



2024 XR STOCK CAR RULES

(Revise: 12/28/2023)

UPDATED ITEM(S): Section 16.19

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.

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.

All participants and officials are expected and required to additionally be familiar with the definitions and details in the XR General Rules, Regulations & Procedures. XR Events shall hereafter be simply referred to as the XR throughout the rules description. XR official(s) shall include all personnel employed as an official by the participating racetrack.

- 1: Safety
- 2: Body
- 3: Roll Cages
- 4: Frame
- 5: Cockpit & Seat
- 6: Steering
- 7: Suspension
- 8: Shocks & Springs
- 9: Electrical System
- 10: Fuel System
- 11: Tires & Wheels
- 12: Braking System
- 13: Drive Shaft
- 14: Transmission
- 15: Rear End
- 16: Engine
- 17: Weight

- **1.0: SAFETY**

- **1.1:** All Safety Equipment must be in good condition without holes or damage and be in proper working order. It is highly recommended that all race cars have a full containment seat and a built-in fire extinguisher system containing Halon 1211 or equivalent.
- **1.2:** Snell SA2015 or SA2020 rated helmet required.
- **1.3:** SFI-approved full fire suit required. Fire retardant gloves, shoes and neck brace (or head and neck restraint) required.
- **1.4:** Driver-side window net required, minimum 16 inch by 20 inch ribbon or mesh style, and must be mounted to the roll cage so the latch is at the top front of the window.
- **1.5:** Maximum four inch tall visor attached to window net.
- **1.6:** Safety Belts
 - **1.6.1:** Minimum 2" inch wide SFI-approved five-point safety belt assembly required, must be mounted securely to rear main hoop crossbar.
 - **1.6.2:** Safety belts required no more than 3 years old. Any safety belt or safety net deemed to be unsafe by showing signs of weathering, fraying, or other reasons by officials or race director(s) will be illegal and unable to race.
- **1.7:** Kill switch required within easy reach of the driver and must be clearly marked 'OFF' and 'ON'.
- **1.8:** Recommended: Fire retardant head sock and underwear, collapsible steering shaft.

- **2.0: BODY**

- **2.1:** Any American made 1968 or newer full body passenger car with full frame or unibody except Camaro, Firebird, Mustang, or Wagons. Aftermarket OEM stock steel replacement bodies are permitted.
- **2.2:** Body must maintain OEM body lines and shape.
 - **2.2.1:** Front fenders must maintain OEM size and body curve.
 - **2.2.2:** Fenders, doors and quarter panels must maintain OEM shape and arc.
 - **2.2.3:** Flat-sided bodies are not allowed.
 - **2.2.4:** Steel OEM and/or OE replacement body panels only.
 - **2.2.5:** A, B, and C pillars must be stock, made of steel and in stock location except driver's side "B" pillar may be moved for driver access and A pillar may be aftermarket if using an aftermarket roof.
 - **2.2.6:** Body must mount in its stock location.
 - **2.2.7:** Bodies with excessive damage may not be allowed to compete.
 - **2.2.8:** Aftermarket fiberglass OEM replacement roofs are permitted for "G" body cars.
 - **2.2.9:** Sharp edges are not allowed.

- **2.3: HOODS**

- **2.3.1:** Aluminum hoods are permitted.
- **2.3.2:** Hood must be one piece and be separate from fenders.
- **2.3.3:** One-piece or tilt front ends are not permitted.
- **2.3.4:** A hole in the hood is permitted for air cleaner clearance only.
- **2.3.5:** The hole can be no larger than air cleaner diameter and air cleaner can be no more than four (4) inches above hood.
- **2.3.6:** A shield or scoop with a maximum height of four (4) inches tall and a maximum of one-hundred eighty (180) degrees around the air filter may be placed on the front side of the air filter on top of the hood. The shield or scoop must be one piece with no holes and centered in the front.
- **2.3.7:** Hood must be sealed to cowl.
- **2.4:** Steel rub rails no bigger than 1.0 inch by 2.0 inches may be attached from fender well to fender well and rear quarter panel, flush with body.
- **2.5:** Maximum 7.0 inch metal sun visor may be added to the top of the windshield opening.
- **2.6:** Rear opera window may be covered with clear Lexan only.
- **2.7:** Aftermarket stock appearing plastic nose pieces and tail pieces are permitted, may have up to 3.0 inch skirting but front must maintain a minimum of 6.0 inches of ground clearance.

