

# 2024 USRA HOBBY STOCK RULES

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THE RULES AND/OR REGULATIONS SET FORTH HEREIN ARE DESIGNED TO PROVIDE FOR THE ORDERLY CONDUCT OF RACING EVENTS AND TO ESTABLISH MINIMUM ACCEPTABLE REQUIREMENTS FOR SUCH EVENTS. THESE RULES SHALL GOVERN THE CONDITION OF SPEEDWAY EVENTS AND, BY PARTICIPATING IN THESE EVENTS, ALL RACEWAY COMPETITORS ARE DEEMED TO HAVE COMPLIED WITH THESE RULES. NO EXPRESS OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM PUBLICATION OF, OR COMPLIANCE WITH THESE RULES AND REGULATIONS. THEY ARE INTENDED AS A GUIDE FOR THE CONDUCT OF THE SPORT AND IN NO WAY ARE A GUARANTEE AGAINST INJURY OR DEATH TO PARTICIPANTS, SPECTATORS OR OTHERS.

USRA rules shall apply at all events. All participants are subject to the rules of the USRA and are expected to know the rules. These rules are a guideline as to what is permitted and/or not allowed. If these rules do not explicitly say it is permitted, then you must contact the USRA to identify if the part in question is permitted for competition.

References are made throughout these regulations requiring and/or recommending that particular products meet certain specifications. These products are manufactured to meet or exceed certain criteria and are labeled as such upon satisfying those criteria. Any change to these products voids that certification. Under no circumstances may any certified product be altered from the "as manufactured" condition or such certification is voided.

Changes and additions to the 2023 USRA Hobby Stock rules are underlined and highlighted in red. Changes made for grammatical purposes or to improve clarity are not highlighted. All participants and officials are expected and required to additionally be familiar with the definitions and details in the USRA General Rules, Regulations & Procedures.

The United States Racing Association shall hereafter be simply referred to as the USRA throughout the rules description. USRA official(s) shall include all personnel employed as an official by the participating racetrack.

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## ARTICLE 1: BODY

- 1.1 1960 or newer OEM American made stock passenger cars with factory steel top. Front-wheel drive bodies are not allowed. Camaros, Mustangs and/or Firebirds are not allowed. No station wagons, convertibles, front-wheel drives, four-wheel drives or rear engine vehicles.
- 1.2 Sunroofs and T-tops must be reinforced and enclosed.

- 1.3 Bodies must be steel OEM and in OEM location. Any part of the OEM body being replaced must be made of steel. Spoilers, wings, skirts, air scoops or anything that alters the stock appearance is not allowed. Bottom of doors must remain in OEM location (maximum five (5) inches outside frame and no lower than bottom of frame). Aftermarket nosepieces and/or tailpieces are permitted. The front nose piece must remain eight (8) inches above the ground. Aftermarket fiberglass OEM replacement roofs are permitted for the "G" body cars.
- 1.4 Minimum of three (3) windshield bars must be in place in front of the driver. Steel rub rails no bigger than one (1) inch by two (2) inches may be attached to from fender well to fender well and rear quarter panel, flush with body.
- 1.5 Maximum seven (7) inch metal sun visor may be added to top of windshield opening. Other visors in door openings or side windows are not allowed.
- 1.6 All hoods and trunks must be securely fastened and the back of the hood must be sealed off from the cockpit. Aftermarket steel or aluminum hoods are permitted but must maintain OE body lines and remain in the OEM installed location. Trunk lids may be OEM or aftermarket aluminum or steel and may be gutted. Concaved hoods and/or trunk lids are not allowed.
- 1.7 All sharp edges, torn fenders and body panels to be repaired prior to the next race.
- 1.8 All glass, plastic, upholstery, rear seats, lights, mirrors and chrome must be removed. Interior tin or other covers not allowed. Dashboard may not extend more than thirty-two (32) inches from the back of engine block. Dashboard must be flat and level, except for cowl in front of driver.
- 1.9 All doors must be secured shut (welded, chained, bolted, etc.).
- 1.10 The front and rear inner wheel wells may be removed.
- 1.11 Hoods and trunk lids are mandatory and must be pinned, not bolted.
- 1.12 Front and rear bumpers are mandatory. Sharp edges are not allowed. Tubular front and rear bumpers are permitted, maximum two (2) inch by ninety-five thousandths (0.095) inch and must be bent to fit with rounded ends and must be covered by molded plastic nosepiece and/or tailpiece. Bumpers must be mounted frame-end to frame-end. The center of bumper must be between sixteen (16) and twenty (20) inches and no part of the bumper may be lower than twelve (12) inches from the ground. Bumpers must be hollow (cannot be filled or solid). Bumpers must be in stock location. Front and rear bumpers must be capped to the fender, the width of the bumper. Reinforced bumpers are not allowed.
- 1.13 Bodies with excessive damage (as determined by an official) will not be allowed to compete.
- 1.14 OEM floor may be repaired or replaced with forty-nine hundredths (.049) inch steel but must remain OEM dimensions. The trunk floor must be removed above rear-end to the point where trunk floor drops down. The trunk floor must remain under the fuel cell. The trunk floor may be replaced under the fuel cell with forty-nine thousandths (0.049) inch steel but must remain above frame rails. Firewalls must remain OEM and in OEM location and extend out to body. OEM firewall may be repaired or replaced with forty-nine thousandths (0.049) inch steel but must remain OEM dimensions. Firewall may be flat or straight and may be moved back to seven (7) inches from back of motor.
- 1.15 Appearance:**
  - 1.15.1 All racecars must be numbered with large legible numbers on both sides, on top and on the nose and rear panels. Numbers on the sides of the racecar should be in contrasting color from the body and be at least four (4) inches thick and at least eighteen (18) inches high. The top numbers should be at least four (4) inches thick and twenty-four (24) inches high.
  - 1.15.2 Officials reserve the right, in the public image of the sport and/or the USRA, to assign, approve or disapprove any advertising, sponsorship or similar agreement in connection with any event. All cars must be neat appearing and are subject to approval of officials to compete. By competing in an event, all drivers agree to comply with the decisions of officials in this regard.

