

# 2023 USRA STOCK CAR 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 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 2022 USRA Stock Car 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 U.S.-manufactured full body passenger car with full frame or unibody are permitted (no panel vans or station wagons). Aftermarket OEM stock steel replacement bodies are permitted. Body must maintain OEM body lines and shape. Front fenders must maintain OEM size and body curve.

Fenders, doors and quarter panels must maintain OEM shape and arc. Flat-sided bodies are not allowed. Body must be centered on frame and parallel to frame from front to rear and side to side.

- 1.2 Steel OEM and/or OE replacement body panels only. All body panels must be steel all the way down to the frame. All pillars must be stock, made of steel and in stock location. Driver's side "B" pillar may be moved for driver access. Roofs must remain stock dimensions and slope. Aftermarket fiberglass O.E.M. replacement roofs are permitted for "G" body cars.
- 1.3 Aluminum hoods are permitted. Hood must be one piece and be separate from fenders. One-piece or tilt front ends are not permitted. A hole in the hood is permitted for air cleaner clearance only. The hole can be no larger than air cleaner diameter and air cleaner can be no more than four (4) inches above hood. A shield or scoop with a maximum height of four (4) inches tall and a maximum of one-hundred eighty (180) degrees around air filter may be placed on the front side of the air filter on top of hood. Hood must be sealed to cowl.
- 1.4 Cutting is permitted for placement of roll cage and tire clearance only.
- 1.5 Steel rub rails no bigger than one (1) inch by two (2) inches may be attached to front fender well to fender well and rear quarter panel, flush with body.
- 1.6 Minimum of three (3) windshield bars must be in place in front of driver.
- 1.7 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. Window openings must remain stock dimensions. Rear opera window may be covered with clear Lexan only (same side to side).
- 1.8 Stock appearing plastic nose pieces and tail pieces are permitted. Skirt(s) may be added to the bottom of the doors only but must remain four (4) inches from the ground. Front nose piece must remain eight (8) inches from the ground. Back of rear tail piece and rear of deck lid may be a maximum of twenty (20) inches above center of bumper and frame rails.
- 1.9 Spoilers and/or hood scoops are not allowed.
- 1.10 Concaved trunk lids are not allowed. Trunk lids and quarter panels must slope to the rear of the car.
- 1.11 Firewall and floor pan may be removed but must be replaced with steel to resemble factory floor pan. OEM floor pan may be replaced using steel fabricated floor pan. Must be eighteen (18) gauge or forty-nine thousandths (.049) inch thickness steel securely welded to frame. Firewall may be flat or straight and may be moved back to the first factory seam in the frame (where C channel is welded to front stub) or twelve (12) inches from back of motor.
- 1.12 All glass must be removed.
- 1.13 Body panels must remain original size but may be eviscerated. Body must mount in stock location.
- 1.14 Bodies with excessive damage (as determined by an official) will not be allowed to compete.
- 1.15 Front and rear bumpers are mandatory. Sharp edges are not allowed. Tubular front and/or rear bumpers are permitted and must be bent to fit with rounded ends and must be covered by molded plastic nose and/or tail. Must be mounted frame-end to frame-end. Center of frame and bumper must be between sixteen (16) and twenty-one (21) inches, and no part of the bumper may be lower than twelve (12) inches from the ground.
- 1.16 If using a newer front-wheel drive body on an older model chassis, the body must be squared up on the frame (not offset to the left).
- 1.17 Appearance:**
  - 1.17.1 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. Top numbers should be at least four (4) inches thick and twenty-four (24) inches high.
  - 1.17.2 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 thousandths (0.095) inch wall thickness tubing with a minimum one and six hundred sixty-six thousandths (1.666) inch diameter for main cage and door bars. Offset cages are not allowed. Aluminum and/or other soft metals are not allowed. Roll bar connections must be properly welded.