- **2.8:** Skirting may be added to the bottom of the doors and quarter panels but must maintain a minimum of four (4) inches of ground clearance.
- **2.9:** No spoilers, lips, fins, or anything to help the factory aerodynamics of the body allowed.
- **2.10:** Trunk lids must slope to the rear of the car and cannot be concave.
- **2.11:** Maximum height of rear tailpiece forty-two (42) inches with ZERO Tolerance.
- **2.12:** Firewall and floor pan may be removed but must be replaced with steel to resemble a 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 the front stub.
- **2.13:** All glass must be removed.
- **2.14: FRONT AND REAR BUMPERS:**
 - **2.14.1:** Front and rear bumpers are mandatory.
 - **2.14.2:** 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.
 - **2.14.1:** Must be mounted frame-end to frame-end. Center of the frame and 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.
 - **2.14.2:** If using a newer front-wheel drive body on an older model chassis, the body must be squared up on the frame.
- **2.15: CAR NUMBERS**
 - **2.15.1:** All race cars must be numbered with large legible numbers on both sides, and on the roof.
 - **2.15.2:** Car number must be clearly visible from the scoring tower.
 - **2.15.3:** Numbers must be a minimum three-and-one-half (3.5) inches thick and twenty (20) inches tall, and on both sides and roof of the car.
- **2.16:** All cars must be neat in appearance and are subject to approval of officials to compete.
- **3.0: ROLL CAGES**
 - **3.1:** Must use a minimum ninety-five thousandths (0.095) inch wall thickness tubing with a minimum 1.75 inch diameter for main cage and door bars.
 - **3.2:** Offset cages are not allowed.
 - **3.3:** Aluminum and/or other soft metals are not allowed.
 - **3.4:** Roll bar connections must be properly welded. Installation and workmanship must be acceptable to officials.
 - **3.5:** Foot protection is required.
 - **3.6:** Four-post roll cage of continuous hoops must be used, front and rear hoops welded to frame with a minimum left-to-right width of forty-seven (47) inches from outside to outside.
 - **3.7:** Rear hoop must have an "X" brace and front down bars must be tied together.
 - **3.8:** A minimum of forty (40) inches between front and rear down bars at the top of the door panel is mandatory.
 - **3.9:** With helmet on and driver securely strapped into the racing seat, top of driver's head must not protrude above the roll cage.
 - **3.10:** A maximum of seventy-six (76) inches from the back of the 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.
 - **3.11:** Rear kickers and rear hoop "X" brace must utilize a minimum of 1.25 inch tubing with eighty-three thousandths (0.083) inch thickness.
 - **3.12: DOOR BARS**
 - **3.12.1:** Three horizontal door bars on both sides are mandatory.
 - **3.12.2:** Minimum of four (4) uprights tied from frame to top door bar on driver's side, with 3 uprights on passenger side, are required.
 - **3.12.3:** 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 the driver's side.