## **ARTICLE 2: ROLL CAGES**

- 2.1 Must use a minimum ninety-five one-thousandths (0.095) inch wall thickness tubing with a minimum one and six-hundred sixty-six one-thousandths (1.666) inch diameter for main cage and door bars. No offset cages. Aluminum and/or other soft metals are not allowed. Roll bar connections must be properly welded. Front hoops are permitted.
- 2.2 Roll bars within the driver's reach must be padded with an accepted material as determined by an official. Fire retardant material is highly recommended.
- 2.3 Installation and workmanship must be acceptable to officials.

- 2.4 Full-perimeter four-post roll cage of continuous hoops, with an "X" brace in rear hoop is mandatory and front down bars must be tied together. Rear kickers must be used. The minimum tubing dimensions for "X" brace and rear kickers are eighty-three one-thousandths (.083) inch wall thickness by one and one-quarter (1.25) inch diameter tubing.
- 2.5 Must be securely welded to OEM frame. Must have a minimum of one (1) cross bar in top halo. A minimum of forty (40) inches between front and rear down bars at the top of the door panel is mandatory. Maximum of seventy six (76) inches from back of engine to front edge of rear hoop is permitted and top halo must be no less than forty (40) inches across left to right and twenty-nine (29) inches front to back, from outside to outside.
- 2.6 With helmet on and driver securely strapped into the racing seat, the top of driver's head must not protrude above the roll cage.
- 2.7 Three horizontal door bars on both sides are mandatory. Minimum of four uprights tied from frame to top door bar on driver's side, three on passenger side. Steel door plates made of eighteen (18) gauge or forty-nine one-thousandths (0.049) inch minimum thickness metal must be securely welded to the outside of doors bars on driver's side.
- 2.8 Plate must cover the area from the top door bar to the rocker panel and from the rear down post to six (6) inches in front of the seat. Must be visible for inspection.
- 2.9 Must have a tow hook on front and rear.
- 2.10 May have two bars for protection in front of radiator, behind bumper, within confines of body and no wider than stock frame horns. Absolutely no square tubing or galvanized pipe allowed in the main cage.
- 2.11 Fuel cell protection bar is mandatory and must be mounted frame rail to frame rail and be no higher than the fuel cell and inside the trunk area. Maximum one and three-quarters (1.75) inch diameter by ninety-five one-thousandths (.095) wall thickness tubing required.
- 2.12 Frame "X" bracing and any added bars to the frame and cage may be a maximum of one and three-quarters (1.75) inch diameter by twelve one-hundredths (0.12) wall thickness round tubing only or one and one-quarter (1.25) inch by twelve one hundredths (0.12) inch wall thickness square tubing.

### **ARTICLE 3: FRAME**

- 3.1 Camaros, Firebirds or Mustangs are not allowed. Frame, engine and body must match manufacturer (GM to GM, etc.).
- 3.2 Wheelbase must be a minimum one-hundred ten (110) inches for unibody frames or a minimum one-hundred seven and one-half (107.5) inches for full frames. A maximum one (1) inch difference from side to side is permitted.
- 3.3 May be "X" braced. Unibodies must be tied from rear frame to front frame.
- 3.4 No station wagons, convertibles, front-wheel drives, four-wheel drives or rear engine vehicles.
- 3.5 Motor must be in stock location and a minimum one and three quarter (1.75) inches from center of fuel pump to front of unaltered cross member on "G" body cars.
- 3.6 From a point no further forward than one (1) inch behind the factory seam, the rear of the frame behind the rear tires may be replaced in stock location with two (2) inch by three (3) inch steel tubing with a maximum twelve one hundredths (0.12) inch wall thickness. Factory seam must remain visible and must replace the same length of material removed.
- 3.7 Titanium products, parts or components are not allowed anywhere on the racecar.
- 3.8 Frame may not exceed nine (9) inches or lower than five (5) inches of ride height. Frame will be measured behind the front tires and ahead of the rear tires with driver in the racecar.
- 3.9 Frames and cross members must remain OEM, unaltered and may not be altered in any way for engine placement or suspension clearance.