- 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 Four-post roll cage of continuous hoops must be used, front and rear hoop welded to frame with a minimum left-to-right width of forty-seven (47) inches from outside to outside.
- 2.5 Rear hoop must have an "X" brace and front down bars must be tied together. A minimum of forty (40) inches between front and rear down bars at the top of the door panel is mandatory.
- 2.6 With helmet on and driver securely strapped into the racing seat, top of driver's head must not protrude above the roll cage.
- 2.7 A 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.
- 2.8 Rear kickers and rear hoop "X" brace must utilize a minimum of one and one-quarter (1.25) inch tubing with eighty-three thousandths (0.083) inch thickness.
- 2.9 Three horizontal door bars on both sides are mandatory.
- 2.10 Minimum of four (4) uprights tied from frame to top door bar on driver's side, with three (3) on passenger side, are required.
- 2.11 May have two bars for protection in front of radiator. Must be located behind the front bumper and within the confines of the body and may be no wider than stock frame horns. Front horns may be tied together. All front and rear bars must be inside the body. Adjustable bars on the frame and/or roll cage are not allowed.
- 2.12 A minimum of one cross bar in top halo of roll cage is required.
- 2.13 Steel door plates with eighteen (18) gauge or forty-nine thousandths (.049) inch minimum thickness metal must be securely welded to outside of door bars on driver's side. 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 seat. Must be visible for inspection.
- 3.14 A tow hook on both the front and rear is required.

### **ARTICLE 3: FRAME**

- 3.1 GM unibody cars are permitted.
- 3.2 Minimum wheelbase shall be one-hundred seven and one-half (107.5) inches on both sides with no more than one (1) inch difference from side to side. GM unibody minimum wheelbase is one-hundred seven and one-half (107.5) inches.
- 3.3 Stock frame must match floor pan and firewall for GM cars, year to year and make to make. Steel OEM bodies only.
- 3.4 1980 or newer Ford unibodies may be replaced with Ford full frames. May be shortened to a minimum one-hundred eleven and one-half (111.5) inches.
- 3.5 Frames and cross members must remain OEM and unaltered and may not be altered in any way for engine placement or suspension clearance.
- 3.6 From a point no further forward than one (1) inch behind the factory seam, rear of frame behind rear tires may be replaced in stock location with two (2) inch by three (3) inch steel tubing with ninety-five thousandths (0.095) wall thickness. Factory seam must remain visible. Must replace the same length of material removed.
- 3.7 Motor must be in stock location. For GM 1978-1987 metric frames with a Chevy motor, the fuel pump must remain in front of cross member, one and three-quarter (1.75) inches from cross member to center of fuel pump; With a Ford engine the back of the block can be no farther back than twenty-two and one-half (22.5) inches from front of cross member; With a Chrysler block, no more than twenty-one and three-quarter (21.75) inches.
- 3.8 Unibody leaf spring cars may under sling the rear-end. Suspension components may not be mounted to bracing.
- 3.9 Frames may be "X" braced.
- 3.10 Titanium products, parts or components are not allowed anywhere on the racecar.
- 3.11 Widening of frame is not allowed.
- 3.12 Frame may not exceed ten (10) 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.

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

- 4.1 Loose objects and/or weights are not allowed.
- 4.2 Air bags are not allowed.
- 4.3 Rear view mirrors are not allowed.
- 4.4 Interior cockpit may be formed by sheet metal installed from passenger door to a maximum of the left side of driveshaft tunnel and may extend from dash or firewall to the rear of racing seat. Interior tin may be no higher than top of door and no lower than top of the top door bar. Interior must remain level front to back and side to side. If interior tin extends only from top of door to right side door bar then tin may slope to door bar. Rear speaker deck may be extended in a straight line from front to back and side to side to the rear of racing seat or rear of interior tin (if used), may not extend back past the "C" pillar and may be no higher than the deck lid and opera window. If interior cockpit is formed, the full firewall must remain but floor pan below tin work may be removed.
- 4.5 Dashboard may not extend more than thirty-six (36) inches from back of engine block. Dashboard must be flat and level, except for cowl in front of driver.
- 4.6 Steering:**
  - 4.6.1 Must be OEM 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.
  - 4.6.2 Rack and pinion is not allowed.
  - 4.6.3 May be modified to suit driver but must remain on left side of cockpit (no center steering).
  - 4.6.4 Quick-release metal coupling on steering wheel is mandatory. Plastic couplings are not allowed.
- 4.7 Seat:**
  - 4.7.1 Factory-manufactured racing seats are mandatory and must be acceptable to officials.
  - 4.7.2 Homemade aluminum, plastic or fiberglass seats are not allowed.
  - 4.7.3 Must be installed with minimum three-eighth (3/8)-inch fasteners and washers. Seat back may not be moved back further than seventy-two (72) inches from rear of engine block.
  - 4.7.4 High-back aluminum seats only. Full containment racing seats are strongly recommended.

