



## 2024 XR MODIFIED RULES & SPECIFICATIONS

(Revised: 12/12/2023)

**UPDATED ITEM(S): Updated for 2024 (when finished).**

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.

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- **1.0 SAFETY:**

- **1.1:** Rules apply to all cars when on track. Any safety rule will always take precedence.
- **1.2:** Snell-rated SA2015 or SA2020 helmet required.
- **1.3:** Roll bar padding required in driver compartment (Fire retardant recommended).
- **1.4:** SFI-approved fire suit, Fire retardant gloves, shoes and neck brace (or head and neck restraint) required.
- **1.5:** Mandatory driver's side window net with 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. Maximum 4" 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:** A battery disconnect switch is required and must be clearly marked "OFF" and "ON". Must be within reach of the driver when strapped into the driver seat.
- **1.8:** ALL drivers and cars are required to pass a safety inspection before being allowed to compete.
- **1.9:** All safety equipment must stay on and in place whenever the car is on the racing surface.
- **1.10:** Approval of a race car by inspector shall mean only that it is approved for participation in a competitive event and shall not be construed in any way to mean that it is guaranteed mechanically sound, safe, or completely legal. XR and/or the inspector shall not be liable for any mechanical failure nor for any losses, injuries or death resulting from the same.
- **1.11:** XR recommends all competitors to follow manufacturer's recommendations for installation, usage, and replacement of all safety equipment.

- **2.0: FRAME**

- **2.1:** 1964 or newer OEM perimeter American rear-wheel drive passenger car frame only. No sports car frames.
- **2.2:** Must be full, complete frame.
- **2.3:** Cannot be widened or narrowed. Must be able to support roll cage on both sides.
- **2.4:** A weight jack in the original centerline of the spring tower is allowed.
- **2.5:** Frame horns may be removed in front of the steering box.
- **2.6:** Front crossmember may be cut and boxed for radiator and/or steering clearance.
- **2.7:** Two (2) inch wide by four (4) inch tall frame stiffener may be welded directly to the outside of the left side frame rail; the left top frame rail can be removed inside the cockpit.
- **2.8:** No part of the frame can be lower than four (4) inches and/or higher than 7.5" inches from ground except for the front crossmember and rear underslung.
- **2.9:** Minimum wheelbase 108" inches to a maximum 112" inches with a maximum one-inch difference from side to side.
- **2.10:** Maximum overall width from outside of tire to outside of tire is 78" inch.

- **3.0: ROLL CAGE**

- **3.1:** Roll cage must be of continuous hoops with a minimum 1.75" inch O.D. x 0.095" inch wall thickness for main cage.
- **3.2:** Must be frame-mounted in at least six places, low carbon or mild steel recommended.
- **3.3:** Must consist of a configuration of front, rear and top hoops connected by tubing on sides or side hoops.
- **3.4:** Driver's head must not protrude above the cage when strapped in the driver seat and with helmet on driver's head.
- **3.5:** Roll cage must be securely supported and braced with a minimum one crossbar in the top halo.
- **3.6:** Main cage can be no further forward than the rear of the engine.
- **3.7:** All bars forward of the main cage must be lower than the hood.

- **4.0: DOOR BARS**

- **4.1:** Driver side door bars and uprights must be a minimum 1.5" inch O.D. x 0.083" inch wall thickness.
- **4.2:** Minimum three driver side door bars that are parallel to ground and perpendicular to the driver.
- **4.3:** Front and rear of the roll cage must be welded together with bars on each side.
- **4.4:** Passenger side must have at least one cross door bar that is horizontal or angled with a minimum 1.25" inch O.D. X 0.083" inch wall thickness.
- **4.5:** Passenger side must have one top door bar with a minimum 1.5" inch O.D. x 0.083" inch wall thickness.
- **4.6:** Must have a steel door plate that is 18 gauge or 0.049" inch minimum thickness and must be securely welded to outside of driver side door bars.
- **4.7:** Must be visible for inspection and cover area from top door bar to bottom door bar and from rear hoop down-post to five inches in front of the driver's seat.
- **5.0: BODY**
  - **5.1:** The only composite body panels allowed are the roof, rock guard and hood scoop.
  - **5.2:** Body and decking must be the same width front to rear and be parallel to the frame.
  - **5.3: Nose**
    - **5.3.1:** Nose panel may be aluminum and must be flat.
    - **5.3.2:** May have a maximum 2.250 inch side fins.
    - **5.3.3:** May use a MD3 plastic nosepiece, part#020-410 and may cut cooling holes in it.
    - **5.3.4:** Nose panel must remain within the confines of the front bumper and same width front to back.
    - **5.3.5:** Nose panel may be no lower than four inches below frame horns.
  - **5.4: Hood**
    - **5.4.1:** Hood must be level or sloped down at front and be enclosed.
    - **5.4.2:** Hood may be a maximum two inches above interior deck at rear.
    - **5.4.3:** Air cleaner top may be a maximum six inches above hood.
    - **5.4.4:** No panel in front of the right door to the engine compartment and no inner panels.
    - **5.4.5:** Hood six (6) inch max. drop (sides), sealed off from driver's compartment and max. six (6) inch rake, and it must be the same on both sides.
  - **5.5:** May use full windshield but must have front windshield and rear window support posts.
  - **5.6:** Driver and passenger side windows must have at least 12-inch opening (height and width) with a maximum 18 inch, measured at center of window, between lowest point at top of window, whether roof or roll cage, and highest point at bottom of window, whether interior or body.
  - **5.7: Roof**
    - **5.7.1:** Roof must be fiberglass or aluminum, full size and rounded down in all directions and mounted within 0.5 inch of rear roll cage.
    - **5.7.2:** No dished roofs allowed, and roof hatch will be allowed.
    - **5.7.3:** A 1.5 inch rolled down rock guard will be allowed on the roof front.
    - **5.7.4:** Roof may have a maximum four-inch sides.
    - **5.7.5:** Maximum one inch ridge down sides of roof.
    - **5.7.6:** Roof may have a maximum one-inch rear stiffener that must face down.
  - **5.8:** Sail panels must resemble all aspects of drawing and may not extend ahead of the back of the seat.
  - **5.9: Rear Spoiler**
    - **5.9.1:** