adhere to specifications as outlined for this Series.

#### NOTICE

ALL MODEL, ENGINE OR EQUIPMENT CHANGES OR MODIFICATIONS NOT SPECIFICALLY ADDRESSED IN THIS RULE BOOK BY RACE OF CHAMPIONS MUST BE SUBMITTED, IN A COMPLETED FORM/ASSEMBLY, TO RACE OF CHAMPIONS FOR CONSIDERATION OF APPROVAL ON OR PRIOR TO NOVEMBER 1, 2021 UNLESS OTHERWISE AUTHORIZED BY RACE OF CHAMPIONS, TO BE CONSIDERED FOR COMPETITION FOR THE 2022 SEASON. THE APPLICANT WILL BE NOTIFIED OF APPROVAL OR REJECTION FROM RACE OF CHAMPIONS. RACE EQUIPMENT WILL NOT BE CONSIDERED AS HAVING BEEN APPROVED BY REASON OF HAVING PASSED THROUGH INSPECTION AT ANY TIME OR ANY NUMBER OF TIMES UNOBSERVED OR UNDETECTED. ANY RACE EQUIPMENT WHICH DOES NOT CONFORM TO SPECIFICATIONS OR TOLERANCES CONTAINED IN THE RACE OF CHAMPIONS RULE BOOK, OR IS NOT OTHERWISE APPROVED BY RACE OF CHAMPIONS, MAY NOT BE USED IN COMPETITION IN 2020. ALL SUBMITTED RACE EQUIPMENT MUST BE ACCOMPANIED BY COMPUTER AIDED DESIGN (CAD) FILES AND/OR MECHANICAL DRAWINGS AND REQUISITE FEE AS DETERMINED BY RACE OF CHAMPIONS.

NOTE: Unless otherwise specified within Section M.1.B, the rules shall remain as published in section M.1.A., and section M.1.B. Only specified Race of Champions asphalt Sportsman Modified rules will appear in section M.1.B.b.

Note; Unless otherwise noted within Section M.1.G, the rules remain the same as presented in section M.1.E.

## 15.1 Engines

- a.) The General Motors (GM) / Chevrolet Performance Engine part number #88958602/19258602 is the only engine permitted in all Race of Champions 602 "Crate" Sportsman Modified events.
- b.) The engine and all components must remain in their original configuration and form as purchased and/or delivered from the factory. Any alterations to the engine will not be permitted. The Engine must remain as manufactured by General Motors with a stock 4"-inch bore. Overbore(s) will not be permitted.
- c.) Repairs will not be permitted to any engine.
- d.) All engines are to remain sealed from the factory. The original factory seals must remain unaltered, Tampering, removal, modifications of any type and/or broken factory seals will not be permitted. The GM Engine must remain unaltered in any way.
- e.) The GM Crate Engine seals (bolt-type / bottle cap) must remain unaltered. Race of Champions Officials may require specific sealing and verification of all seals on any GM Crate Engine. Tampering with and/or alteration of any seals will not be permitted and is subject to immediate penalty and/or suspension.
- f.) Only GM replacement parts of any type will be permitted for any type of replacement and/or repair work. Only GM Crate Engine specific valve springs may be used for replacement and/or repair, Part Number # 10212811.
- f.) All engines must be purchased and sealed with approved sealing devices through Rocket Performance.
- F.) GM Crate Engine repairs must be authorized by Race of Champions. GM Crate Engine repair procedure works as follows:
  - 1.) Contact Race of Champions Officials and/or Administrative Office.
  - 2.) The Race of Champions Officials will specify a repair location and instruct the driver/owner where to take the engine to get an estimate.
  - 3.) Based on the estimate and the detail of the repair, the Race of Champions Officials will determine if the repairs may be made or if a new engine must be purchased.
  - 4.) If a repair is approved, a specified inspector will inspect the engine and work with the engine repair facility throughout the duration of the repair to ensure that the engine maintains the GM Specifications.
  - 5.) Upon completion of the repair(s) the engine will be 'resealed' before being released for competition.
  - 6.) All parts including the gasket repair kit(s) must be stock OEM Chevrolet Performance replacement parts. The receipt(s) generated from the Chevrolet Performance Dealer and/or parts department must be retained and a copy presented to the Race of Champions for verification.

- 7.) Overbores will not be permitted. If a cylinder has scoring and/or needs repair it must be communicated to Race of Champions Officials before being sleeved to maintain the original bore size.
- 8.) Valve jobs will not be permitted.
- 11.) The distributor advance curve and/or all parts must remain stock as manufactured.
- 12.) All engine information regarding repairs and/or engine introduction must be retained and turned into Race of Champions Officials, to track and manage engine database, including the driver, serial number, repair, type of repair and/or what type of service was performed to any engine.
- 13.) If any repair estimates come back to the Race of Champions Officials that is determined to be detrimental to the purpose of this division, a new engine, a new engine must be purchased. The engine that was damaged will no longer be eligible for competition.
- g.) Race of Champions Officials reserve the right to technically inspect, exchange and/or confiscate any GM Crate Engine at any time. Failure to surrender the engine and/or submit the engine for inspection equals disqualification from the event and/or suspension.
- h.) The intended direction of the GM Crate Engine program is to maintain a cost-effective, affordable racing program. Rebuilding, balancing, blue printing and/or any other alteration made in an attempt to influence the integrity of this program will not be permitted. The judgment and determination of any such decision will be at the sole discretion of Race of Champions Officials.

# Engine Verification.

- A. All motors must be repaired through Rocket Performance. The use of another Repair Centers will not be permitted.
- B. All current motors with GM Bolts/Bottle Cap seals or previously Race of Champions sealed engines may go through the verification program at Rocket Performance and have a QR seal attached to the motor. C. A new motor may also be purchased from Rocket Performance or Authorized Repair Centers and be updated to a verified motor with a QR seal.
- D. Seals from other sanctioning bodies are not accepted as verification seals.
- E. Verification pricing is locked in at \$550 (US) and \$750 (Can.)

## 3 Carburetor / Air Cleaner

- a.) Only one (1) 500 cfm Holley carburetor, Part Number 4412 or Holley HP Carburetor Part Number 80583 will be permitted.
- b.) All engines and all components must remain in their original configuration and form as purchased and/or delivered from the factory. Any changes will result in disqualification from the event. Any alterations to the engine will not be permitted.
- c.) 4412. part #0-80583:
  - 1.) The carburetor must maintain the stock venture and throttle bore dimensions.
  - 2.) The carburetor must maintain all stock dimensions, including mounting and stud location on intake manifold.
  - 3.) The booster height must remain stock OEM from Holley. Cutting, tumbling and/or polishing will not be permitted.
  - 4.) Modifications of any type will not be permitted.
  - 5.) The maximum height of the carburetor when measured from the bottom of the carburetor and/or the throttle plate to the machined horizontal surface of block will be in 7"-inches in
  - 7.) Gauge measurements (go/no-go) must be met at all times, regardless of carburetor temperature.
- f.) A single unaltered carburetor spacer plate with an unaltered square hole/opening including gasket with a maximum thickness of 1"-inch will be permitted. Tapering, machining and/or any other alteration to the spacer plate will not be permitted.
- g.) Only a single conventional round type air cleaner housing with a bottom 5"-inch center hole will be permitted. Ram air, air box and/or heat shield type devices will not be permitted. The air cleaner must remain in place when the hood is removed. The air cleaner must remain in place when the hood is removed.
- h.) Air cleaners that provide ventilation through the top cover (such as the K & N brand) will not be permitted.
- i.) Air induction plastic carburetor insert and/or other devices that direct air into the air intake will not be permitted.

- j.) Metal attached to the air cleaner will not be permitted.
- k.) The air cleaner must be centered on the carburetor.
- I.) Air diffusers will not be permitted.

#### 6 Ignition

- a.) Only stock OEM distributors will be permitted. The distributor must maintain the factory mechanical advance curve to stock OEM specifications. Alterations and/or adjustments will not be permitted with the exception of, lock plates may be added to the mechanical and vacuum distributor advance system. When both lock plates are added, mechanical weights and springs are to be removed along with the vacuum advance canister.
- b.) The ignition amplifier box ("rev box") and coil must be mounted under the hood and on a panel on the rear side of the firewarll shielded from heat (out of the driver's reach) for ease of inspection. The black wire must be grounded to the motor. When the hood is removed the "rev box" must be clearly visible and not covered.
- c.) The car must be fitted with one (1) unaltered approved MSD RPM (rev) limiting box, maximum 6000 RPM. The box and the chip must remain operable and working condition, prior to, during and after all racing events. The MSD 8727CT will be the only MSD RPM (rev) limiting box permitted for competition.
- d.) Trigger-type and/or crank trigger-type ignitions will not be permitted.
- e.) The ignition must be mechanically driven in the stock OEM location.
- f.) Only the stock OEM H.E.I. ignition coil will be permitted.
- g.) The wiring must remain as specified by the ignition amplifier box manufacturer.
- h.) One American Passenger Car sized battery with terminals on top and a maximum of 12 volts will be permitted. The battery voltage must not measure more than 14.3 volts. Step up transformer and/or any other device designed to increase voltage will not be permitted.
- i.) OEM stock firing order must be maintained for all engines. Standard GM Firing Order 18436572.
- j.) Ignition amplifier boxes, "rev boxes", RPM limiting chips, may be inspected, confiscated and/or exchanged at any time.
- k.) Traction control devices will not be permitted. Braking devices that control traction will not be permitted.
- l.) Race of Champions Officials reserve the rights to analyze and/or switch ignition boxes and/or rev chips at anytime.

# m.8 Suspension

NOTE: Unless otherwise specified within Section M.1.B, the rules shall remain as published in section M.1.A. Only specified Race of Champions asphalt Sportsman Modified rules will appear in section M.1.B

## 1. Suspension

a.) All suspension systems and components must be approved by Race of Champions Officials. Prior to being used in competition, all suspension systems and components must be submitted, in a completed form/assembly, to Race of Champions Officials for consideration of approval and approved by the Race of Champions. Each such part may thereafter be used until the Race of Champions determines that such part is no longer eligible. All suspension fasteners and mounting hardware must be made of solid magnetic steel.

# 2. Coil Springs

a.) All downward chassis movement while the race car is in competition must be limited only by the normal increasing stiffness of the springs or the bottoming of the chassis against the race track, whichever occurs first. <a href="Intentional mechanical binding of any type will not be permitted">Intentional mechanical binding of any type will not be permitted</a>. Any device or procedure that in the judgment of Race of Champions Officials attempts to detract from or compromise the above will not be permitted. Only coil spring suspension will be permitted. All coil springs must be constructed using round magnetic steel wire, wound in a clockwise direction. Ovate and flat wire will not be permitted. The coil spring wire diameter must be the same size from the top to the bottom of the springs. All of the coils in a spring must be active. The coil springs at all four (4) wheels must be active and permit suspension movement. All coil springs must not be colder than ambient temperature.

# b.) Coil Over Front Springs

(1) Coil over springs must mount to the lower A-frames.

- (2) Strut bars will not be permitted for mounting of coil over front springs.
- (3) Coil over springs must be heavy-duty magnetic steel and must be constructed with both coil ends closed and ground.
- (4) Only one (1) spring per wheel will be permitted. The minimum front spring rating will be 400 lbs.. Springs may be inspected and/or "rated" by Race of Champions Officials at any time.
- (5) Coil springs may be coated but coating thickness and material must be acceptable to Race of Champions Officials.
- (6) Unless otherwise authorized by the Race of Champions Officials, coil spring rubber inserts will not be permitted.

# c.) Coil Over Rear Springs

- (1) The rear spring position may be changed, but both rear springs must be located either inside or outside of the frame rails.
- (2) Coil over springs must be heavy-duty magnetic steel and must be constructed with both coil ends closed and ground.
- (3) Only one (1) spring per wheel will be permitted. The minimum rear spring rating will be 150 lbs. Springs may be inspected and/or "rated" by Race of Champions Officials at any time.
- (4) Coil spring rubber inserts will not be permitted.
- (5) Progressive or digressive rate springs will not be permitted.
- d.) All coil over springs and shocks must remain visible at all times. Covering of the coil over springs and shocks will not be permitted.

# 3. Sway Bars (Anti-Roll Bars)

- a.) Front sway bar(s), when used, must be for the purpose anti-roll only. The front sway bars must freely rotate in their mounts. The movement of the front sway bar arms must not be prevented or restricted beyond that of normal use as an anti-roll bar. The minimum sway bar rating permitted will be 300 lbs. The maximum sway bar rating permitted will be 500 lbs.
- b.) Only magnetic steel front sway bars will be permitted.
- c.) Rear sway bars (anti-roll bars) will not be permitted.

## 4. Shock Absorbers

- a.) Coil over shock absorbers may be used. Shock absorbers and coil over shock and spring, by visual reference, must remain within the outline of the body and no holes can be cut in the outer body for the mounting of shocks.
- b.) Only the specified PRO Shocks (Shock absorbers) will be permitted for competition;
- RF; AC550B LF; AC557B LR; AC746B RR; AC750B
- c.) Shock absorbers and internal components are subject to inspections in any manner necessary by Race of Champions officials.
- d.) Race of Champions Officials may use a shock absorber provided by the respective manufacturer as a guide in determining whether a Competitor's shock absorber conforms to the specifications in the Rule Book.
- e.) A maximum of one (1) shock absorber per wheel will be permitted.
- f.) Quick disconnect shock mounts will not be permitted. The shocks must be attached with nuts and bolts.
- j.) Air scoops, covers or any aerodynamic devices on or around the front shock absorbers will not be permitted.
- k.) It is the responsibility of the crew chief, not the Race of Champions, to ensure the shock absorbers are used in accordance with the manufacturer's instructions and specifications.
- m.) A shock absorber claim rule will be in effect for all shock absorbers. The claim will be \$200.00 per shock absorber claimed. The rules for the claim will be as follows:
  - 1.) In order for a competitor to claim another competitors shock absorber, the competitor initializing the claim must complete the race on the lead lap and must not have finished in the top five finishing positions of the race.
  - 2.) All claims must be made in writing within 15 minutes of the conclusion of the feature race.
  - 3.) The competitor who is having his shock absorbers claimed must surrender the shock absorbers to a Race of Champions Official for the claim and will receive payment from the Race of Champions.
  - 4.) In the event that any competitor refuses a written and acceptable claim, the competitor will be disqualified from the event.
  - 5.) The price of claiming each shock absorber will be \$200.00.

- 6.) Grudge claims will not be accepted. In the event that a grudge claim is threatened and/or placed, the competitor placing the claim may be penalized per the section K of the rule book.
- 7.) The Race of Champions reserves the right to claim any competitors shock absorbers at any time during any event.

## M.1.C Race of Champions Asphalt Late Models

ANY CAR, TEAM AND/OR DRIVER THAT DOES NOT MEET THESE SPECIFICATIONS AND/OR EQUIPMENT REQUIREMENTS WILL BE SUBJECT TO PENALTIES AS DETERMINED BY THE Race of Champions OFFICIALS. Any new components, including engine components, body designs, frame designs and/or components of any type utilized in competition must be approved by Race of Champions Officials prior to being introduced into competition.

Any components which are not defined by the following rules will be defined as pursuant to the 2020 Champion Racing Association Powered by JEGS Rulebook as per the latest revision of said copy: (http://cra-racing.com/wp-content/uploads/2015/12/2017-CRA-Rulebook-ver-010417.pdf)

For all body dimensions only the Approved Body Configuration (ABC) dimensions will be permitted (http://cra-racing.com/wp-content/uploads/2015/12/2020-CRA-Rulebook-ver-010417.pdf)

#### **NOTICE**

ALL MODEL, ENGINE OR EQUIPMENT CHANGES OR MODIFICATIONS NOT SPECIFICALLY ADDRESSED IN THIS RULE BOOK BY RACE OF CHAMPIONS MUST BE SUBMITTED, IN A COMPLETED FORM/ASSEMBLY, TO RACE OF CHAMPIONS FOR CONSIDERATION OF APPROVAL ON OR PRIOR TO NOVEMBER 1, 2020 UNLESS OTHERWISE AUTHORIZED BY RACE OF CHAMPIONS, TO BE CONSIDERED FOR COMPETITION FOR THE 2021 SEASON. THE APPLICANT WILL BE NOTIFIED OF APPROVAL OR REJECTION FROM RACE OF CHAMPIONS. RACE EQUIPMENT WILL NOT BE CONSIDERED AS HAVING BEEN APPROVED BY REASON OF HAVING PASSED THROUGH INSPECTION AT ANY TIME OR ANY NUMBER OF TIMES UNOBSERVED OR UNDETECTED. ANY RACE EQUIPMENT WHICH DOES NOT CONFORM TO SPECIFICATIONS OR TOLERANCES CONTAINED IN THE RACE OF CHAMPIONS RULE BOOK, OR IS NOT OTHERWISE APPROVED BY RACE OF CHAMPIONS, MAY NOT BE USED IN COMPETITION IN 2020. ALL SUBMITTED RACE EQUIPMENT MUST BE ACCOMPANIED BY COMPUTER AIDED DESIGN (CAD) FILES AND/OR MECHANICAL DRAWINGS AND REQUISITE FEE AS DETERMINED BY RACE OF CHAMPIONS.

## m.1 Engine

Engines / Engine Options

By January 1, 2020 any rebuilt crate engines as specified below must have the Sealed Engine Alliance Leaders (S.E.A.L.) seals from a rebuilder on the current S.E.A.L. approved list or carry a 50 lb penalty. Any type of seal and/or seals on the engine must remain in place and remain unaltered. It is recommended that any engine currently conformiming to the rules as set forth by the S.E.A.L. program, should be probably inspected and sealed by an approved engine builder prior to being entered into competition in the 2020 season. Gor-Den Automotive is the only engine builder in the region that is certified as part of the S.E.A.L. program.

The following engines are the approved "crate" engines for competition: GM #88958602; GM #88958604; Ford M06007-D347-SR; McGunegill Ford 425LM

a.) Any GM / Chevrolet Performance 602 Crate Engine (unaltered as per the GM / Chevrolet 602 Performance Manual) must weigh a minimum 2,650lbs with a total 59% left side weight.
b.) Any GM / Chevrolet Performance 604 Crate Engine (unaltered as per the GM / Chevrolet 604 Performance Manual – S.E.A.L.) must weigh a minimum 2,700lbs with a total 59% left side weight.
1.) CRA / JEGS 1.6 rocker arms will be permitted.

- 2.) Chevrolet Performance / GM Valve Spring Kit Part Number 12586484 or Comp Cam Part Number #941-16 will be permitted.
- 3.) The CRA / JEGS "short" oil pan will be permitted.
- 4.) The Chevrolet Performance / GM small diameter harmonic balancer will be permitted.
- 5.) A one (1) inch straight hole carburetor spacer will be permitted. Tapering and/or shaping of the hole(s) will not be permitted.
- c.) The CRA / JEGS Ford Engine (unaltered as per the Ford Manual) must weigh a minimum 2,750 lbs with a total 58% left side weight.
- d.) Any GM / Chevrolet Performance 604 Crate Engine with an altered cam shaft as per the rule book (S.E.A.L.) must weigh a minimum 2,750lbs with a total 58% left side weight.
  - 1.) CRA / JEGS 1.6 rocker arms will be permitted.
  - 2.) Chevrolet Performance / GM Valve Spring Kit Part Number 12586484 or Comp Cam Part Number #941-16 will be permitted.
  - 3.) The CRA / JEGS "short" oil pan will be permitted.
  - 4.) A maximum compression ratio of 10.0:1 will be permitted.
  - 5.) Porting of any type will not be permitted.
  - 6.) A one (1) inch straight hole carburetor spacer will be permitted. Tapering and/or or shaping of the hole(s) will not be permitted.
  - 7.) 5.7 connecting rods will be permitted.
  - 8.) A minimum 50lb crankshaft will be permitted.
  - 9.) All internal engine components and/or parts must remain unaltered as per the GM / Chevrolet Performance Manual for the GM / Chevrolet Performance 604 Engine.
  - 10.) The valve train must remain unaltered as per the GM / Chevrolet Performance Manual for the GM / Chevrolet Performance 604 Engine.
- e.) Any magnetic steel 23 degree cylinder head "built" engine must weigh a minimum 2,750lbs with a total 58% left side weight (This engine combination is intended to resemble the existing Sportsman Modified engine as presented in section M.1.B. 1.0 of this rule book);
  - 1.) A maximum of 360 cubic inches will be permitted.
  - 2.) A maximum compression ratio of 11.0:1 will be permitted.
  - 3.) Porting of any type will not be permitted.
  - 4.) A one (1) inch straight hole carburetor spacer will be permitted. Tapering and/or or shaping of the hole(s) will not be permitted.
  - 5.) One (1) 500 cfm unaltered Holley Carburetor will be permitted.
  - 6.) A minimum 48lb crankshaft will be permitted.
  - 7.) Titanium and/or any type exotic material component valve, valve train component, connecting rod, retainer and/or any other internal engine component will not be permitted.
  - 8.) Previously published rules for Late Models utilizing the magnetic steel 23 degree cylinder head "built" engine utilizing a two (2) barrel carburetor may apply.
  - 9.) Engines utilizing 18 degree cylinder heads will not be permitted for competition.
- f.) Any "Open" GM / Chevrolet Performance 604 Crate Engine with an altered cam shaft must weigh a minimum 2,775 lbs with a total 58% left side weight.
  - 1.) CRA / JEGS 1.6 rocker arms will be permitted.
  - 2.) The following valve spring part numbers kits will be permitted: Chevrolet Performance / GM Valve Spring Kit Part Number 12586484; Comp Cam Part Number #941-16; Isky Part Number 195a or the Pack Part Number 1218.
  - 3.) The CRA / JEGS "short" oil pan will be permitted.
  - 4.) A maximum compression ratio of 10.0:1 will be permitted.
  - 5.) Porting of any type will not be permitted.
  - 6.) The maximum push rod diameter will be 5/16"-inch to adjust the valve train for the proper geometry. Push rods must be magnetic steel.
  - 7.) Only hydraulic lifters will be permitted. Coil bind lifters will not be permitted.
  - 8.) A one (1) inch straight hole carburetor spacer will be permitted. Tapering and/or or shaping of the hole(s) will not be permitted.
  - 9.) 5.7 connecting rods will be permitted.

- 10.) A maximum bore of 4.030"-inch will be permitted.
- 11.) A minimum 50lb crankshaft will be permitted.
- 12.) The valve train must remain unaltered as per the GM / Chevrolet Performance Manual for the GM / Chevrolet Performance 604 Engine.
- g.) In addition to the Crane ignition boxes as permitted in the CRA Racing rule book, the MSD 6ALN ignition box will be permitted.
- i.) Engine options must be declared prior to competition and labeled clearly on the hood. Any deviation of and/or combination and/or variation from the declared engine option will be subject to a penalty as per section "K" of the Race of Champions rule book.
- j.) Any competitior that refuses pre-race inspection and/or a request for mechanical inspection at any point during an event will be disqualified from the event.
- k.) Engines may be inspected at any time, electronically, mechanically and/or otherwise.
- I.) A one (1) inch inspection plug is recommended for all engines. A one (1) inch inspection plug must be must be placed in the bottom of oil pan for visual and mechanical inspection. The inspection plug must be a minimum of 1 1/4" inch located 9 1/2" inches from the rear of the block face to the centerline of the inspection hole and 1 1/4" inches from the oil pan rail. Obstructed views from the inspection hole to the crank and rods will not be permitted. If the view is obstructed from the inspection hole, removal of the oil pan will be required.
- m.) At any point during an event, Race of Champions Officials may require competitors to adjust the overall and left side weight total and percentage based on competitive analysis.

#### m.1 B Transmission / Drive Train

- a.) Transmissions must be standard production design. The transmission must be from an approved manufacturer. Race of Champions Officials may use a transmission provided by the respective manufacturer as a guide in determining whether a Competitor's transmission conforms to the specifications of the Rule Book.
- b.) Unless otherwise specified by the Race of Champions Officials, the same transmission must be used for practice, qualifying, practice after qualifying and the start of the Race. A transmission must not be removed from a car without the approval of Race of Champions Officials. Race of Champions Officials may require any team that removes a transmission to start at the rear of the field, providing the car earns a starting position in the Race. The transmission may be removed from a backup car, without penalty, at the discretion of the Race of Champions Officials, as follows:
  - (1) If a car is wrecked beyond repair during qualifying and a backup car is used, a transmission change may be permitted, however, the transmission must be installed before the beginning of practice(s), if practice(s) is scheduled, that follow qualifying.

    (2) If a car is wrecked beyond repair during or after qualifying and a backup car is used, then a transmission change may be permitted without an additional penalty. If a competitor violates this Rule, in addition to imposition of a penalty pursuant to Section K, Race of Champions Officials may take such action during the Event as they deem appropriate, including but not limited to, loss of practice time and/or loss of the opportunity to qualify, and/or confiscation of the transmission or transmission components. Such action shall be deemed an inspection decision not subject to Section K.
- c.) Race of Champions Officials may, at its discretion, require that all cars compete with a final drive gear ratio specified by Race of Champions Officials for each Event.
- d.) High gear must be 1.00:1 (direct) and be the primary gear engaged on all tracks, except road course Events, during competition. Overdrive gears will not be permitted.
- f.) The transmission must be acceptable to Race of Champions Officials and meet the following requirements:
  - (1) Standard production OEM type Muncie or T-10 manual four (4) speed transmissions with OEM type angle cut forward gears will be permitted. Square cut forward gears will be permitted in OEM type Muncie or T-10 manual four (4) speed transmissions.
  - (2) The Jerico #2-SP two (2) speed manual transmission and the Jerico #3-SP three (3) speed manual transmission will be permitted. Straightcut forward gears will be permitted.
  - (3) The "Raptor" two-speed manual transmission will be permitted.
  - (4) Race of Champions-approved four (4) speed conversions with gears removed will be permitted. Transmissions may be of the top-load or left side-load designs only.
  - (5) Quick change and/or Automatic type transmissions will not be permitted.
- g.) Only aluminum or magnesium transmission housings will be permitted.

- h.) All transmissions must have the input shaft and its main gear constantly engaged. This assembly must be constantly engaged with the countershaft and its cluster and reverse gears.
- i.) Transmission gear ratios between 1.00:1 and 1.18:1 will not be permitted. The only high gear transmission ratio permitted will be 1.00:1.
- i.) A forward gear and reverse gear must be in working order.
- k.) Only manual shift linkage using the H-pattern type will be permitted on the transmission shift lever must be metal. All shift rods connecting the shifter mechanism to the transmission must be made of metal.
- I.) Only fire resistant type shifter boots will be permitted. The shifter boots should meet the SFI 48.1 specification and should display a valid SFI 48.1 label visible on the outside of the shifter boot. Shifter boots should not be used beyond two (2) years from the date of manufacture. Quick release fasteners will not be permitted to secure the shifter boot to the transmission tunnel. The shifter boot, when installed, must mount directly to and must be completely sealed to the floor of the car. Installation of the shifter boot must be acceptable to Race of Champions Officials.
- m.) Heating pads and/or blankets will not be permitted for warming the transmission.
- n.) All transmissions must be prepared with two (2) top cover or side cover bolts and two (2) tail housing bolts and two (2) transmission to bell housing bolts drilled to accept installation of a 1/8 inch minimum diameter Race of Champions seal.

## m.2 Fuel, Fuel Cells and Fuel Systems

- a.) Only VP Racing Fuels (VP110/Green) racing gasoline will be permitted for competition.
- b.) A VP Racing Fuels "Crate Fuel" may be designated and permitted for competition.
- c.) http://cra-racing.com/wp-content/uploads/2015/12/2020-CRA-Rulebook-ver-010417.pdf

### m.3 Muffler and Sound Reduction Devices

- a.) Mufflers must be used in competition.
- b.) Several tracks have a locally enforced decibel rule, which preempt any particular muffler rule. Some tracks may have a maximum sound level rule of 95 decibels at 100 feet. This rule will be enforced by local government agencies.
- c.) http://cra-racing.com/wp-content/uploads/2015/12/2020-CRA-Rulebook-ver-010417.pdf

# m.4 Traction Control Devices

- a.) All electronic and/or computerized wheel spin and/or ignition retardation and/or acceleration limiting and/or traction control devices of any type will not be permitted.
- b.) Adjustable ping control devices, dial a chip controls, timing controls and/or automated throttle controls will not be permitted.
- c.) Remote control components of any-type will not be permitted.
- d.) Data acquisition systems will not be permitted.
- e.) http://cra-racing.com/wp-content/uploads/2015/12/2020-CRA-Rulebook-ver-010417.pdf

### m.5 Chassis / Frame

a.) http://cra-racing.com/wp-content/uploads/2015/12/2020-CRA-Rulebook-ver-010417.pdf

# m.6 Weight

- a.) All cars must be weighed prior to the feature event (total and left side weight).
- b.) All weights listed with each engine option in section m.1 may be changed from time-to-time to achieve and maintain competitive balance.
- c.) The left side weight percentage must be maintained at all times throughout the event. If at any time the left side weight percentage is exceeded a penalty as per section "K" of the Race of Champions rule book may be issued.
- d.) http://cra-racing.com/wp-content/uploads/2015/12/2020-CRA-Rulebook-ver-010417.pdf

## m.7 Body

- a.) http://www.abcbodies.com/images/ABCrulebook-web.pdf
- b.) http://cra-racing.com/wp-content/uploads/2015/12/2020-CRA-Rulebook-ver-010417.pdf
- c.) The new edition "Generation 6" body will not be permitted for competition.