## **ARTICLE 5: SUSPENSION**

- 5.1 Aluminum and/or titanium components are not allowed. Magnet must stick to all components.
- 5.2 Weight jacks are optional, but devices which may enable driver adjustment to alter wheelbase or for weight jacking while car is in competition is strictly forbidden. Leaf spring cars may use leaf spring sliders on rear of leaf spring only. Front leaf spring mounts must remain stock and in stock location.
- 5.3 Steering components must be OEM and match frame; Ball joints must be OE and non-adjustable.
- 5.4 Only stock passenger car spindles are permitted and must match frame. Fabricated spindles are not allowed.
- 5.5 Bottom A-frames may not be altered or moved and must match frame.
- 5.6 Upper tubular A-frames with or without aluminum cross shaft are permitted. Adjustable and non-adjustable are permitted (mounts may be moved). Rear control arms may be aftermarket but must maintain legal bushings, remain OEM length and mount to frame in OEM location.
- 5.7 Offset or bearing-type rear control arm and front lower A-frame bushings are not allowed. Mono-ball or heim-style bushings are not allowed. One-piece steel, rubber, polyurethane or nylon bushings only. Bushing material must solid and same width as inner sleeve. Inner steel sleeve in bushing must be present and OEM length. Forward and backward movement in bushing is not allowed.
- 5.8 Suspension, steering and rear end parts must be made of steel.
- 5.9 Gun-drilled, tubular or hollow bolts or studs are not allowed anywhere on the racecar.
- 5.10 A tether chain is permitted on front and rear suspension. Chain must be mounted from lower A-frame to frame or cage on front end and on top of axle tube to frame or cage on rear end. Chains must be mounted vertical and solid and must remain loose at ride height. Rubber biscuits are not allowed.
- 5.11 Shocks & Springs:**
  - 5.11.1 Front shocks must be mounted to A-frame (upper or lower).
  - 5.11.2 Rear shocks must be mounted within two (2) inches of center line of the lower control arm bracket on rear end and remain within twenty-five (25) degrees of vertical. Top of rear shock may be on an adjustable weight-jack-type bolt.
  - 5.11.3 Sliding shock mounts are not allowed. Coil-over eliminators are not allowed.

- 5.11.4 Rear shocks may be moved but must remain behind housing.
- 5.11.5 Racing shocks and springs are permitted. One (1) unaltered, non-adjustable steel-bodied shock per wheel. Aluminum shaft guide on shock end is permitted. Bump stops (internal or external) are not allowed. Any suspension stops are not allowed. Suspension travel limiting devices are not allowed. Shock shaft must be able to compress all the way into shock body. Shock shaft must move in both directions from its installed position and measured at ride height. Shock cannot preload the spring.
- 5.11.6 Coil-over, remote and/or air reservoir shocks are not allowed.
- 5.11.7 Bladder-type valves and/or Schrader valves are not allowed.
- 5.11.8 Shocks shall be subject to claim, as outlined in Claim Procedures (Article 16).
- 5.11.9 Widgets, spring-loaded cups and/or double spring cups are not allowed.
- 5.11.10 Progressive springs are not allowed. Spring rubbers are not allowed.
- 5.11.11 Springs must be mounted straight up and down (may not be tipped). Rear springs may not be past the center line of the rear-end housing. Spring tethers are permitted. Lower spring perches must be welded solid to rear end housing (pivoting perches is not allowed).

## ARTICLE 6: ELECTRICAL SYSTEM

### 6.1 Battery:

- 6.1.1 Must be securely mounted inside frame rails and covered.
- 6.1.2 One (1) 12-volt battery only (no 16-volt batteries).
- 6.1.3 Voltage converters are not allowed.
- 6.1.4 Must be in marine box if mounted in cockpit.
- 6.1.5 All battery posts must be securely covered.

### 6.2 Ignition:

- 6.2.1 Magnetos and/or crank-triggered ignitions are not allowed.
- 6.2.2 No more than one (1) coil may be used.
- 6.2.3 Kill switch required within easy reach of the driver. The switch must be clearly marked "OFF" and "ON."
- 6.2.4 Ignition box must be out of reach of driver.
- 6.3 Digital gauges are not allowed. Digital tachometers are permitted. Cameras pointing to any moving or suspension parts 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 gasoline or racing gasoline is permitted. Oxygenated fuel is not allowed; however, an ethanol blend is allowed up to 85%. Additives of any kind are not allowed. Penalty for illegal fuel is loss of points, cash and awards earned for that event and subject to a fine.
- 7.1.2 Cannot 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 fuel pumps are not allowed.