- **3.12.4:** Door plate must cover the area from the top door bar to the rocker panel and from the rear down post to 5.0 inches in front of the seat. Must be visible for inspection.
- **3.13:** May have two bars for protection in front of the radiator, must be located behind the front bumper and within the confines of the body and may be no wider than stock frame horns.
- **3.14:** Fuel cell protection is required, must be securely mounted frame rail to frame rail, no higher than the fuel cell, and inside the truck area with a maximum one-and-three-quarter (1.75) inch OD tubing.
- **3.15:** All bars must be inside the body.
- **3.16:** Adjustable bars or slip tubes on the frame and/or roll cage are not allowed. A minimum of one crossbar in the top halo of the roll cage is required.
- **3.17:** A tow hook on both the front and rear is REQUIRED.
- **4.0: FRAME**
 - **4.1:** Any American OEM RWD 1968 or newer full frame or GM unibody cars with front and rear subframes connected are permitted.
 - **4.2:** Minimum wheelbase shall be 107.5 inches with no more than one (1) inch difference from side to side.
 - **4.3:** Stock frame must match make to make with the body.
 - **4.4:** 1980 or newer Ford unibodies may be replaced with Ford full frames and may be shortened to 107.5 inches minimum.
 - **4.5:** Frames and cross members must remain OEM and unaltered in any way. 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.
 - **4.6:** Motor must be in stock location.
 - **4.6.1:** 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.
 - **4.6.2:** For a Ford engine the back of the block can be no farther back than twenty-two-and-one-half (22.5) inches from the front of the crossmember.
 - **4.6.3:** For a Chrysler block, no more than twenty-one-and-three-quarter (21.75) inches from the front of the crossmember.
 - **4.7:** Unibody leaf spring cars may under sling the rear-end.
 - **4.8:** Suspension components may not be mounted to bracing.
 - **4.9:** Frames may be "X" braced.
 - **4.10:** Frame may not exceed ten (10) inches or lower than five (5) inches of ride height.
 - **4.11:** Frame will be measured behind the front tires and ahead of the rear tires with the driver in the racecar.
- **5.0: COCKPIT AND SEAT**
 - **5.1:** Minimum of three windshield bars in front of the driver.
 - **5.2:** Loose objects and/or weights are not allowed in the cockpit.
 - **5.3:** Driver must be fully sealed off from the track, engine, fuel, and driveline.
 - **5.4:** Rear view mirrors are not allowed.
 - **5.5:** Interior cockpit may be formed by sheet metal installed from the passenger door to a maximum of the left side of the driveshaft tunnel and may extend from the dash or firewall to the rear of the racing seat.
- **5.6: INTERIOR DECKING**
 - **5.6.1:** Interior decking may be no higher than the top of the door and no lower than top of the top door bar.
 - **5.6.2:** Interior must remain level front to back and side to side.
 - **5.6.3:** If interior tin extends only from top of door to right side door bar then tin may slope to door bar.
 - **5.6.4:** Rear speaker deck may be extended in a straight line to the rear of the racing seat or rear of the interior decking (if used) and may be no higher than the deck lid and opera window.

- **5.6.5:** If an interior cockpit is formed, the full firewall must remain but floor pan below the deck work may be removed.
- **5.6.6:** Dashboard may not extend more than thirty-six (36) inches from the back of the engine block. Dashboard must be flat and level, except for the cowl in front of the driver.
- **5.7: DRIVER SEAT**
 - **5.7.1:** Factory-manufactured aluminum racing seats are required and must be acceptable to officials.
 - **5.7.2:** Plastic, fiberglass, or homemade aluminum seats are not allowed.
 - **5.7.3:** Must be installed with a minimum three-eighth (3/8)-inch fasteners and washers.
 - **5.7.4:** Seat back may not be moved back further than seventy-two (72) inches from the rear of the engine block.
 - **5.7.5:** High-back aluminum seats only.
 - **5.7.6:** Recommended: Full containment racing seats are strongly recommended.
- **6.0: STEERING**
 - **6.1: STEERING LINKAGE**
 - **6.1.1:** Steering linkage must be unaltered OEM or OEM replacement, in stock location and must match make and model of the frame.
 - **6.1.2:** Exceptions are: Tie rod adjusting sleeves may be replaced with a maximum 5.0 inches steel tube, on metric frame only spindles may be replaced with three-piece design Speedway Motors (Part# 91034501) must be visible.
 - **6.2:** Rack and pinion is not allowed.
 - **6.3:** Steering must remain on the left side of the cockpit.
 - **6.4:** Quick-release coupling on the steering wheel is mandatory, must be steel or aluminum.
- **7.0: SUSPENSION**
 - **7.1:** All components must be OEM or OEM replacement for the make and model of the frame being used unless stated otherwise and must mount in OEM location.
 - **7.2:** Aluminum and/or titanium components are not allowed.
 - **7.3:** All components must be steel, magnet must stick to all components ect upper control arm cross shaft may be aluminum.
 - **7.4:** Weight jacks are optional, but devices which may enable driver adjustment to alter wheelbase or for weight jacking while the car is in competition is strictly forbidden.
 - **7.5:** Suspension stops and/or tethers are not permitted.
 - **7.6:** Sway bars are not permitted.
 - **7.7: FRONT SUSPENSION**
 - **7.7.1:** Ball joints must be OE type and may be rebuildable.
 - **7.7.2:** One-piece steel, rubber, polyurethane or nylon bushings only.
 - **7.7.3:** Offset, bearing-type, mono-ball, and heim-style bushings are not allowed.
 - **7.7.4:** Conventional top mount weight jacks allowed in the original centerline of the spring tower.
 - **7.7.5:** Bottom A-frames may not be altered or moved and must match the frame.
 - **7.7.6:** Upper tubular A-frames with steel or aluminum cross shafts.
 - **7.7.7:** Upper control arm mounts may be moved from OEM location with fabricated mounts.
 - **7.8: REAR SUSPENSION**
 - **7.8.1:** Rear control arms may be aftermarket but must maintain legal bushings, remain OEM length and mount to frame in OEM location.
 - **7.8.2:** One-piece rubber, polyurethane or nylon bushings only.
 - **7.8.3:** Bushing material must be solid and the same width as the inner sleeve.
 - **7.8.4:** Inner steel sleeve in the bushing must be present and OEM length.
 - **7.8.5:** Forward and backward movement in bushing or mounting is not allowed.
 - **7.8.6:** Offset, bearing-type, mono-ball, or heim-style bushings are not allowed.
 - **7.8.7:** Widgets, spring-loaded cups and/or double spring cups are not allowed.
 - **7.8.8:** Leaf spring cars may use leaf spring sliders on the rear of leaf spring only.
 - **7.8.9:** Front leaf spring mounts must remain stock and in stock location.