## m.8 Suspension

- a.) Four (4) way adjustable shock absorbers will not be permitted.
- b.) External canister shock absorbers will not be permitted.
- c.) http://cra-racing.com/wp-content/uploads/2015/12/2020-CRA-Rulebook-ver-010417.pdf

### m.9 Roll Cage

a.) http://cra-racing.com/wp-content/uploads/2015/12/2020-CRA-Rulebook-ver-010417.pdf

#### m.10 Tires

- a.) The following tire rule(s) will apply. Only the Hoosier tires will be permitted for all scheduled events. The determination of the Hoosier Tire compound will be issued 30-days prior to the first event of the 2020 season..
- b.) http://cra-racing.com/wp-content/uploads/2015/12/2020-CRA-Rulebook-ver-010417.pdf

### m.11 Wheels

a.) http://cra-racing.com/wp-content/uploads/2015/12/2020-CRA-Rulebook-ver-010417.pdf

#### m.12 Safety

a.) http://cra-racing.com/wp-content/uploads/2015/12/2020-CRA-Rulebook-ver-010417.pdf

#### m.13 Other

a.) http://cra-racing.com/wp-content/uploads/2015/12/2020-CRA-Rulebook-ver-010417.pdf

#### m.14 Series Decals and Patches

# M.1.D Race of Champions Super Stocks

ANY CAR, TEAM AND/OR DRIVER THAT DOES NOT MEET THESE SPECIFICATIONS AND/OR EQUIPMENT REQUIREMENTS WILL BE SUBJECT TO PENALTIES AS DETERMINED BY THE Race of Champions OFFICIALS. Any new components, including engine components, body designs, frame designs and/or components of any type utilized in competition must be approved by Race of Champions Officials prior to being introduced into competition.

The following rules have been established and may be adjusted further from time-to-time in the interest of competition and definition.

### **NOTICE**

ALL MODEL, ENGINE OR EQUIPMENT CHANGES OR MODIFICATIONS NOT SPECIFICALLY ADDRESSED IN THIS RULE BOOK BY RACE OF CHAMPIONS MUST BE SUBMITTED, IN A COMPLETED FORM/ASSEMBLY, TO RACE OF CHAMPIONS FOR CONSIDERATION OF APPROVAL ON OR PRIOR TO NOVEMBER 1, 2020 UNLESS OTHERWISE AUTHORIZED BY RACE OF CHAMPIONS, TO BE CONSIDERED FOR COMPETITION FOR THE 2021 SEASON. THE APPLICANT WILL BE NOTIFIED OF APPROVAL OR REJECTION FROM RACE OF CHAMPIONS. RACE EQUIPMENT WILL NOT BE CONSIDERED AS HAVING BEEN APPROVED BY REASON OF HAVING PASSED THROUGH INSPECTION AT ANY TIME OR ANY NUMBER OF TIMES UNOBSERVED OR UNDETECTED. ANY RACE EQUIPMENT WHICH DOES NOT CONFORM TO SPECIFICATIONS OR TOLERANCES CONTAINED IN THE RACE OF CHAMPIONS RULE BOOK, OR IS NOT OTHERWISE APPROVED BY RACE OF CHAMPIONS, MAY NOT BE USED IN COMPETITION IN 2020. ALL SUBMITTED RACE EQUIPMENT MUST BE ACCOMPANIED BY COMPUTER AIDED DESIGN (CAD) FILES AND/OR MECHANICAL DRAWINGS AND REQUISITE FEE AS DETERMINED BY RACE OF CHAMPIONS.

### m.1 Engine

# 1. Engines / Engine Options

- a.) All engine components must remain within their respective and designated engine package. Engine components exchanged between manufacturers and/or a specific engine designation will not be permitted.
- b.) A maximum of 360 cubic inches for any engine will be permitted. A maximum overbore of .060 will be permitted.
- c.) Only stock OEM production type GM Chevrolet type 350 cubic inch or Ford 351 (Windsor or Cleveland) cubic inch blocks will be permitted. The DART Engine Block part number #3116111 SHP will be permitted. Aftermarket type engine blocks will not be permitted.
- d.) Angle cutting of the block deck will not be permitted.
- e.) The engine block must be securely mounted to the frame.
- f.) Tilted blocks will not be permitted.
- g.) All bolt holes and bores must remain in the stock OEM location.
- h.) The maximum engine set back for all frames will be the number one (#1) spark plug hole in line with the centerline of the lower ball joint.
- i.) The engine displacement may be increased by increasing the bore size. The formula for determining the cubic inch displacement of the engine will be: Bore X Bore X .7854 X Stroke which will equal the cubic inch displacement of each cylinder. The cubic inch displacement of each cylinder added together will determine the total cubic inch displacement for the engine.
- j.) The maximum compression ratio permitted for any engine will be 10.0 to 1. When calculating the compression ratio a tolerance of one (1) cubic centimeter will be added to the volume for the area around the top of the piston down to the top of the piston ring that will be sealed with grease.
- k.) In the event that the compression ratio must be confirmed in a circumstance that requires calculation the following formula will be utilized; Bore X Bore X .7854 X Stroke equals the volume for each cylinder at Bottom Dead Center (BDC) in cubic centimeters. The cylinder head pour volume minus (-) the known volume of the cylinder head plate plus (+) the cylinder head gasket volume plus (+) 1.00 cubic centimeters for sealing the piston ring plus (+) the cylinder block volume minus (-) the known volume of the block plate equals the chamber volume. (Compress ratio = Cylinder Volume (+) Chamber Volume).

#### Crankshaft

- a.) Only a standard magnetic steel or cast iron production design crankshaft will be permitted. The crankshaft must be a minimum of 48lbs. The crankshaft journals, journal size, construction and/or appearance must remain as manufactured. Undersizing of crank journals will not be permitted.
- b.) A tolerance of (+/- .020) on the crankshaft rod journals will be permitted.
- c.) Any standard OEM production stroke dimension will be permitted.

# Connecting Rods

- a.) Only solid magnetic steel connecting rods (OEM or aftermarket) will be permitted.
- b.) Sportsman type connecting rods measuring a minimum of 5.700" inches and a maximum of 6.000" inches will be permitted for Chevrolet engines. The minimum weight for the aftermarket 5.700" connecting rod will be a total of 575 grams. The minimum weight for the aftermarket connecting rod will be a total of 600 grams.
- c.) The maximum Ford connecting rod length will be 6.000" inches.
- d.) A maximum length of 6"-inches will be permitted.
- e.) Deburring, removal of flashing, polishing, abrasive cleaning or any attempt at weight removal will not be permitted.
- f.) Stainless steel, aluminum, titanium and/or any other materials that are considered exotic materials will not be permitted.

# Pistons

- a.) Only stock OEM production type flat top and dished round pistons will be permitted. Dome pistons will not be permitted.
- b.) Only pistons with three (3) functioning ring grooves will be permitted. All three (3) rings must be in place.
- c.) Ceramic, plastics and/or any other type of exotic type material pistons will not be permitted.
- e.) Coatings of any type will not be permitted.

## Cylinder Heads

- a.) Only 23 degree cast iron unaltered stock production OEM cylinder heads (or listed part number replacement) as listed from the manufacturer will be permitted:
  - 1.) Chevrolet Vortec (L31) part number 10239906 (any vartion of this will need approval from Race of Champions Officials).

- 2.) Chevrolet Vortec (L31) part number 12558062 (any vartion of this will need approval from Race of Champions Officials).
- 3.) World Products Ford Windsor JR part number 053030
- 4.) World Products Replacement part number 42660
- 5.) World Products Replacement part number 42670
- 6.) For the 2020 season the DART S/S Vortec SBC Iron Cylinder Head, part number 10024370 may be used as a cylinder head for repair. This cylinder head will be reviewed and may be approved fully for the 2021 season.

NOTE: The cylinders heads listed may have limited availability and may become unavailable for retail in the future. Previously approved cylinder heads will be permitted for competition, however may be removed from the list and inspected as necessary to maintain that the correct cylinder is being used for competition based on the part number submitted for competition.

- b.) GM / Chevrolet Vortec Bowtie and/or Vortec type aftermarket, Ford Boss, Ford N Style, Ford angle plug, Chrysler Hemi, Pontiac Ram Air, Chevrolet bowtie, DART or DART type, Brzezinski or Brzezinski (UnderCover) type, High Performance or aluminum cylinder heads and/or components will not be permitted.
- c.) Porting of any type for any purpose will not be permitted.
- d.) The cylinder heads must remain stock as manufactured, including but not limited to internal and external measurements. Port matching, blending, porting, polishing, removal or addition of material to cylinder head will not be permitted.
- e.) Hand grinding and/or acid dipping will not be permitted.
- f.) The manufacturer specification and intake runner CC size must remain unaltered as specified for all approved cylinder heads with no tolerance.
- g.) All valves must remain identical in appearance and construction as a stock OEM type valve.
- h.) Only magnetic steel valve springs and/or push rods will be permitted.
- i.) Only 1.5 or 1.6 roller rockers will be permitted. Roller lifters will not be permitted. Roller rockers and stud girdles will be permitted. Shaft rocker arms and/or shaft mounted roller rocker arm systems of any type will not be permitted.
- j.) The following are the maximum valve size (Intake and Exhaust) permitted for specific cylinder heads:
  - 1.) Chevrolet and/or Ford: Intake Valve 2.020 / Exhaust Valve 1.600
- k.) The cylinder head must remain in the stock OEM location. Repositioning and/or relocating the cylinder head on the engine block will not be permitted.
- I.) The valve centerline and guide angle in relationship to the cylinder heads must be remain in the stock OEM position.
- m.) Porting and polishing by the removal or grinding of the original casting in runners will not be permitted. Epoxy fillers, welding, spray welding and/or any other coating or materials on or in the cylinder heads will not be permitted.
- n.) External painting will be permitted.
- o.) Air directional devices of any type on any valve surface will not be permitted.
- p.) Only magnetic steel push rods and valve springs will be permitted. Titanium and/or any other exotic type material will not be permitted.
- q.) Titaniaium valve spring retainers will not be permitted.
- r.) The maximum compression permitted will be 10.0:1

# 5 - B. GM / CHEVROLET PERFORMANCE CRATE ENGINE OPTION:

NOTE: In the interest of preserving the opportunity of an affordable entry into asphalt type competition, the Race of Champions reserves the right to create, introduce and/or specify the GM / Chevrolet Performance Crate Engine Option as the only option in the Race of Champions Super Stock division.

- a.) Only the Chevrolet Performance / GM Performance "602" Crate Engine will be permitted for competition.
- b.) The GM / Chevrolet Performance "602" Crate Engine will not receive a weight break unless otherwise posted in a bulletin and/or the Race of Champions rule book.
- c.) Any Chevrolet Performance and/or GM Crate engine and all components must remain in their original configuration and form as purchased and/or delivered from the factory. Any alterations to the engine will not be permitted. The Engine must remain as manufactured by General Motors. Overbore(s) will not be permitted. Repairs may be permitted with written permission from Race of Champions Officials.

- d.) All engines are to remain sealed from the factory. The original factory seals must remain unaltered, Tampering, removal, modifications of any type and/or broken factory seals will not be permitted. The GM Engine must remain unaltered in any way.
- e.) The GM Crate Engine seals (bolt-type) must remain unaltered. Race of Champions Officials may require specific sealing and verification of all seals on any Chevrolet Performance and/or GM Crate Engine. Tampering with and/or alteration of any seals will not be permitted and is subject to immediate penalty and/or suspension.
- f.) Only GM replacement parts of any type will be permitted for any type of replacement and/or repair work. Only GM Crate Engine specific valve springs may be used for replacement and/or repair.
- g.) The maximum RPM of the Chevrolet Performance and/or GM "602" engine will be 5,800 as controlled by part number# MSD 883647.
- h.) GM Crate Engine repairs must be authorized by Race of Champions Officials. GM Crate Engine repair procedure works as follows:
  - 1.) Contact the Race of Champions administrative office.
  - 2.) A repair location will be specified and instruct the driver/owner where to take the engine to get an estimate.
  - 3.) Based on the estimate and the detail of the repair, officials will determine if the repairs may be made or if a new engine must be purchased.
  - 4.) If a repair is approved, a specified inspector will inspect the engine and work with the engine repair facility throughout the duration of the repair to ensure that the engine maintains the Chevrolet / GM Specifications.
  - 5.) Upon completion of the repair(s) the engine will be 'resealed' before being released for competition.
  - 6.) All parts including the gasket repair kit(s) must be stock OEM Chevrolet Performance replacement parts. The receipt(s) generated from the GM / Chevrolet Performance Dealer and/or parts department must be retained and a copy presented to Race of Champions Officials for verification.
  - 7.) Overbores will not be permitted. If a cylinder has scoring and/or needs repair it must be communicated to Race of Champions officials before being sleeved to maintain the original bore size.
  - 8.) Valve jobs will not be permitted.
  - 9.) If the cylinder head requires resurfacing and/or valve seats, a new cylinder head must be purchased. Machine work of any type will not be permitted to the cylinder heads.
  - 10.) Bead blasting and/or any polishing and/or any alteration to the intake manifold and/or cylinder heads will not be permitted.
  - 11.) The distributor advance curve and/or all parts must remain stock as manufactured.
  - 12.) All engine information regarding repairs and/or engine introduction must be retained and turned into Race of Champions Officials, to track and manage engine database, including the driver, serial number, repair, type of repair and/or what type of service was performed to any engine.
  - 13.) If any repair estimates come back to the Race of Champions Officials that meet and/or exceed 60% of the actual price of a new engine, a new engine must be purchased. The engine that was damaged will no longer be eligible for competition.
- k.) Only the Chevrolet Performance "602" Engine may use an unaltered Holley stock (part number 0-4412C), (500 CFM). Exceptions to this rule will not be permitted. The carburetor must be securely fastened to the intake manifold in the stock location with one .0625(1/16th) or smaller gasket. Spacers or drop in spacers, alterations, physical changes, machining, reshaping or tampering with any part of the original parts, internal or external will not be permitted. Only genuine Holley replacement parts will be permitted.
- m.) In the event a "Crate" engine is found illegal and has been tampered with, a one (1) calendar year, suspension will be issued from the date of infraction for the first offense. An indefinite suspension will be issued for any offense after the first.
- n.) Race of Champions Officials reserve the right to technically inspect, exchange and/or confiscate any GM Crate Engine at any time. Failure to surrender the engine and/or submit the engine for inspection equals disqualification from the event and/or suspension.
- o.) The intended direction of the Chevrolet Performance / GM Crate Engine program is to maintain a cost-effective, affordable racing program. Rebuilding, balancing, blue printing and/or any other alteration made in an attempt to influence the integrity of this program will not be permitted. The judgment and determination of any such decision will be at the sole discretion of Race of Champions Officials.

- 6. Cam / Lifters / Timing Chain
  - a.) The camshaft, bores and lifters must remain in the original stock OEM location.
  - b.) Any hydraulic or solid camshaft will be permitted.
  - c.) Only magnetic steel lifters with a stock diameter will be permitted.
  - d.) Roller lifters will not be permitted.

#### 7. Ignition

- a.) Only stock point type distributor or electronic ignition systems will be permitted. Ignition components of any type in the driver's compartment will not be permitted. An aftermarket HEI stock replacement type distributor will be permitted. The MSD HEI Part Number #8635 will be permitted. Aftermarket coils that fit in the traditional stock OEM location will be permitted.
- b.) Ignition boxes and/or multi-spark type ignition systems will not be permitted.
- c.) The distributor must mount in the OEM stock location. Rotation and firing order must remain in the stock OEM firing order for the engine. GM Firing Order: 1-8-4-3-6-5-7-2
- d.) Adjustable timing controls will not be permitted.

#### Intake manifold

- a.) Only the following intake manifolds will be permitted competition:
  - i. Chevrolet Edelbrock #2101
  - ii. Chevrolet Edelbrock #7101
  - iii. Chevrolet Vortec #2116
  - iv. Chevrolet Vortec #7116
  - v. Ford #M-9424-C358
  - vi. Ford #M-9424-C302
  - vii. Ford Edelbrock #2121
  - viii. Ford Edelbrock #2181
  - viiii. Ford Edelbrock #2750
  - x. Chrysler Edelbrock #2176
- b.) Alterations and/or modifications of any type to the intake manifold including porting, acid dipping, polishing deburring, removal of flashing, abrasive cleaning, painting, milling, cutting, drilling, enlarging bolt holes, matching, welding or any other type of alteration will not be permitted.
- c.) Welding and/or epoxy and/or filling of any type will not be permitted.
- d.) Painting and/or coating and/or the application of coating will not be permitted.
- e.) Identiciation and/or part numbers on the intake manifold must remain unaltered in their stock OEM position.
- f.) The intake must be sealed without gaps and/or air introduction to the engine block and carburetor. Any type of gap will not be permitted.

## 9. Carburetor

- a.) Only the Holley 4412 500 CFM or the 4412 500 CFM CT will be permitted for competition. The 4412 500 CFM and 4412 500 CFM CT are separate carburetors and the interchanging of parts from one to the other will not be permitted. Only Holley replacement parts as designated by the part number will be permitted.
- b.) Alterations of any type, grinding, polishing, machined, coating and/or other wise; internal or external to the carburetor base and/or any of its components will not be permitted.
- c.) The carburetor must be mounted in the standard position on the intake manifold. Sideways mounting of the carburetor will not be permitted.
- d.) The venturis must remain unalterted.
- e.) Removal of the casting ring will not be permitted.
- f.) The base plate must remain unaltered.
- g.) The throttle shafts must remain unaltered. Machining, polishing, cutting and/or thinning of the throttle shafts will not be permitted.
- h.) The throttle plates (butterflies) may be drilled for idle holes only. Alteration to the shape, thinning, knife edging, rounding, tapering and/or any other type of alteration to the throttle plate will not be permitted.
- i.) Changing and/or tuning of the power valve, pump cam and/or accelerator pump and/or jets will be permitted, but must be Holley components and manufactured for the carburetor; OEM. Aftermarket and/or components that fit the carburetor that are not Holley OEM components for the part number of the carburetor will not be permitted.

- j.) Removal of the choke horn will not be permitted. Removal of the choke plate and choke linkage will be permitted. The gasket ring must remain unaltered from the manufacturer.
- k.) The carburetor boosters must maintain their stock OEM size and must remain in their original mounting location in the main carburetor body. Any alteration to the booster, the booster bridge, including but not limited to the raising or lowering of the booster height, will not be permitted.
- I.) Alterations that permit additiaon air to be introduced below the opening of the venturis such as altered gaskets, base plates and/or drilling holes into the carburetor will not be permitted.
- m.) Epoxy fillers of any type will not be permitted.
- n.) Only mechanical throttle type linkage will be permitted. Two (2) throttle return springs must be utilized. Cable type and/or any other type of throttle linkage will not be permitted.
- o.) A toe strap is mandatory.

#### 10. Carburetor Spacer / Adaptor Plate

- a.) A single one piece carburetor spacer will be permitted. The spacer may only be aluminum or pheonolic plastic material. Other materials will not be permitted. Taper and/or beveled shapes will not be permitted. The spacer must conform to the base of carburetor and use two (2) paper gaskets. The maximum thickness for either gasket will be .065"-inches.
- b.) The carburetor spacer must remain in the same position as the original carburetor mouting position on the intake manifold.
- c.) Wedge shaped mounting surfaces will not be permitted. The top and bottom surfaces must remain parallel.
- d.) The carburetor spacer must have two (2) holes a maximum of 1.750"-inches with a straight bore (perpendicular to the top and bottom surfaces) and match the base of the carburetor.
- e.) Any type of air flow modifications will not be permitted.

#### 11. Air Cleaner

- a.) Only one (1) round paper type (dry) air cleaner will be permitted. Openings on the top of the air cleaner will not be permitted. Plastic type (K&N) type bottom air cleaner housing components will be permitted. Plastic type (K&N) type top and bottom air cleaner housing components will not be permitted.
- b.) All air that enters engine must pass through air cleaner. Any type of device that directs and/or ducts air to or from the air cleaner will not be permitted. Air induction, ducts, baffles, tubes, funnels, hats and/or any other device that controls air entering the carburetor will not be permitted.
- c.) The filter must be mounted in the center of the carburetor. A maximum one (1) inch spacer will be permitted between the carburetor and the air cleaner.
- d.) Performance enhancing additives and/or chemical and/or freezing or cooling of, on and/or in the air cleaner and/or any of the air cleaner components will not be permitted.
- e.) Cold air boxes will not be permitted.

## 13. Oiling System

- a.) Only wet sump type oiling systems will be permitted. Dry sump type systems will not be permitted.
- b.) Only internal oil pumps driven from the distributor will be permitted.
- c.) Only standard type magnetic steel oil pans will be permitted.
- d.) Oil deflecting to individual rod and/or main journals will not be permitted.
- e.) Partitions of any kind in the oil pan will not be permitted. Oil pans must be approved prior to entry into competition by Race of Champions Officials.
- f.) Beginning January 1, 2017; A one (1) inch inspection plug must be must be placed in the bottom of oil pan for visual and mechanical inspection. The inspection plug must be a minimum of 1 1/4" inch located 9 1/2" inches from the rear of the block face to the centerline of the inspection hole and 1 1/4" inches from the oil pan rail. Obstructed views from the inspection hole to the crank and rods will not be permitted. If the view is obstructed from the inspection hole, removal of the oil pan will be required.

# 14. Engine / Car Electrical System / Ignition System

- a.) Only stock OEM type HEI type ignition systems will be permitted. Ignition components of any type in the driver's compartment will not be permitted. Aftermarket coils that fit in the traditional stock OEM location will be permitted.
- b.) Ignition boxes and/or multi-spark type ignition systems will not be permitted.
- c.) Adjustable timing controls will not be permitted.
- d.) Only the MSD soft-touch rev limiting system will be permitted.

### 15. Alternator

a.) The alternator system, if used, must be working within specifications and mounted on the front of the engine in the stock OEM location.

#### 16. Starter

a.) The self-starter must be in working order. After the race is underway, cars may be started by hand pushing on pit road and/or in the pit area only. Cars may not be hand pushed onto and/or on the race track during competition. In the event that any car is hand pushed onto or on the track during competition that car will be immediately disqualified from the event.

# 17. Battery

- a.) Only Race of Champions approved batteries with a maximum nominal voltage of 12 volts will be permitted. Each battery(s) must be of the standard automotive type.
- b.) The battery must be located between the frame rails. The battery must be completely encased. If located under the hood, the battery must have a suitable cover. The battery must not be forward of the radiator or rear of the rear end housing of the car. The battery location must be acceptable to Race of Champion Officials.

# 18. Engine Cooling System

- a.) The radiator must appear and work like an OEM radiator and be centered in front of engine. Copper, brass or aluminum radiators will be permitted. An additional dust screen used in front of the radiator, approved by Race of Champions Officials will be permitted.
- b.) Cooling or icing type chemicals in the engine compartment will not be permitted.
- c.) The coolant must flow in same direction as production engine.
- d.) External portable machines that provide cooling of the cooling system will not be permitted.
- e.) The radiator overflow pipe may be relocated and must use a minimum one (1) gallon overflow can.

## 19. Water Pump

- a.) Only OEM type water pumps, turning in the same direction of crankshaft rotation and in the approved location, will be permitted.
- b.) Coolant flow must be in the same direction as the approved production engine.

## 20. Engine Exhaust System

a.) The exhaust systems and components must be acceptable to Race of Champions Officials and meet the following minimum requirements.

# 21. Exhaust Headers

- a.) Exhaust headers or stock OEM steel exhaust manifolds will be permitted.
- b.) The exhaust must exit neatly behind the driver. Excessive holes and/or leaks within the exhaust system will not be permitted.
- c.) The exhaust header(s) must be a basic round tube exhaust header-type. Materials used in the exhaust header must be magnetic steel with the primary tube size of a maximum 1 3/4" inch and a minmum of 1 5/8" inch. Schoenfeld stock replacement exhaust headers will be permitted.
- d.) The exhaust headers may exit over the top of the bell housing.
- e.) Adjustable exhaust headers, try-y type, collector type, 180 degree, merge type, pyramid type, exhaust headers will not be permitted.
- f.) Inserts in the exhaust headers or collectors will not be permitted.
- g.) Exhaust systems will not be permitted in the driver's compartment.
- h.) Cross over pipes will be permitted on the exhaust pipes. "X" "Y" or two (2) into one (1) exhaust systems will be permitted.
- i.) The maximum exhaust pipe diameter will be 3" inches.
- i.) Thermal wrap on the exhaust headers will not be permitted.
- i.) Coatings of any type will not be permitted inside and/or outside the exhaust headers.

### 22. Drive Train

a.) All drive train systems and drive train system components must be approved by the Race of Champions. Prior to being used in competition, all drive train systems and drive train system components must be submitted, in a completed form/assembly, to the Race of Champions for consideration of approval and approved by the Race of Champions. Each such part may thereafter be used until the Race of Champions determines that such part is no longer eligible. All drive train fasteners and mounting hardware must be made of solid magnetic steel.

### 27. Clutch

- a.) Only mechanical foot pedal, cable or hydraulic operated clutches will be permitted. Pneumatic assisted clutches will not be permitted.
- b.) Any single disc OEM production type clutch assembly with a minimum 10-1/2" inch diameter steel hub disc will be permitted. The clutch assembly (clutch and flywheel) must weigh a minimum of 30 lbs. Lightweight or high performance clutches will not be permitted.
- c.)The clutch assembly must be bolted to the flywheel located inside the bell housing.
- d.) Only a single disc / pressure plate design type clutch assembly will be permitted for competition. The disc clutch housing assembly and cover must be made from aluminum or magnetic steel. The clutch cover must be the push-type design.
- e.) Only stock OEM production type solid magnetic steel or aluminum pressure plates, and magnetic steel floater plates, without any holes will be permitted.
- f.) The clutch must be mounted inside the bell housing.
- g.) Clutches must be a positive engagement design. Slider or slipper clutch designs will not be permitted.
- h.) Any single disc OEM production type clutch assembly with a minimum 10-1/2" inch diameter steel hub disc will be permitted.

#### 28. Bell Housing

- a.) Only aluminum or magnetic steel bell housings acceptable to Race of Champions Officials will be permitted.
- c.) It is recommended that a 3/4 inch hole be drilled in the top of the bell housing directly over the starter ring gear to manually turn the engine for checking the compression ratio limit. This will be the only modification permitted on the approved aluminum bell housings.
- d.) Holes and/or other modifications that, in the judgment of Race of Champions Officials, have been made with the intent of weight reduction will not be permitted.
- e.) For all engine block-mounted starters, the starter mounting position must remain on the right side for Ford and General Motors engines.

### 29. Transmission

- a.) Transmissions must be standard production OEM type design. Three (3) or four (4) speed standard transmissions will be permitted. All gears must be in working order and may not be altered and/or removed. Jericho, Richmond, T-10 or any other high performance type, racing purpose built transmission will not be permitted. The transmission must be from an approved manufacturer. Race of Champions Officials may use a transmission provided by the respective manufacturer as a guide in determining whether a Competitor's transmission conforms to the specifications of the Rule
- b.) Two (2) or three (3) speed automatic transmissions will be permitted. All gears must be in working order. Turbo 350, 6 or 8 cylinder Powerglides that maintain stock OEM production dimensions and/or components in working order will be permitted. Automatic direct drives will not be permitted.
- c.) Automatic transmissions must have a stock torque converter with stock dimensions. The torque converter may not be bypassed. The minimum diameter of the torque converter will be 10"-inches. The torque converter must not be hollow and must have and maintain stock working internal components.

## 30. Drive Shaft

- a.) The drive shaft, universal joints and yokes must be magnetic steel and similar in design to standard OEM production type drive shaft components. Only a one-piece magnetic steel drive shaft with a minimum outside diameter of two (2) inches and a minimum thickness of 0.090 inch or a minimum outside diameter of 2-1/2 inches and a minimum wall thickness of 0.065 inch will be permitted. All drive shafts must be painted white.
- b.) Two (2), 360 degree solid magnetic steel brackets, without holes or slots, not less than two (2) inches wide and 1/4 inch thick, must be placed around the drive shaft and be welded or fastened to the crossmember of the car. As an option the rear drive shaft bracket may be bolted directly to the torque arm using aminimum of two (2) high quality 3/8 inch minimum diameter bolts.