### 7.3 Carburetor:

- 7.3.1 One (1) installed carburetor is permitted.
- 7.3.2 Aftermarket metering block is permitted.
- 7.3.3 **Crate Engine** (see Rule 10.9) and **360 Engine** (see Rule 13.10) may utilize one (1) Holley 4150 Series four-barrel carburetor. HP carburetors are permitted. This carburetor has no size requirements but must remain to function as the 4150 Series carburetor was designed and must utilize Holley type boosters. Vacuum secondary carburetors are not allowed. Annular discharge boosters are not allowed.
- 7.3.4 **Standard Engine** (see Rule 10.11) must use any Holley two-barrel carburetor. Carburetor must utilize a maximum one and three-quarters (1.75) inch throttle bore. Boosters must remain but no booster or venturi size is required. Annular discharge boosters are not allowed.
- 7.3.5 Must be naturally aspirated.
- 7.3.6 Fuel injection is not allowed. Aerosol carburetors are not allowed.

- 7.3.7 One (1) standard fuel filter between the fuel cell and the carburetor is permitted.
- 7.3.8 Cool cans are not allowed.
- 7.3.9 A one (1) inch adapter plate or spacer is permitted. Distance between bottom of carburetor and top of intake manifold cannot exceed one and one-quarter (1.25) inch. Spacer thickness must remain the same front to back and side to side.
- 7.3.10 Predator carburetors are not allowed.
- 7.3.11 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 and/or stock automotive fuel tanks are not allowed.
- 7.4.2 Must be securely fastened inside trunk of racecar and mounted by at least two (2) one-eighth (1/8) inch solid steel straps which are two (2) inches wide around the fuel cell and above the level of stock trunk floor.
- 7.4.3 Must be in a steel container.
- 7.4.4 Firewall must be between driver and fuel cell and extend from quarter panel to quarter panel.
- 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 valves. A ball-type, flapper, spring or filler rollover valve is mandatory for fuel cells without a positive seal filler neck/cap system.
- 7.4.7 Fuel lines passing through the cockpit must be enclosed in metal pipe or metal conduit. Fuel filters are not allowed in cockpit.

## **ARTICLE 8: TIRES & WHEELS**

### **8.1 Wheels:**

- 8.1.1 Must be fifteen (15) inches in diameter and eight (8) inches in width.
- 8.1.2 Steel lug nuts only are permitted.
- 8.1.3 Must be reinforced steel only.
- 8.1.4 A steel bead lock may be used on the right-side wheels 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.
- 8.1.5 Homemade mud caps are not allowed.
- 8.1.6 Wheel covers are permitted on right side wheels only. Inner mud plugs are permitted.
- 8.1.7 Spacer or adaptor, offset wheel or a combination of the two is permitted but must be made of aluminum only may not exceed two (2) inches total offset per wheel.
- 8.1.8 Three tabs of no more than two (2) inches long each may be welded onto the wheel for mounting of mud cap.
- 8.1.9 Bleeder valves are not allowed.
- 8.1.10 Added ballast to any wheel is not allowed.

### **8.2 Tires:**

- 8.2.1 The only tire permitted is the American Racer G60-15 KK704 (Short, Tall or X Tall). Tires must durometer 50 or harder at the conclusion of any race. Any tire not meeting this durometer reading is subject to having a tire sample sent in for chemical testing.
- 8.2.2 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 is not allowed.
- 8.2.3 Added ballast to the inside of any tire is 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.

### **8.3 Tire Testing Procedures:**

- 8.3.1 Random GC (gas chromatography) scans may be performed to identify illegal substances. A GC scan should always be 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. 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 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 operating on all four wheels and must lock up all four wheels during inspection.
- 9.2 Must have steel OEM caliper and steel vented rotor on all four wheels. Both front calipers must match. Both rear calipers must match. Brake pads must match side to side.
- 9.3 Electronic brake actuators are not allowed.
- 9.4 Must be OE operative four-wheel drum or disc brake combination.
- 9.5 Stock vented rotors only. Scalloped rotors are not allowed. Rotors may not be lightened. Floating brakes are not allowed.
- 9.6 Brake lines must be outside frame rails and visible.
- 9.7 Brake shut-off and/or pressure sensitive devices are not allowed. One proportioning device (front to rear only) is permitted.
- 9.8 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 and made of steel.
- 10.3 Yokes must be made of steel.
- 10.4 Carbon fiber driveshaft is permitted but must be white and minimum three (3) inches in diameter. Aluminum yokes are permitted with carbon fiber driveshaft.