### **ARTICLE 4: COCKPIT, STEERING & SEAT**

- 4.1 Loose objects and/or weights. air bags and rear view mirrors are not allowed.
- 4.2 Dash tin work may be no further than thirty-two (32) inches back from the rear of the engine block.
- 4.3 Other than the gas and brake pedals, any knobs, handles or levers used for adjustment of carburetor, ignition timing, brakes and/or suspension is not allowed.
- 4.4 If the rear speaker deck extends back past ninety-nine (99) inches from the back of the engine then a minimum twenty-five (25) pound lead weight must be added on the right front cage hoop in front of the shock and spring location.

#### **4.5 Steering:**

- 4.5.1 Steering box must be unaltered OE and remain within original bolt pattern for type of frame used. Steering linkage must be unaltered approved OEM in stock location and replaceable by stock part and must match frame. Steel tube tie rod adjusting sleeves are permitted.
- 4.5.2 Rack and pinion is not allowed.
- 4.5.3 May be modified to suit driver but must remain on left side of cockpit (no center steering).
- 4.5.4 Quick-release metal coupling on steering wheel is mandatory. Plastic couplings are not allowed.
- 4.5.5 Remote reservoir power steering pumps are not allowed.
- 4.5.6 Add-on quick steer boxes are not allowed. Minimum two and one half (2.5) turn lock-to-lock steering boxes.

#### **4.6 Seat:**

- 4.6.1 Factory-manufactured racing seats are mandatory and must be acceptable to officials.
- 4.6.2 Homemade aluminum, plastic or fiberglass seats are not allowed.
- 4.6.3 Must be installed with a minimum of three-eighth (3/8)-inch fasteners and washers. Seat back may not be moved back further than seventy (70) inches from rear of engine block.
- 4.6.4 High-back aluminum seats only. Full containment racing seats are strongly recommended.

### **ARTICLE 5: SUSPENSION**

- 5.1 No aluminum or titanium components allowed. Magnet must stick to all components.
- 5.2 Must be original and match frame.
- 5.3 Suspension must be unaltered approved OE in stock location and replaceable by stock part. All suspension bushings must remain OEM rubber type bushings with the OEM inner steel sleeve attached to the OEM rubber. No forward or backward movement allowed.
- 5.4 Ball joints must be OE and mount in factory location with no modifications. Non-adjustable tubular aftermarket upper A-frames (with or without aluminum cross shaft) are permitted but must match factory specs for the frame being used. "G" body upper control arms with lengths of eight (8) or eight and one-half (8.5) inches are permitted.

#### **5.5 Shocks & Springs:**

- 5.5.1 Shock mounts must be the same on both sides of the rear end and within two (2) inches of center of trailing arm bolt (up and down, left to right). Spacers, lumber or chains are not allowed. Anything welded to frame or spring is not allowed.
- 5.5.2 Racing shocks and springs are permitted. Threaded-body and/or bulb-type shocks are not allowed. One (1) unaltered steel non-adjustable OEM mount shock in OEM location. Front shock bottom mounts may be lowered a maximum three-eighths (3/8) inch from stock location. Heim-end shocks are not allowed. The shock shaft must be able to compress all the way into shock body. The shock shaft must move in both directions from its installed position and measured at ride height. Shock cannot preload the spring.
- 5.5.3 Coil-over, remote and/or air reservoir shocks are not allowed.
- 5.5.4 Bladder-type valves and/or Schrader valves are not allowed.
- 5.5.5 Shocks shall be subject to claim, as outlined in Claim Procedures (Article 16).
- 5.5.6 Center of rear lower control arm bolt holes may be no lower than three (3) inches from bottom of axle housing and the same on both left and right. Trailing arm bolts must remain tight.
- 5.5.7 Rear spring perches must be solid, may be no more than one (1) inch tall, must be the same on both sides and must be centered on the rear end housing.
- 5.5.8 Progressive springs are not allowed. Spring rubbers are not allowed.
- 5.5.9 Springs must be mounted straight up and down (not tipped) and on the center of the housing.
- 5.5.10 Suspension travel limiting devices are not allowed.
- 5.5.11 Spring and/or suspension covers are not allowed.

### **ARTICLE 6: ELECTRICAL SYSTEM**

#### **6.1 Battery:**

- 6.1.1 Battery boxes must be securely fastened. Adjustable battery boxes are not allowed. One battery box per car allowed.
- 6.1.2 Must be securely mounted inside frame rails and in trunk area.
- 6.1.3 One (1) 12-volt battery only (no 16-volt batteries).
- 6.1.4 Voltage converters are not allowed.

6.1.5 All battery posts must be securely covered.

6.1.6 Alternators are allowed with a maximum 14-volt output, and must be wired directly to the battery (not to an ON/OFF switch).

## **6.2 Ignition:**

6.2.1 Magnetos or crank-triggered ignitions are not allowed. No more than one (1) coil is permitted.

6.2.2 Must utilize OEM distributor and ignition. Square coil covers are not allowed. Must utilize stock-appearing coils, coil-covers and modules. Multiple spark ignitions are not allowed. GM external coils are not allowed.