- **8.0: SHOCKS & SPRINGS**

- **8.1: SHOCKS**

- **8.1.1:** One steel non-adjustable shock per wheel.
- **8.1.2:** Front shocks must be mounted to A-frame (upper or lower).
- **8.1.3:** 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.
- **8.1.4:** Top of the rear shock may be on an adjustable weight-jack-type bolt.
- **8.1.5:** Sliding shock mounts are not allowed.
- **8.1.6:** Rear shocks may be moved but must remain behind housing.
- **8.1.7:** Shock shaft must be able to compress all the way into the shock body.
- **8.1.8:** Shock shaft must move in both directions from its installed position and measured at ride height.
- **8.1.9:** Shocks cannot preload the springs.
- **8.1.10:** Coil-over, remote reservoir, and/or air shocks are not allowed.
- **8.1.11:** Bladder-type valves and/or Schrader valves are not allowed.

- **8.2: SPRINGS**

- **8.2.1:** Progressive springs are not allowed.
- **8.2.2:** Spring rubbers are not allowed.
- **8.2.3:** Springs must be mounted straight up and down (may not be tipped).
- **8.2.4:** Rear springs may not be past the centerline of the rear-end housing.
- **8.2.5:** All springs must be a minimum of four-and-one-half (4.5) inches OD.
- **8.2.6:** Front springs must be between nine (9) inches and ten (10) inches free height.
- **8.2.7:** Rear springs must be between ten-and-one-half (10.5) inches and sixteen-and-one-half (16.5) inches free height.

- **9.0: ELECTRICAL SYSTEM**

- **9.1: GAUGES/ELECTRICAL**

- **9.1.1:** Scoring transponder must be mounted to bottom right side of firewall.
- **9.1.2:** One 12 volt, unaltered, non-adjustable ignition box allowed, must be mounted out of driver's reach, but easily accessed for Tech with the chip or RPM reading facing upwards. See Engine Options for RPM Limits.
- **9.1.3:** Magnetos, crank-triggers, timing retards, and digital gauges are not allowed.
- **9.1.4:** No more than one coil may be used.
- **9.1.5:** Digital tachometers are permitted.
- **9.1.6:** Cameras pointing to any moving or suspension parts are not allowed. WiFi must be turned off.
- **9.1.7:** Except for memory recall tachometer, electronic monitoring computer devices capable of storing and/or transmitting information are not allowed.
- **9.1.8:** No unapproved transmitting or listening devices (exception is mandatory one-way raceceiver radio). This includes cell phones and smart watches.
- **9.1.9:** OEM type alternator internal regulator is allowed with a maximum of twelve (12) volts going to the ignition coil.