# m.2 Fuel, Fuel Cells and Fuel Systems

- a.) Only VP Racing Fuels (VP110/Purple) racing gasoline will be permitted for competition.
- b.) A designated VP Racing Fuels "Crate Fuel" may be permitted for competition.

c.) All cars must have maximum 22 gallon fuel cell enclosed in a magnetic steel container mounted securely in the rear of the car. The bottom of the fuel cell must not drop below the centerline of the rear axle housing with the car at the specified ride height.

### m.3 Muffler and Sound Reduction Devices

- a.) Mufflers must be used in competition.
- b.) Several tracks have a locally enforced decibel rule, which preempt any particular muffler rule. Some tracks may have a maximum sound level rule of 95 decibels at 100 feet. This rule will be enforced by local government agencies. Such decibel rules preempt utilizing the required mufflers in sub-section m.3.

### m.4 Traction Control Devices

- a.) All electronic and/or computerized wheel spin and/or ignition retardation and/or acceleration limiting and/or traction control devices of any type will not be permitted.
- b.) Adjustable ping control devices, dial a chip controls, timing controls and/or automated throttle controls will not be permitted.
- c.) Remote control components of any-type will not be permitted.
- d.) Data acquisition systems will not be permitted.

### m.5 Chassis / Frame

- a.) Interchanging of suspension components between manufacturers will not be permitted with respect to the manufacturer of the vehicle. The suspension must conform to the manufacturer of the chassis unless otherwise specified. Positive identification of the make, model and year of the chassis will be required for the purpose of inspection.
- b.) Any stock, unaltered metrick, g-body, Ford or full frame chassis, 1965 or newer will be permitted. The stock, unaltered Chevrolet Carmaro or Pontiac Firebird will be permitted without receiving a left side weight penalty.
- c.) The mounting points for all front suspension components should remain stock OEM in appearance. The upper control arm mounting perch may be moved and/or fabricated. The lowering of any front end pivot points and/or mounting locations will not be permitted.
- d.) The full "Johnson" tube chassis (front and rear clip) will be permitted. All suspension components must remain mounted in their stock OEM production and manufactuered locations.
- e.) A Camaro style front clip will only be permitted on a Camaro matching the year, make and model of the frame type.
- f.) The rear frame rails may be replaced with 2"-inch x 3"-inch rectangular tubing from the center of the rear axle housing to behind the fuel cell. The fuel cell must be enclosed by 1"-inch x 1"-inch square tubing.

# m.6 Weight

- a.) All cars must be weighed prior to the feature event (total and left side weight).
- b.) All cars must weigh a minimum of 3,200 lbs pre or post race with a maximum of 56% left side weight.
- c.) The left side weight percentage must be maintained at all times throughout the event. If at any time the left side weight percentage is exceeded a penalty as per section "K" of the Race of Champions rule book may be issued.

# m.7 Body

a.) Only stock appearing steel, fiberglass, aluminum or composite bodies will be permitted. Sheet metal and body panels may be fabricated, replaced and/or repaired out of steel, aluminum or composite materials. The body must remain neat in appearance. Sharp edges and or loose metal will not be permitted. Dirt and/or bodies with the intent of creating downforce and/or purposely redirecting the airflow over the body will not be permitted.

- b.) Fiberglass, aluminum or composite hoods and replacement body components will be permitted. Side rails, which are positively secured to the vehicle without sharp edges, will be permitted. <u>The hood must enclose the air cleaner</u>, 360 degrees, around the air cleaner.
- c.) Side windows, window naca-ducts, a-post, b-post and c-post windows made from lexan will not be permitted.
- d.) Side skirts, front spoilers and front valance will be permitted. The body must not extend any lower than bottom of the frame rail (five (5) inches) from the ground.
- $\underline{\mathbf{e}}$ .) A rear spoiler with the maximum height of six (6) inches will be permitted. Bracing on the spoiler will be permitted. The maximum width of the spoiler must not extend outside the edge of the quarter panels.
- f.) A full front windshield made from lexan must be used.
- g.) Aftermarket stock car bodies will be permitted. The ABC type and/or Super Late Model type downforce configuration of any type and/or separate components will not be permitted. AR Bodies 'Muscle Car' (Retro) style Ford Mustang, Chevrolet Camaro and/or Dodge Challenger will be permitted. AR Bodies Super Stock or Sportsman bodies will be permitted.

## m.8 Suspension

### 1. Suspension

- a.) All suspension systems and components must be approved by Race of Champions Officials. Prior to being used in competition, all suspension systems and components must be submitted, in a completed form/assembly, to Race of Champions Officials for consideration of approval and approved by the Race of Champions. Each such part may thereafter be used until the Race of Champions determines that such part is no longer eligible. All suspension fasteners and mounting hardware must be made of solid magnetic steel.
- b.) The rear suspension must remain stock OEM production four (4) link type as designed and located for the year make and model as the vehicle being entered into competition. Stock and/or aftermarket type (rod end) mounts, mounted solid and centered as a replacement for the stock mount will be permitted, provided the stock location is maintained.
- c.) The rear suspension and mounting points must remain in their stock OEM production location for the year make and model as the vehicle being entered into competition. Magnetic steel, rubber and/or mono ball mounting bushings will be permitted. Rear lower frame mounts may be replaced with fabricated and/or aftermarket brackets, due to the challenge in maintaining and poor conditions of existing OEM mounts, replacing and rebuilding any stock OEM production mount.
- d.) Watts linkage type of rear suspensions will not be permitted.
- e.) All three (3) link, panhard bar type rear suspension designs and/or late model rear type suspensions will not be permitted.
- f.) Upper and lower links in the stock four (4) link rear suspension must retain a stock OEM appearance and location when practical. In order to meet the frame height rule, the upper mounts may be moved and fabricated. The upper links may be adjusted from the stock OEM production dimensions in length. Components may be replaced with radius type rods to permit alignment of the chassis. The rear upper control arm mounts and mounting points may be replaced with fabricated and/or aftermarket brackets

# 2. Coil Springs

- a.) All coil springs must be constructed using round magnetic steel wire, wound in a clockwise direction. Ovate and flat wire will not be permitted. The coil spring wire diameter must be the same size from the top to the bottom of the springs. All of the coils in a spring must be active. The coil springs at all four (4) wheels must be active and permit suspension movement.
- b.) Coil Front and Rear Springs
  - (1) Coil springs must mount inside the lower A-frames spring bucket and the stock OEM location in the rear spring bucket(s).
  - (2) Coil springs must be heavy-duty magnetic steel and must be constructed with both coil ends closed and ground.
  - (3) Only one (1) spring per wheel will be permitted.
  - (4) Racing type springs may be used and must be of the same design as the stock OEM production springs and must mount in the original position and location.
  - (5) Unless otherwise authorized by the Race of Champions Officials, coil spring rubber inserts will not be permitted for qualifying or prior to the start of the Race. After the completion of one (1) green flag lap in a Race, one (1) coil spring rubber insert, not to

exceed one (1) full coil of the front coil spring, acceptable to Race of Champions Officials, will be permitted.

- (6) Progressive or digressive rate springs will not be permitted.
- (7) Coil springs may be cut and/or modified.
- c.) Coil springs over the shock absorber will not be permitted.
- d.) Weight adjust threaded rods and plates will be permitted on each spring (jacking bolts). The rear spring pockets may be moved and fabricated to allow for the installation of the jacking adjuster bolts and hardware.

# 3. Sway Bars (Anti-Roll Bars)

- a.) Front sway bar(s), when used, must be for the purpose anti-roll only. The front sway bars must freely rotate in their mounts. The movement of the front sway bar arms must not be prevented or restricted beyond that of normal use as an anti-roll bar.
- b.) Only stock OEM production type sway bars will be permitted.
- c.) The Howe manufactured style sway bar will be permitted.
- d.) Sway bars utilizing a spline mount will not be permitted.
- c.) Rear sway bars (anti-roll bars) will not be permitted.

### 4. Shock Absorbers

- a.) Only one shock absorber per wheel will be permitted for competition.
- b.) The shock absorber must be from a production shock absorber manufacturer and available to all participants for purchase with a listed "racer" list price of a maximum of \$125.00. Only the QA-1 part number 26A Series Shock Absorber with a "racer" list price of a maximum of \$139.95 will be permitted as an exception.
- c.) The shock absorber must meet and maintain the manufacturer's assembly and design. Any alteration from the original shock absorber manufacturer original assembly, including valving will not be permitted.
- d.) The shock absorber mounting position may be modified from the stock OEM production location to allow for clearance and installation of the front and rear weight jack adjuster bolts.
- e.) It is the responsibility of the crew chief, not the Race of Champions, to ensure the shock absorbers are used in accordance with the manufacturer's instructions and specifications.

### 5. A-Frames

- a.) The upper A-frames, lower A-frames and ball joints must be acceptable to Race of Champions Officials and meet the following minimum requirements.
- b.) Johnson chassis style lower control arms will be permitted.
- c.) Aftermarket upper and lower production type control arms will be permitted. Replacement control arms will be permitted.
- d.) Fully adjustable upper control arms will not be permitted regardless of the year make and model of the chassis.
- e.) Stock OEM production type, production type replacement ball joints or after-market type ball joint replacements will be permitted.

# 6. Spindles / Wheel Bearings / Hubs

- a.) The spindles, wheel bearings, and hubs must be acceptable to Race of Champions Officials and meet the following minimum requirements:
- b.) The spindles must be stock OEM production type spindles and used with the specified manufacturer. Interchanging of manufacturers will not be permitted.
- c.) The Speedway Motors GM Metric 3-piece spindle part number 910-34501 will be permitted.
- d.) Racing spindles will not be permitted. Drop spindles will not be permitted.
- e.) Aftermarket hubs will be permitted. Wide five racing hubs will not be permitted.

# 7. Tread Width Requirements

a.) All cars must maintain the following tread width requirements. A minimum front and rear tread width of 80 inches. The tread width will be determined by measuring the left outside tire sidewall surface to the right outside tire sidewall surface at spindle height.

# 8. Wheelbase Requirements

- a.) The minimum wheel base will be 108"-inches when measured on either side of the car.
- b.) When measuring the wheelbase, the maximum allowable difference must not exceed one (1) inch plus or minus (+/-) on the opposite side. Any device or procedure which has the ability to dynamically change the wheelbase beyond normal travel parameters will not be permitted.

### 9. Ground Clearance Requirements

**Ground Clearance Requirements** 

a.) The frame rail and sheet metal ground clearance will be a minimum of five (5) inches when measured at the frame behind the front tires and in front of the rear tires. All ground clearance requirements will be measured with the driver in the car.

### 10. Car Height Adjustment / Handling Devices

- a.) The only device permitted for adjusting the height of a car will be the front and rear coil over spring units (jacking bolts).
- b.) Any device(s) for adjusting the handling characteristics or the car's height, which can be activated by the driver, will not be permitted inside of the driver's compartment.
- c.) Electrical, pneumatic, hydraulic, remote control, or any other devices, which change the handling characteristics or height of the car, will not be permitted.
- d.) Devices and/or procedures to, or used to, reduce or hold the car lower than the normal stiffness of the springs will not be permitted.
- e.) Car height adjustments will not be permitted on the left front suspension during a Race unless approved by Race of Champions Officials.

# 11. Steering Components

- a.) All steering components must be approved by the Race of Champions. Prior to being used in competition, all major steering components must be submitted, in a completed form/assembly, to the Race of Champions Officials for consideration of approval and approved by the Race of Champions. Each such part may thereafter be used until the Race of Champions determines that such part is no longer eligible.
- b.) Rack and pinion steering will not be permitted.
- c.) The center-link, pitman-arm and idler arm must remain stock OEM production, non-adjustable and/or the specified replacement part as specified for the year, make and model. Howe and/or All-Star adjustable steering items will not be permitted.
- d.) All cars must be equipped with a magnetic steel steering shaft.
- e.) The inner tie rod ends must remain stock OEM production. The tie rods and outer tie rod ends may be replaced. Any alteration to any steering component must be approved by Race of Champions Officials.
- e.) Tie rods, drag links and steering component parts must be heavy-duty. Holes and/or other modifications in steering components that, in the judgment of Race of Champions Officials, have been made with the intent of weight reduction, will not be permitted.
- e.) The center top of the steering post must be padded with at least two (2) inches of resilient material acceptable to Race of Champions Officials.
- f.) A quick-release steering wheel coupling with a magnetic steel housing acceptable to Race of Champions Officials should be used. The steering wheel coupling should meet the SFI 42.1 specification and display a valid SFI 42.1 label on the outside surface. The magnetic steel housing must not be covered with plastics or coatings.
- g.) The use of universal joints in the steering shaft must be acceptable to Race of Champions Officials. It is recommended that a minimum of two (2) universal joints be used forward of the firewall.
- h.) Steering wheels must have solid, magnetic steel spokes.

#### 13. Brake Components

- a.) Stock OEM production type brakes will be permitted. Stock OEM production type disc brakes with magnetic cast iron or cast steel round rotors on the front and rear of the car will be permitted. Only metal brake calipers will be permitted.
- b.) Brakes must be operational on all four (4) wheels at all times. Valves of any type will not be permitted in the brake lines that will reduce or cut off the flow of brake fluid to a single wheel.
- c.) Inboard brakes will not be permitted.
- d.) Only one (1) brake caliper per wheel using only two (2) brake pads per caliper will be permitted. Brakes must be mounted in the stock OEM location. Brake calipers and mounting must be acceptable to Race of Champions Officials.
- e.) Brake pads must have a magnetic steel backing plate.
- g.) Brake rotors must be used as manufactured. Brake rotors must be acceptable to Race of Champions Officials.
- h.) Two (2) master cylinders may be used. Master cylinder(s) and reservoir(s) should be mounted on the engine side of the front firewall. The master cylinder(s) must be metal and must be the

pushpiston type. Only single-stage master cylinders will be permitted. Only one (1) bore size, per master cylinder, will be permitted. Pull type master cylinders will not be permitted.

- i.) Holes and/or other modifications in the brake pedal arm that, in the judgment of Race of Champions Officials, have been made with the intent of weight reduction will not be permitted.
- j.) Only mechanical, hand operated, cable driven brake bias adjustment systems out of the reach of the driver will be permitted.
- k.) Inline brake proportioning systems will not be permitted.
- I.) Electronic wheel speed sensors or brake actuators will not be permitted.
- m.) Power assisted braking systems will not be permitted.
- n.) Quick disconnect fittings on the brake lines will not be permitted.
- o.) Brake pad retraction devices will not be permitted.

#### 15. Rear Axle

- a.) The rear axle must be acceptable to Race of Champions Officials and meet the following requirements:
- b.) The GM 10 bolt 7.5, 8.5 and Ford 9"-inch type (in any manufacturer) locked rear ends will be permitted. Aluminum and/or any compositie type and/or exotic type material center sections will not be permitted.
- c.) Ratchets and/or lockers (Detroit Locker, Gold Track, Gleason) of any type from any manufacturer will not be permitted.
- d.) Full floater rear ends will be permitted. Aluminum or magnetic steel spools will be permitted.
- e.) Full floating magnetic steel axles will be permitted for competition.
- f.) Only magnetic steel axle tubes will be permitted.
- g.) All rear ends must be a four (4) link suspension type mounted in the stock OEM production location with stock OEM type rear suspension components for the year, make and model of the vehicle. Steel or rubber bushings in the four (4) link suspension mounting will be permitted. Interchanging of rear end components and mounting locations of the year, make and model will not be permitted.
- h.) Panhard and/or track bars will not be permitted.
- i.) Heating pads and/or blankets will not be permitted for warming the rear end assembly.
- j.) Race of Champions Officials may, at its discretion, require that all cars compete with a final drive gear ratio specified by Race of Champions Officials for each Event.
- k.) For purposes of checking a pre-determined final drive gear ratio, when jacked up both rear wheels must rotate in the same direction with each traveling the same rotational distance.

# m.9 Roll Cage

# 1. Roll Cage

- a.) The main roll cage and center design and construction must be of the standard stock car type and be approved by Race of Champions Officials.
- b.) The main roll cage must be constructed with a minimum outside diameter of 1-3/4"-inch .090"-inch wall thickness seamless tubing welded completely.
- c.) Radical and/or one off type roll cage designs will not be permitted.
- d.) Sharp and/or unfinished bars, plates and/or metal and/or any exposed metal of any type will not be permitted.

### m.10 Tires

- a.) The following tire rule(s) will apply. Only the used Hoosier tires as supplied will be permitted for all scheduled events.
- b.) Chemical alteration, treatment, defacing, mechanical and/or any type of treatment that adjusts the chemical composition of the tire will not be permitted.
- c.) The tire must meet the specified Race of Champions Officials durometer reading when the tire is cold and/or hot. The specified durometer that each tire must meet will be made known at each event.

#### m.11 Wheels

a.) Only steel wheels with a maximum diameter of 15"-inches and only a width of 8"-inches will be permitted for competition. Wheels manufactured specifically for racing will be permitted.

- b.) The offset of the wheel must be within one (1) inch from side-to-side of the vehicle.
- c.) A maximum of 80"-inches of treadwidth will be permitted when measured from outside-tooutside of the sidewall of the tire.
- d.) A straight line marked in visible ink will be required on the rear tires across the wheel and on to the side wall of the tire.

## m.12 Safety

NOTE: Unless otherwise specified within Section M.1.D, the rules shall remain as published in section M.1.A. Only specified Race of Champions Super Stock (formerly Big 10) rules will appear in section M.1.D

a.) All safety items are subject to approval by Race of Champions Officials.

### m.13 Other

NOTE: Unless otherwise specified within Section M.1.D, the rules shall remain as published in section M.1.A. Only specified Race of Champions Super Stock (formerly Big 10) rules will appear in section M.1.D

### m.14 Series Decals and Patches

NOTE: Unless otherwise specified within Section M.1.B, the rules shall remain as published in section M.1.A. Only specified Race of Champions Super Stock (formerly Big 10) rules will appear in section M.1.D

## M.1.E Race of Champions Dirt Modified

ANY CAR, TEAM AND/OR DRIVER THAT DOES NOT MEET THESE SPECIFICATIONS AND/OR EQUIPMENT REQUIREMENTS WILL BE SUBJECT TO PENALTIES AS DETERMINED BY THE RACE OF CHAMPIONS OFFICIALS. Any new components, including engine components, body designs, frame designs and/or components of any type utilized in competition must be approved by the Race of Champions Officials prior to being introduced into competition.

# 1 Engines General and Location

- a.) Conventional stock type V-8 engines (OEM American long block GM, Ford and Chrysler) with the cam in the block will be permitted. Aftermarket DART and Merlin cast iron engine blocks will be permitted.
- b.) A maximum displacement of 467 cubic inches will be permitted with a minimum displacement of 396 cubic inches. An overall maximum tolerance of 10 cubic inches for wear will be permitted.
- c.) Aluminum engine blocks will not be permitted.
- d.) Reverse rotation engines will not be permitted.
- e.) The engine must be centered in the front of the chassis and placed in an upright position.
- f.) Engine set back will be as follows; Minimum is 56"-inches and a Maximum of 66"-inches with a tolerance of  $\frac{1}{2}$ "-inch (+/-). The setback will be measured from the centerline of the front axle to the rear machined surface of the engine bell housing.
- g.) In the event that there are new engine components and/or a new engine configuration, they must be submitted to the Race of Champions Officials and approved prior to being introduced into competition. Only Race of Champions Officials will be able to approve new engine and previously unapproved engine components.

## 2 Carburetor

- a.) All engines must be normally aspirated with a single conventional-type four (4) barrel carburetor utilizing Holley components. The metering blocks and the base plate may be altered.
- b.) A maximum of four (4) venturis will be permitted.
- c.) Fuel injection, nitrous oxide injection, turbo chargers and/or superchargers will not be permitted.
- d.) Fuel and/or air must enter the carburetor through the standard air path / venturi's as is typical in a stock OEM carburetor.
- e.) In-line venturis will not be permitted.

f.) A minimum of two (2) throttle return springs and a metal toe loop mounted on the gas pedal will be required. The throttle return springs must be mounted in separate locations.

# 3 Intake Manifold

- a.) Any single piece American production cast intake manifold that permits the mounting of only one four (4) barrel carburetor will be permitted.
- b.) Only cast aluminum and/or cast iron intake manifolds will be permitted.
- c.) Porting of the intake manifold will be permitted.

# 4 Cylinder Heads

- a.) Any design cylinder head manufactured from cast aluminum or cast iron will be permitted. The minimum valve angle permitted for any Chevrolet and/or GM type cylinder head will be 18 degrees. Ford and/or Chrysler cylinder head(s) must be approved by the Race of Champions Officials prior to being utilized in competition.
- b.) Porting will be permitted.
- c.) Valves must remain in a traditional type pattern, but may be any size.
- d.) Only two (2) valves per cylinder will be permitted.
- e.) Only one (1) spark plug per cylinder will be permitted.
- f.) Titanium valves and retainers will be permitted.
- g.) Hollow stem valves and/or liquid cooled valves will not be permitted.
- h.) The engine must have an operating self-starting mechanism. Vehicles that require a 'push start' will not be permitted.

### 5 Camshaft

- a.) Any design camshaft will be permitted, provided the camshaft remains in a stock location in the engine block.
- b.) Chain or belt drives will be permitted.
- c.) Overhead cams and/or similar type applications will not be permitted.

### 6 Pistons, Connecting Rods and Crankshaft

- a.) Only aluminum pistons will be permitted.
- b.) Coatings of any type will not be permitted.
- c.) Only steel or cast iron crank shafts will be permitted.
- d.) Any design, length and/or make of magnetic steel connecting rods will be permitted.
- e.) Titanium crankshafts and/or connecting rods will not be permitted.

# 7 Ignition

- a.) Any type of mechanically driven ignition located in the stock position will be permitted.
- b.) Crank trigger type ignition systems will not be permitted.
- c.) Only one (1) ignition coil and one (1) ignition amplified box will be permitted in the system and on the car.
- d.) Magnetos will be permitted.
- e.) Ignition boxes must remain as manufactured. Internal or external alterations to the ignition amplifier box will not be permitted.
- f.) From time-to-time ignition boxes may be impounded for inspection and/or exchanged and/or analyzed by the ignition amplifier box manufacturer.
- g.) All ignition wiring must remain as designed by the manufacturer and in an exposed manner for ease of inspection.
- h.) One American Passenger Car sized battery with a maximum of 16 volts will be permitted. The battery voltage must not measure more than 16.8 volts. Step up transformer and/or any other device designed to increase voltage will not be permitted.
- i.) The battery must be securely mounted inside the frame rails.
- j.) All cars must have an ignition switch, which is easily accessible by the driver and/or safety crew and clearly labeled ON/OFF in the driver's compartment.
- k.) A battery shut-off switch is mandatory. The switch must be clearly labeled ON/OFF. The switch must be mounted on the left side inner panel (above the steering post). The switch must be outside

the panel and easily accessed externally. The switch must be wired to shut off the hot (pos +) side. See diagram in the back of this rule book.

### 8 Lubrication/Oiling System/Oil Cooler

- a.) Only a conventional type wet or dry-type oil pump will be permitted. Internal or external pumps will be permitted. Multi-stage dry sump oil pumps driven by a standard belt drive will be permitted.
- b.) One oil tank and one oil cooler will be permitted within the oiling system.
- c.) Only magnetic steel or aluminum oil pans will be permitted.
- d.) Air-type and/or vacuum-type pumps for the purpose of removing air from the oil pan and/or system will not be permitted.
- e.) The oil pan on conventional Big Block and the "DIRTcar 500" engines must have a one (1") inch diameter inspection hole on the left side to permit inspection. If no inspection hole is present the oil pan must be removed for inspection.
- f.) The oil tank and the oil cooler may be mounted outside the frame rails.
- g.) The maximum capacity of the oil tank must be 12 US quarts.
- h.) The oil tank and the oil cooler must be fully enclosed by the body and must be securely mounted and positively fastened to the frame. Reference the drawing in the back of this rule book for the minimum oil cooler specifications.
- i.) Excessive bracing and/or mounting material will not be permitted.
- j.) Oil coolers mounted outside the external body work will not be permitted. All oil cooler hoses and/or plumbing must be in a sheath (protective covering) and remain under the body.
- k.) Oil coolers must be mounted under the hood or under the side wings/pods. Oil coolers mounted behind the driver will not be permitted. Oil coolers that are not under the hood must have ducting covering them on both sides and remain below the bodywork. Unless mounted under the hood the oil cooler must be mounted horizontal and flush with the cut out in the side wing/pod area.

# 9 "SPEC DIRTcar 500"

The "DIRTcar 500 Big Block Engine" (formerly CV Products Part Number: DIRTCAR 500) has been introduced as an optional engine in regard to an economical option for competitors to utilize. Following are the specifications:

- a.)The "DIRTcar 500" Big Block engine will have a maximum cubic inch displacement of 499.900 cubic inches with a compression ratio of 13.5:1. The engine must maintain the stock 4.600"-inch bore and the 3.760"-inch stroke. An overall maximum tolerance of 10 cubic inches for wear will be permitted.
- b.) The "DIRTcar 500" Dart Engine block must remain unaltered. Alterations, such as lightening of the engine block and/or the removal of any material from the engine block will not be permitted. The method for inspection will be to 'pump' the engine to measure the cubic inch displacement and 'whistle' the engine for the compression ratio, in addition to initial visual inspection for the DIRTcar labeled components.
- c.) The "DIRTcar 500" Dart cylinder heads and intake manifold must remain unaltered as manufactured. The addition of material, including epoxy to either the cylinder heads and/or intake manifold will not be permitted. Alterations such as lightening and/or the removal of any material from the cylinder heads and/or the intake manifold will not be permitted. Cylinder head and/or intake manifold porting and/or matching will not be permitted.
- d.) The "DIRTcar 500" Stef's aluminum oil pan must remain unaltered. The oil pan has an inspection hole manufactured for visual inspection.
- e.) The use of titanium connecting rods and/or valves will not be permitted.
- f.) The maximum valve stem size will be a maximum of 11/32"-inch for the exhaust valves.
- g.) The "DIRTcar 500" MSD distributor, included with the "DIRTcar 500" Engine, must remain unaltered and must run with a 7,800 RPM chip. During any post-race technical inspection the hood must remain on and in-place until a Race of Champions Official is present.
- h.) In the event "DIRTcar 500" Engine requires a repair and/or rebuild the following process must be followed
  - 1.) Contact the Race of Champions Technical Officials and inform them of the repair or the rebuild for tracking purposes.
  - 2.) Alterations to the engine block, cylinder heads, intake manifold, oil pan and/or distributor/ignition system will not be permitted. If any of those components require replacement and/or repair the replacement must be the same as the original part and part number issued with the original "DIRTcar 500" Engine Package. The new components must remain unaltered as if the engine were new.

- i.) Race of Champions Officials reserve the right to adjust and/or specify the rules to maintain a level
- field of competition.

  j.) The following is the original parts chart for the "DIRTcar 500" Big Block Engine (CV Products Part Number: "DIRTCAR 500" Note: These components are recommended for assembly, however the only specified parts remain as follows; DART Cylinder Block, Cylinder Heads, Intake Manifold and Oil Pan):

Manufacturer	Part
ARP	Carburetor stud kit
ARP	Engine accessory bolt kit
ARP	Head bolt kit
Bosch	Spark plugs
Calico	Connecting rod bearings
Calico	main bearings
Callies	Two-piece seal, 3.760 stroke with standard 2.200 rod journals
Canton	Canton oil pump adapter
Cloyes	Timing set
Cloyes	Cam button
Cometic	Complete engine gasket kit
CV Brand	Timing pointer
CV Brand	Timing cover
CV Brand	Serpentine drive kit
CV Products	Water pump pulley
CV Products	Pulley spacers
CV Products	Crank pulley
CV Products	Crank hub
CV Products	Power steering pulley
CV Products	Pulley adapter
CV Products	Power steering pump mount
Dart Machinery	Steel engine block
Dart Machinery	Aluminum cylinder heads
Dart Machinery	Aluminum intake manifold
Denso	Alternator pulley
Denso	Alternator bracket
Denso	Alternator
Diamond Racing Products	Diamond pistons
Diamond Racing Products	Diamond pins
Diamond Racing Products	Diamond locks
Diamond Racing Products	Diamond piston rings
Edelbrock	Water pump
Enders	Enders camshaft

Gibb's Racing Oil	Break in oil
Goodyear	Belts
HVH	2" carb spacer
Manley Performance	Intake valves
Manley Performance	Exhaust valves
Manley Performance	Titanium retainers

Manley Performance	Valve locks
Manley Performance	Spring cups
Manley Performance	Spring kit
Manley Performance	Connecting rods
Manley Performance	Pushrods / intake
Manley Performance	Pushrods / exhaust
Moroso	Crankcase evac
MSD Ignition	Distributor/mag
MSD Ignition	Distributor hold down kit
MSD Ignition	Spark plug wires
Precision Parts	Balancer
Spin	Fuel pump pushrod
Spin	Fuel pump
Spin	Power steering pump
Stef's Performance	Low profile valve covers pair
Stef's Performance	Aluminum oil pan with heater & inspection port
Stef's Performance	Modified oil pump & pick-up
T&D	T & D rockers
Wix Filters	Oil filter
Xceldyne X2	Lifters

# 10 Transmission/Driveline and Driveline Components

- a.) Only approved North American and/or Canadian manufactured manual shift transmissions will be permitted. Automatic and/or automatic-type transmissions will not be permitted.
- b.) Overdrive and/or under-drive transmissions will not be permitted.
- c.) Running through reduction gears will not be permitted. The transmission must be direct drive to the rear end.
- d.) The transmission must have working gears. Forward, neutral and reverse must be working. From the neutral position and with the motor running, the car must be able to go for-ward and/or a backward in a smooth manner. The car must start and move under its own power.
- e.) The transmission must bolt to the bell housing.
- f.) Driveline components made of carbon fiber, titanium and/or other materials (considered exotic) will not be permitted.
- g.) A maximum of two (2) universal joints per driveline will be permitted.