6.2.3 All ignition parts must remain out of the reach of the driver.

6.2.4 Kill switch is required and must be within easy reach of the driver. The switch must be clearly marked "OFF" and "ON."

6.2.5 GM must utilize OEM HEI GM distributor. Chrysler and Ford may use aftermarket HEI (bushing type only). Roller bearings are not allowed. Must utilize stock-type components.

6.2.6 Open circuit board modules are not allowed.

6.3 Digital gauges are not allowed. Cameras pointing to any moving or suspension parts and/or gauges are not allowed. Except for memory recall tachometer, electronic monitoring computer devices capable of storing and/or transmitting information are not allowed.

6.4 Transponders must be mounted vertically behind rear of engine, less than two (2) feet from the ground and unobstructed by any metal.

## **ARTICLE 7: FUEL SYSTEM**

### **7.1 Fuel:**

7.1.1 Automotive or racing gasoline is permitted. Oxygenated fuel is not allowed; however, an Ethanol blend up to 85% is permitted. Additives of any kind are not allowed. The penalty for illegal fuel is loss of points, cash and awards earned for that event.

7.1.2 May not be blended with ethers or other oxygenates and may not be blended with aniline or its derivatives, nitro compounds or other nitro containing compounds. Fuel is tested and must pass using a Digitron dielectric meter. It is the responsibility of the driver and/or owner to have fuel tested.

7.1.3 Upper cylinder lubricants are not allowed.

7.2 Electric and/or belt-driven fuel pumps are not allowed.

### **7.3 Carburetor:**

7.3.1 OEM Two-Barrel Carburetor: GM to GM, Ford to Ford, Chrysler to Chrysler; May remove choke, but other alterations are not allowed. Holley carburetors are not allowed. Top flow air filter is permitted.

7.3.2 A limit of one (1) standard fuel filter is permitted between the fuel cell and the carburetor. Cool cans are not allowed.

7.3.3 Alterations to carburetor booster are permitted but must maintain stock appearance and must not exceed one-quarter (0.25) inside diameter.

7.3.4 Venturi must be no wider than one and three-eighths (1.375) inches wide, and no more than one and sixty-nine one-hundredths (1.69) in width at the base.

7.3.5 Carburetors shall be subject to claim, as outlined in Claim Procedures (Article 16).

### **7.4 Fuel Cell:**

7.4.1 Must be commercially manufactured. Boat or stock automotive fuel tanks are not allowed. Maximum twenty-two (22) gallons capacity.

7.4.2 Must be securely fastened inside trunk of racecar, above the level of stock trunk floor. Must be mounted by a minimum of two (2) one-eighth (0.125) inch solid steel straps that are two (2) inches wide around the fuel cell.

7.4.3 Must be in steel container.

7.4.4 Firewall must be between driver and fuel cell.

7.4.5 All mounts must be made of steel and attached to frame or roll cage. Adjustable fuel cell mounts are not allowed.

7.4.6 Must have check valve. Fuel cell vent (including cap vent) must have check valves, a flapper spring or ball-type filler valve.

7.4.7 Fuel lines passing through the cockpit must be enclosed in metal pipe or metal conduit. Fuel filters are not allowed in the cockpit.

## ARTICLE 8: TIRES & WHEELS

### 8.1 Wheels:

- 8.1.1 May be a maximum of eight (8) inches in width.
- 8.1.2 Mag wheels are not allowed.
- 8.1.3 Spoke steel wheels are permitted.
- 8.1.4 Reinforcement of stock steel wheels is recommended.
- 8.1.5 One (1) inch steel lug nuts are mandatory on all wheels.
- 8.1.6 Wheel spacers are permitted but must be made of aluminum. A one (1) inch maximum wheel spacer is allowed on any seven (7) inch-wide wheel with three- and four-inch offset, Any eight (8) inch-wide wheel with four (4) inch offset and any rear-end may utilize a one (1) inch spacer on both axles—and with any wheel—but may not exceed an axle width of sixty (60) inches (see Rule 12.9).
- 8.1.7 Offset wheels are permitted. Racecars utilizing seven-inch wheels may have two (2), three (3) or four (4) inches for all wheels from center of rim to rear mounting plane (including spacers). Racecars utilizing eight-inch wheels may have three (3) or four (4) inches for all wheels from center of rim to rear mounting plane (including spacers).
- 8.1.8 A steel bead lock is permitted on the right rear wheel only and may be mounted on the outside of the wheel so long as it does not add to the overall width of the wheel.
- 8.1.9 Mud plug may be used on the right rear tire only. Homemade mud plugs are not allowed.
- 8.1.10 Bleeder valves are not allowed.

### 8.2 Tires:

- 8.2.1 Stock OEM 205, 215, 225/70 or 75 series 14-inch or 15-inch passenger tires are permitted. American Racer G60-15 KK704 (Short, Tall, X-Tall) racing tires are permitted. Staggering of tires is permitted.
- 8.2.2 Mud, racing or fancy, exotic, trick gumball tires are not allowed.
- 8.2.3 Ice and/or snow tires are not allowed.
- 8.2.4 Grooving and/or siping is permitted.
- 8.2.5 Sidewall markings must remain visible. Buffing and/or removing compound designations is not allowed.
- 8.2.6 Softening is not allowed. Solvents of any kind are not allowed. Altering tires with any components or chemicals which alter the manufacturer's baseline settings of the tire are not allowed.
- 8.2.7 Plastic wrap on tires is not allowed outside of your pit area, and must be removed before leaving your pit stall.