- **9.2: BATTERY/STARTER**

- **9.2.1:** One (1) 12-volt battery only, must be securely mounted inside the frame rails and all positive connections must be covered.
- **9.2.2:** Lithium batteries are not allowed.
- **9.2.3:** Must be in a sealed marine box if mounted in the cockpit.
- **9.2.4:** Kill switch required within easy reach of the driver. The switch must be clearly marked "OFF" and "ON".
- **9.2.5:** Starter must bolt in the OEM location.
- **9.2.6:** All cars must be able to start and have the capability of leaving the staging area starting on demand without being aided or must start on the tail of the field for that race.

- **10.0: FUEL SYSTEM**

- **10.1:** Mechanical engine mounted fuel pumps only. See Engine Options for Carburetor Requirements.
- **10.2:** Float bowl must face the front of the car.
- **10.3:** Aftermarket metering blocks are permitted.
- **10.4:** One standard fuel filter between the fuel cell and the carburetor is permitted.
- **10.5:** Cool cans are not allowed.
- **10.6:** A maximum one (1) inch adapter plate or spacer is permitted, must be the same thickness on all sides. Total thickness of spacer and gaskets not to exceed one-and-one-quarter (1.25) inches.
- **10.7: FUEL CELL**
 - **10.7.1:** must be in a steel container and commercially manufactured for racing and be a maximum of 22 gallons.
 - **10.7.2:** Must be securely fastened inside the trunk of the racecar and mounted by one (1) inch square tubing or by at least two 1/8 inch thick x 2 inch solid steel straps around the entire.
 - **10.7.3:** Fuel cell must be mounted above the top of the frame rail and no part of the fuel cell can be above the rear differential.
 - **10.7.4:** Adjustable fuel cell mounts are not allowed.
 - **10.7.5:** 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.
- **10.8:** Fuel lines passing through the cockpit must be enclosed in metal pipe or conduit.
- **10.9:** Fuel filters are not allowed in the cockpit.
- **10.10:** Fuel cut off valve is highly recommended.
- **10.11: FUEL**
 - **10.11.1:** Automotive gasoline, racing gasoline, or E85 is permitted.
 - **10.11.2:** Oxygenated fuel is not allowed.
 - **10.11.3:** Additives of any kind are not allowed including scents.
 - **10.11.4:** Fuel 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.
 - **10.11.5:** Fuel is tested using a Digitron dielectric meter. It is the responsibility of the driver and/or owner to have fuel tested.
- **11.0: TIRES & WHEELS**
 - **11.1: TIRES**
 - **11.1.1:** Tire compounds will be determined based on track location and availability for each event.
 - **11.1.2:** Softening or Altering tires with any components or chemicals which alter the manufacturer's baseline-settings of the tire is STRICTLY Prohibited.
 - **11.1.3:** Tires may be ground, siped, and/or grooved within the confines of the tread. Added ballast to the inside of any tire is not allowed.
 - **11.1.4:** Sidewall markings must remain visible. Buffing and/or removing compound designations is not allowed.
 - **11.2: WHEELS**
 - **11.2.1:** Wheels must be fifteen (15) inches by eight (8) inches in size.
 - **11.2.2:** Only steel lug nuts are permitted.
 - **11.2.3:** Must be reinforced steel racing wheels only.
 - **11.2.4:** Bead locks may be used on the right-side wheels only.
 - **11.2.5:** Wheel covers are permitted on right side wheels only, cannot be homemade Tabs or rings must be welded on the wheel to mount mud plug and must be bolted on.
 - **11.2.6:** Inner mud plugs are permitted.
 - **11.2.7:** Aluminum wheel spacer or offset wheel, or a combination of the two may not exceed two (2) inches total offset per wheel.
 - **11.2.8:** Bleeder valves are not allowed.
 - **11.2.9:** Added ballast to any wheel is not allowed.
- **12.0: BRAKING SYSTEM**
 - **12.1:** Must be operating on all four wheels and must lock up all four wheels during inspection.