## **ARTICLE 11: TRANSMISSION**

- 11.1 OEM three-speed, four-speed and automatic production-types are permitted.
- 11.2 "In and out" boxes, five-speed transmissions and quick-change devices are not allowed.
- 11.3 Must have at least one (1) gear forward and reverse, plus a neutral position. With engine running and racecar in still position, driver must be able to engage racecar in gear and move forward, then backward.
- 11.4 Flywheel must be bolted directly to the end of the crankshaft and pressure plate must be bolted directed to the flywheel. One flywheel only. All driveline components within the bell housing must rotate while the racecar is in any gear.
- 11.5 All manual gear-type transmissions must have OE stock-appearing case and must have a working external disc clutch inside an explosion-proof steel bell housing. Must be a minimum six and one-quarter (6.25) diameter clutch. Lightened flex plates are not allowed and must be SFI certified.
- 11.6 Automatic transmissions must remain in OEM stock appearing automatic case with a functioning stock appearing pump. Original bell housing must remain.
- 11.7 Must have approved scatter shield or blanket. Scatter shield may be constructed of one-eighth (0.125) inch by three (3) inch steel, two-hundred seventy (270) degrees around flex plate or flywheel.
- 11.8 Aftermarket transmissions are permitted. Approved aftermarket transmissions are Bert (Part #LMZ/GEN II), Brinn (Part #70001), Brinn Predator (Part #70600), Falcon (Part #60100), RaceGator (Part #140002/140002-C), Jerico (Part #JER0021) and Mitchell Machine Bullet Tranny with internal clutch. Ball spline transmissions are not allowed. Must utilize performance bell housings. Stock aluminum bell housings are not allowed.
- 11.9 Starter must bolt to engine block in factory location.

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

- 12.1 Any passenger car- or truck-type is permitted. Aluminum is not allowed except lowering blocks, axle cap, U-joint caps and drive plate.
- 12.2 Nine (9) inch Ford rear-end is permitted (floater recommended).
- 12.3 Rear suspension must match frame with stock components and dimensions. Panhard bars are not allowed. A one (1) inch inspection hole in center section is recommended.

- 12.4 Full steel spool, steel mini-spool or welded rear-ends only. Steel axles only.
- 12.5 Quick change rear-end is permitted with steel axles and steel axle tubes only. Must use a ten (10) inch ring gear and minimum one (1) inch wide solid spur gears
- 12.6 Non-adjustable upper trailer arm brackets only and must follow rear bushing rule and remain level side to side. Lower trailing arm brackets may be no lower than seven and one-half (7.5) inches from bottom of axle tubes to center of bolt. Five (5) **individual** mounting holes for adjustment on lower trailing arms brackets are permitted. **Slotted holes are not allowed. Removable slugs are not allowed.**
- 12.7 Cambered rear ends are not allowed (one-piece drive flange only).
- 12.8 Mechanical and/or electrical traction devices are not allowed.

## **ARTICLE 13: ENGINE**

- 13.1 Aluminum water pumps are permitted.
- 13.2 Electric or belt-driven fuel pumps are not allowed.
- 13.3 Must have capability of starting without being pushed or pulled. Must be able to join event lineup on demand and unaided.
- 13.4 Cooling system may be modified. Sprinkler systems are not allowed. One (1) radiator is permitted and must be mounted in front of engine. Overflow tubes must be directed to the ground, between frame rails.
- 13.5 Accumulators and Accusumps must be mounted in the middle of the racecar or behind the driver, but not on door bars.
- 13.6 Top flow air cleaner housings are permitted. Cold air boxes and/or air cleaner duct work is not allowed. Shields of any kind may not be used to isolate the carburetor or air cleaner in engine bay.
- 13.7 Intake manifolds must be made of cast iron or cast aluminum.