### 8.3 Tire Testing Procedures:

- 8.3.1 Random GC (gas chromatography) scans may be performed to identify illegal substances. A GC scan should always be at a peak in 19-20 minutes. If there is no peak, the driver will be disqualified. Driver may protest the GC scan results and request a mass spec test at the cost to the driver (usually around \$300). The mass spec test will reveal exactly what substance was used. The main peak of the tire should never be in half.
- 8.3.2 Traces of chemicals and/or excessive quantities of chemicals found to be outside the baseline on any test is automatic disqualification. The first offense shall result in loss of all points accumulated for the season, forfeiture of all prize money earned for the event, up to a \$5,000 fine and an indefinite suspension from USRA-sanctioned events. Driver will not be permitted to compete in any future USRA-sanctioned event until the fine is paid in full.
- 8.3.3 It is strongly recommended that all drivers use only soap and water. Baking tires will not eliminate traces of illegal substances. The USRA will aggressively test for illegal substances and will levy severe punishment for infractions.

## ARTICLE 9: BRAKING SYSTEM

- 9.1 Must be OEM, must be operating on all four wheels and must lock up all four wheels during inspection.  
*Note: Brakes will be tested.*
- 9.2 Must have OEM calipers and OEM rotors on front and OEM drums or OEM disc brakes on rear. OE drums are permitted on nine-inch Ford rear ends. Aluminum GM drums are not allowed. All components must be made of steel.
- 9.3 Rear disc brakes are permitted on floater and non-floater rear-ends.
- 9.4 Must use OEM vented rotors. Drilling, lightening and/or scalloping of rotors is not allowed. Slotted rotors are not allowed. Minimum ten and one-half (10.5) inch diameter is permitted.

- 9.5 Electronic brake actuators are not allowed.
- 9.6 Aftermarket brake assemblies are not allowed.
- 9.7 Steel brake lines are mandatory and must be visible for inspection.
- 9.8 Anti-lock braking systems are not allowed.
- 9.9 Brake shut-offs and/or bias adjusters are not allowed.
- 9.10 Master cylinder must be in stock location on firewall.
- 9.11 Calipers must be OEM steel and all match. Brake pads must match side to side.
- 9.12 Must maintain minimum OEM dimension for hubs, rotors, pads and calipers.

## **ARTICLE 10: DRIVE SHAFT**

- 10.1 A loop is required and must be constructed of at least one-quarter (0.25) inch by two (2) inch solid steel. Loop must be mounted no more than six (6) inches from the front of the drive shaft tube. Alternatively, two (2) loops of one-quarter (0.25) inch by one (1) inch solid steel fastened to cross member are permitted.
- 10.2 Must be painted white, made of steel and a minimum of two and one half (2.5) inches in diameter.
- 10.3 Yokes must be made of steel.

## **ARTICLE 11: TRANSMISSION**

- 11.1 Must be OE automatic with torque converter or OE single disc clutch on manual transmission only. Lightened flex plates are not allowed.
- 11.2 OE or OE stock replacement cases are permitted.
- 11.3 All OE forward and reverse gears must be operational. The torque converter must have a minimum one-eighth (0.125) inch plug and contain three (3) quarts of transmission fluid.
- 11.4 Automatic transmissions must have approved scatter shield or blanket. Scatter shield may be constructed of one-eighth (1/8) inch by three (3) inch steel, two-hundred seventy (270) degrees around flex plate or flywheel. Manual transmissions must have an explosion-proof SFI-approved bell housing.
- 11.5 Flywheels must be stock OE and weigh a minimum of sixteen (16) pounds. The clutch must be steel and a minimum of ten and one-half (10.5) inches in outside diameter and a full 360 degrees. Lightened flywheels are not allowed. Aluminum flywheels and pressure plates are not allowed.
- 11.6 When the racecar is in gear and the brake pedal is fully depressed, engine must be able to continue running.

## **ARTICLE 12: REAR-END**

- 12.1 Truck rear-ends are not allowed. Ford nine-inch rear-ends and floater rear-ends are permitted but must be mounted like stock rear-end for that make and model.
- 12.2 Rear-end may be welded or a mini spool may be used.
- 12.3 Full spools are not allowed.
- 12.4 Floater rear-end is optional.
- 12.5 Gun-drilled or titanium axles are not allowed. Axles must be made of steel.
- 12.6 Rear-end must be centered on chassis.
- 12.7 All gears must maintain factory specs and weights. Gears lower (higher number, numerically) than 6.5:1 ratio may be back-cut for clearance. Lightweight gears are not allowed
- 12.8 Upper trailer arm brackets must follow suspension bushing rule and remain level side to side.
- 12.9 Rear-ends under sixty (60) inches width (axle flange to axle flange) may utilize wheel spacers on any wheel offset to achieve a sixty (60) inch maximum rear-end width.
- 12.10 Center of rear lower control arm bolt holes may be no lower than three (3) inches from bottom of axle housing and the same on both left and right. Trailing arm bolts must remain tight.
- 12.11 Rear spring perches must be solid, may be no more than one (1) inch tall, must be the same on both sides and must be centered on the rear end housing.