# 11 Driveshaft

- a.) Only one (1) drive shaft connected from the transmission to the center section of the rear end will be permitted.
- b.) Two (2) driveshaft hoops / rings a minimum  $\frac{1}{4}$ "-inch thick x 2"-inch wide magnetic steel must be positively fastened by two (2)  $\frac{3}{8}$ "-inch grade 5 bolts to the frame and/or torque arm side plates installed around each universal joint.
- c.) The drive shaft must have some type of drive shaft cover/shield. Cars with open drive shafts must have a drive shaft tunnel a minimum of 1/8"-inch thick magnetic steel extending from 2"-inches under the front edge of the seat to the back of the transmission covering the shaft and the universal joint(s) and output flange on top and both sides. The tunnel must extend down to the floorboards. The cover must be positively fastened with a minimum of four (4) 3/8"-inch diameter bolts at the bottom connected to a cross-member. The cover must be a solid unit with no cuts and/or holes and/or removed material for the purpose of weight reduction. The only hole may be for the gear shift control.
- d.) Closed drive type cars, torque tubes and/or bells that already have a 360 degree cover from the universal joint back to the seat will be permitted.
- e.) Carbon fiber, titanium, and/or other materials (considered exotic) will not be permitted.

# 12 Engine Cooling System/Radiator

- a.) Only one (1) radiator will be permitted. The minimum width of the radiator will be 20"-inches when measured from the outside edge(s) of the radiator. The radiator must be mounted vertically in front of the engine. The minimum height of the radiator must be 22"-inches when measured from the bottom of the frame rail vertically and may incorporate the oil cooler to achieve the vertical height. Radiators mounted on an angle will not be permitted.
- b.) Plastic and/or carbon fiber radiators will not be permitted.
- c.) Auxiliary cooling tanks and/or overflow cans and/or canisters will not be permitted in the cockpit.
- d.) The cooling fan for the radiator must be mounted in the stock OEM location on the front of the water pump. Fans mounted to the crankshaft will not be permitted. Electric fans and/or water pumps will not be permitted.

#### 13 Rear End

- a.) Only competition type rear ends will be permitted.
- b.) Hypoid-type and/or Nine (9") Ford-type and/or limited slip-type and/or lockers and/or two speed rear ends will not be permitted. Non quick change type rear ends will not be permitted.
- c.) Only solid aluminum and/or magnetic steel spools will be permitted.
- d.) Only steel and/or aluminum rear spindles will be permitted. If the rear spindle is machined from aluminum it must be a one-piece tube and spindle with a minimum outside diameter 2-7/8" and a maximum 2-1/2" inside diameter.
- e.) Live rear ends with aluminum and/or steel axles will be permitted.
- f.) Carbon fiber, titanium and/or other materials (considered exotic) for any rear end component will not be permitted.
- g.) A maximum rear end offset of 4"-inches from the center of the inside tire width when measured from the inside of the left rear tire to the inside of the right rear tire at axle height.
- h.) Rear axle tubes must have and maintain a maximum wall thickness of .375"-inches.
- i.) Inserts made of any material that slide inside of the rear axle tube other than the axle itself that act as ballast will not be permitted.
- j.) Only aluminum rear axle tubes and birdcages will be permitted.
- k.) Outer collars that attach the rearend and/or birdcage will be permitted. Outer collars for any other purpose, including but not limited to adding ballast to the rear axle tube will not be permitted.
- I.) The maximum outside diameter of the rear axle tubes will be 3"-inches with the exception of the birdcage mounting area. Only conventional type birdcages that are not new in design will be permitted. Any new birdcage desgins must be approved prior to entry into completion by Race of Champions officials.
- m.) Only aluminum wheel spacers will be permitted. Steel and/or any other material type wheel spacers will not be permitted for competition.
- n.) The maximum hub weight for competition will be 10 pounds. Ballast of any type inside the hub and/or as part of the hub will not be permitted.
- o.) Aluminum and/or steel wheel wheels will be permitted. The maximum weight for any wheel will be 28 pounds.

# M.2 Fuel, Fuel Cells and Fuel System

# 1 Fuel, Fuel Cells and Fuel System

- a.) All cars must have fuel cells that meet and/or exceed SFI 28.1/.2 and/or FT3 specifications and must be not be older than five (5) years from the date of manufacture. The fuel cell must have a maximum capacity of 24.5 US gallons and must remain in a rectangle and/or square shape for measuring and calculating capacity. The fuel cell must be mounted securely in its container and centered between the frame rails. Pressure tanks on fuel systems will not be permitted. Auxiliary fuel tanks will not be permitted.
- b.) The maximum capacity of the fuel when measured empty and/or dry will be measured in cubic inches utilizing the standard formula of length (minus  $\frac{1}{2}$ "-inch) x width (minus  $\frac{1}{2}$ "-inch) x depth (minus  $\frac{1}{2}$ "-inch) will be 5,660 cubic inches.
- c.) The foam in the fuel cell must remain unaltered. A minimal cut in the foam will be permitted in the shape of a square or a rectangle. The cut may be no more than 1,000 square inches. The foam must retain the factory cut.
- d.) The fuel cell must be enclosed completely in a rectangle and/or square container that is a minimum thickness of 20-gauge magnetic steel. An aluminum container may be used as an option and must be a minimum of .060"-inch in thickness. On the bottom of the fuel cell, a piece of .090guage material (aluminum and/or magnetic steel - in addition to the existing container) must be used at the bottom of the fuel cell container to prevent bowing and/or deflection. The .090-guage material must have an inspection hole drilled near the center of the piece to measure the thickness of the material. A 1"-inch x 1"-inch x .0625"-inch thick magnetic steel square tubing rack must be fabricated on the top, front and rear sides of the fuel cell container. The square tubing must be a minimum of 5"-inches from the outside edge of the fuel cell on either side. The rack may be fastened to the bottom of the fuel cell can utilizing a piece of magnetic steel angle material that is a minimum of 1"-inch x 1"inch with a minimum material thickness of .065"-inch magnetic angle steel that is on all four (4) sides of the container. Drilling multiple holes and/or any attempt to lighten any piece within the fuel cell container and/or rack will not be permitted. The measurements taken in regard to the fuel cell container will be measured on an inside-to-inside basis. A tolerance for material thickness will be calculated and permitted for dimensions, however there will be no tolerance for expansion and/or containers that are larger than the minimum.

For Specified events only;

The car must come to inspection with the fuel cell exposed for the purpose of inspection and sealing. The fuel cell can bolts must be tight and the bolt heads must be drilled for the purpose of a seal. The filler plate and the bolts that hold the can together will be sealed.

- e.) The fuel cell and/or the container material around the fuel cell must not be able to expand in any way. Tank panels that are bowed and/or bellied and/or positioned to create additional capacity of the fuel cell will not be permitted. Oversized filter housings, fuel coolers, oversized lines, fuel logs and/or any other device that increases the capacity of the fuel system will not be permitted.
- f.) Only one (1) fuel filter with a maximum capacity of one (1) US quart will be permitted with one (1) carburetor fuel log with a maximum outside diameter of 1-1/2"-inches. The fuel log must remain straight without bends and/or curves and must be a maximum of 16"-inches in length Plastic and/or glass fuel filters will not be permitted.
- g.) Fuel coolers of any type will not be permitted.
- h.) The entire fuel cell container must be visible for ease of inspection.
- i.) The fuel cell must be mounted behind the driver rear axle between the rear tires, a minimum of 4"-inches ahead of the rear bumper.
- j.) The fuel cell must be mounted with a minimum of two (2) .125"-inch thick steel straps a minimum of 1"-inch wide. The straps must cover the entire cell. Fuel cells that are mounted in a square tubing frame will be permitted. A minimum of 5/6"-inch ASTM Grade 8 bolts must be used to mount the fuel cell to the frame.
- k.) The bottom of the fuel cell container must be a minimum of 12"-inches from the ground.
- I.) A horizontal bar a minimum of 1"-inch in diameter and .095" in wall thickness must be mounted behind the fuel cell.
- m.) The fuel pick up must be positioned on the top of the fuel cell and be constructed of metal. The vent line must have a check valve.
- n.) Only VP Racing Fuels, the official fuel of the Race of Champions will be permitted for competition. VP Racing Fuels (C12/Light Green) or VP Racing Fuels (VP110/Green) will be the only specified fuel permitted at any sanctioned Race of Champions event. Blending of fuels, including fuels of different octane will not be permitted. Alcohol, methanol, nitrous oxide, nitro-methane and/or propylene oxide will not be permitted. Fuel may be subject to inspection and testing at any time. Proof of purchase for the official fuel of the Race of Champions may be required.

- o.) For the purpose of inspection, the driver and/or crew must be prepared to drain fuel upon request for inspection and/or measurement.
- p.) Only mechanical and/or belt driven fuel pumps will be permitted. Fuel injection system(s) and/or electrical fuel pumps and/or any type of pressurized fuel system will not be permitted.
- q.) A #10 line will be the maximum size fuel line permitted.
- r.) For all events that require a fuel stop the quick fill connect must be located in the upper corner of the left rear quarter panel. The filler tube must take a straight and direct route to the fuel cell from the quick fill connect. Only one fuel filler tube is permitted with a maximum outside diameter of 3"-inches. Quick fill tubes constructed of rigid materials such as aluminum will not be permitted. When a quick fill device is utilized there must be a vent line with a maximum inside diameter of 1-1/4"-inches. The fuel vent line must take a straight and direct route from the fuel cell to the quarter panel and must be able to accept a catch-can with a one-way check valve. The fuel vent line must positively fasten to the left rear corner of the rear panel.
- s.) The catch can man may not stand behind the rear bumper of the car during pit stop refueling.
- t.) Any fuel lines quick fill and/or fuel vent lines must not be visible from behind the car and must be contained within the rear panel which must be symmetrical in size and shape.
- u.) Onboard fire suppression systems are recommended.
- v.) For the Official Fuel of the Race of Champions; the fuel provider's decals must be displayed on both sides of all Race of Champions racecars and a patch is required on the drivers uniform. Logos and/or the presentation of any other fuel manufacturer and/or fuel refinery on the racecar and/or drivers uniform will not be permitted.

### M.3 Exhaust - Muffler and Sound Reduction Devices

- a.) Each car must have one (1) unaltered muffler per exhaust.
- b.) The exhaust must exit past the driver and the exhaust must flow toward the rear of the car in an upward manner away from the racing surface. Exhaust systems that face the outside of the car will not be permitted.
- c.) Each muffler must have a tail pipe that is a minimum of 10"-inches long when measured off the rear edge of the muffler.
- d.) Cross-over and/or the joining of exhaust systems from side-to-side will not be permitted.
- e.) Any manufacturer of exhaust header is permitted, but the header material must be magnetic steel and/or stainless steel.
- f.) The permitted mufflers include: Dynomax part number: 17224, 17539 and 17628; Extreme Muffler part number(s): 31530, 31535, 31230, 31235 or 30830; Beyea part number(s): MUF3DM and MUF3.5DM: Hentry's Exhaust: DMMS, DMSS.
- g.) Several tracks have a locally enforced decibel rule, which preempt any particular muffler rule. Some tracks may have a maximum sound level rule of 95 decibels at 100 feet. This rule will be enforced by local government agencies. Such decibel rules preempt utilizing the required mufflers in sub-section 15.3.

### M.4 Traction Control Device

- a.) All electronic and/or computerized wheel spin and/or ignition retardation and/or acceleration limiting and/or traction control devices of any type will not be permitted.
- b.) Adjustable ping control devices, dial a chip controls, timing controls and/or automated throttle controls will not be permitted.
- c.) Adjustable restrictor plates will not be permitted.
- d.) Remote control components of any-type will not be permitted.
- e.) Radios and/or devices for transmitting voice and/or data will not be permitted, unless otherwise authorized prior to any event.
- f.) Data acquisition systems will not be permitted.

### M.5 Chassis/Frame

a.) All frames must be fabricated utilizing 2"x4" rectangular magnetic steel tubing with a .120" wall thickness. Only 2"x4" rectangular box frames between the front and rear axle centers will be permitted. The 4"-inch side of the rectangular tubing must remain in the vertical position. For the purpose of inspection one 3/16" diameter hole may be drilled in each frame rail. Other holes will not be permitted. Round tubing must be either 1-1/2" outside diameter and/or 1-3/4" outside diameter with wall thickness of .095"-inches.

- b.) Frame width will be as follows; At the front shock towers a minimum 24" and a maximum of 35"-inches. Rear of the car is a minimum of 26" with a maximum of 35"-inches. The minimum frame width at the rear roll bar must be 26"-inches. All measurements will be taken from the outside of the frame rails, at the top and bottom of the frame rails and its longest length. Clips, sub-frames, etc., will be considered a part of the frame.
- c.) The minimum length of the 2"x4" frame rails begins 14"-inches in front of the centerline of the rear axle and extends to the front of the radiator. The left and right rails (both top and bottom) must be equal in distance from the driveline centerline along the total length of the frame. Offset frame rails will not be permitted. A maximum 4"-inch indent in the lower left rear frame rail for suspension clearance will be permitted. The two (2) upper frame rails in the engine compartment may be altered for engine clearance only.
- d.) The kick-ups must meet the same specifications as the roll cage and/or frame material.
- e.) Titanium and/or carbon fiber material(s) will not be permitted on the chassis and/or frame.
- f.) There must be a minimum of 2-1/2"-inches ground clearance from the chassis at its lowest point.
- g.) Metal, lexan, rubber air dams, fins, spoilers, skirts and/or air directional devices underneath the car will not be permitted.
- h.) Ground effects will not be permitted.

# 1 Seat Location and Mounting in Frame

- a.) The seat and steering wheel must be centered in the frame. Offset mounting of the seat and/or steering wheel will not be permitted.
- b.) The bottom rear of the seat must be a maximum of 16"-inches from the centerline of the rear axle. Refer to the drawing at the back of this rule book.

### M.6 Weight / Ballast

- **a.)** All cars will be weighed with the driver seated in the car. The minimum weight permitted before and/or after an on track event will be measured by the track scales. The track scales will be the official scales. All cars found to be light prior to any event, time permitting will be allowed to make the necessary adjustments and represent themselves at the scales. The number of cars to be weighed after an event will be announced at the driver's meeting and/or on the one-way radio. If a car is signaled to go to the scales in any fashion and does not report to the scales at the appropriate time, that car may be disqualified from the event. Any car that is found to be light following time trials and/or a qualifying event will be disqualified from that particular race and may make the necessary adjustments and represent themselves for that car's assigned consolation event. If a car is found to be light after the feature event, that car may be disqualified from the event.
  - All Big Block Modifieds utilizing a Big Block engine per this rule book must maintain a minimum weight of 2,500 lbs following the completion of any event.
  - All Big Block Modifieds utilizing a "DIRTcar 500" Big Block engine per this rule book
    must maintain a minimum weight of 2,500 lbs following the completion of any
    event.
  - All Modifieds utilizing a "Spec" 358 Modified engine with the Brodix "Spec" heads, ported intake and "tri-y" exhaust or the GM / Chevrolet Performance CT525 must maintain a minimum weight of 2,450 lbs following the completion of any event.
  - All Modified utilizing an "Open Small Block" Motor with ported 18 or 23 degree steel
    and/or cast iron cylinder heads up to a maximum of 358 cubic inches with a wet
    sump oiling system must maintain a minimum weight of 2,500 lbs following the
    completion of any event.
  - All Modifieds utilizing a Brodix "Spec." 358 Modified engine with the stock intake
    manifold and spec. Schoenfeld headers and a steel or aluminum oil pan must
    maintain a minimum weight of 2,400 lbs following the completion of any event.
  - All Modifieds utilizing a ported steel head 358 engine with a dry a sump system of any type and/or cylinder heads that are not standard 18 or 23 degree type per this rule book must maintain a minimum weight of 2,650 lbs following the completion of any event.
- **b.)** Any small block (short block in length) running with the Big Block Modifieds may only have a maximum engine displacement as specified by the Spec 358 engine rules and the car must follow all Spec 358 Modified rules.
- **c.)** All weights and/or ballast must be positively fastened and mounted within the vertical planes formed by the frame rails and must remain stationary during competition. All weight(s) must have a minimum of two (2) ½"-inch diameter, grade 5 bolts and/or studs passing completely through the

weight. Bolts and/or studs must be anchored to a suitable clamp to fasten it to the frame. Bolts and/or studs welded to the frame will not be permitted.

- **d.)** All weights must be painted white and clearly labeled with the car number on it. For the period of one event, competitors may label there weight with white duct tape with the car number clearly labeled on the duct tape.
- e.) Ballast and/or weight may not be mounted to the roll cage above the rear deck.

#### m.7 Body

# **BODY STYLE AND DIMENSIONS**

ALL MEASUREMENTS MAY BE TAKEN WITH OR WITHOUT DRIVER AND/ OR WITH OR WITH OUT FUEL. TOLERANCE PERMITTED ON ALL BODY DIMENSIONS IS MAXIMUM OF +/- (PLUS OR MINUS) ½"-INCH (ONE-HALF INCH). THIS IS A TOLERANCE, NOT A DIMENSION THAT IS INTENDED TO BE ADDED TO THE BODY DIMENSIONS.

# 1 General Body

- a.) Mirrors and/or reflective devices will not be permitted.
- b.) Race of Champions Officials reserve the right to request body and/or sheet metal to be replaced and/or painted if it has any sharp edges and/or does not appear presentable. Presentable is at the discretion of the Series Official.
- c.) The maximum rear spoiler height, regardless of ride height, may not exceed 50"-inches. The rear spoiler must be able to provide the driver following a view of the track ahead.
- d.) A full magnetic steel windscreen and/or rock guard is required. The windscreen and/or rock guard must have an individual hope opening of 2" x 1" with a minimum of 1/16" thickness. Chicken wire type and/or aluminum screens will not be permitted. The windscreen and/or rock guard must cover the entire windshield area across the front of the roll cage and from the top of the roll cage down to the base of the cowl and/or hood. In addition clear lexan-type and/or safety glass windshields will be permitted. If the lexan and/or safety glass is utilized it must be shatterproof and mounted behind the windscreen and/or rock guard. Any additional windshield must not obstruct the driver's exit of the vehicle.
- e.) The minimum size opening for the side windows will be 12"-inches in height by 18"-inches in width by 30"-inches in depth. A rectangular box, matching these dimensions may be used to pass through the car from one side window through to the other.

### 2 Body Material

- a.) Only magnetic steel and/or aluminum will be permitted for all inner and outer body panels.
- b.) Vertical material (plastic and/or rubber-type), with a material thickness between .090"-to-.125"-inch and a minimum height of 8"-inches from the bottom of the quarter panel will be permitted, provided both doors and/or quarter panels maintain the same length and height with or without the plastic (symmetrical). An overlap of two (2") inches to secure the door(s) extensions will be permitted. The door(s) must maintain a minimum of six (6") inches of ground clearance including the additional material extending below the metal body. The overall dimensions of the door(s) and extensions must meet the specifications.
- c.) Only a single piece fiberglass roof will be permitted.
- d.) Only fiberglass and/or aluminum hood, hood scoop, windshield cowl, rear interior tire clearance cover will be permitted.
- e.) Only clear lexan will be permitted for the rear spoiler and rear wing windows. Decals and/or lettering will not be permitted on the rear spoiler and/or rear wing windows.

#### 3 Roof

- a.) A one-piece fiberglass roof, single ply, one contour inside and out will be permitted. Carbon fiber and/or any other composite type materials will not be permitted. All roll bars must remain exposed. Vertical material of any type used to mount the roof that may cover the roll bar will not be permitted. The roof must weigh a minimum of 10 lbs.
- b.) The roof must be centered from side-to-side on the roll cage and on the frame. Offset bodies will not be permitted. The leading edge of the roof must be positively fastened in a stationary position a minimum of 33"-inches and a maximum of 48"-inches in front of the rear axle centerline. The roof must be securely and positively fastened on all sides.
- c.) The minimum length of the roof is 48"-inches with a maximum of 60"-inches. The minimum width of the roof is 48"-inches with a maximum of 52"-inches. The roof must be of the turtleback style and shape with a minimum of 34"-ince belly from front-to-rear and 34"-inch from side-to-side. The roof -

contour must fit the Race of Champions roof template patterns. Flat roofs will not be permitted. The maximum front lip must be  $\frac{1}{2}$ -inch. The maximum side edge(s) must be  $1-\frac{1}{8}$ -inch break.

- d.) Changes to the shape and/or location of the roof at any time during competition will not be permitted.
- e.) The maximum overall height of the car is 61"-inches with a minimum of 52"-inches measured from the ground.
- f.) The maximum roof angle is 5 degrees when measured with the Race of Champinos gauge.
- g.) Any proposed roof design that deviates from the preceding rules must be submitted to the Race of Champions for approval and approved before being presented for competition.

# 4 Front Door Posts

- a.) Only a one (1) piece magnetic steel and/or aluminum front door posts and/or 'A'-pillars a minimum of .050"-inches with a maximum of .090"-inches will be permitted. The front door posts must securely mount to the roof and to the door(s). The side of the front door post must measure a maximum of 2"-inches. The front door post may be bead rolled and/or have a lip and/or flange for re-enforcement, but the re-enforcement must not exceed a maximum 3/8"-inch., in width.
- b.) The door post may be fastened with a minimum of two (2) 3/16"-inch bolts to the door bracket for ease of fabrication.
- c.) Additional material, air directional devices, lexan vent windows and/or excessive material will not be permitted in the corner of the front door post, where the post meets the door panel. Any additional material, air directional devices and/or vent windows must be a maximum of 10"-inches in length.
- d.) There will be no tolerance on the front door post measurements.

# 5 Rear Wing Windows / Side View / Rear View

- a.) All rear wing panels and windows must resemble a current production OEM style body. Only manufacture approved rear wing panels and windows will be permitted for competition. Any non-manufacture rear wing panel must resemble and/or meet the criteria as the submitted rear wing panels and/or windows. Any rear wing panel that is submitted for competition must not exceed 815 square-inches in total area. *All rear wing panels must be submitted for approval prior to introduction into competition.*
- b.) The upper profile must not extend above a straight line projected from the rear of the roof to a point 3"-inches higher than the rear deck. A minimum 2"-inch indent in the profile, so as not to make the panel a fast back is mandatory. (Please refer to the drawing and photographs)
- c.) The maximum base length will be 61"-inches. The left and right must be of the same style and dimensions (symmetrical).
- d.) All rear wing(s) must have an opera-type window. The window must be lexan. Bends or breaks in the lexan area of the window will not be permitted.
- e.) Only one break as a change in body line/contour will be permitted in the rear wing panel.
- f.) Decals and/or lettering will not be permitted on the rear wing windows.
- g.) The rear view of the wing window must go in a straight line from the top of the quarter panel (tangent) or bodyline to the roof with a maximum gradual bow of 2"-inches in the center of the wing window.
- h.) Rear wing panels that direct air flow will not be permitted. Flanges and or additional material added to the rear wing panel for the purpose of directing air flow will not be permitted.

# 6 Body Width and Ground Clearance

- a.) The body width, when measured at any point along the body line from front-to-back will be a maximum of 68"-inches and a minimum of 64"-inches.
- b.) A minimum chassis ground clearance of 2 1/2"-inches will be permitted.
- c.) Fan and/or ground-effect cars will not be permitted.
- d.) Rubber skirts, fins, air directional devices and/or spoilers of any type under the car will not be permitted.
- e.) A 2"-inch maximum air deflector in front of the radiator for engine cooling will be permitted.

# 7 Door Panels

a.) The side door panel(s) will be a maximum of 86" inches and a minimum of 60"-inches in front of the centerline of the rear axle when measured along the top plain. The door(s), front door extensions and rear quarter panels must be flat and mounted in a vertical position. They must remain flat. Louvers, bead rolls holes and/or protrusions from top-to-bottom will not be permitted. Holes will be permitted for rub rails/nerf bars. A maximum 1"-inch long lip/flange at a 45 degree outward angle ½"-inch away from the sheet metal for reinforcement will be permitted at the top and bottom of the door(s) panels. All outside sheet metal, door panels, door extensions, air dams, front nose and/or hood fins

must be the same shape, size and angle on both sides of the car. The door(s) must match each other from side-to-side (symmetrical). Air directional devices and/or side mounted spoilers of any type, which extend past the outside edge of the flat plane of the body will not be permitted.

- b.) Bead rolls around the outside perimeter of the door panels and the wing windows will be allowed. Bead rolled edges must face toward the center of the chassis.
- c.) The top front corner of the door when measured from the ground will be a maximum of 38" and a minimum of 30"-inches when measured 60"-inches from the rear axle centerline. D.) The ground clearance on the bottom of the doors must maintain a maximum of 12"-inches and a minimum of 6"-inches from the ground.
- d.) A maximum lip and/or flange of 1-1/2"-inches rounded at 90 degrees and facing inward only, on the top and bottom door(s) and rear quarter panel(s) will be permitted.
- e.) A lip and/or flange angled out at a maximum angle of 45 degrees, extending away from the door at a maximum of ½"-inch and a maximum of 1"-inch in length before it bends inward for strength at the top of the door(s) and/or rear quarter panel(s) will be permitted.

### 8 Rear Quarter Panels

- a.) The rear quarter panels must be symmetrical in height, with or without plastic.
- b.) The rear quarter panels must be a maximum of 47"-inches and a minimum of 40"-inches from the ground at the rear and continue in a straight line with the top of the door.
- c.) A maximum 2"-inch fender flare may be used, but the overall body width must maintain a maximum of 68"-inches.
- d.) The rear quarter panels may extend rearward a maximum of 48"-inches when measured along the top plain of the rear quarter panel and a a minimum of 44"-inches at the bottom when measured from the center of the rear axle to the rear of the car.
- e.) A maximum of 16"-inches and a minimum of 8"-inches of ground clearance (when measured from the ground to the bottom of the rear quarter) will be permitted.
- f.) The plastic / rubber material utilized on the rear of the car may extend a maximum of 16"-inches from the ground to a minimum of 8"-inches from the ground on either side of the car (symmetrical). The panels may have one side plastic on one (1) side only provided the panel remains completely symmetrical.
- g.) Flanges at a 90 degree angle may be added to the Rear Quarter Panels. The flange may only be added for the purpose of strengthening the Rear Quarter Panel. The flange must not exceed 3/4"-inch in length or width and must be mounted in a vertical position. Rear Quarter Panel flanges must face inward toward the centerline of the chassis. Air directional devices and/or side mounted spoilers of any type, which extend past the outside edge of the flat plane of the body will not be permitted.

# 9 Rear Spoiler

- a.) A one piece, clear lexan spoiler with a maximum height of 5"-inches from the rear deck will be permitted. Lettering and/or decals will not be permitted.
- b.) The rear spoiler must be non-adjustable from the cockpit and/or during racing conditions. Hinges, adjuster(s), slides and/or any other adjusting type device will not be permitted.
- c.) Metal gurney and/or table and/or flanges and/or lips will not be permitted.
- d.) A brake and/or bend on the top of the Lexan spoiler will be permitted for reinforcement.
- e.) The maximum overall height of the spoiler when measured from the ground must not exceed 50"-inches.
- f.) A maximum four (4) of vertical supports (a maximum of 2"-inches in vertical height and 10"-inches in length) for the purpose of fastening the spoiler to the rear deck will be permitted.