### **13.8 Exhaust & Mufflers:**

- 13.8.1 Must be mounted in such a way as to direct spent gases away from cockpit of vehicle and away from area of possible fuel spillage and must be directed towards the ground.
- 13.8.2 Use of mufflers is recommended. Mufflers may be required at some tracks.
- 13.8.3 'Zoomies' and/or 180-degree headers are not allowed. Over-the-top headers are not allowed.
- 13.8.4 Exhaust pipes must extend to and connect with one (1) collector at least four (4) inches long. Exhaust through body panels or fenders is not allowed.
- 13.8.5 Must remain dual exhaust. Crossover or 'Y' pipes are not allowed.

### **13.9 OPTION #1 – Crate Engine**

- 13.9.1 GM Performance Parts (GPP) factory-sealed CT400 Chevy small block crate engine (Part No. 88958604 or 19318604): includes 8-quart circle track oil pan with dual kick-out design, valve cover breather kit, open-plenum high-rise intake manifold, 1.5:1-ratio aluminum roller rockers, forged steel crankshaft, hypereutectic pistons, 23° Fast Burn aluminum heads and special "kool nut" rocker arm design.
- 13.9.3 Must be unaltered and sealed from factory at appropriate points (intake, head, timing chain cover and oil pan) with approved GPP break-off bolts. Any altered, damaged or missing GPP break-off bolts will result in driver being disqualified from that event, loss of all track and national points accumulated up to, and including, the date of the offense, and a \$2,000 fine and fourteen (14) day suspension from all USRA-sanctioned events. Second offense carries a \$5,000 fine and one (1) year suspension.
- 13.9.4 May utilize one (1) Holley 4150 Series four-barrel carburetor (see Article 7.3.3). Carburetors shall be subject to claim, as outlined in Claiming Procedures (Article 16).
- 13.9.5 Crate Engine is not subject to claim but must have a prominently displayed "Crate" decal affixed near the A pillar or Crate Engine is claimable. Any driver running a "Standard" engine with a "Crate" decal will be disqualified. Any driver running with a Crate Engine will not be eligible to claim in that season. Any driver that claims a Standard Engine and switches to Crate Engine will be eligible to be claimed.

### **13.10 OPTION #2 – 360 Engine**

- 13.10.1 Must be stock appearing. Absolutely no changes are allowed. Must use stock firing order for that make and model (GM to GM, Ford to Ford, etc.). Titanium is not allowed.
- 13.10.2 Must appear strictly stock for that model and make and in the original mounts. Parts for 400 cubic-inch or larger engines are not allowed. Stroke must match block. Approved aftermarket blocks are permitted. Approved aftermarket blocks include DART #31161111 or Brodix #BRS400035842 or GM #12480047 or World Products #084010.
- 13.10.3 Only stock appearing crankshafts are permitted. Lightweight cranks are not allowed. Undercut, bull-nosed, gun-drilled and/or knife edge crankshafts are not allowed. Lightweight, aluminum and/or fluid dampeners are not allowed. Only flat-top or dished pistons are permitted.