## **ARTICLE 13: ENGINE**

- 13.1 Aluminum pulleys and radiators are permitted.
- 13.2 Overflow tubes must be directed to the ground, and inside of the frame rails.

- 13.3 Racecar must have the capability of starting without being pushed or pulled.
- 13.4 Aftermarket steel motor mounts in stock location are permitted. Mid mounts are permitted (no mid plate).
- 13.5 OPTION #1 – Crate Engine:**
- 13.5.1 GM Performance Parts (GPP) CT350 "602" Chevy small block crate engine only. This engine may be rebuilt and is not required to be sealed but must remain unaltered, utilize the unaltered listed part numbers and follow the listed guide lines. CT350 four-bolt-main block only, hypereutectic pistons P/N 12514101/88894280, GM connecting rod P/N 10108688, cast iron crankshaft P/N 10243070,14088526, GM balancer P/N 19260269/19301706. GM iron Vortec cylinder heads P/N 12529093/12691728, high-rise dual-plane intake manifold P/N 12366573, "602" valve cover P/N 25534359. Unaltered GM camshaft P/N 24502476 only. GM lifter P/N 523270. GM push rod P/N 14095256. GM rocker arm P/N 10089648. Rocker arm nut P/N 19210731. GM valves P/N 10241743 intake/12550909 exhaust. GM valve spring P/N 10212811. GM valve spring retainer P/N 10241744. GM Timing Gears P/N 340235/10128346 and chain P/N 14088783. GM oil pump P/N 93442037. GM head gasket P/N 10105117 must be utilized. Any other brand gaskets may be used for the rest of the engine. The block may be decked to a minimum 9.020-inch deck height. The crankshaft line bore may be corrected. Maximum cylinder bore size is 4.008 inches. Minimum crankshaft journal size is .010 inches under standard size. The maximum cylinder head resurfacing permitted is 0.005 inches. All valve and seat size and angles must remain stock. Standard three-angle valve job is permitted. Modifications below valve seat land are not allowed. Grinding, polishing, painting and/or coating of internal engine parts is not allowed. Lifter bore valley vent tubes are not allowed. Lifter bores may not be altered. Any steel 8-quart single kick-out circle track oil pan is permitted. If Crate Engine is not sealed, then a minimum one-inch sight plug above the oil level in the side of the oil pan is required. If not utilizing a one (1) inch plug, the oil pan may have to be removed for inspection. All other "602" Crate Engine specifications must be followed.
- 13.5.2 Must utilize one (1) GM two-barrel Rochester carburetor. Spacer between carburetor and intake may be no more than one-half (0.5) inch total with one-tenth (0.1) inch maximum thick gaskets, and may not be throttle bore adjustable. Aerosol carburetors are not allowed. Carburetors shall be subject to protest as outlined in Protest Procedures (Article 16).
- 13.5.3 Must utilize soft-touch rev control box with a 6,200 RPM limit. This must be out of reach of the driver but easily accessible for inspection at all times. Altering the chip or ignition system in any way so as to defeat the chip rule shall result in a 30-day suspension of the driver, loss of all track and national points for that event and a \$1,000 fine for the first offense. Second offense shall be a one-year suspension, loss of all track and national points for the season and a \$2,000 fine.
- 13.5.4 A factory-sealed Crate Engine is not subject to engine protests but must have a prominently displayed "Crate" decal affixed near the A pillar. Any unsealed Crate Engine is subject to protest. Any driver running with a sealed Crate Engine will not be eligible to protest engines in that season. Any driver that protests a Standard Engine and switches to a sealed Crate Engine will be eligible for protests.
- 13.6 OPTION #2 – Standard Engine:**
- 13.6.1 Must be stock appearing. Any American make is permitted. Absolutely no changes allowed. Must use stock firing order for that make and model (GM to GM, Ford to Ford, etc.). Titanium is not allowed.
- 13.6.2 May be a maximum of 360 cubic inches. (370 c.i. for Chrysler).
- 13.6.3 Must be a maximum 9.5:1 compression. Only flat top or dished pistons are permitted.
- 13.6.4 Must appear strictly stock for that model and make and in the original mounts. Parts for 400 cubic inches or larger are not allowed. Stroke must match block. Block casting number must remain visible.
- 13.6.5 Only stock appearing crankshafts are permitted. Lightweight cranks are not allowed. No undercut, bull nosed, gun drilled or knife edge crankshafts allowed.
- 13.6.6 Lightweight, aluminum and/or fluid dampeners are not allowed. Only stock-type harmonic balancers are permitted.
- 13.6.7 GM five and seven-tenths (5.7) inch or six (6) inch rods are permitted. Must be stock appearing I-beam non-polished rod. Aluminum or light weight is not allowed. Cap screw rods are permitted. Standard size rod journals and wrist pins only (Chevrolet rods 2.100/.927).
- 13.6.8 A minimum one (1) inch plug above the oil level in the side of the oil pan is recommended. If not utilizing a plug, the oil pan will have to be removed at the time of inspection.
- 13.6.9 Only stock, unaltered two-barrel low-rise cast iron intake manifolds or Approved aluminum intakes are permitted. Approved aluminum intakes are GM – Edelbrock (#2101 or #2701) or Weiand (#7547 or #7547-1); Ford – Edelbrock (#2121 or #2181 or #2665) or Weiand (#7515 or #8023 or #7516); Chrysler – Edelbrock (#2176) or Weiand (#7545 or #8022). Porting, polishing, powder coating and/or