#### 10 Rear Deck

- a.) The maximum height the rear deck when measured from the ground will be 47"-inches and a minimum of 40"-inches.
- b.) The rear deck lid must be fully enclosed from side-to-side and have a maximum height of 14"-inches and a minimum 9"-inches, vertically behind the fuel tank.
- c.) The left and right rear trunk lids must be symmetrical in size and shape and must remain flat to cover the fuel filler hose and apparatus. The panel must completely cover the fuel cell, the fuel filler hoses and the vent lines.
- d.) The fuel tank must be completely enclosed from the bottom of this panel to the bottom of the fuel cell.
- e.) The fuel cell must have both sides completely covered in sheet metal in addition the container it is enclosed in. Openings of any type will not be permitted.
- f.) Openings from the top of the fuel cell to the bottom of the trunk lid will not be permitted.

- g.) All vent line nozzles used for the purpose of a catch can must be mounted on the left side of the quarter panel.
- h.) Crew members will not be permitted behind the car during a pit stop with refueling.

#### 11 Hood, Nose and Front Spoiler

- a.) The maximum width for the hood, nose and front spoiler will be 36"-inches with a minimum width of 24"-inches. Louvers will be permitted on the sides of the hood.
- b.) The nose-piece must not extend rearward of the front shock towers.
- c.) The front spoiler must be a separate piece.
- d.) Shock absorber covers and/or deflectors must not be a part of the nose or the spoiler and/or positively fastened to the nose in any fashion exceeding the 36"-inch maximum width.
- e.) Fabric material shock absorber covers will be permitted. The covers must not be used to achieve any aerodynamic advantage and/or to deflect air in a positive manner.
- f.) The maximum the spoiler may extend in front of the front axle centerline will be 20"-inches.
- q.) The front spoiler must be non-adjustable (hinges and/or sliders will not be permitted).
- h.) The hood shall be considered from the front roll cage to on top and in-line with the front of the radiator.
- i.) The hood and nose may have a maximum lip and/or flange of 2"-inches on both side following the contour of the body. They must remain symmetrical.
- j.) The hood and nose be centered on the centerline of the frame.
- k.) The hood, nose and/or spoiler must not overlap each other's location on the frame.
- I.) Any part of the hood must not exceed 10 degrees and the sheet metal must not have an opening and/or extrusion between the hood and the nose.
- m.) The hood must extend over the radiator and have complete sides.
- n/) The front spoiler may have a lip and/or flange a maximum 2"-inches on both sides following the contour of the spoiler not exceeding the maximum width of 36"-inches. Wicker bills, fins and/or any type of air directional device added above the graded plain of the front of the spoiler will not be permitted. The front spoiler may be offset 1"-inch from the centerline of the frame to the right or the left

## 12 Hood Scoop

- a.) The hood must be fully enclosed.
- b.) There are two (2) of hood scoops that can be mounted on top of the hood for the purpose of enclosing the carburetor and/or ram air. Ram Air will be permitted providing they meet the following specifications in this section.
- c.) The ram air scoop: A maximum 30"-inch length when measured from the rear motor plate to the front of the hood scoop will be permitted. A maximum width of 18"-inches will be permitted. The maximum 6"-inch front vertical opening at the beginning of the scoop will be permitted. A minimum of 8"-inches will be required from the highest point on the hood scoop to the lowest point on the front of the front of the roll cage and/or the roof. The hood scoop must be positively fastened to the hood and completely enclose the carburetor and the air filter.
- d.) The conventional air scoop (non-ram air): A maximum of 25"-inches is permitted from the center of the carburetor forward to the end of the hood scoop. A maximum width of 22"-inches will be permitted. A minimum of 8"-inches will be required from the highest point on the hood scoop to the lowest point on the front of the front of the roll cage and/or the roof. The hood scoop must be positively fastened to the hood and completely enclose the carburetor and the air filter.

#### 13 Interior Sheet Metal

- a.) All horizontal body support(s) other than the inner pods, whether in the front and/or rear must be a minimum of 1" x 1" .095"-inch thick tubing or 1"-inch flat stock a minimum of .125"-inch thick...
- b.) Inside and/or outside wings, spoilers, air foils and/or wind deflectors will not be permitted.
- c.) Double panels and/or sheet metal that is designed to create a wing effect will not be permitted.
- d.) A maximum 1"-inch reinforced flange will be permitted on all lexan, however, all specified measurements must be retained.
- e.) All interior sheet metal must completely cover all interior areas, door-to-door, quarter panel-to-quarter panel. Holes and/or openings will not be permitted in this area.
- f.) Front and rear firewalls are required. The front firewall must isolate the cockpit from the engine compartment. The rear firewall must extend from the top of the fuel cell to the belly pan to isolate the cockpit from the fuel cell. The firewall must be a minimum of .050"-inch thick aluminum and/or magnetic steel. The firewall may be altered and/or cut for drive shaft clearance.
- g.) Vertical fins, air dams and/or fairings on either side, behind the roll cage will not be permitted.

- h.) All sheet metal must be a flat single plane across the interior of the car. Two (2) bead rolls or breaks for the purpose of strengthening and maintaining the shape of the wing will be permitted. The maximum bead roll and/or break permitted will be 1/8"-inch in height and ½-"-inch in width.
- i.) Covered roll bars will not be permitted. Sheet metal that is one-piece and/or part of a body panel formed around tubing that is not considered an aerodynamic advantage will be permitted, provided there is no excess sheet metal.
- j.) Louvers will be permitted for cooling purposes only, including the radiator, engine and/or a working oil cooler. Louvers and/or holes in the interior or exterior sheet metal will not be permitted.
- k.) The floor and/or belly-pan may not be any wider than the frame at any point. Lips, fins and/or air directional devices on the floor and/or belly pan will not be permitted. The under pan must not extend in length past the rear of the seat and exceed the width of the frame rails of the car and must be a maximum of .090"-inches in material thickness.
- I.) Only aluminum belly pans will be permitted. Panels under the rear and and/or the fuel tank will not be permitted.

## 14 Driver Compartment

- a.) A full metal firewall fabricated from magnetic steel and/or aluminum must encompass the driver's compartment from front-to-rear, on both sides and floor boards.
- b.) The driver's seat must be a high back aluminum seat, designed specifically for racing, located on the left side of the car and mounted per the manufacturer's instructions securely to the frame.
- c.) The seat design should be one from a current manufacturer and/or recommended to include the full containment design. Installation of the full containment seat should follow the manufacturer's instructions.
- d.) All cars must be equipped with a quick-release type steering wheel.
- e.) The driver compartment must have a starting switch and/or button within reach of the driver.
- f.) A clearly labeled electrical on/off 'kill' switch must be within reach of the driver.
- g.) Mirrors of any-type will not be permitted.
- h.) Radios and/or electronic and/or data communication devices will not be permitted.
- i.) Any edge and/or sheet metal end in and around the driver compartment must be protected with trim and/or beading and rounded. Sharp and protruding edges will not be permitted.
- j.) A substantial rock guard with a minimum of three (3) additional roll bars must be mounted in front of the driver. The rock guard must be made from wire screen. Windshield screens must be a minimum of .090-inches and must be securely fastened.
- k.) Fuel and/or power steering lines and/or fittings running through the driver's compartment must be made from an approved braided type of line. High pressure lines and/or fittings and/or hot fluid lines running through the driver's compartment must be encased and/or must have a shield.
- I.) A fully charged fire extinguisher meeting SFI 167.1 specifications with an activation push and/or pull knob within reach of the driver is recommended.

#### 15 Numbers and Identification

- a.) The track and/or series Scoring Director reserves the right to issue and/or change a car number to prevent duplication and/or maintain proper records.
- b.) Team cars must be clearly identifiable from one another and use another number and/or letter.
- c.) All number and letter combinations will be limited to three digits. If three digits are used two (2) shall be the primary numbers/letter.
- d.) Number and/or letter combinations are required on the roof, nose, rear deck and both doors.
- e.) All numbers and letters must be a minimum of 18"-inches high on the roof and/or doors and 8"-inches high for the rear deck and the nose. All numbers and/or letters must be equal in size and displayed legibly whether decaled and/or painted.
- f.) The nerf bars must not block the visibility of the number and/or letter combinations.
- g.) The letters of the driver's last name must be a minimum of 6"-inches in height and be positioned under, through and/or above number on both sides of the car.

#### 16 Bumpers and Side Bars/Nerf Bars

#### General

- a.) All bumpers, side bars/nerf bars and/or bracing must be made from a minimum 1-1/2" diameter round ,095"-inch thick magnetic steel tubing only unless otherwise specified.
- b.) All edges and/or corners on bumpers and side bars/nerf bars must be rounded. Sharp edges will not be permitted.
- c.) The rear bumper and/or any side bars must not extend past the outside of the tire sidewalls on either the left and/or right side of the car.

#### Front Bumper

- a.) Only the front bumpers may be made from a minimum 1-1/4" diameter round ,095"-inch thick magnetic steel tubing.
- b.) The front bumper must consist of two (2) horizontal rails; an upper and a lower and a minimum of two (2) vertical braces, equally spaced, welded between the two (2) horizontal rails. The horizontal rails must be positively fastened to the frame with four (4) sockets and/or supports. The front bumper must remain exposed without covering and/or any sheet metal fabrication surrounding it.
- c.) The four (4) tubes that support the bumper from the four (4) frame sockets must be horizontal. These rails must be a minimum of 6"-inches and a maximum of 12"-inches apart when measured from the top to the bottom and maintain that measurement for a minimum width of 24"-inches and a maximum width of 30"-inches. The front bumper must also have an 18"-inch center when measured from the ground up to the middle of the bumper.
- d.) The maximum the front bumper may extend from the centerline of the front axle is 24"-inches and a minimum of 20"-inches.
- e.) The front surface of the bumper must remain flat, parallel and perpendicular with the front of the nose piece for the full width of the bumper. V-shaped and/or any other type of shaped bumpers will not be permitted.
- f.) The end bracing tube of the front bumper must be fabricated on an angle in such a way as to prevent the bumper of another car becoming interlocked. Please refer to the drawing at the back of this rule book.

#### Rear Bumper

- a.) The rear bumper must consist of two (2) rails, an upper and lower, which must have four (4) sockets and horizontal support bars positively attaching it to the frame. The upper and lower rails must also be a minimum of 10"-inches apart and a maximum of 16"-inches apart from the top to the bottom and maintain that measurement for a minimum width of the 64"-inches and a maximum of 86"-inches.
- b.) The rear bumper must have an 18"-inch center when measured from the ground to the middle of the bumper.
- c.) The maximum the rear bumper may extend back when measured from the centerline of the rear axle is 52"-inches.
- d.) The rear surface of the bumper must remain flat and parallel with the back of the rear quarter panel for the full width of the bumper. V-shaped and/or any other type of shaped bumpers will not be permitted.

## Rub Rails

- a.) Solid and/or bars with ballast added will not be permitted.
- b.) The rub rails must be exposed and outside the body panels. The left side rub rail may extend a maximum of 2"-inches outside the left rear tire sidewall.
- c.) The rub rails must be bent with a gentle radius at a 90 degree angle and must protrude a minimum of 6"-inches back in past the body.
- d.) The rub rails must be a minimum of 50"-inches long from socket-to-socket.

## **Bumpers and Rub Rails**

- a.) Only a minimum of 5/16" bolts with nyloc nuts and/or Race of Champions approved quick release solid pins will be permitted for positively fastening bumpers and rub rails to the car. Cotter pins and/or other fastening devices will not be permitted.
- b.) All bumpers and rub rail sockets must have fasteners, pins and/or bolts with a minimum diameter of 5/16"-inch.
- c.) The front and rear rub rails must have a 360 degree sleeve a minimum of 3/8"-inch wide x .095" thick magnetic steel welded to the rub rail tube butted against the support socket to prevent pins from shearing. Refer to the drawing at the back of this rule book.

## m.8 Suspension

#### 1 Front End

- a.) The front axle must be a straight, one-piece axle manufactured from magnetic steel tubing. Only approved camber adjustments and/or camber adjustment devices will be permitted. Any other camber adjustments and/or will not be permitted.
- b.) Split axles and/or dropped axles and/or independent front suspension(s) will not be permitted.

- c.) All brackets on the front axle must be welded and/or bolted. Bird cages and/or sliders will not be permitted.
- d.) Only Modified front spindles will be permitted.
- e.) Bearing shafts that are made of steel are recommended.
- f.) The chassis may be offset a maximum of 4"-inches from the center of the inside tire width measured from the inside of the left front tire to the inside of the right front tire at axle height. Refer to the drawing in the back of this rule book regarding front and rear end offset details.
- g.) The front wheels and tires must remain fully exposed. Fenders and/or air deflection devices of any type will not be permitted.

## 2 Shock Absorbers

- a.) Only one (1) shock per wheel will be permitted.
- b.) Externally adjustable shock absorbers will not be permitted. Shock absorbers with Schrader valves will be permitted.
- c.) External reservoir type shock absorbers will not be permitted.
- d.) All shock absorbers must be an 'in-stock' item with manufacturers. Custom shock absorbers and/or shock absorber components will not be permitted.
- e.) One (1) radius rod shock absorber that is an "in-stock" item from a manufacturer will be permitted. Custom shock absorbers and/or components such as intertia devices, devices specifically designed to adjust traction, etc., will not be permitted. A claim rule for this device will be instituted for any car within the top-five finishing positions to have the radius rod shock absorber claimed for \$300.

#### 3 Suspension Components

- a.) Independent front and/or rear suspensions will not be permitted. Cantilever suspensions will not be permitted.
- b.) A-Frames and/or ball joints will not be permitted for steering axis (kingpin only).
- c.) Four wheel steering, actuated by the steering wheel and/or of any type will not be permitted.
- d.) All suspension systems (including travel limiters) and designs must be mechanical. Hydraulic, pneumatic (air), electronic, radio and/or computer assisted for adjustments and/or in-or-out of cockpit type suspensions and/or suspension adjustment systems will not be permitted.
- e.) Traction control of any type, including within the braking system is not permitted.
- f.) Only a single brake bias and single rear panhard adjustment will be permitted in the cockpit. Any other type of adjustment, will not be permitted in the cockpit. All brake bias and panhard bar adjustment devices must remain mechanical. Electronic and/or any other type of non-mechanical adjustment device will not be permitted.
- g.) Spring rods will be permitted on the right rear radius rod only. The spring rod must be approved and of a conventional design. Externally mounted shock absorbers attached to the radius rod will not be permitted. Rubber biscuits in the left rear radius rod will not be permitted.
- h.) Only conventional type aluminum birdcages currently being utilized for competition will be permitted. The maximum bracket thickness will be 1"-inch. Any new birdcage designs must be approved by Race of Champions Officials prior to introduction into competition.
- i.) The only materials used to fabricate axle housing mounts (birdcages) that will be permitted will be fabricated from aluminum. Any axle housing mounts fabricated from exotic, heavy and/or any unapproved material will not be permitted.
- j.) Axle housing mounts must be functional and similar in design whem compared side-to-side (right-to-left).

#### 4 Springs

- a.) Any type and/or form of spring will be permitted (torsion bar, coil and/or leaf spring).
- b.) Coil springs must be manufactured from magnetic steel or approved composite material.
- c.) Spring preload adjustments for coil springs must be made using mechanical adjusting nuts on the shock body.
- d.) Spring preload adjustmenst for leaf springs must be made using a mechanical adjusting device such as an adjustable shackle or threaded rod type mount.
- e.) Other than spring dampening by shock absorber, hydraulic, pneumatic, or electronically controlled devices, (static or dynamic) that affect spring preload or race car height will not be permitted.
- f.) Stack coils will be permitted. Lockouts will not be permitted. External bump stops, bump rubbers or bump springs of any kind on the shock absorber shaft other than normal sized travel indicating o-ring will not be permitted. Internal bump springs inside the shock absorber for rebound or compression will not be permitted.

g.) Frame mounted snubbers or bump springs or travel limiting devices other than a droop chain will not be permitted.

#### 5 Brakes

- a.) All cars must have four (4) wheel hydraulic brakes in good working condition. Random brake inspection may take place throughout the season.
- b.) Carbon fiber, carbon, titanium, ceramic, aluminum pads and/or rotors will not be permitted.
- c.) On live rear axles, one inboard and one outboard brake assembly will be permitted.
- d.) Brake bias may be adjustable through the cockpit.
- e.) Manual brake shut offs will not be permitted, with the exception of the right front brake.

#### 6 Wheelbase and Tread Width

- a.) The minimum wheel base is 106"-inches and a maximum of 110"-inches with a maximum tolerance of  $\frac{1}{2}$ ", when measured from the centerline of the rear axle to the centerline of the front axle for both left and right sides.
- b.) The maximum front tread width will be 86"-inches with a minimum of 74"-inches. The maximum rear tread width will be 86"-inches with a minimum of 80"-inches. These measurements will be taken from the outside edge of the sidewall of the tires on each side.

#### m.9 Roll Cage

- a.) Only round magnetic steel tubing 1-1/2" and/or 1-3/4" in outside diameter with a material thickness of 1-3/4"-.095"-inches and/or 1-1/2"-.120"-inches will be permitted.
- b.) The roll cage must be an integral and structural part of the frame. All frames built in 2005 and after must have a manufacturer's unique serial number plate visible and positively fastened on the left front roll cage upright. The letters and/or numbers shall not exceed 8 digits and be  $\frac{1}{2}$ "-inch in height.
- c.) Front and rear roll bars must be positively fastened in a cage-type configuration. Two (2) round horizontal side bars on each side are required. The top side bar must be a maximum of 22"-inches below the top roll bar.
- d.) Proper bracing and triangulation on the front and rear roll bars is required. All roll bar bracing material must be 1-1/2"-inches outside diameter with a material wall thickness of .095"-inches. A minimum of one (1) diagonal bar across the top of the roll cage is required.
- e.) The rear main roll bar hoop must be a minimum of 26"-inches when measured across the outside-to-outside of the hoop and maintain that measurement from the top to the bottom of the cage. The bottom of the rear main roll bar hoop must be positively fastened (welded) to the 2"x4" frame rails. Outriggers will not be permitted.
- f.) The front roll bar hoop must be a minimum of 26"-inches when measured across the outside-tooutside of the hoop and maintain that measurement from the top to the bottom of the cage, with the exception of the allowable frame taper. Outriggers will not be permitted. Refer to the drawing in the back of this rule book.
- g.) MANDATORY: A piece of tubing, a minimum of 1-1/4" in outside diameter and .-095"-inches in thickness, must be installed vertically and must extend through the car into the bottom frame rail or extend back to the union at the top of the door and rear main hoop joint. The tubing must be installed in a manner that does not impede the driver exiting the cockpit. The tubing must be mounted a minimum of 9"-inches and a maximum of 12"-inches on the roof bar from the existing rear roll cage hoop. This must be installed symmetrically on both sides of the roll cage. Existing cars must be retrofitted with this piece of tubing.

## m.10 Wheels

- a.) Only aluminum wheels will be permitted for competition. Magnesium, steel, carbon fiber and/or any other exotic type material will not be permitted.
- b.) 'Bleed-off' and/or 'Bleeder' valves will be permitted.
- c.) The maximum rim width will be 14"-inches when measured from the inside of left bead to the inside of the right bead of the wheel. Only wheels 15"-inches in diameter will be permitted.
- d.) Beadlocks will be permitted. Any wheel utilizing a beadlock must maintain a minimum diameter hole of 11" or 5" inches inside the beadlock and the wheel. Beadlocks may only be used on the outside of the wheel.
- e.) Wheel covers and/or hubcaps will not be permitted on the inside of the wheel(s). Wheel covers and/or hub caps will be permitted on the outside of the wheel providing they are one piece, bolted in 3 places to the wheel and/or beadlock (positively fastened to the wheel and/or beadlock) and that they maintain a minimum thickness of .090" with a minimum 1"-inch diameter hole in the center of the cover.

- f.) Foam inserts and/or corrugated plastic (with approved installation) may be permitted. If wheel covers are not properly installed, they may not be permitted.
- g.) A minimum of five (5) lug nuts on the rear wheels will be required. A minimum of three (3) lug nuts will be required on the front wheels. Knock off hubs of any type on any wheel will not be permitted.

#### m.11 Tires

- a.) Individual race tracks, events and/or series may designate a particular tire and/or compound at any time. The compound may be announced prior to the event in a bulletin and/or at the driver's meeting.
- b.) Only Hoosier Racing Tires will be permitted in any Race of Champions sanctioned events. Hoosier (the tire manufacturer) will mark/stamp/brand all legal tires with specified compound and/or other specific Race of Champions designations as listed below;

Race of Champions dirt Modifieds:

- 2.) D300 ("DIRT Soft")
- 3.) D400 ("DIRT Hard")
- 4.) D500 ("DIRT X-Tra Hard" Emergency Tire)

Tire Size and Compound Designation:

- 1.) Front 11/82-15
- 2.) Front 13/82-15
- 3.) Rear 13/87-15
- 4.) Rear 13/89 15
- 5.) Rear 13/92-15
- c.) The minimum rear tire pressure will be as follows; Left rear a minimum of 7lbs. The right rear will be a minimum of 10 lbs.
- d.) The altering of any tire compound, by any means will not be permitted. Chemical alteration of the tread carcass and/or tread compound, such as tire 'soaking' and or the introduction of tread 'softener' and/or the physical defacement (removal, altering and/or covering) of tire sidewall markings in any manner will not be permitted. If any competitor is found to have altered their tires any penalty deemed appropriate by Race of Champions Officials may be issued. Tires may be protested by another competitor following the protest rules as stated in section 11.2.
  - 1.) Any tire may be inspected and/or analyzed for alteration at any time. This will consist of a process as determined by the independent laboratory that performs the analysis. A "Chain of Custody" process will be outlined with the competitor upon inspection of the tires
  - 2.) The analysis process will require shipment of the tire to the selected laboratory. Additional race event(s) may be completed before a determination is made. If a penalty is issued, the event(s) that fell into the analysis time period while the tire(s) were being analyzed will be considered as part of the penalty time period.
  - 3.) Reference Section 5.3.D. for Competitive Analysis, Section 11.1.I for Penalties and/or Section 11.2.I for Protest(s).
- e.) Removable duct tape, provided it does not deface the tire, to cover the D-Number will be permitted.
- f.) Heating of the tires by torch, blanket, heating device(s), exhaust system and/or any other method will not be permitted.
- g.) Inner liners of any type will not be permitted.
- h.) A tire durometer may be used during the tire inspection process, provided baseline tire(s) have been read at the event prior to inspection.

## m.12 Personal Safety Equipment – see section C

#### m.13 Other

- a.) Cars will not be permitted to make a qualifying attempt without passing technical inspection. All cars must be available for inspection prior to the time of the driver's meeting. Following the driver's meeting, covers of any-type on the racecar will not be permitted.
- b.) All fuel lines, power steering lines and/or fittings running through the driver's compartment must be made from an approved braided type line. Plastic and/or glass fuel filters will not be permitted.
- c.) All cars may be subject to technical inspection at any time.
- d.) Full or partial car covers will be permitted only when there is inclement weather and/or the car is in its designated pit stall. All covers shall be removed prior to the car leaving its designated pit stall.
- e.) SFI-approved and labeled seat, roll bar, knee and steering pads and/or padding is recommended.
- f.) All cars must have a 10-pound fire suppression system which meets the SFI 17.1 requirements.

- f.) All teams must have a fire extinguisher in the rear of their transporter with the car number clearly visible on the extinguisher. The fire extinguisher must be a minimum of 20lbs and is recommended to FFF type chemical and/or Dupont FE-36 and/or equivalent.
- g.) All drivers are required to have a one-way radio. The one-way radio must be working and active prior to any 'on-track' activity. Two-way radios, crew-member to driver and/or any other means of electronic communication, other than the one-way radio will not be permitted.

#### m.14 Series Decal and Patches

- a.) All participants will be required to display decals as provided on the decal verification sheet prior to entering into competition. If any required decal is not displayed loss of any awarded money will be the penalty.
- b.) A series decal is required on both sides of the car. Driver must display the series patch on their uniform to receive point fund awards.
- c.) Contingency and sponsorship awards, any team participating must meet the requirements of the award(s) such as decals, patches, product use and verification. There will be a written deadline presented to the teams prior to the start of each season for each element to be in place for the award requirements. If it is an existing program it will roll over from the prior season and the program will begin at the first race of the season.

## M.1.F Race of Champions "Spec" 358 Modified Specified Engine Rules

ANY CAR, TEAM AND/OR DRIVER THAT DOES NOT MEET THESE SPECIFICATIONS AND/OR EQUIPMENT REQUIREMENTS WILL BE SUBJECT TO PENALTIES AS DETERMINED BY THE Race of Champions OFFICIALS.

Note; Unless otherwise noted within Section 15.0-B, the rules remain the same as presented in section M-E.

#### 1 Engines General and Location

- a.) Conventional stock type V-8 engines (OEM American with cast iron blocks and Brodix Aluminum Cylinder Heads. Ported OEM and/or the DART Iron Eagle Cylinder Heads will be permitted. Aluminum engine blocks will not be permitted. The following are the approved cast iron engine blocks permitted for competition.
  - OEM Chevrolet and Bow Tie Performance
  - OEM Chrysler and R Performance
  - OEM Ford and SVO Perfomance
  - DART Performance (Little M)
  - DART Rocket Block 31121111
  - DART SHP Block 31161111 4"-inch bore
- b.) ALL engines must maintain stock bore and stroke combinations.

Engine Maximum Overbore Cubic Inches (C.I.):

- Chevrolet 350 C.I. 4,00" bore x 3.480" stroke + .070 maximum over bore = 363
- Chysler 360 C.I. 4,00" bore x 3.578" stroke + .020 maximum over bore = 364
- Chrysler 340 C.I. 4,04" bore x 3.313" stroke + .060 maximum over bore = 350
- Ford 351 C.1. 4.00" bore x 3.500" stroke +.060 maximum over bore = 363
- c.) Reverse rotation engines will not be permitted.
- d.) The engine must be centered in the front of the chassis and placed in an upright position.
- e.) Engine set back will be as follows; Minimum is 56"-inches and a Maximum of 66"-inches with a tolerance of ½"-inch (+/-). The setback will be measured from the centerline of the front axle to the rear machined surface of the engine bell housing.
- f.) Engines must not pump more than the specified cubic inch.
- g.) Only normally aspirated engines will be permitted.

## **ENGINE BLOCKS**

- a.) Only stock OEM and cast iron performance blocks including the Chrysler (R) Block, Chevrolet Bow-Tie, Ford-SVO and/or DART Blocks will be permitted. Aluminum blocks will not be permitted.
- b.) Lightening and/or machining of engine blocks will not be permitted. The engine block must remain as received from the manufacturer. Any alteration will not be permitted.

#### 2 Cylinder Heads and Intake Manifolds (358 Modified Engine Combinations Specifications)

a.) There will be three (3) cylinder head assemblies permitted;

Option –A- (2,400 lbs – Spec. Heads, Intake and Exhaust) & Option B- (2,500 lbs Brodix Cylinder Heads)

1.) Brodix 'Spec' Aluminum Head Option; One (1) degree angle mill will be permitted. The cylinder head must remain as manufactured by the manufacturer. Only the specified intake manifold part numbers will be permitted. Oil lines and/or brackets must not be mounted in front of the cylinder heads for ease of inspection and measuring the dowel pin holes. Matching and/or porting of the cylinder heads will not be permitted. The cylinder heads and intake manifold must remain as manufactured by the manufacturer. A magnetic steel or aluminum oil pan will be permitted.

- 2.) The maximum compression ratio on any aluminum cylinder head package will be 10.5:1.
- 3.) All Brodix 'Spec' Cylinder Heads will be supplied with CNC bowl blend and CNC combustion chamber and intake port matching.
- 4.) Grinding and/or blending or CNC work will not be permitted.
- 5.) Grinding and/or polishing anywhere on the cylinder head casting will not be permitted.
- 6.) The use of substances that may change and/or alter the shape, finish and/or size of the ports and/or combustion chamber will not be permitted.
- 7.) The maximum intake valve size of 2.080"-inches and a maximum exhaust valve size of 1.600"-inches will be permitted for all Brodix 'Spec' Cylinder Heads.
- 8.) Titanium valves, titanium valve train components will not be permitted. Titanium retainers and/or keepers will be permitted.
- 9.) Alterations to the valve seats and/or valve guides will not be permitted. The valve seats and/or valve guides must remain as manufactured in their cast positions.
- 10.) Valve stem angles must remain as manufactured. The original valve seat center location(s) as provided by the cylinder head manufacturer (Brodix) must not be altered. Any valve repair job will only be permitted on steel seat concentric to the guide. Justifiable and reasonable enlargement of the valve seat concentric to the valve guide as the result of a valve repair job will be permitted, but the combustion chamber must retain the stock OEM dimensions as cast by the 'Spec' head manufacturer (Brodix).
- 11.) Tapering and/or reshaping of the valve guide(s) will not be permitted.
- 12.) Only 11/32"-inch diameter valve stems will be permitted. Neck down type valves will be permitted.
- 13.) Brodix 'Spec' Cylinder Head serial/ part, ID, markings and/or numbers must remain unaltered. Defacing and/or altering of the part identification information will not be permitted.
- 14.) Brodix, as the 'Spec' Cylinder Head manufacturer may repair cylinder heads with authorization from Race of Champions Officials.