- **12.2:** Must have steel OEM or OEM replacement brake calipers matching the frame being used on the front and steel vented rotor on all four wheels.
- **12.3:** Both front calipers must match. Both rear calipers must match.
- **12.4:** Brake pads must match side to side.
- **12.5:** Electronic brake actuators are not allowed.
- **12.6:** Brake shut-off and/or pressure sensitive devices are not allowed.
- **12.7:** Must be an OE operative four-wheel drum or disc brake combination.
- **12.8:** Stock vented rotors only.
- **12.9:** Scalloped, coated, and/or lightened rotors are not allowed.
- **12.10:** Floating brakes are not allowed.
- **12.11:** Brake lines must be outside frame rails and visible.
- **12.12:** One proportioning device (front to rear only) is permitted.
- **12.13:** Must maintain minimum OEM dimension for hubs, rotors, pads and calipers.
- **13.0: DRIVE SHAFT**
 - **13.1:** A Safety loop is required and must be constructed of at least one-quarter (0.25) inch by two (2) inch solid steel or one (1) inch tubing.
 - **13.2:** Loop must be mounted no more than six (6) inches from the front u-joint.
 - **13.3:** Driveshaft must be a minimum two (2) inch diameter painted white.
 - **13.4:** Carbon Fiber driveshafts are permitted, minimum three (3) inches and must be bright white in color.
 - **13.5:** Steel Yokes only on steel driveshafts, Carbon fiber may be aluminum.
- **14.0: TRANSMISSION**
 - **14.1:** "In and out" boxes, five-speed transmissions and quick-change devices are not allowed.
 - **14.2:** Must have at least one (1) gear forward and reverse, plus a neutral position.
 - **14.3:** Flywheel/flexplate must be bolted directly to the end of the crankshaft.
 - **14.4:** Lightened flex plates are not allowed.
 - **14.5: AUTOMATIC**
 - **14.5.1:** May use two (2), Three (3), or four (4) speed transmissions only.
 - **14.5.2:** Must remain in OEM stock-appearing automatic case with a functioning stock appearing pump.
 - **14.5.3:** With the engine running and the race car in a still position, the driver must be able to engage the race car in gear and move forward, then backward.
 - **14.5.4:** SFI Approved bell housings are permitted.
 - **14.5.5:** OEM bellhousing must have an approved scatter shield constructed of one-eighth (0.125) inch by three (3) inch steel, 270 degrees around flex plate.
 - **14.5.6:** Transmission blanket highly recommended.
 - **14.6: MANUAL**
 - **14.6.1:** Must have a steel approved explosion proof bell housing minimum 270 degrees around the flywheel.
 - **14.7: OEM MANUAL**
 - **14.7.1:** May use three (3) or four (4) speed transmissions only.
 - **14.7.2:** The pressure plate must be bolted directed to the flywheel.
 - **14.7.3:** All driveline components within the bell housing must rotate while the racecar is in any gear.
 - **14.7.4:** All manual gear-type transmissions must have an OE stock-appearing case and must have a working external disc clutch inside an explosion-proof steel bell housing.
 - **14.7.5:** Must be a minimum five-and-one-half (5.5) inch diameter clutch.
 - **14.8: AFTERMARKET MANUAL**
 - **14.8.1:** Approved aftermarket transmissions are Bert (Part #LMZ/GEN II), Brinn (Part #70001), Brinn Predator (Part #70600), Falcon (Part #60100), RaceGator (Part #140002/140002-C) and Mitchell Machine Bullet Tranny with internal clutch.
- **15.0: REAR-END**