- 13.10.4 Aluminum or light weight is not allowed.
- 13.10.5 A minimum one (1) inch plug above the oil level in the side of the oil pan is recommended. If not utilizing a one (1) inch plug, oil pan may have to be removed at time of inspection.
- 13.10.6 Absolutely no stroking allowed.
- 13.10.7 Only stock, unaltered two- or four-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, #2171 or #2665) or Weiand (#7515, #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.
- 13.10.8 Cast iron stock production or 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) or World Products (Part #043600 or #042670); Ford – World Products (Part #53030; Chrysler – EQ (Part #CH318B) or RHS/Indy (Part #20300 or #20301). Chryslers may utilize OEM steel or aluminum shaft rockers but may not exceed one hundred twenty (120) pounds of valve spring seat pressure and must maintain OEM valve spring dimensions. Heads may be flat milled to reach the 10.5:1 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.
- 13.10.9 Roller cams and lifters are not allowed. Roller rocker arms are permitted.
- 13.10.10 Must be a maximum 10.5:1 compression.
- 13.10.11 May be a maximum of 360 cubic inches (368 c.i. for Dodge).
- 13.10.12 GM five and seven-tenths (5.7) inch or six (6) inch rods are permitted. Must be stock-appearing I-beam non-polished rod. Standard size rod journals and wrist pins only (Chevrolet rods 2.100/.927).
- 13.10.13 Mushroom lifters are not allowed (stock diameter only). Must match make and model.
- 13.10.14 Cap screw rods are permitted.
- 13.10.15 Stud girdles are not allowed.
- 13.10.16 May utilize one (1) Holley 4150 Series four-barrel carburetor (see Rule 7.3.3). Carburetors shall be subject to claim, as outlined in Claiming Procedures (Article 19).
- 13.10.17 Must utilize a maximum 7400 RPM rev-limiter. Rev Limiter may not be within reach of the driver while in cockpit and must be easily accessible to officials at any time. Any driver caught altering the rev limiter or ignition system in any way to defeat the rev limiter rule shall receive a 30-day suspension, loss of all track and national points for the night 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.
- 13.10.18 This engine option is not claimable.
- 13.11 OPTION #3 – Standard Engine**
- 13.11.1 Must be stock appearing. Absolutely no changes are permitted. Must use stock firing order for that make and model (GM to GM, Ford to Ford, etc.). Aftermarket blocks are permitted. Lightened blocks are not allowed.
- 13.11.2 All engines used in competition must be able to be used in conventional passenger cars without alteration.
- 13.11.3 Motor mounts may not be removed or altered on engine block. Casting and fittings may not be changed.
- 13.11.4 Machine work on outside of engine or on front or rear of camshaft is not allowed.
- 13.11.5 Roller rocker arms are permitted. Roller cams are not allowed. Shaft rocker arms are not allowed.
- 13.11.6 Aluminum heads and/or blocks are not allowed.
- 13.11.7 Bowtie or high-rise intakes are not allowed. Only stock, unaltered two- or four-barrel low rise cast iron intake manifolds or the following aluminum intakes are permitted: GM – Edelbrock (#2101, #2701 or #2716) and Weiand (#7547 or #7547-1); Ford – Edelbrock (#2121, #2171 or #2665) and Weiand (#7515, #8023 or #7516); Chrysler – Edelbrock (#2176) or Weiand (#7545). Only unaltered (no porting, **powder coating** and/or polishing) aftermarket aluminum intakes are permitted.
- 13.11.8 Starter must bolt in stock location.
- 13.11.9 There is no limit on engine cubic inches.
- 13.11.10 Engines shall be subject to claim, as outlined in Claim Procedures (Article 16).
- 13.11.11 Mushroom lifters are not allowed (stock diameter only). Must match make and model.
- 13.11.12 Stud girdles are permitted.

## **ARTICLE 14: WEIGHT**

- 14.1 The overall weight of the racecar shall be measured after an event with the driver in the cockpit, wearing complete racing apparel.
- 14.2 The overall weight of the racecar must be a minimum of two-thousand nine hundred fifty (2,950) pounds.
- 14.3 Ballast:**
  - 14.3.1 May not be mounted in cockpit, outside of body or hood area, or any rotating or suspension parts.
  - 14.3.2 Must be securely mounted, painted white and clearly marked with the car number.
  - 14.3.3 Must be attached with at least two (2) one-half (0.5) inch bolts with a maximum of one hundred (100) pounds per mounting. Any weight twenty-five (25) pounds or less may be mounted with one (1) one-half (0.5) inch bolt.
  - 14.3.4 May not be attached to rear bumper. Weight must be mounted to the frame, roll cage or rear-end housing only. Weight brackets for rear-end housing must be made of steel.

## **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, always, a fully charged dry chemical, Halon (or its equivalent) fire extinguisher. Ten- or thirteen-pound fire extinguishers are recommended.
- 15.3 Driver must wear required helmet, fire suit and five-point safety harness whenever the racecar is on the racetrack. This includes during track packing, warmups, 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: CLAIMING PROCEDURES**

- 16.1 Any driver possessing a valid USRA license may have the opportunity to execute a claim on the cylinder heads and intake manifold, shocks or carburetor of another driver's racecar. Crate Engines and Spec Engines are not claimable. Any drivers utilizing a Crate Engine or Spec Engine are not eligible to claim another driver's cylinder heads and intake manifold. Any driver running with a Crate Engine or Spec Engine will not be eligible to claim another driver's cylinder heads and intake manifold in that season. Any driver that claims a Standard Engine and switches to Crate Engine or Spec Engine will be eligible to have their cylinder heads and intake manifold claimed.
- 16.2 The first four (4) finishers in the main event must drive their racecars directly to the designated claim area at the conclusion of the main event and are subject to being claimed by any other driver that finishes fifth or lower and finishes on the same lap as the winner. Any of the top four cars that do not go to the claim area will be disqualified but are still subject to being claimed.
- 16.3 Claims must be made within five (5) minutes of the completion of the main event. Claimed items must be removed at the racetrack and within one (1) hour after claimed driver accepts the claim.