#### Option -C- (Ported Cylinder Heads) For 2013;

- 1.) Cast-iron heads; Chevrolet Bow-Tie, Chrysler W2, Ford performance cylinder heads, OEM and/or DART Iron Eagle 200, 215 or 230. Welding or the addition and/or shaping of epoxy will not be permitted. Porting on cylinder heads and/or intake manifold will be permitted. Any American manufactured cast aluminum single plane one piece construction intake manifold will be permitted. Porting will be permitted as an option on the intake manifold. Oil pan and exhaust are optional. The minimum overall weight for this engine combination will be 2,650 lbs.
- 2.) All part numbers must be approved by Race of Champions.
- 3.) Casting and/or part numbers may not be altered and/or removed.
- 4.) Cylinder heads must retain OEM port centers, spark plug location and all stock OEM angles and may be ported.
- b.) Any deliberate 'Spec' Cylinder Head rules infraction may result in a suspension from all Race of Champions events. In post-race inspection the Race of Champions has the option of removing cylinder heads for inspection purposes. Failure to cooperate in removing cylinder heads for the purpose of inspection will result in an immediate disqualification from the event and may result in additional penalties as set forth by the Race of Champions Officials.
- c.) Race of Champions Officials reserve the right to exchange and/or 'swap' cylinder heads with a race team at any time. Failure to cooperate in exchanging and/or swapping cylinder heads for the purpose of inspection will result in an immediate disqualification from the event and may result in additional penalties as set forth by the Race of Champions Officials.

## 3 Intake Manifold (General)

a.) Any single piece American production cast aluminum single plane manifold that permits the mounting of one (1) four barrel carburetor will be permitted. Multiple piece intake manifolds will not

be permitted. The intake manifold must remain unaltered. Matching, welding, the additional of material and/or epoxy will not be permitted.

- b.) Casting and/or part numbers must remain visible and must not be altered in any manner.
- c.) The intake manifold may be ported. If the intake manifold is ported and utilizes the Spec. Brodix cylinder heads the car must compete at the 2,500 lb overall weight. If the engine utilizes Cast Iron Cylinder Heads, the car must compete at the 2,650 lbs overall weight. The addition of any material to the intake manifold will not be permitted.
- d.) The following are the approved intake manifolds;
  - Chevrolet 350 C.I. Brodix Part # HV1000
  - Chrysler 360 C.I. and 340 C.I. Edelbrock Part # 2915
  - Ford 351 C.I. Edelbrock Part # 2981 9.5"-inch deck height
  - Ford 351 C.I. Edelbrock Part #2980 9.2"-inch deck height

## 4 Exhaust - Muffler and Sound Reduction Devices

- a.) Only Schoenfeld headers will be eligible to compete at the 2,400 lb weight. The following are the approved Schoenfeld headers:
  - Chevrolet 1-3/4" to 1-7/8" Schoenfeld Part # 1124 BV
  - Chevrolet 1-5/8" to 1-3/4" Schoenfeld Part # 1122 BV SH 3
  - Chrysler 1-3/4" to 1-7/8" Schoenfeld Part # 4124 BV SH
  - Chrysler 1-5/8" to 1-3/4" Schoenfeld Part # 4122 BV SH 3
  - Ford 1-3/4" to 1-7/8" Schoenfeld Part # 3124 BVN
  - Ford 1-5/8" to 1-3/4" Schoenfeld Part # 3122 BVN 3

Only Schoenfeld magnetic steel exhaust headers will be permitted. The four (4) primary pipes going into one collector. Stainless steel, iron lung, tri-y type, merge collectors and/or any other type exhaust header design will not be permitted. Ceramic coating and/or any other type coatings will not be permitted.

- b.) All 2,400 approved Schoenfeld Headers must be able to be separated from the rest of the exhaust system for the purpose of inspection.
- c.) The complete exhaust system must be sealed. Any type of add on, return system and/or exhaust evacuation system will not be permitted.
- d.) All cars competing at the 2,450 lb weight may run headers as referred to in the Race of Champions Big Block Modified section m.3-E Exhaust Muffler and Sound Reduction Devices.

## 5 Carburetor

- a.) Only one (1) 650 cfm Holley carburetor, Part Number 4777 or 80777 or Holley HP Carburetor Part Number 80541-1 will be permitted.
- b.) 4777 and 80777 Option:
  - 1.) The carburetor must maintain the stock venture and throttle bore dimensions; the primary venture 1-1/4" and the secondary venture will be 1-5/16".
  - 2.) The carburetor must maintain all stock dimensions, including mounting and stud location on intake manifold.
  - 3.) The booster height must remain stock OEM from Holley. Cutting, tumbling and/or polishing will not be permitted.
  - 4.) Visible modifications will not be permitted.
  - 5.) The maximum height of the carburetor when measured from the bottom of the carburetor and/or the throttle plate to the machined horizontal surface of block will be in 7"-inches in both the front and rear of the block. Any carburetor spacer may be used to maintain the height with nothing going below the top of the machine surfaced of the intake manifold. Turtles, air dams and/or any type of similar device will not be permitted.
  - 6.) The following alterations will be permitted;
    - a.) Holes drilled in the throttle plate for proper idle.
    - b.) Drilling, tapping and plugging of unused vacuum ports.
    - c.) Welding of throttle shaft to linkage arm.

- d.) Drilling of idle and/or high speed air correction jets.
- e.) Milling of center carburetor body metering block surface, maximum of .015" on each side.
- f.) Removal of choke plate and shaft.
- g.) The jets may be changed as needed.
- 7.) Gauge measurements (go/no-go) must be met at all times, regardless of carburetor temperature.

## c.) HP 80541-1 Option:

- 1.) The carburetor must remain stock retaining all Holley measurements and dimensions. The carburetor may be adjusted utilizing only specified Holley replacement parts.
- 2.) Jets, bleeds, needle and seat, emulsion bleeds, power valves, accelerator pumps nozzles and accelerator pump cam adjustments will be permitted.
- 3.) Physical alteration of carburetor components and/or parts and/or any alterations, machining and/or reshaping will not be permitted. The use of epoxy and/or coatings of any kind will not be permitted.
- d.) Heat shield devices of any type, around the carburetor and/or under the hood or cowl that encompass and/or cover the entire engine or carburetor will not be permitted. A shield may be used under the air filter base and must remain on top of the carburetor main body (venturi opening) in an attempt to seal off the air cleaner area. Any type of shield that covers the engine compartment area will not be permitted. A shield may be attached to the hood or air filter base plate for the purpose preventing dust and/or exterior elements being introduced into the air breather. Any shields new in design must be submitted to the Race of Champions for approval.

## 6 Optional ChevroletPerformance CT 525 Engine

- a.) The General Motors (GM) Engine part number #197271821 CT525 will be permitted as an optional engine for use within the Race of Champions dirt Modified division. The engine will not be permitted in any sanctioned series event and/or for use at any Race of Champoins sanctioned events and/or facilities that does not permit the engine for competition.
- b.) The engine and all components must remain in their original configuration and form as purchased and/or delivered from the factory. Any alterations to the engine will not be permitted. The Engine must remain as manufactured by General Motors. Overbore(s) will not be permitted. Repairs may be permitted with written permission from Race of Champions Officials.
- c.) All engines are to remain sealed from the factory. The original factory seals must remain unaltered, Tampering, removal, modifications of any type and/or broken factory seals will not be permitted. The GM Engine must remain unaltered in any way.
- d.) The GM Crate Engine seals (bolt-type) must remain unaltered. Race of Champions Officials may require specific sealing and verification of all seals on any GM Crate Engine. Tampering with and/or alteration of any seals will not be permitted and is subject to immediate penalty and/or suspension.
- e.) Only GM replacement parts of any type will be permitted for any type of replacement and/or repair work. Only GM Crate Engine specific valve springs may be used for replacement and/or repair,
- f.) The maximum RPM of the GM CT 525 engine will be 7,500 as controlled by the Chevrolet Performance Parts 'Crank Trigger Control' as purchased from the manufacturer.
- g.) All other Race of Champions dirt Modified Engine rules apply, with the exception of the header rule(s). The recommended exhaust headers will be the Schoenfeld 1124bls1-3 or the Beyea DM-525.
- h.) GM Crate Engine repairs must be authorized by the Race of Champions. GM Crate Engine repair procedure works as follows:
  - 1.) Contact the Race of Champions administrative office and/or Race of Champions Officials.
  - 2.) The Promoter and/or Technical Officials will specify a repair location and instruct the driver/owner where to take the engine to get an estimate.
  - 3.) Based on the estimate and the detail of the repair, Race of Champions Officials will determine if the repairs may be made or if a new engine must be purchased.
  - 4.) If a repair is approved, a specified inspector will inspect the engine and work with the engine repair facility throughout the duration of the repair to ensure that the engine maintains the GM Specifications.
  - 5.) Upon completion of the repair(s) the engine will be 'resealed' before being released for competition.

- 6.) All parts including the gasket repair kit(s) must be stock OEM Chevrolet Performance replacement parts. The receipt(s) generated from the Chevrolet Performance Dealer and/or parts department must be retained and a copy presented to the Race of Champions for verification.
- 7.) Overbores will not be permitted. If a cylinder has scoring and/or needs repair it must be communicated to Race of Champions Officials before being sleeved to maintain the original bore size
- 8.) Valve jobs will not be permitted.
- 9.) If the cylinder head requires resurfacing and/or valve seats, a new cylinder head must be purchased. Machine work of any type will not be permitted to the cylinder heads.
- 10.) Bead blasting and/or any polishing and/or any alteration to the intake manifold and/or cylinder heads will not be permitted.
- 11.) The distributor advance curve and/or all parts must remain stock as manufactured.
- 12.) All engine information regarding repairs and/or engine introduction must be retained and turned into Race of Champions Officials, to track and manage engine database, including the driver, serial number, repair, type of repair and/or what type of service was performed to any engine.
- 13.) If any repair estimates come back to the Race of Champions Officials that meet and/or exceed 80% of the actual price of a new engine, a new engine must be purchased. The engine that was damaged will no longer be eligible for competition.
- h.) Race of Champions Officials reserve the right to technically inspect, exchange and/or confiscate any GM Crate Engine at any time. Failure to surrender the engine and/or submit the engine for inspection equals disqualification from the event and/or suspension.
- i.) The intended direction of the GM Crate Engine program is to maintain a cost-effective, affordable racing program. Rebuilding, balancing, blue printing and/or any other alteration made in an attempt to influence the integrity of this program will not be permitted. The judgment and determination of any such decision will be at the sole discretion of the Race of Champions Officials.

#### 7 Camshaft

- a.) The camshaft must maintain stock location and position in engine block. Design and/or manufacturer may vary.
- b.) Gear and/or belt drives will not be permitted.
- c.) Overhead cams will not be permitted.
- d.) Roller and/or shaft rockers will be permitted.
- e.) Stud girdles will be permitted.
- f.) Lifters must retain stock diameters, angles and positions. Re-bushing for wear will be permitted.
- g.) Lash caps will not be permitted.

#### 8 Pistons, Connecting Rods, Crankshaft and Vibration Dampeners

- a.) Any steel and/or cast iron crank shaft maintaining stock stroke dimensions for the engine block that is used will be permitted.
- b.) OEM stock production and/or aftermarket magnetic, solid steel rods with a maximum length of 6"-inches will be permitted.
- c.) Titanium and/or aluminum rods will not be permitted.
- d.) Only 3-ring, flat top aluminum pistons will be permitted.
- e.) Engines with connecting rods longer than 6"-inches must maintain stock OEM specifications and measurements.
- f.) Only one (1) magnetic steel or cast iron stock OEM and/or aftermarket dampener (balancer) will be permitted.
- g.) Only one-piece constructed dampeners and the fluid and/or friction dampeners meeting the SFI 18.1 specifications will be permitted for competition. The following have been approved for competition;
  - 1.) Fluidampr 62260D
  - 2.) Fluidampr 620101
  - 3.) Fluidampr 720101
  - 4.) Fluidampr 650231
- h.) Bolt and/or snap-ring assemblies will not be permitted.
- i.) Safety snap rings will be permitted
- j.) Rubber-lined dampeners will be permitted.

#### 9 Ignition

- a.) Only Race of Champions approved MSD Box Part #64316-MSD/DIRT 6ALN fixed 7600 will be permitted for both ported and Brodix 'Spec' Cylinder head engine options. The ignition box must remain unaltered. Only one (1) approved MSD Box will be permitted per car. The ignition box must be in operating and working condition before, during and after the racing event.
- b.) The ignition amplifier box ("rev box") and coil must be mounted under the hood (out of the driver's reach) and must be clearly visible for ease of inspection. Mounting under the hood includes behind the instrument gauge cover at the rear of the hood area. All wires from the ignition amplifier box must have a clear and direct path to their connections. The shortening of wires will be permitted to accomplish this. Bare wires and/or exposed wiring and/or tape(d) and/or wire looms of any type will not be permitted.
- c.) Ignition boxes must remain as manufactured. Internal and/or external alterations and/or modifications will not be permitted. Crank trigger systems of any type will not be permitted.
- d.) The ignition must be mechanically driven in the stock OEM location.
- e.) Only one ignition coil will be permitted on the car.
- f.) The wiring must remain as specified by the ignition amplifier box manufacturer.
- g.) One American Passenger Car sized battery with terminals on top and a maximum of 12 volts will be permitted. The battery voltage must not measure more than 14.3 volts. Step up transformer and/or any other device designed to increase voltage will not be permitted.
- h.) OEM stock firing order must be maintained for all engines.
- i.) Ignition amplifier boxes may be confiscated and/or exchanged at any time.

#### 10 Lubrication/Oiling System/Oil Cooler

- a.) Only a single wet sump oil pump will be permitted. Dry sump oil systems will not be permitted.
- b.) The oil pan may be magnetic steel or aluminum. The oil pan must have a 1"-inch diameter inspection hole for inspection of connecting rods. The hole must be in the left side of the oil pan. If the inspection hole is not present, removal of the oil pan will be required for inspection.
- c.) External type oil pumps and/or vacuum pumps will not be permitted.
- d.) Accu Sumps will not be permitted.
- e.) Oil coolers will be permitted. Please refer to section 15.1.7-A (Big Block section) for mounting location and other rules specific to the oil cooler.
- f.) Oiling evacuation (EVAC) systems from the valve covers to the exhaust system will be permitted.

#### 15.2 Fuel, Fuel Cells and Fuel System

A.) Fuel coolers of any type will not be permitted.

## M.1-G Race of Champions Dirt "602/Crate" Sportsman Modified

ANY CAR, TEAM AND/OR DRIVER THAT DOES NOT MEET THESE SPECIFICATIONS AND/OR EQUIPMENT REQUIREMENTS WILL BE SUBJECT TO PENALTIES AS DETERMINED BY THE RACE OF CHAMPION OFFICIALS.

# Note; Unless otherwise noted within Section M.1.G, the rules remain the same as presented in section M.1.E.

#### 15.1 Engines

- a.) The General Motors (GM) / Chevrolet Performance Engine part number #88958602/19258602 is the only engine permitted in all Race of Champions dirt "Crate" Sportsman Modified events.
- b.) The engine and all components must remain in their original configuration and form as purchased and/or delivered from the factory. Any alterations to the engine will not be permitted. The Engine must remain as manufactured by General Motors with a stock 4"-inch bore. Overbore(s) will not be permitted. Sleeve repair may be permitted with written permission from Race of Champions Officials. c.) All engines are to remain sealed from the factory. The original factory seals must remain unaltered, Tampering, removal, modifications of any type and/or broken factory seals will not be permitted. The GM Engine must remain unaltered in any way.
- d.) The GM Crate Engine seals (bolt-type / bottle cap) must remain unaltered. Race of Champions Officials may require specific sealing and verification of all seals on any GM Crate Engine. Tampering with and/or alteration of any seals will not be permitted and is subject to immediate penalty and/or suspension.
- E.) Only GM replacement parts of any type will be permitted for any type of replacement and/or repair work. Only GM Crate Engine specific valve springs may be used for replacement and/or repair, Part Number # 10212811.

- F.) GM Crate Engine repairs must be authorized by Race of Champions. GM Crate Engine repair procedure works as follows:
  - 1.) Contact Race of Champions Officials and/or Administrative Office.
  - 2.) The Race of Champions Officials will specify a repair location and instruct the driver/owner where to take the engine to get an estimate.
  - 3.) Based on the estimate and the detail of the repair, the Race of Champions Officials will determine if the repairs may be made or if a new engine must be purchased.
  - 4.) If a repair is approved, a specified inspector will inspect the engine and work with the engine repair facility throughout the duration of the repair to ensure that the engine maintains the GM Specifications.
  - 5.) Upon completion of the repair(s) the engine will be 'resealed' before being released for competition.
  - 6.) All parts including the gasket repair kit(s) must be stock OEM Chevrolet Performance replacement parts. The receipt(s) generated from the Chevrolet Performance Dealer and/or parts department must be retained and a copy presented to the Race of Champions for verification.
  - 7.) Overbores will not be permitted. If a cylinder has scoring and/or needs repair it must be communicated to Race of Champions Officials before being sleeved to maintain the original bore size.
  - 8.) Valve jobs will not be permitted. Valves may be lapped.
  - 9.) If the cylinder head requires resurfacing and/or valve seats, a new cylinder head must be purchased. Machine work of any type will not be permitted to the cylinder heads.
  - 10.) Bead blasting and/or any polishing and/or any alteration to the intake manifold and/or cylinder heads will not be permitted.
  - 11.) The distributor advance curve and/or all parts must remain stock as manufactured.
  - 12.) All engine information regarding repairs and/or engine introduction must be retained and turned into Race of Champions Officials, to track and manage engine database, including the driver, serial number, repair, type of repair and/or what type of service was performed to any engine.
  - 13.) If any repair estimates come back to the Race of Champions Officials that meet and/or exceed 60% of the actual price of a new engine, a new engine must be purchased. The engine that was damaged will no longer be eligible for competition.
- g.) Race of Champions Officials reserve the right to technically inspect, exchange and/or confiscate any GM Crate Engine at any time. Failure to surrender the engine and/or submit the engine for inspection equals disqualification from the event and/or suspension.
- h.) The intended direction of the GM Crate Engine program is to maintain a cost-effective, affordable racing program. Rebuilding, balancing, blue printing and/or any other alteration made in an attempt to influence the integrity of this program will not be permitted. The judgment and determination of any such decision will be at the sole discretion of Race of Champions Officials.

## Engine Verification.

- A. All motors repaired through the Authorized Repair Centers will have a Pace Performance a QR coded seal. The QR seal will retain information pertaining to the repaired motor.
- B. All current motors with GM Bolts/Bottle Cap seals or previously DIRTcar sealed may go through the verification program at an Authorized Repair Center and have a QR seal attached to the motor.
- C. A new motor may also be purchased from Pace Performance or Authorized Repair Centers and be updated to a verified motor with a QR seal.
- D. Seals from other sanctioning bodies are not accepted as verification seals.
- E. Verification pricing is locked in among all centers at \$550 (US) and \$750 (Can.)

## 3 Carburetor / Air Cleaner

- a.) Only one (1) 650 cfm Holley carburetor, Part Number 4777 or 80777 or Holley HP Carburetor Part Number 80541-1 will be permitted.
- b.) All engines and all components must remain in their original configuration and form as purchased and/or delivered from the factory. Any changes will result in disqualification from the event. Any alterations to the engine will not be permitted.
- c.) 4777 and 80777 Option:
  - 1.) The carburetor must maintain the stock venture and throttle bore dimensions.
  - 2.) The carburetor must maintain all stock dimensions, including mounting and stud location on intake manifold.
  - 3.) The booster height must remain stock OEM from Holley. Cutting, tumbling and/or polishing will not be permitted.

- 4.) Visible modifications will not be permitted.
- 5.) The maximum height of the carburetor when measured from the bottom of the carburetor and/or the throttle plate to the machined horizontal surface of block will be in 7"-inches in both the front and rear of the block.
- 6.) The following alterations will be permitted;
  - a.) Holes drilled in the throttle plate for proper idle.
  - b.) Drilling, tapping and plugging of unused vacuum ports.
  - c.) Welding of throttle shaft to linkage arm.
  - d.) Drilling of idle and/or high speed air correction jets.
  - e.) Milling of center carburetor body metering block surface, maximum of .015" on each side.
  - f.) Removal of choke plate and shaft.
  - g.) The jets may be changed as needed.
- 7.) Gauge measurements (go/no-go) must be met at all times, regardless of carburetor temperature.
- d.) HP 80541-1 Option:
  - 1.) The carburetor must remain stock retaining all Holley measurements and dimensions. The carburetor may be adjusted utilizing only specified Holley replacement parts.
  - 2.) Jets, bleeds, needle and seat, emulsion bleeds, power valves, accelerator pumps nozzles and accelerator pump cam adjustments will be permitted.
  - 3.) Physical alteration of carburetor components and/or parts and/or any alterations, machining and/or reshaping will not be permitted. The use of epoxy and/or coatings of any kind will not be permitted.
- e.) An approved carburetor roll over plate that prevents fuel spillage in case of a roll over is highly recommended. a. Carburetors with plate(s) will be mandated at a future date to be announced. b. Currently approved roll over plate approved as followed,

i. Willy's Carb & Dyno shop LLC. Part # WCD4000SB

ii. Willy's Carb & Dyno shop LLC. Part # WCD4002

- f.) A single unaltered carburetor spacer plate with an unaltered square hole/opening including gasket with a maximum thickness of 1-1/8"-inch will be permitted. Tapering, machining and/or any other alteration to the spacer plate will not be permitted.
- g.) Only a single conventional round type air cleaner housing with a bottom 5"-inch center hole will be permitted. Ram air, air box and/or heat shield type devices will not be permitted. The air cleaner must remain in place when the hood is removed. The air cleaner must remain in place when the hood is removed. A flat piece of metal may be added and securely fastened to and level with the hood following the contour of the hood scoop to act as a dust shield. The metal attachment can follow the contour of the air cleaner and is not to go past the centerline of the carburetor. There cannot be any metal attached to the air cleaner. Air cleaner must be centered on carburetor.
- h.) Air cleaners that provide ventilation through the top cover (such as the K & N brand) will be permitted.
- i.) Air induction plastic carburetor insert and/or other devices that direct air into the air intake will not be permitted.
- j.) Metal attached to the air cleaner will not be permitted.
- k.) The air cleaner must be centered on the carburetor.
- I.) Air diffusers will not be permitted.

#### 6 Ignition

- a.) Only stock OEM distributors will be permitted. The distributor must maintain the factory mechanical advance curve to stock OEM specifications. Alterations and/or adjustments will not be permitted with the exception of, lock plates may be added to the mechanical and vacuum distributor advance system. When both lock plates are added, mechanical weights and springs are to be removed along with the vacuum advance canister.
- b.) The ignition amplifier box ("rev box") and coil must be mounted under the hood and on a panel behind the air filter shielded from heat (out of the driver's reach) for ease of inspection. The black wire must be grounded to the motor. When the hood is removed the "rev box" must be clearly visible and not covered.
- c.) The car must be fitted with one (1) unaltered approved MSD RPM (rev) limiting box, maximum 6000 RPM. The box and the chip must remain operable and working condition, prior to, during and after all racing events. The MSD 8727CT will be the only MSD RPM (rev) limiting box permitted for competition.

- d.) Trigger-type and/or crank trigger-type ignitions will not be permitted.
- e.) The ignition must be mechanically driven in the stock OEM location.
- f.) Only the stock OEM H.E.I. ignition coil will be permitted.
- g.) The wiring must remain as specified by the ignition amplifier box manufacturer.
- h.) One American Passenger Car sized battery with terminals on top and a maximum of 12 volts will be permitted. The battery voltage must not measure more than 14.3 volts. Step up transformer and/or any other device designed to increase voltage will not be permitted.
- i.) OEM stock firing order must be maintained for all engines. Standard GM Firing Order 18436572.
- j.) Ignition amplifier boxes, "rev boxes", RPM limiting chips, may be inspected, confiscated and/or exchanged at any time.
- k.) Traction control devices will not be permitted. Braking devices that control traction will not be permitted.
- I.) Race of Champions Officials reserve the rights to analyze and/or switch ignition boxes and/or rev chips at anytime.

## 7 Lubrication/Oiling System/Oil Cooler

- a.) Only a single wet sump oil pump will be permitted. Dry sump oil systems will not be permitted.
- b.) Only magnetic steel oil pans will be permitted.
- c.) External type oil pumps and/or vacuum pumps will not be permitted.
- d.) Accu Sumps will not be permitted.
- **e.)** Engine evacuation systems by internal and/or external driven pumps or by connection between exhaust system and/or valve covers, intake manifold and/or oil pan will not be permitted.
- f.) Oil coolers will be permitted. Please refer to section M.1.7-A (Big Block section) for mounting location and other rules specific to the oil cooler.

#### 10 Driveshaft

a.) Only magnetic steel drive shafts will be permitted. Titanium and/or aluminum drive shafts and/or drive shaft yokes and/or driveline components will not be permitted.

#### 11 Engine Cooling System/Radiator

- a.) Only cast iron water pumps will be permitted.
- b.) The cooling fan for the radiator must be mounted in the stock OEM location on the front of the water pump. Fans mounted to the crankshaft will not be permitted. Electric cooling fans and/or pumps will not be permitted.

#### 12 Rear End

- a.) All rear end components, ring and pinion, gear sets and/or any other component, must be specific for the rear end in the car in size. Only full-size type rear ends will be permitted. A minimum of 8"-inch diameter ring gear will be permitted. Miniature rear end housings will not be permitted.
- b.) Titanium axles and/or any other titanium rear end component will not be permitted.

#### m.2 Fuel, Fuel Cells and Fuel System

- a.) Fuel coolers of any type will not be permitted.
- b.) Only VP Racing Fuels, the official fuel of the Race of Champions will be permitted for competition. VP Racing Fuels (VP110/Green) or a designated VP Racing Fuels "Crate Fuel" will be the only specified fuels permitted at any sanctioned Race of Champions event. Blending of fuels or gasoline, including spec fuels of different octane will not be permitted. Alcohol, methanol, nitrous oxide, nitromethane and/or propylene oxide will not be permitted. Fuel may be subject to inspection and testing at any time. Proof of purchase for the official fuel of the Race of Champions may be required.
- c.) Only one mechanical fuel pump in the stock location will be permitted. Fuel must be delivered through the fuel system from the fuel cell to the mechanical fuel pump. Fuel systems that require a return line, a pressure regulator of any type and/or other volume and/or pressure altering device will not be permitted.

## m.3 Exhaust - Muffler and Sound Reduction Devices

- a.) Only Schoenfeld headers, model number: 1122b, 1122bcm, 4122b and 3122b will be permitted. Only Beyea Headers part number: #NEDM602, #NEDMUS602-DL will be permitted. The exhaust headers must not exceed 1-5/8" in outside diameter. Tri-Y, step headers, stainless steel, coated, ceramic and/or otherwise, and/or merge collectors will not be permitted.
- b.) The permitted mufflers include: Dynomax part number: 17223 and 17296; Extreme Muffler part number(s): 31530 and 31230; Beyea part number(s): MUF3DM; Henry's Exhaust; Crate DMMS3.

- c.) The header collector extension pipe and tail pipe must be inserted past the muffler inlet or outlet flange and must exit behind the driver. A maximum 3"-inch exhaust pipe will be permitted throughout the exhaust system.
- d.) All spec headers must be able to be separated from the rest of the exhaust system for the purpose of inspection. Stainless steel will not be permitted anywhere in the exhaust system.
- e.) The complete exhaust system must be sealed. Any type of add on, return system and/or exhaust evacuation system will not be permitted.

## m.6 Weight / Ballast

a.) All Race of Champions dirt Sportsman Modified must maintain utilizing the GM Crate Engines must maintain a minimum weight;

Any car utilizing any aluminum wheel(s) must weigh a minimum of 2,400 lbs following the completion of any event.

Any car utilizing all steel wheels must weigh a minimum of 2,350 lbs following the completion of any event.