port machining is not allowed. Bowtie, aftermarket, SVO and W2, marine, VORTEC or other special production intake manifolds are not allowed. Spacer between carburetor and intake may be no more than one-half (0.5) inch total with one-tenth (0.1) inch maximum thick gaskets and may not be throttle bore adjustable. External cooler lines from back of intake to front of intake is not allowed.

- 13.6.10 Cast iron stock production or unaltered aftermarket steel stock replacement heads are permitted. Porting and/or polishing is not allowed. GM cars must utilize 76cc heads (approved head numbers are 336, 339, 388, 441, 454, 487, 624, 813, 882, 991 and 993). Aftermarket head numbers are GM – EQ Part #CC167ES2 or #CH350I; Dart Part #10024267 or #10024360; World Products Part #043600 or #042670; Ford – World Products Part #53030; Chrysler – EQ Part #CH318B; RHS/Indy Part #20300 or #20301. Heads may be flat milled to reach the 9.5:1 compression rule. Valve size no larger than 2.02 intake and 1.60 exhaust. VORTEC heads are not allowed. Beehive valve springs are not allowed.
- 13.6.11 Screw-in studs, guide plates and poly-locks are permitted.
- 13.6.12 Roller cams and lifters are not allowed. Roller Rocker arms are not allowed (stock-type stamped steel rocker arms or cast steel rocker arms only). Roller tip rocker arms are permitted. Chryslers may utilize OEM steel shaft rockers but may not exceed one hundred twenty (120) pounds of valve spring seat pressure and must maintain OEM valve spring dimensions. Under valve cover pressurized valve train oiling systems are not allowed.
- 13.6.13 Mushroom lifters are not allowed (stock diameter only). Must match make and model.
- 13.6.14 Stud girdles are not allowed.

### **13.7 Exhaust System & Mufflers:**

- 13.7.1 Must be cast iron exhaust manifolds. Center dump-type manifolds are not allowed. Unaltered spec headers are permitted. Approved Chevrolet headers are Hedman P/N 68600; Hooker P/N 2466HKR or 7543HKR; and Schoenfeld P/N 1485, 1485-22 or 1485-CM2-22. If utilizing headers, a mandatory two and one-quarter (2.25) inch O.D. diameter exhaust pipe (minimum 15 inches long) must be utilized. Ford or Dodge engines call (515) 835-9946 for approval.
- 13.7.2 Exhaust must extend past the firewall.
- 13.7.3 Must remain dual exhaust. Crossover or "Y" pipes are not allowed.
- 13.7.4 Exhaust adaptors between manifold and cylinder head are not allowed.
- 13.7.5 Oil pan EVAC systems are not allowed.

## **ARTICLE 14: WEIGHT**

- 14.1 The overall weight of the racecar shall be measured at the conclusion of an event with the driver in the cockpit, wearing complete racing apparel.
- 14.2 Any racecar utilizing OEM passenger tires will not have a minimum weight rule. Any racecar utilizing the American Racer racing tire must be an overall minimum weight of two thousand nine hundred fifty (2,950) pounds.
- 14.3 Lead and/or ballast may be added only in the trunk area and/or motor compartment (lead and/or ballast is not allowed in the cockpit). Of the total rear ballast weight, at least half of that amount must be added in motor compartment (*Example: If 50 pounds are added in the rear, then at least 25 pounds must be added in the front*).
- 14.4 All lead and/or ballast must be painted white, clearly marked with the car number and securely bolted with two (2) one-half (1/2) inch bolts per fifty (50) pounds of ballast. May not have more than twenty-five (25) pounds mounted on a single half-inch bolt.

## **ARTICLE 15: SAFETY**

- 15.1 It is recommended that each racecar have built-in fire extinguishing equipment but cannot be of the dry powder type (must be Halon 1211 or equivalent).
- 15.2 Drivers should have in their pit area as part of their equipment, at all times, a fully charged dry chemical, Halon (or its equivalent) fire extinguisher. Ten- or thirteen-pound fire extinguishers are recommended.
- 15.3 Driver must wear the required helmet, fire suit and five-point safety harness whenever the racecar is on the racetrack. This includes during track packing, warm ups, hot laps and races.
- 15.4 Helmets are mandatory and must be certified SA2015 or SA2020.
- 15.5 Helmet must accompany driver and racecar at time of inspection.
- 15.6 Complete one- or two-piece fire suits of a flame retardant nature are mandatory.
- 15.7 Fire-resistant gloves and shoes are mandatory. Fire-resistant socks are recommended.