- **15.1:** Any passenger car or truck-type rear end is permitted.
- **15.2:** Aluminum is not allowed except lowering blocks, axle cap, U-joint caps and drive plate.
- **15.3:** Ford 9 inch floater rear-end is permitted.
- **15.4:** Quick change rear-end is permitted with steel axles and steel axle tubes only.
- **15.5:** Maximum .250 wall axle tubes must be the same thickness on both sides.
- **15.6:** Must use a ten (10) inch ring gear and minimum 1 inch wide solid spur gears.
- **15.7:** Rear suspension must match the frame with stock components and dimensions.
- **15.8:** Panhard bars are not allowed.
- **15.9:** A minimum 1 inch inspection hole in the center section is required.
- **15.10:** Full steel spool, steel mini-spool or welded rear-ends only.
- **15.11:** Steel axles only.
- **15.12:** Non-adjustable upper trailing arm brackets only and must follow rear bushing rule and remain level side to side.
- **15.13:** 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.
- **15.14:** Maximum of five mounting holes for adjustment on lower trailing arms brackets are permitted.
- **15.15:** Cambered rear ends are not allowed (one-piece drive flange only).
- **15.16:** Mechanical and/or electrical traction devices are not allowed.
- **16.0: ENGINE**
 - **16.1:** Aftermarket steel blocks are permitted.
 - **16.2:** Approved aftermarket blocks include: DART #31161111 or Brodix #BRS400035842 or GM #12480047 or World Products #084010.
 - **16.3:** Lightened blocks are not allowed.
 - **16.4:** All engines used in competition must be able to be used in conventional passenger cars without alteration.
 - **16.5:** Motor mounts may not be removed or altered on the engine block.
 - **16.6:** Casting and fittings may not be changed.
 - **16.7:** Machine work on the outside of the engine block is not allowed.
 - **16.8:** Wet sump oiling systems only.
 - **16.9:** Must use stock firing order for the engine being used.
 - **16.10:** No titanium engine components allowed.
 - **16.11:** Any stock unaltered low rise production steel intake manifolds may be used.
 - **16.12:** Bowtie or high-rise intakes are not allowed.
 - **16.13:** The following unaltered aftermarket 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 #8022.
 - **16.14:** Starter must bolt in stock location.
 - **16.15: OPTION 1**
 - **16.15.1:** Crate Engine: GM Performance Parts (GMPP) factory-sealed CT400 Chevy small block crate engine. Must be unaltered and sealed from the factory at appropriate points (intake, head, timing chain cover and oil pan) with approved GMPP break-off bolts. This Engine will run a Holley 4412 500cfm Carburetor and requires a maximum of 6,800 RPM.
 - **16.15.2:** Must pass No-Go Gauges.
 - **16.16: OPTION 2**
 - **16.16.1:** Limited Engine: 361 cubic inches (GM); 363 (Ford); 370 (Chrysler). Parts for 400 cubic-inch or larger engines are not allowed. Stroke must match the block being used. Maximum compression ratio is 10.5 to 1. Only stock appearing standard weight crankshafts are permitted. Undercut, bullnosed, gun-drilled and/or knife edge crankshafts are not allowed. Only flat-top or dished pistons are permitted. A minimum 1.0 inch plug above the oil level in the side of the oil pan is required.
 - **16.16.2:** OEM or OEM appearing replacement steel rods only. GM 5.7 inch, 6 inch or GM Vortec rod part number 10108688 is allowed. Cap screw rods are permitted. Cast iron stock production or

aftermarket steel stock replacement unaltered heads are permitted. Porting, polishing and/or port machining is not allowed.