- b.) Any track permitting Sportsman Modifieds to compete with the previous 'Open Motor' package, those cars must maintain a minimum overall weight of 2,650 lbs following the completion of any event.
- c.) During all Race of Champions dirt "Crate" Sportsman Modified Series events, only the GM 602 Crate Engine will be permitted with a minimum overall weight of 2,450 lbs. "Open Motor" packages will not be permitted to compete in any Race of Champions Sportsman Series events.

## m.7 Body

a.) The letters of the driver's last name must be a minimum of six 6"-inches in height and be positioned under, through and/or above the number on both sides of the car.

#### 12 Hood Scoop

e.) On the bottom side (underside) of the hood, the hood may enclose 180 degrees of the air cleaner from the center point of the left side of the carburetor to the center point on the right side of the carburetor extending around the front of the air cleaner. The rear 180 degrees of the air cleaner must remain open and not enclosed. The opening must extend, parallel to the air cleaner, to the rear of the hood enclosure/firewall.

## 16 Bumpers and Side Bars/Nerf Bars

## Rub Rails

e.) Rub rails should only be a single bar piece of tubing from front-to-rear for Race of Champions Sportsman Modifieds only. Rub rails that have additional rails parallel to the main rail will not be permitted.

#### 14 Driver Compartment

a.) Rear panhard bar adjustment devices will not be permitted in the driver compartment. Any rear panhard adjustments that have a knob and/or an adjustment device outside of the cockpit must be wired in a fixed position for competition. Adjustable panhard devices of any type will not be permitted during competition.

## m.8 Suspension

#### 8.2 Shock Absorbers

a.) Only the Race of Champions approved type shock absorbers will be permitted to compete.

b.) Approved Shock Absorbers: All shock absorbers for the Race of Champions "Crate" Sportsman Modified.

Approved First Series Shock Absorbers:

Race of Champions Sportsman Modified

Pro Shocks – WB and SS Series

Bilstein – AK and SG/SM Series

AFCO – 1020-1034 Series

AFCO – 1273-1295 Series

AFCO – 1473-1497 Series

Approved Second Series Shock Absorbers:

Race of Champions Sportsman Modified

Pro Shocks – TA Series
Bilstein – SL/SZ Series
AFCO – 1000 Series

<u>Approved Third Series Shock Absorbers:</u> Race of Champions Sportsman Modified FOX – 983-97-507 FOX – 983-97-509 Pro Shocks – PG Series Bilstein – SL/SZ Series Bilstein – SNS Series AFCO – 1300 Series AFCO – 2100 Series Genesis – GD Series (steel body) Integra – 310-45170 or 310-45190 Advance (ARS) – P/N ARS 2074 Advance (ARS) – P/N ARS 2092 FOX – 983-91-507 FOX – 983-91-509 DIG – 7507/7509 (Steel Body)

Shock Absorbers must be submitted to the Race of Champions for competition approval prior to entry into any competitive event.

#### 4 Springs

- h.) Any type and/or form of spring will be permitted (torsion bar, coil and/or leaf spring). One per corner, helper springs will not be permitted
- i.) Coil springs must be manufactured from magnetic steel or approved composite material.
- j.) Spring preload adjustments for coil springs must be made using mechanical adjusting nuts on the shock body.
- k.) Spring preload adjustmenst for leaf springs must be made using a mechanical adjusting device such as an adjustable shackle or threaded rod type mount.
- Other than spring dampening by shock absorber, hydraulic, pneumatic, or electronically controlled devices, (static or dynamic) that affect spring preload or race car height will not be permitted.
- m.) Stacked coils and spring rubbers of any type will not be permitted. Progressive springs will not be permitted. A maximum of one 2 ¼ inch high foam type rubber (neoprene will not be permitted) will be permitted to stop bottoming of shock.
- n.) Only one take up spring per corner will with a maximum of rate of 5 lbs will be permitted.

## 6 Wheelbase and Tread Width

b.) The maximum front tread width will be 86"-inches with a minimum of 74"-inches. The maximum rear tread width will be 86"-inches with a minimum of 74"-inches. These measurements will be taken from the outside edge of the sidewall of the tires on each side.

#### m.10 Wheels

- **a.)** Only one-piece steel and aluminum wheels will be permitted for competition. Magnesium, carbon fiber and/or any other exotic type material will not be permitted.
- **b.)** The maximum rim width will be 14"-inches when measured from the inside of left bead to the inside of the right bead of the wheel. Only wheels 15"-inches in diameter will be permitted.
- **c.)** Only beadlocks on the outside of any wheel will be permitted. Any wheel utilizing a beadlock must maintain a minimum diameter hole of 11" or 5" inches inside the beadlock and the wheel. Beadlocks may only be used on the outside of the wheel.
- **d.)** Wheel covers and/or hubcaps will not be permitted on the inside of the wheel(s). Wheel covers and/or hub caps will be permitted on the outside of the wheel providing they maintain are one piece are bolted in three (3) locations positively fastened to the wheel and/or beadlock and that they maintain a minimum thickness of .090" with a minimum 1"-inch diameter hole in the center of the cover.
- **e.)** Foam inserts and/or corrugated plastic (with approved installation) may be permitted. If wheel covers are not properly installed, they may not be permitted.
- **f.)** A minimum of five (5) lug nuts on the rear wheels will be required. A minimum of three (3) lug nuts will be required on the front wheels. Knock off hubs of any type on any wheel will not be permitted.

#### 15.11 Tires

**A.)** Individual race tracks, events and/or series may designate a particular tire and/or compound at any time. The compound may be announced prior to the event in a bulletin and/or at the driver's meeting.

**B.)** Only Hoosier Racing Tires will be permitted in any Race of Champions sanctioned events. Hoosier (the tire manufacturer) will mark/stamp/brand all legal tires with specified compound and/or other specific designations as listed below;

Race of Champions "Crate" Sportsman Modified:

2.) D300 ("DIRT Soft")

3.) D400 ("DIRT Hard")

4.) D500 ("DIRT X-Tra Hard")

#### **Tire Size and Compound Designation:**

1.) Front - 11/82-15

2.) Front - 13/82-15

3.) Rear - 13/87-15

4.) Rear - 13/89 - 15

5.) Rear - 13/92-15

- **D.)** The altering of any tire compound, by any means will not be permitted. Chemical alteration of the tread carcass and/or tread compound, such as tire 'soaking' and or the introduction of tread 'softener' and/or the physical defacement (removal, altering and/or covering) of tire sidewall markings in any manner will not be permitted. If any competitor is found to have altered their tires any penalty deemed appropriate by Race of Champions Officials may be issued. Tires may be protested by another competitor following the protest rules as stated in section K.2.
  - 1.) Any tire may be inspected and/or analyzed for alteration at any time. This will consist of a process as determined by the independent laboratory that performs the analysis. A "Chain of Custody" process will be outlined with the competitor upon inspection of the tires
  - 2.) The analysis process will require shipment of the tire to the selected laboratory. Additional race event(s) may be completed before a determination is made. If a penalty is issued, the event(s) that fell into the analysis time period while the tire(s) were being analyzed will be considered as part of the penalty time period.
  - 3.) Reference Section 5.3.D. for Competitive Analysis, Section 11.1.I for Penalties and/or Section 11.2.I for Protest(s).
- **F.)** Heating of the tires by torch, blanket, heating device(s), exhaust system and/or any other method will not be permitted.
- **G.)** Inner liners of any type will not be permitted.
- **H.)** A tire durometer may be used during the tire inspection process, provided baseline tire(s) have been read at the event prior to inspection.

#### M.1.H Race of Champions Four Cylinder DASH Series

ANY CAR, TEAM AND/OR DRIVER THAT DOES NOT MEET THESE SPECIFICATIONS AND/OR EQUIPMENT REQUIREMENTS WILL BE SUBJECT TO PENALTIES AS DETERMINED BY THE Race of Champions OFFICIALS. Any new components, including engine components, body designs, frame designs and/or components of any type utilized in competition must be approved by Race of Champions Officials prior to being introduced into competition.

- a.) Track Rules will apply. The Race of Champions Four Cylinder Dash Series is designed to be an entry level series, providing a platform for a competitors to be introduced to the sport. Cars that are determined toutside of the category of track rules and/or are considered "Pro", "Outlaw" and/or any other designated division that is not considered entry-level will not be permitted for competition,
- b.) Track Weight will be used. For all Hillside Buffalo (formerly Holland International Speedway, Lancaster National Speedway and Spencer Speedway) competitors, the 2017 track rules in regard to weight will apply. For all Wyoming County International Speedway competitors, the 2018 track rules will apply.)
- c.) Declaration of home track/rules package will be based on individual track championship point standings. The track in which a competitor has the most points will be the competitor's declared home track/rules package.
- d.) The car, as presented, must meet the rules specified for that of the track that is declared as the competitor's home track.
- e.) Only the Hoosier Racing Tire 850 will be permitted for competition during Race of Champions Series events. There will be a "burn off" period until August 1, 2020.

- Stock production tires with a minimum wear rating of 200 will be permitted until August 1, 2020. for competition during Race of Champions Series events.
- f.) The tire and wheel size on the car as presented for competition must match and meet the requirements as specified by the year, make and model from the manufacturer for that particular car.
- g.) The use of racing wheels will be permitted. Racing wheels must be manufactured by Aero Racing Wheels (30 series or 44 series) and/or Sherwood Racing Wheels. If racing wheels are used for competition, the car must have four (4) racing wheels on the car. The same offset wheel must be used on all four (4) corners of the car. A maximum offset of three (3") inches per wheel will be permitted. Racing wheels exceeding a three (3") inch offset will not be permitted. Different offset wheels will not be permitted. The use of spacers to offset the car will not be permitted. If a spacer is used the same spacer must be used on the other corners of the vehicle. The car must maintain the OEM width for the year, make and model of the car. Stock wheels may be required for inspection purposes.
- h.) If using racing tires in competition, the car must have the same tire on all four (4) corners and add 100 lbs.
- i.) Home track, engine size, and weight must be declared, written on duct tape and displayed visibly on the hood.

#### M.1.I Race of Champions TQ Midgets

ANY CAR, TEAM AND/OR DRIVER THAT DOES NOT MEET THESE SPECIFICATIONS AND/OR EQUIPMENT REQUIREMENTS WILL BE SUBJECT TO PENALTIES AS DETERMINED BY THE Race of Champions OFFICIALS. Any new components, including engine components, body designs, frame designs and/or components of any type utilized in competition must be approved by Race of Champions Officials prior to being introduced into competition.

Any components which are not defined by the following rules will be defined as pursuant to the 2020 will be referenced to the TQ Midget club in which the participant is based nearest to and participates with / within.

## **NOTICE**

ALL MODEL, ENGINE OR EQUIPMENT CHANGES OR MODIFICATIONS NOT SPECIFICALLY ADDRESSED IN THIS RULE BOOK BY RACE OF CHAMPIONS MUST BE SUBMITTED, IN A COMPLETED FORM/ASSEMBLY, TO RACE OF CHAMPIONS FOR CONSIDERATION OF APPROVAL ON OR PRIOR TO NOVEMBER 1, 2020 UNLESS OTHERWISE AUTHORIZED BY RACE OF CHAMPIONS, TO BE CONSIDERED FOR COMPETITION FOR THE 2021 SEASON. THE APPLICANT WILL BE NOTIFIED OF APPROVAL OR REJECTION FROM RACE OF CHAMPIONS. RACE EQUIPMENT WILL NOT BE CONSIDERED AS HAVING BEEN APPROVED BY REASON OF HAVING PASSED THROUGH INSPECTION AT ANY TIME OR ANY NUMBER OF TIMES UNOBSERVED OR UNDETECTED. ANY RACE EQUIPMENT WHICH DOES NOT CONFORM TO SPECIFICATIONS OR TOLERANCES CONTAINED IN THE RACE OF CHAMPIONS RULE BOOK, OR IS NOT OTHERWISE APPROVED BY RACE OF CHAMPIONS, MAY NOT BE USED IN COMPETITION IN 2020. ALL SUBMITTED RACE EQUIPMENT MUST BE ACCOMPANIED BY COMPUTER AIDED DESIGN (CAD) FILES AND/OR MECHANICAL DRAWINGS AND REQUISITE FEE AS DETERMINED BY RACE OF CHAMPIONS.

#### m.1 Engine

- 1. Engines / Engine Options
  - a.) The (1996-2003) Kawasaki ZX-7R; the (1996-2003) Suzuki GSXR 750 and the Suzuki GSXR 750 (2004-2014) will be permitted for competition.
  - b.) Only engines that retain stock components, external and internal, will be permitted for competition.
  - c.) Only engines utilizing stock camshafts will be permitted for competition.
  - d.) Only unaltered stock throttle bodies and injectors will be permitted for competition. Fuel injectors or carburetors will be permitted.

- e.) Aftermarket cam chain tensioners will be permitted.
- f.) Power Commanders will be permitted.
- g.) Only stock transmissions with all working gears (1<sup>st</sup> through 6<sup>th</sup>) operating will be permitted for competition.

## m.2 Fuel, Fuel Cells and Fuel Systems

- a.) Only VP Racing Fuels (C12/green) or (VP110/purple) racing gasoline will be permitted for competition.
- b.) Blending of fuel will not be permitted.

#### m.4 Traction Control Devices

- a.) All electronic and/or computerized wheel spin and/or ignition retardation and/or acceleration limiting and/or traction control devices of any type will not be permitted.
- b.) Adjustable ping control devices, dial a chip controls, timing controls and/or automated throttle controls will not be permitted.
- c.) Remote control components of any-type will not be permitted.
- d.) Data acquisition systems will not be permitted.

#### m.5 Chassis / Frame

- a.) All cars must maintain the following tread width requirements. A maximum tread width of 55 inches will be permitted. The tread width will be determined by measuring the left outside wheel bead surface to the right outside wheel bead surface at spindle height.
- b.) On either side of the car, the minimum wheelbase that will be permitted will be 54 inches and the maximum wheelbase that will be permitted is 66 inches. When measuring the wheelbase, the maximum allowable difference must not exceed 1/2 inch plus or minus (+/-) on the opposite side. Any device or procedure which has the ability to dynamically change the wheelbase beyond normal travel parameters will not be permitted
- c.) Any top and/or nose wings will not be permitted.

#### m.5.b. OPTIONAL Top Wing Timeline will be Determined on Introduction:

- a.) A single stationary top wing, placed directly above the top of the roll cage will be permitted. Adjustment of the wing, in any type of mechanical, pneumatic and/or hydraulic fashion on the race track will not be permitted. Only mechanical wing adjustment will be permitted. Pneumatic and/or hydraulic adjustment of the wing at any point will not be pemitted.
- b.) The center foil of the wing may be a maximum size of 6 square feet. A maximum width of 36"-inches and length 24-inches. Only a single stage flat or standard dished type center foil will be permitted.
- c.) The side boards must remain symmetrical. The maximum length for the sideboard will be 32"-inches with a maximum height of 15 ½"-inches. If the wing is removed and placed with the top side on the ground, it must set flat on the ground. The sideboards must not be offset.
- d.) The center foil of the wing must not be less than 3"-inches from the front most side of the sideboard. The center foil of the wing must not be less than 3"-inches from the top of the sideboard. The center foil must not be less than 6"-inches from the rearward most point of the sideboard.
- e.) A wicker bill on the rearward part of the center foil may be used. The maximum the wicker bill may extend from the top of the center foil will be 1"-inch.
- f.) The wing must be securely mounted to the roll cage. The wing must be centered between the inside edge of the rear tires. Wing mounts that are intended to direct air and or work as part of the wing will not be permitted. Wing mounts should be made from solid tubing and or materials specifically used for mounting the wing.
- g.) Only one (1) wing will be permitted. Nose wings and/or spoilers and/or wings of other types will not be permitted.
- h.) The following are suggested part numbers of wings that meet the criteria; WULWU001114 (Wings Unlimited) or TXRSC-NW-0001 (Triple X Race Components).

#### m.6 Weight

- a.) All cars designated and signaled to do so must be weighed post-race, which includes qualifying and/or feature race(s).
- b.) There will be no tolerance for weight in regard to the minimum weight requirement following an event. The addition of any fluid during post-race inspection will not be permitted. Wheels and tires may not be changed, unless otherwise authorized by the Race of Champions Officials.
- c.) The addition of ballast weight, after the competition, will not be permitted.
- d.) All specified minimum weight requirements will be with existing fuel, oil, and water (with driver) and the car race ready. All cars must be scaled at the request of the Race of Champions Officials, pre and/or post qualifying and/or pre and/or post-race. There will be a post-race minimum that must be meant as follows:
  - 1.) For all cars utilizing a stock unaltered cylinder head (2004-2014 750 GSXR), the minimum post-race weight will be **860 pounds**.
  - 2.) For all cars utilizing an altered cylinder head (1996-2003 Kawasaki or Suzuki), the minimum post-race weight will be **870 pounds**.
  - 3.) For all cars utilizing a non-stock altered cylinder head (ATQMRA-type / 2004-2014), the minimum post-race weight will be **890 pounds**.
- e.) Unless otherwise authorized by the Race of Champions, at all times all weights will be measured by the Race of Champions Officials using the scales provided by the Race of Champions. It is the responsibility of each race team to insure that its car meets the specified minimum weight requirements for this Series on these scales.
- f.) Mechanical devices used for or intended to be used for the shifting of weight that may be activated by the driver and/or a crew member while the car is static or in motion will not be permitted.
- g.) From time-to-time and/or specific event(s), the weight rules for the Race of Champions may be adjusted based on maintaining the balance of competition and adjustments in regard to "home track rules". Those adjustments will be issued specifically on the "Event Competition Format".
- h.) All engine and weight packages claimed by any competitor must be clearly displayed on the right side of the hood.

#### m.10 Tires

- a.) The following tire rule(s) will apply. Only the Hoosier tires will be permitted for all scheduled events. The determination of the Hoosier Tire compound will be issued 30-days prior to the first event of the 2020 season.
- b.) Only the Hoosier Tire 13 inch MG5 or Hoosier Tire 10 inch LC5 will be permitted for competition on the right rear. The Hoosier Tire 13 inch MG4 will be permitted for competition on the left rear, right front and left front. The Hoosier Tire 10 inch LC0 or other Hoosier Tire LC stamped tires, will be permitted for competition on the left rear, right front and left front.
- c.) All tires must be used in approved positions. Approved positions are those positions on the car recommended in writing with prior notification to the Race of Champions, by the Race of Champions-approved tire manufacturer for its tires used by Competitors in the Event.
- d.) Unless otherwise authorized by the Race of Champions, all tires to be used for practice or qualifying must be purchased and mounted at the Event from the Race of Champions-approved tire supplier.
- d.) Immediately following a qualifying attempt, wheels and tires from all qualified cars may be impounded and/or marked by Race of Champions Officials. Unless otherwise authorized by Race of Champions Officials, all tires used in qualifying must be used for the start of the Race. The impounded tires will be returned when the cars are prepared for the Race. The tires must be replaced in the positions from which they were removed.
- e.) Unless otherwise authorized by Race of Champions Officials, Competitors will not be permitted to make tire changes prior to the completion of the first official green flag lap of the Race.
- f.) The Race of Champions Officials may approve the replacement of an impounded tire when recommended by the tire manufacturer's representative without a starting position penalty provided the replacement tire carries the same manufacturer identification number as the tire used for qualifying.
- g.) The Race of Champions-approved tire supplier may re-balance or re-mount tires under the supervision of Race of Champions Officials.
- h.) Tire or wheel warming, using heaters, blankets, micro-wave or any other method will not be permitted.

- i.) Should identification numbers or serial numbers be defaced on any previously approved tire, this tire will be ruled ineligible for competition.
- j.) Tires that, in the judgment of Race of Champions Officials, have been altered by unauthorized treatment will not be permitted.
- k.) Hand grooving, buffing, grinding, and/or cutting on any area of the racing tire will not be permitted.
- I.) Cleaning and/or the removal of excess rubber (build up) will be permitted.
- I.) The Race of Champions Officials may establish a tire change rule for the particular Event being run. This rule shall be made known to all the Competitors at the Pre-Race driver's meeting.
- m.) Competitors presenting cars for inspection must have their tires inflated to the recommended technical inspection inflation pressures as specified by the participating tire manufacturer for the Event. If tire pressure(s) are not at the recommended technical inspection inflation pressures after competition, tires will be adjusted to the recommended technical inspection inflation pressures as specified by the participating tire manufacturer for the Event.

#### m.12 Safety

- b.) A full containment seat is recommended.
- c.) The use of SFI 38.1 approved head and neck restraints is required.

#### m.13 Other

- b.) The use of an AMB transponder is required.
- c.) The use of a one-way radio for tower to driver communication is required.

#### m.14 Series Decals and Patches

#### M.1.I Race of Champions Street Stocks

ANY CAR, TEAM AND/OR DRIVER THAT DOES NOT MEET THESE SPECIFICATIONS AND/OR EQUIPMENT REQUIREMENTS WILL BE SUBJECT TO PENALTIES AS DETERMINED BY THE Race of Champions OFFICIALS. Any new components, including engine components, body designs, frame designs and/or components of any type utilized in competition must be approved by Race of Champions Officials prior to being introduced into competition.

#### Engine Option: 9.5 to 1

A) Maximum engine displacement as follows:

aa. GENERAL MOTORS
 bb. FORD
 cc. MOPAR, AMERICAN MOTORS
 350cu. inches
 351cu. inches
 360cu. inches

- B) Stock stroke and bore with maximum .065 inch absolute overbore allowed in each cylinder. No aluminum Blocks.
- C) Only two-barrel engines allowed. Maximum compression: 9.5 to 1 ratio. Pistons must be flattop OEM style cast type with 2 or 4 valve reliefs. Lightweight racing pistons will not be permitted.
- D) Air boxes will not be permitted.. Listed below are the only eligible intake manifolds. Manifolds must remain strictly as manufactured, absolutely no modifications of any kind permitted. The manifold is identified by the term "performer" to the rear of carburetor and the term Edelbrock 2101 to the front of the carburetor. Only intakes with these terms are permitted in competition. Approved Manufacturer's identification in the form of cast-in part numbers must remain unaltered on the manifold. Manifolds must not be painted, coated or have any kind of insulating material attached in any way. Only one standard flat gasket, a maximum of .075 inch, may be used between the cylinder head and the intake manifold. A track supplied intake manifold must fit engine complete with stock gaskets. Track reserves the right to exchange any intake manifold with any competitor at any time either from competitor to competitor or from track to competitor. Failure to comply will result in immediate disqualification. All part numbers are current design manifolds with the same part number are not permitted. aa. Chevrolet #2101 manufactured in 1986 to present. bb. Chrysler Mopar Part #P4529295, #P5249572, casting #8015. Weiand-part#8015. NOTE: On the Chrysler Weiand, Part#8015 and Chrysler part#P4529295 casting #8015 manifolds, it is permissible to weld a maximum of ½ inch from the bolt on the flange surface up into the intake port to match the W-2 port design. Ports may be

welded only. Grinding or polishing is not permitted. cc. Ford N351 – Must use Ford Performer intake manifold, part number M-9424-C358.

- E) The only approved carburetor adapter plate is an unaltered Moroso aluminum adapter part number 64966. One paper gasket on each side of adapter plate with maximum thickness of .065 inches permitted. F) 7448 Holley 350 stock unaltered carburetor mandatory. No Adjustable air bleeds in any part of the carburetor. Complete carburetor must be manufactured by Holly including the metering plate. Choke Plate may be removed.
- G) Hydraulic camshaft permitted with maximum .450 lift. Unaltered OEM hydraulic lifters permitted. Maximum cam lobe lift of .300 for General Motors and .294 for Ford and Chrysler. Stud mounted roller rockers permitted. No shaft mounting permitted. Maximum \$200 retail price. Roller rockers permitted with maximum \$200 list price. Violation will result in permanent confiscation in addition to other penalties.
- H) Only OEM Rocker ratio permitted with a maximum of 1.50 to 1 ration for all General Motors engines and 1.60 to 1 ratio for Ford and Chrysler.
- I) Cylinder heads must be stock cast iron production only limited to two valves per cylinder. Intake valve 11/32 stem all the way to the head. No undercut with a head diameter of 1.940 exhaust valve 11/32 stem all the way to the head. No undercut, with a head diameter of 1.500 except for Ford and Mopar that can run head diameter of 1.600 on exhaust only. No titanium valves, springs, or retainers. Valve springs both intake and exhaust may not measure any larger O.D. 1.250, only steel springs permitted. Valve springs must maintain diameter top to bottom. No port matching or flow work is permitted. No grinding, polishing, acid dipping or filling will be permitted any place in the port or bowl area.
- J) Valve job will consist of only 3 angles to the seat, no radius cutting. A maximum of three (3) angle valve jobs are permitted. All cutting in reference to the valve job must be centered off the centerline of the valve guide. No radius cuts permitted. Upon completion of the valve job, the bowl must remain unaltered with the same shape and surface finish as supplied from the O.E.M. manufacturer. Surfaces and/or edges where the seat cutter has touched must not be blended, radiused or polished. No hand grinding, polishing or acid dipping permitted on any part of the head. All valves must be identical in appearance and constructed as an O.E.M. type valve. No air directional devices permitted on any valve surface.
- K) Chevrolet intake ports or runners are to be no larger than 161cc. Chevrolet exhaust ports or runners are to be no larger than 65cc.
- L) Angle cutting of the head to block muting surface will not be permitted.
- M) Max 1 5/8 inch tubes. Max 3 inch straight collector only. Right side will remain independent from left side. Only headers Allowed: Headman #68600, Dynamax and Blackjack #85121, Flow Tech #11104FL and Schoenfeld #649-185.
- N) Maximum three inch pipes and must not touch.
- O) After market pulley systems allowed. Maximum retail price of \$230.
- P) Vortex Style- center bolt valve cover heads will not be permitted.
- Q) Stock valves with maximum 1.94 intake and 1.5 exhaust except for 1.6 exhaust for Ford and Mopar Engine.
- R) The head bolt holes cannot be offset or drilled for the purpose of moving the head in any direction.

## Engine Option: 8.5 to 1

A) Maximum engine displacement as follows:

aa. GENERAL MOTORS

bb. FORD

cc. MOPAR, AMERICAN MOTORS

350 cu. inches
360 cu. inches

- B) Stock stroke and bore with maximum .065 inch overbore allowed in each cylinder. No tolerance. No aluminum blocks.
- C) Only two-barrel engines allowed. Maximum compression: 8.5 to 1 ratio. Pistons must be flattop or dish OEM style cast type with 2 or 4 valve reliefs. Lightweight racing pistons will not be permitted.
- D) Cast iron intakes only, no chemical or physical alterations of intake allowed. Port matching will not be permitted
- E) Stock exhaust manifolds only. Maximum 2 1/8 inch outlet. No high performance style allowed. No LT1.
- F) Stock unaltered OEM 2bbl. Carburetor with a maximum 1 3/8 Venturi size and no spacer plate or 7448 Holley 350 Stock unaltered carburetor with an unaltered Moroso 64966 spacer plate. Adjustable air bleeds in any part of the carburetor will not be permitted. Complete carburetor must be manufactured by Holley including the metering plate. Choke plate may be removed.
- G) Hydraulic camshaft permitted with maximum .390 intake and .410 exhaust lift. Unaltered OEM hydraulic lifters permitted. Maximum cam lobe lift of .260 for General Motors and .243 for Ford and Chrysler.
- H) Only OEM rocker ratio permitted with a maximum of 1.50 to 1 ration for all General Motor engines and 1.60 to 1 ratio for Ford and Chrysler.
- I) Cylinder heads must be stock cast iron production only limited to two valves per cylinder. Intake valve 11/32 stem all the way to the head. No undercut with a head diameter of 1.940 exhaust valve 11/32 stem all

the way to the head. No undercut, with a head diameter of 1.500 except for Ford and Mopar that can run head diameter of 1.600 on exhaust only. No titanium valves, springs, or retainers. Valve springs both intake and exhaust may not measure any larger O.D. 1.250, only steel springs permitted. Valve springs must maintain diameter top to bottom. No port matching or flow work is permitted. No grinding, polishing, acid dipping or filling will be permitted any place in the port or bowl area.

- J) Valve job will consist of only three angles to the seat no radius cutting. A maximum of three (3) angle valve jobs are permitted. All cutting in reference to the valve job must be centered off the centerline of the valve guide. No radius cuts permitted. Upon completion of the valve job, the bowl must remain unaltered with the same shape and surface finish as supplied from the O.E.M. manufacturer. Surfaces and/or edges where the seat cutter has touched must not be blended, radiused or polished. No hand grinding, polishing or acid dipping permitted on any part of the head. All valve must be identical in appearance and constructed as an O.E.M. type valve. No air directional devices permitted on any valve surface.
- K) Angle cutting of the head to block muting surface will not be permitted
- L) Vortex Style- center bolt valve cover heads will not be permitted.
- M) Stock valves with maximum 1.94 intake and 1.5 exhaust except for 1.6 exhaust for Ford and Mopar Engine.
- N) The head bolt holes cannot be offset or drilled for the purpose of moving the head in any direction.