- 15.8 The use of a five- six- or seven-point driver restraint system (safety belts, sub-belt and shoulder harness) is required. Factory-type shoulder belts or straps are not allowed. The use of a seven-point driver restraint system is recommended.
- 15.9 Metal to metal buckles are required on shoulder and seat belts.
- 15.10 Shoulder harness must be mounted securely to the roll cage.
- 15.11 Where the belt passes through the seat edges, a grommet must be installed, rolled and/or padded to prevent cutting of the belt.
- 15.12 Driver restraint system must be less than three (3) years of age past the date of manufacture. It is recommended that the driver restraint system be no more than two (2) years past the date of manufacture.
- 15.13 Full-size window net mounted in the left side driver's window opening is required. Window net mounts must be welded to the roll cage. All bars around the driver must have approved roll bar padding. Approved racing arm restraints are recommended.
- 15.14 Fire-resistant safety neck collars are mandatory.
- 15.15 Absolutely no plastic except from edge of firewall to body skin and inner wheel tub to body skin.

## **ARTICLE 16: PROTEST PROCEDURES**

- 16.1 Any driver possessing a valid USRA license may have the opportunity to execute a protest on the cylinder heads and intake manifold, shocks or carburetor of another driver's racecar.
- 16.2 The first four (4) finishers in the main event must drive their racecars directly to the designated tech area at the conclusion of the main event and are subject to being protested by any other driver that finishes fifth or lower and finishes on the same lap as the winner. Any of the top four finishers that do not go to the tech area will be disqualified but are still subject to being protested.
- 16.3 Protest must be made within five (5) minutes of the completion of the main event. Protested items must be removed at the racetrack and within one (1) hour after protested driver accepts the protest.
- 16.4 Driver making a protest must drive his/her race car immediately after finish of feature, under its own power, directly to the tech area.
- 16.5 Protesting driver must present cash to official overseeing the tech area at the time that the driver declares his/her intention to protest. The cash price of a protest for cylinder heads and intake manifold shall be \$500. The cash price for a protest for carburetors shall be \$150. The cash price for a protest for shocks shall be \$100. Drivers protesting shocks may protest one or all of the shocks during a single protest. \$50 of the protest money shall go to the track officials and the remainder of the protest money shall go to the protested driver if found legal or returned to the protesting driver if items are found to be illegal. Any dispute on whether the protested part is legal or not legal will be settled by sending the part(s) to USRA for a final decision. If the part is deemed illegal by the track officials then the driver being protested will have to pay for shipping the part to the USRA if they dispute that decision. If the part is deemed legal then the protesting driver will have to pay to have the part shipped to the USRA if they dispute the decision. Any part examined during the protesting procedure not related to the protest is still subject for inspection and may be deemed legal or illegal by the track officials.
- 16.6 Protesting driver shall select from the first four (4) finishers in the main event and must declare that choice to the official overseeing the tech area. If multiple drivers declare an intention to protest, the driver finishing farthest back in the main event will select first.
- 16.7 Driver is permitted one (1) protest per event, regardless of the outcome of that protest.
- 16.8 Only drivers, car owners and officials are permitted in the designated tech area. Any other participants associated with that racecar that enter the tech area will be subject to disqualification, fine and/or suspension.
- 16.9 Only a driver may protest, and only the protested driver or car owner may agree to accept or refuse the protest. The first statement of acceptance or rejection of the protest by the protested driver or car owner is binding.
- 16.10 Any driver or car owner refusing to accept a protest will forfeit all cash and contingency winnings for that event.
- 16.11 Any driver or car owner refusing to accept a protest forfeits his/her right to make a protest in any USRA event for a period of one (1) year from the date of refusal.
- 16.12 Any driver or car owner refusing to accept a protest will forfeit all USRA points accumulated up to, and including, the event at which the protest was made.

- 16.13 First refusal to accept a protest will result in that driver and car owner being suspended from all USRA events for thirty (30) days and until a \$1,000 fine is paid and received by the USRA. Second refusal to accept a protest will result in that driver and car owner being suspended from all USRA events for one (1) year and until a \$5,000 fine is paid and received by the USRA.
- 16.14 In the event of a dispute between driver and car owner whether to accept or refuse a protest, the decision of the driver shall overrule that of the car owner.
- 16.15 Any driver found to be making a protest for another person will lose all USRA points accumulated to date for the entire season, all cash and contingency winnings for that event, and will be suspended from all USRA events for thirty (30) days and until a \$1,000 fine is paid and received by the USRA.
- 16.16 Driver may protest a maximum of three (3) times during the calendar year.
- 16.17 Driver must compete in a minimum of three (3) consecutive events prior to the event at which he/she makes a protest.
- 16.18 The USRA reserves the right to disallow any protest at their discretion.
- 16.19 Drivers utilizing a provisional starting position are not allowed to make a protest in that event.

## **AMENDMENTS**

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