- **16.16.3:** GM cars must utilize 76cc heads (approved head numbers are 126, 267, 336, 339, 339X, 388, 441, 445, 454, 487, 487X, 493, 598, 624, 642, 813, 862, 882, 920, 991, 993, and 997).
- **16.16.4:** Aftermarket stock replacement cylinder 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# CH138B or RHS/Indy Part# 20300 or 20301. Chryslers may utilize OEM steel or aluminum shaft rockers but may not exceed 120 pounds of valve spring seat pressure.
- **16.16.5:** OEM valve spring dimensions only, GM maximum 1.265 OD. All aftermarket cylinder heads must remain as produced, absolutely no casting removal in valve pockets allowed. Heads may be flat milled only. Valve size no larger than 2.02 intake and 1.60 exhaust.
- **16.16.6:** Roller cams, stud girdles, shaft rockers, mushroom style lifters, and beehive valve springs are not allowed. Roller rocker arms, three-eighth inch guide plates, and polylocks are permitted.
- **16.16.7:** Lightweight, aluminum and/or fluid dampeners are not allowed. This Engine will run a Holley 4412 500cfm Carburetor and requires a maximum of 7,400 RPM.
- **16.16.8:** Must pass No-Go Gauges.
- **16.17: OPTION 3**
 - **16.17.1:** Open Engine: Small block only, no cubic inch or compression limits.
 - **16.17.2:** Any production or aftermarket steel cylinder heads may be used.
 - **16.17.3:** Roller rocker arms and stud girdles are permitted.
 - **16.17.4:** Shaft rocker arms are not allowed.
 - **16.17.5:** Roller cams are not allowed, flat tappet cams and lifters only.
 - **16.17.6:** Mushroom style lifters are not allowed, must be the original size for the block being used.
 - **16.17.7:** This Engine will run a Holley 80787 or 7448 350cfm Carburetor and does not require an RPM limit.
 - **16.17.8:** Must pass No-Go Gauges.
- **16.18: EXHAUST**
 - **16.18.1:** Round tube headers only.
 - **16.18.2:** Tri-Y, crossover, Zoomies and over-the-top headers are not allowed.
 - **16.18.3:** Must be mounted in such a way as to direct spent gases away from the cockpit of the vehicle.
 - **16.18.4:** Mufflers may be required at some tracks.
 - **16.18.5:** All exhaust tubes must extend to and connect with one collector at least 4.0 inches long and maximum 20.0 inches long.
 - **16.18.6:** Pan-Evac systems are allowed.
 - **16.18.7:** Exhaust through body panels or fenders is not allowed.
 - **16.18.8:** Must remain dual exhaust.
 - **16.18.9:** Crossover or 'Y' pipes are not allowed. Exhaust sensors are not allowed.
- **16.19: ENGINE COMPARTMENT**
 - **16.19.1:** Engine must be in stock location. For GM 1978-1987 metric frames the following measurements apply:
 - **16.19.2:** GM fuel pump must be one-and-three-quarter 1.75 inches from center to the engine crossmember.
 - **16.19.3:** Ford engines must be twenty-two-and-one half (22.5) inches from the back of the block to the front of the engine crossmember.
 - **16.19.4:** Chrysler engines must be twenty-one-and-three-quarter (21.75) inches measured the same.
 - **16.19.5:** Cooling system may be modified.
 - **16.19.6:** One radiator is permitted and must be mounted in front of the engine.
 - **16.19.7:** Sprinkler systems are not allowed.

- **16.19.8:** Overflow tubes must be directed to the ground, between frame rails.
- **16.19.9:** Belt driven water pumps only.
- **16.19.10:** Accumulators and Accusumps must be mounted in the middle of the racecar or behind the driver, but not on door bars.
- **16.19.11:** Cold air boxes and/or air cleaner duct work is not allowed.
- **16.19.12:** Shields of any kind may not be used to isolate the carburetor or air cleaner in the engine bay.
- **17.0: WEIGHT**
 - **17.1:** The overall weight of the racecar shall be measured after an event with the driver in the cockpit, wearing complete racing apparel.
 - **17.2:** The overall weight of the racecar must be a minimum of 2,950 pounds. No additional weight is required if running the American Racer KK704 tire.
 - **17.3: BALLAST**
 - **17.3.1:** Ballast may not be mounted in the cockpit, outside of the body, or on any rotating or suspension parts.
 - **17.3.2:** Must be securely mounted to the roll cage and/or frame, painted white and clearly marked with the car number.
 - **17.3.3:** Must be attached with at least two (2) one-half (0.5) inch bolts with a maximum of one hundred (100) pounds per mounting.
 - **17.3.4:** Any weight twenty-five (25) pounds or less may be mounted with one (1) one-half (0.5) inch bolt.
 - **17.3.5:** Must not be visible from outside of the car.

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