## **Crate Engine Option**

(The goal of the crate motor program is to continue to reduce the cost of the motors and facilitate Equitable competition. All rules are subject to change without notice.)

- A) Unaltered and sealed GM crate engine P/N 88958602 or P/N 19258602
- B) Track Officials reserve the right to impound, inspect, replace, and/or have an independent engine builder inspect and test any competitors crate engine at any time.
- C) Any team found to have altered and/or tampered and/or removed any engine seal(s) will be subject to IMMEDIATE disqualification from the event, loss of all points and monies, suspension and/or other penalties issued from Track Management and Track Officials. Any seals that in the judgment of the track Manager and/or Track Officials that have been tampered with and/or altered will result in engine being declared ineligible for competition. Track Officials may impound the ineligible engine for further inspection and/or return it to and authorized Crate Engine Dealer, at the expense of the team, for engine re-certification. If, at the conclusion of testing, the engine been declared altered, modified or tampered with, the confiscation of the engine, an indefinite suspension and/or additional fines and penalties as deemed appropriate by the Track Manager and Track Officials.
- D) Must use the same carburetor and adaptor plate rules as the custom built engines.
- E) Rev module #MSD 8728 must be used and set at a max 6300 RPM.
- F) All crate engines may be subjected to the same engine tech as non-crate engines. This includes that a site plug as stated in the Rulebook must be installed in the oil pan. The cos of resealing an inspected crate engine will not be part of inspection and is the competitor's sole responsibility. The responsibility is placed solely on the race team to reseal any crate engine.

## **Carburetors**

- A) Solid gas pedal required. (No Cables) Two (2) return springs required.
- B) Carburetor must be stock and unaltered, NO Epoxy, Safety wire is okay.
- C) Minimum 8 inch and maximum 17-inch diameter filter element.
- D) Minimum 1  $\frac{1}{2}$  inch to maximum of 4-inch dry paper type only.
- E) Air filter top and bottom may be aluminum or steel. No air foil or flow devices in or built into top or bottom.
- F) Hood will not be bubbled or bowed up for air filter.
- G) Fuel regulators will be permitted, only, no fuel logs or any other devices.

## **Transmission**

- A) Only stock type Automatic transmission with stock components permitted.
- B) All forward gears and reverse must be in working order.
- C) Stock torque converter must be used. 11-inch converter to be measured across the center outside to outside of converter.
- D) Lock up torque converters will not be permitted. Electronic components will not be permitted.
- E) Direct Drive will not be permitted.
- F) Aluminum Drive Shaft will not be permitted.

### Rear End

- A) Only stock components may be used throughout rear axle assembly.
- B) Locked, limited slip rear end, welded or posi-traction rear ends will not be permitted.

C) Must be 7.5 metric rear end only.

## Radiator

- A) Aluminum radiators, single pass or double pass, are allowed.
- B) Antifreeze coolant will not be permitted,. Water only.
- C) Only one radiator permitted.
- D) Electric fans allowed. (must be one or the other, mechanical or electric)
- E) Aluminum water pumps allowed.

#### **Exhaust**

- A) High performance styles will not be permitted. The LT1 type/style exhaust will not be permitted...
- B) Two (2) separate straight pipes extended to exit behind the driver, with one H-style pipe allowed.
- C) No X-style pipes allowed.
- D) Mufflers are optional.
- E) No inverting of manifolds.

#### **Brakes**

- A) Four wheel working hydraulic brakes required. Adjustable bias, front to rear and left to right will not be permitted.
- B) Lightening of braking plates, brake drums and/or brake shoes by cutting or trimming metal is NOT permitted.
- C) Stock appearing safety hub allowed.
- D.) Disc brakes will not be permitted on the rear axle of the car. Four-wheel disc brakes will not be permitted. Only the front axle may have disc brakes.
- D) Aftermarket master cylinders allowed, with a 25 lb. weight penalty.

#### **Competing Models**

- A) Open to any North American 108-inch minimum wheelbase car. NO Mustangs, Camaros, Firebirds or similar-type cars.
- B) All cars must weigh 3300 lbs minimum WITH driver after race, 3300 lbs with crate motors. No allowance for fuel before or after the race. No more than 53% Left side weight with driver after race. No allowance for fuel before or after the race. 8.5 to 1 compression option engine must weigh 3200 lbs minimum after race. No allowance for fuel before or after the race.
- C) Track width maximum 73" measured at edge of wheel for 110" wheelbase and maximum 71" for 108" wheelbase.

## <u>Frame</u>

- A) A single "X" is allowed with Transmission Mount. No other bracing or reinforcing allowed. (Max tubing 1 3/4" x .095")
- B) All mounts must be in stock location and unaltered for that make and model of car.
- C) Frame must be completely stock for that year, make and model.
- D) Sectioning, channeling or chopping will not be permitted.
- E) Radiator support may be fabricated with tech approval and must be in stock location.
- F) Six (6) Point roll cage minimum required. Must have a minimum of three (3) bars on the driver's side door, and two (2) bars on the right side door. The roll bar must be located directly behind the driver and reach as close as possible to the roof and left side of the car.
- G) Rear hoops allowed. Must run parallel to rear frame. Maximum of two (2) vertical supports permitted with tech approval. Rear of main hoop to be no less than 25 inches from center of rear axle.
- H) Front Hoops allowed with tech approval.
- I) All Ballasts must have a minimum of two (2),  $\frac{1}{2}$  inch bolts/rod minimum to secure weight and must be bolted to the frame or frame structure.
- J) All weight must not be lower than frame at the point of mounting and must be inside of frame rails. No weight inside driver's compartment. No weight is to be mounted below the fuel cell.
- K) All weight must be painted white and car No. must be legible on all ballast.
- L) Rear frame rails with rotted or rusted out rails may be replaced with 2 x3 .120 wall steel tube after rear end. Stock spring pockets and stock spring panel must stay intact.

#### **Body**

- A) The interior of the car must be completely stripped.
- B) Head lights and tail lights must be removed.
- C) All glass must be completely removed.
- D) Full Lexan windshield with two (2) supports in center of windshield must be used.

- E) Front and rear wheel wells may be removed.
- F) Hood and trunk may have webbing removed but must be hinged or pinned.
- G) No cutting, chopping, channeling or shortening allowed.
- H) Stock hood and trunk latches must be removed and replaced with hood pins.
- I) Hood may not be bubbled of bowed up to allow air cleaner clearance.
- J) Any holes in firewall must be filled.
- K) All doors must be welded or bolted shut.
- L) One nerf bar per side allowed between front and rear wheels. Maximum 1  $\frac{1}{2}$  inch x .120 wall. All edges must be rounded and all mounted bolts must be counter sunk.
- M) Aftermarket tail and nose pieces allowed.
- N) Stock appearing **STEEL or ALUMINUM** only aftermarket body panels allowed at Tech Directors discretion. Must use Stock Steel roof.
- O) Fabrication of a cockpit will not be permitted.
- P) Extensions of any part of the body may extend below the frame will not be permitted.
- Q) Doors, inner panels, fenders and roof may remove webbing and trunk floor may be removed.
- R) Roof height must not be below 49" inches. Original roof may be replaced with aftermarket fiberglass roof. If fiberglass is used a roll bar must be mounted above driver's head either from front to back of halo, or side-
- S) Rear spoilers allowed with no vertical or horizontal bracing. Only bracing is to be mounting point. Maximum size 5" x 60" mounted in the center of the rear trunk.
- T) Batteries in driver compartment will not be permitted.
- U) Fiberglass Hoods allowed. Must be flush (sealed) to windshield.
- V) Firewall is to be stock and in stock location. If firewall was removed, it must be replaced and must be in stock location, flat side to side and not foot box. Stock shape with 18-gauge steel sheet metal. Must be even with farthest point of windshield. Stock Master cylinder must be in stock location and must be reinforced to eliminate flex in firewall. This will be CLOSELY MONITORED BY THE TECH OFFICIALS.
- W) Stock transmission tunnel. NO Cock pitting.

#### Gas Tank and Installation

- A) Fuel cells are mandatory.
- B) Fuel cells must be mounted inside center of trunk. No offset permitted. Bottom of the cell must not be lower than the center of the rear axle. Fuel cell must be securely strapped down with metal straps only. No holes in trunk lid allowed. One (1) Fuel cell only.
- C) The fuel line must exit from the top or side of the fuel cell. No fuel lines in the driver's compartment. No electric fuel pumps.
- D) A complete firewall must seal the trunk area from the driver's compartment. Minimum 20-gauge steel.
- E) Fuel cell must be secured with four (4) over the top and two (2) in each direction metal straps.

## **Miscellaneous**

- A) All cars may have stock steering column. Removable steering wheel permitted subject to inspection by Tech. Cars may also use a 3/4" steering shaft. Must have two (2) universal in shaft or slip shaft.
- B) All cars must have two (2) drive shaft hoops. Minimum 1/4" steel. One (1) front and one (1) rear.
- C) Drive shaft MUST be painted white.
- D) Electric fans allowed. (must be one or the other, mechanical or electric)
- E) Traction control devices will not be permitted
- F) MSD type ignitions will not be permitted.
- G) One Way Radio System is MANDATORY.
- H) All cars must be equipped with a one-way radio or scanner to monitor the Race Director's instructions. This is mandatory
- I) Two (2) way communication permitted, including but not limited to, two (2) way radios, cell phones, etc. will not be permitted.
- J) Frequency is 454.000 and it is the driver's responsibility to maintain the device. Failure to do so may include a black flag or disqualification during race conditions.

## **Suspension**

- A) Modifying of the suspension will not be permitted (strictly stock). MOUNTS MUST BE IN STOCK LOCATION, including rear spring pockets. Front upper control arm mounting area will be checked with a tram bar.
- B) Suspension parts must remain stock and unaltered for that make and model of car. Offset upper control arm shafts may be used.
- C) Racing springs permitted. Jacking Bolts are allowed in front and rear.

- D) Racing shocks will be permitted, re-buildable are will be permitted. Stock appearing NO external adjustable shocks, no external nitrogen or air filled. No sealed hyper screw, hyper screw or Schrader Valve. Front shocks may be mounted outboard to allow jack bolts. Shocks must not exceed \$140.00 per shock.
- E) Aftermarket upper A- frame permitted. Tube style, magnetic steel upper contrl arms will be permitted. Must use stock mount, non-adjustable. Only Bolt or screw (threaded type) in ball joints will be permitted. Rod end (heim ends) will not be permitted. The ball joint, both upper and lower, must remain in the stock ball joint mounting location and may not be moved.
- F) Upper and lower rear trailing arms may be reinforced between the bushings.
- G) Optional Aftermarket trailing arm allowed: complete with bushings is Speedway Motors part #916-34057 only and the trailing arm without bushing is Speedway Motors part #916-34055.
- H) Stock rubber, Urethane and steel bushings only allowed. NO mono ball, Heim or offset bushings allowed.
- I) Additions to suspension will not be permitted.
- J) Minimum of six (6)-inch frame height WITH DRIVER.
- K) Only one stock type shock absorber per wheel permitted in stock location.
- L) 3 piece stock replacement spindles will be permitted.

#### Wheels

- A) Seven (7) inch and Eight (8) inch maximum width for all wheels will be permitted. Plastic, aluminum or mag wheels will not be permitted.
- B) Maximum one (1) inch total wheel offset side to side.
- C) Bleeder valves will not be permitted.

#### **Tires**

- A) Only the Towel City Hoosier sidewally tire as marked and sold by Wylie Performance or the F75 Hoosier Racing Tire, purchased from the selected tire distributor/dealer will be permitted for competition.
- B) Tire soaking, or tire treatment will not be permitted.
- C) Durometer rule is random car(s) must stop as directed on cool down lap to be inspected before coming to victory lane. Drivers must stay in racing groove and cannot go in grass or up high before being checked. Deliberately doing so is automatic grounds for disqualification.
- D) Tire must not be altered in any way.
- E) Bleeder valves will NOT be permitted.

#### **Fuel**

A) Regular and standard motor vehicle pump gasoline, maximum 93 octane with no additives or mixing.

#### **Mandatory Safety**

- A) One (1) or two (2) piece fire suit with shoes and gloves.
- B) 2010 Snell or newer FULL-FACED helmet. Tech approved. \*\*May change due to new standards\*\* an amendment will be released as soon as possible once the proper information is obtained.
- C) Fire extinguisher must be mounted within reach of driver and safety crew.
- D) Power switch clearly marked on and off within reach of driver and safety crew.
- E) Fuel shutoff clearly marked on and off within reach of driver and safety crew.
- F) Five (5) point safety harness labeled within five (5) years. Tech approved.
- G) Window net must be securely installed.
- H) Anti-spill must be installed in vent of fuel cell.

## RACE OF CHAMPIONS SUBSTANCE ABUSE POLICY TERMS AND CONDITIONS I. PURPOSE.

The Race of Champions is dedicated and committed to making its racing series safe for both competitor and spectators. RACE OF CHAMPIONS understands that misuse and abuse of alcohol and drugs, both legal and illegal, is a serious threat to the safety and security of motorsports, and by way of this policy, it seeks to control and eliminate such misuse and abuse at or in connection with its events. RACE OF CHAMPIONS requires the cooperation and assistance of all of its competitors and members in effectively implementing the "Race of Champions Substance Abuse Policy" (hereinafter "Policy"). All members, drivers, mechanics, crew members, officials, workers, and others participating in RACE OF CHAMPIONS events in any way (hereinafter collectively "Participants") agree to be bound by, and to comply with, the Policy terms and conditions at all RACE OF CHAMPIONS events at all times.

#### II. PROHIBITIONS.

#### A. Prohibited Substances.

Pursuant to this Policy, prohibited substances include those substances that, in RACE OF CHAMPIONS's sole determination, may adversely affect the safety and well-being of the Participants or the competition at a RACE OF CHAMPIONS event. Such substances include, but are not limited to, illegal drugs and the paraphernalia associated with the use of illegal drugs. RACE OF CHAMPIONS reserves the right, in its sole discretion, to make a determination with regard to the prohibition of any substance at any time. Pursuant to this Policy, said discretion includes the ability of RACE

OF CHAMPIONS to make the determination after it receives the results of a drug test pursuant to this Policy. Participants shall not use, possess, purchase, sell, manufacture or participate in the distribution of prohibited substances, in any amount and at any time.

## B. Prescriptions and Over-the-Counter Medications.

Participants shall use prescription and over-the-counter medications responsibly, and Participants should be fully informed as to the medications' potential impact and effect on participation at RACE OF CHAMPIONS events. Participants should not use prescription or over-the-counter medications during RACE OF CHAMPIONS event if such use impairs or diminishes their skills or abilities, or if it affects the Participants' safety or the safety of others. Even when properly used, prescription and over-the-counter medications can be dangerous and result in an unsafe environment, particularly during high speed motorsports activities.

Misuse of a prescription or over-the-counter medication by Participants, including, without limitation, use that is inconsistent with the instructions provided by the manufacturer, pharmacist, and/or the prescribing physician, is strictly forbidden. RACE OF CHAMPIONS reserves the right and ability to prohibit the use or misuse of any particular prescription or over-the-counter medication, and to deem such use or misuse detrimental to the safety of Participants, the sport, and/or others. Any medication that causes Participants to have a diminished or impaired ability to perform his or her duties at and RACE OF CHAMPIONS event shall be deemed to be prohibited for the purpose of this Policy. The illegal acquisition and/or distribution of any prescription or over-the-counter medication is also strictly prohibited.

C. Alcohol.

On event days, Participants in RACE OF CHAMPIONS events are strictly prohibited from consuming or being under the influence of alcohol prior to or during the event. Participants shall be deemed under the influence of alcohol if a test taken before, during, or immediately after participation (in any capacity) indicates a blood alcohol content level at or above 20 mg per 100ml (.02%). However, nothing in the terms and conditions of this Policy shall prevent RACE OF CHAMPIONS from exercising its sole discretion to determine that a Participant evidencing alcohol usage in any amount (even with a blood alcohol content level of below 20mg per 100ml [.02%]) is under the influence and/or physically unfit for participating in the event. RACE OF CHAMPIONS reserves the right and ability to take such action in the interest of safety and in the best interest of the sport.

#### III. TESTING BASED UPON REASONABLE SUSPICION.

RACE OF CHAMPIONS can require a Participant to submit to a test or tests for the presence of alcohol, drugs or medications if a RACE OF CHAMPIONS event or sanctioning body official has reasonable suspicion that the Participant has violated any part of this Policy or has impaired or diminished abilities to perform as a result of using a prohibited substance. Pursuant to this Policy, testing may be performed using breath, urine, saliva, and/or blood. RACE OF CHAMPIONS also reserves the right and ability to determine that Participants are under the influence of alcohol, drugs, or medications through the use of a physical field test checking physical impairments or diminished capacities. Circumstances and factors that may cause RACE OF CHAMPIONS to have reasonable suspicion include, without limitation the following:

- A. Illegal substances or illegal drug paraphernalia is observed in the possession of the Participant at any time;
- B. The Participant is observed exhibiting one or more of the following symptoms or behaviors, which can potentially be associated with the use of alcohol, drugs, and/or medications:
  - 1) Physical signs of red or droopy eyes, and/or dilated or constricted pupils;
  - 2) Slurred speech, stumbling, or hyperactivity;
  - 3) Needle marks present on the Participant's body;
  - 4) Repeated unexplained disappearances from an event;
  - 5) A constantly running or sniffling nose, or a nose that appears consistently red or irritated;
  - 6) The inability to understand or track time, exhibited, for example, by the Participant being regularly tardy or absent from appointments or commitments:
  - Chronic forgetfulness or broken promise;
  - 8) An abnormal number of accident during events;
  - Involvement in conduct which violates RACE OF CHAMPIONS safety procedures or involvement in careless acts during a RACE OF CHAMPIONS event;
  - 10) Inability to concentrate, lack of recollection, and/or lack of attention;
  - Mental confusion, paranoia, or the presence of abnormal or unreasonable thoughts and ideas:
  - Exhibitions of violent tendencies, loss of temper, irritability, or unreasonably aggressive behavior;
  - 13) Statements by a Participant that may indicate that he or she uses prohibited substances;
  - 14) Extreme personality changes and/or mood swings;
  - 15) Noticeably declining personal hygiene and appearance;
  - 16) A pattern of abnormal conduct;
  - 17) Violation of RACE OF CHAMPIONS rules or a failure to follow safe practices; and
  - 18) Evidence of attempts to falsify, alter or modify prior alcohol or drugs tests.
- C. The Participant is charged with, suspected of, or arrested or convicted for driving while under the influence of alcohol, drugs, medications, or other prohibited substances;
- D. The Participants is charged with, suspected of, or arrested or convicted for any type of drug related offense;
- E. The RACE OF CHAMPIONS receives information from a reliable source that the Participant is under the influence of alcohol, drugs, medications, or other prohibited substances on the day of a RACE OF

- CHAMPIONS event, or that the Participant is using, possessing, distributing, or selling illegal drugs or other prohibited substances at any time.
- F. The smell of alcohol or other prohibited substance is evident on the person of any Participant on the day of any RACE OF CHAMPIONS event.
- G.The results of an examination or test administered by, or at the request of RACE OF CHAMPIONS, indicates evidence that the Participant is or was using a prohibited or illegal substance, or the Participants is abusing alcohol:
- H. The Participant attempts to alter or manipulate a specimen used in connected with testing under this Policy, or the Participant attempts to alter or manipulate the results of any such testing or examination.

#### IV. RANDOM TESTING.

Participants understand and acknowledge that RACE OF CHAMPIONS reserves the right and ability to implement (in its sole discretion) a random and/or annual testing procedure and require Participants to submit to such testing. The selection of Participants to submit to random or annual testing shall be made by RACE OF CHAMPIONS in RACE OF CHAMPIONS's sole discretion.

## V. AUTHORIZATION FOR TESTING; WAIVER AND RELEASE; COMPLIANCE.

If a RACE OF CHAMPIONS Participant refuses to sign, execute, and/or deliver an authorization for testing in connection with this Policy, and/or the "RACE OF CHAMPIONS Substance Abuse Policy Waiver and Release, Express Assumption of the Risk, and Indemnity Agreement" prior to participation in RACE OF CHAMPIONS events as required by RACE OF CHAMPIONS, the Participant will not be issued membership in, or a license to, RACE OF CHAMPIONS, and the Participant will not be permitted to participate in RACE OF CHAMPIONS events. In such a circumstance, if a Participant is already a member, and/or already has a RACE OF CHAMPIONS license, the Participant will be suspended until he or she complies with all requirements of this Policy.

Upon request pursuant to this Policy, Participants must comply and submit to testing within the time period designated by the RACE OF CHAMPIONS officials. If a Participant refuses to comply with or participate in testing within the time period designated by RACE OF CHAMPIONS officials, the Participant may be removed from RACE OF CHAMPIONS event premises and suspended from competition. In such a circumstance, the Participant will also be subject to additional disciplinary action pursuant to this Policy.

#### VI. TESTING PROCEDURES.

## A. Handling of Specimens

RACE OF CHAMPIONS shall designate certain RACE OF CHAMPIONS officials with the responsibility to collect test specimens and to carry out the following procedures with due care and diligence:

- 1) To ensure that the specimens are properly designated and are accurately logged and registered from Participants. This may include the observing the specimen collection process.
- To ensure that the specimens are collected within the appropriate and designated time periods. According to this Policy, specimen collections should normally be made within one hour or less of the Participant being notified that testing will be conducted. However, RACE OF CHAMPIONS reserves the right to designate a different time period as circumstances require or warrant.
- To ensure that the specimens are not altered or manipulated, including by promptly measuring the temperature of the specimens. RACE OF CHAMPIONS may, in its sole discretion deem any particular sample inappropriate for testing and require a Participant to provide additional specimens, as necessary.
- 4) To label, secure, and transport the specimens to RACE OF CHAMPIONS's designated testing facility in such a manner as to ensure the integrity of the specimens.
- To obtain forms completed by the Participants in connection with testing, identifying all prescription and over-the-counter medications consumed by the Participant in the preceding three months.

## B. Testing Facility.

All testing pursuant to this Policy will be completed at a facility (or facilities) selected by RACE OF CHAMPIONS, in its sole discretion, from the listing of those facilities that have been certified by the Substance Abuse and Mental Health Services Administration of the United States Department of Health and Human Services and/or by the College of American Pathologists Forensic Urine Drug Testing Program (hereinafter the "Facility").

C. Testing Specifics.

The Facility shall determine the appropriate standards and methods of analysis regarding specimens submitted concerning RACE OF CHAMPIONS Participants. The Facility shall also determine if, and to what extent, a specimen is deemed to be a true positive for a prohibited substance and/or alcohol, along with whether or not the specimen has been altered or manipulated. The Facility shall transmit all testing results to an official (or officials) designated by RACE OF CHAMPIONS for interpretation, and for determination of the appropriate course of action.

#### VII. POSITIVE TESTS

#### A. Concerning Prohibited Substances Other Than Alcohol:

Upon being notified by the designated RACE OF CHAMPIONS official (or officials) of a true positive test result for a RACE OF CHAMPIONS Participant, the RACE OF CHAMPIONS Officials shall suspend the Participants' membership and license with RACE OF CHAMPIONS for an indefinite period, and it shall take such other disciplinary action it deems appropriate under the circumstances pursuant to this Policy and RACE OF CHAMPIONS rules and quidelines. If, following a suspension (and the enforcement of any other disciplinary action), a Participant desires to resume participation in any way in a RACE OF CHAMPIONS event, the Participant must obtain approval from the RACE OF CHAMPIONS Appeals Board and/or RACE OF CHAMPIONS Supervisory Officials and must voluntarily submit himself or herself to follow up, and regularly scheduled, testing as deemed necessary by the RACE OF CHAMPIONS Supervisory Officials and/or Board. Such follow up testing shall be conducted in a manner, and under certain conditions, as determined necessary by the RACE OF CHAMPIONS Supervisory Officials and/or Board. The follow up testing as determined by the RACE OF CHAMPIONS Supervisory Officials and/or Board shall also be conducted solely at the expense of the Participant. In the event that a suspended Participant submits to follow up testing and such testing shows no evidence of a prohibited substance, the RACE OF CHAMPIONS Supervisory Officials and/or Board may reinstate the Participant, assuming the Participant is otherwise eligible to participate, and assuming that the Participant agrees to make himself or herself available for future random tests without the need for reasonable suspicion. Such random testing shall be conducted as the RACE OF CHAMPIONS Supervisory Officials and/or Board sees fit, shall take place at any time and at any RACE OF CHAMPIONS event, and shall be conducted at Participant's sole expense.

## **B. Concerning Alcohol:**

- Upon being notified by the designated RACE OF CHAMPIONS official (or officials) that a Participant has consumed alcohol in violation of this Policy, the RACE OF CHAMPIONS Supervisory Officials and/or Appeals Board may suspend the Participant's membership and/or license for an indefinite period and/or take such other disciplinary action deemed appropriate under the circumstances.
- If, following a suspension (and the enforcement of any other disciplinary action), a Participant desires to resume participation in any way in a RACE OF CHAMPIONS event, the Participant must obtain approval from the RACE OF CHAMPIONS Appeals Board and/or Supervisory Officials and must voluntarily submit himself or herself to follow up, and regularly scheduled, testing as deemed necessary by the Board. In the event that a suspended Participant submits to follow up testing and such testing shows no evidence of alcohol or a prohibited substance, the RACE OF CHAMPIONS Supervisory Officials and/or the Board may reinstate the Participant, assuming the Participant is otherwise eligible to participate, and assuming that the Participant agrees to make himself or herself available for future random tests without the need for reasonable suspicion. Such random testing shall be conducted as the RACE OF CHAMPIONS Supervisory Officials and/or Board sees fit, shall take place at any time and at any RACE OF CHAMPIONS event, and shall be conducted at Participant's sole expense.

#### C. Publication:

Participants agree that RACE OF CHAMPIONS may, as it deems reasonable under the circumstances, publish the results of any test or tests conducted pursuant to this Policy and the circumstances giving rise to such test to such third parties. Participants also agree that RACE OF CHAMPIONS may, in its discretion, publish information regarding disciplinary action taken as a result of any testing or any violation of the Policy. Participants shall have no claim or cause of action of any kind against RACE OF CHAMPIONS or any of its officials, directors, officers, employees or agents with respect to any such publication.

#### VIII. COMPROMISED TESTS.

A Participant who acts with the intent, and/or does in fact, falsify, alter, or otherwise manipulated with any specimen or any aspect of the testing procedure or process under this Policy will be subject to disciplinary action as issued by the RACE OF CHAMPIONS Supervisory Officials and/or RACE OF CHAMPIONS Appeals Board. A specimen that is identified as having been falsified, altered, or manipulated shall be treated in the same manner as a true positive test result for a prohibited substance other than alcohol, with all attendant consequences and results as set forth above.

#### IX. PROHIBITED ACTED UNDER THIS POLICY.

If RACE OF CHAMPIONS determines that a Participant has engaged in any prohibited act under this Policy or has acted in a manner contrary to the purpose and intent of this Policy, RACE OF CHAMPIONS may remove the Participant from the RACE OF CHAMPIONS event premises and/or take any other emergency action as is deemed appropriate under the circumstances. In such a circumstance, the Participant will also be subject to disciplinary action as issued in the discretion of the RACE OF CHAMPIONS Supervisory Officials and/or RACE OF CHAMPIONS Appeals Board.

## X. TREATMENT FOR ALCOHOL, DRUGS, OR MEDICATIONS.

RACE OF CHAMPIONS shall not be involved in recommending or prescribing any particular rehabilitation programs or procedures in response to a violation of this Policy. However, RACE OF CHAMPIONS strongly encourages Participants in violation of the Policy to obtain professional and ongoing help and assistance. In determining potential reinstatement and future participation, RACE OF CHAMPIONS will take into account a Participant's efforts to obtain professional help, and it will consider the results and successful completion of programs and assistance.

#### XI. RACE OF CHAMPIONS RULES.

This Policy, as it may be amended from time to time, serves as a supplement to the currently effective RACE OF CHAMPIONS Rules as promulgated by the RACE OF CHAMPIONS Supervisory Officials and/or RACE OF CHAMPIONS Board of Directors. This Policy shall be interpreted and applied by the RACE OF CHAMPIONS in the

context of and in connection with the RACE OF CHAMPIONS Rules. This Policy is, and shall be, binding upon all RACE OF CHAMPIONS members in the same manner, and to the same extent, as the RACE OF CHAMPIONS Rules.

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Race of Champions 1670 Hall Road Elma NY 14059 www.rocmodifiedseries.com E-Mai: info@rocmodifiedseries.com