- 16.4 Driver making claim must drive his/her race car immediately after finish of feature, under its own power, directly to the claim area.
- 16.5 Claiming driver must present license and cash to official overseeing the claim area at the time that the driver declares his/her intention to claim. The cash price of the claim for cylinder heads and intake manifold shall be \$500. The cash price of the claim for carburetors shall be \$300 or \$150 and exchange. Only four-barrel for four-barrel or two-barrel for two-barrel claims are permitted. The cash price of the claim for shocks shall be \$75 per shock. Drivers claiming shocks may claim one or more shocks during a single claim.
- 16.6 The cylinder heads and intake manifold claim includes both cylinder heads and intake manifold, rocker arm studs and guide plate, valves, valve springs, retainers and keepers and intake bolts. This claim does not include carburetor spacer, valve covers, rocker arms, pushrods, thermostat and thermostat housing, any fittings, adapters, studs or head bolts.
- 16.7 Claiming driver shall select from the first four (4) finishers in the main event and must declare that choice to the official overseeing the claim area. If the claiming driver decides at that time that he/she does not wish to execute the claim, he/she will nonetheless be charged one claim. If multiple drivers declare an intention to claim, the driver finishing farthest back in the main event will select first. If the claimed driver is utilizing a non-claimable engine, the claiming driver may not choose another driver and will not be charged a claim.
- 16.8 Driver is permitted one (1) claim per event, regardless of the outcome of that claim.
- 16.9 Only drivers, car owners and officials are permitted in the designated claim area. Any other participants associated with that racecar that enter the claim area will be subject to disqualification, fine and/or suspension.
- 16.10 Only a driver may claim, and only the claimed driver or car owner may agree to accept or refuse the claim. The first statement of acceptance or rejection of the claim by the claimed driver or car owner is binding.
- 16.11 Any driver or car owner refusing to accept a claim will forfeit all cash and contingency winnings for that event.
- 16.12 Any driver or car owner refusing to accept a claim forfeits his/her right to make a claim in any USRA event for a period of one (1) year from the date of refusal.
- 16.13 Any driver or car owner refusing to accept a claim will forfeit all USRA points (national and track) accumulated up to, and including, the event at which the claim was made.
- 16.14 First refusal to accept a claim 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 at USRA headquarters. Second refusal to accept a claim 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 at USRA headquarters.
- 16.15 In the event of a dispute between driver and car owner whether to accept or refuse a claim, the decision of the driver shall overrule that of the car owner.
- 16.16 Any driver found to be making a claim for another person will lose all USRA points (national and track) 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 at USRA headquarters.
- 16.17 Sabotage of claimed parts will result in driver being suspended from all USRA events for fourteen (14) days and until a \$1,000 fine is paid and received at USRA headquarters. Driver will also forfeit all USRA points (national and track) accumulated up to, and including, the event at which the sabotage occurred. Furthermore, driver will forfeit the privilege to make a claim for a period of one (1) year from the date on which the sabotage occurred.
- 16.18 Driver may claim a maximum of three (3) times during the calendar year.
- 16.19 After making an accepted claim, driver must finish in the top four (4) of a main event and reinstate his/her license. Cost is \$25 for reinstatement of license. Driver will not be eligible to make another claim unless license is reinstated.
- 16.20 Cost for replacement of a lost license is \$25.
- 16.21 Driver must compete in a minimum of three (3) consecutive events prior to the event at which he/she makes a claim.
- 16.22 The USRA reserves the right to disallow any claim at their discretion.
- 16.23 Drivers utilizing a provisional starting position in the main event are not allowed to make a claim in that event.

- 16.24 At their discretion, officials reserve the option to claim the cylinder heads and intake manifold, shock or carburetor of any racecar.
- 16.25 Drivers will be eligible to make a claim during the first event of the season. After one event, driver must have raced in previous events before Rule 19.21 applies.
- 16.26 Disqualification shall not affect a legal claim. Claimed parts will be removed and transferred prior to any penalties being assessed. All involved claimed parts and related parts are subject to technical inspection and any illegal parts are subject to all fines and penalties but do not void the claim.

## **AMENDMENTS**

None.

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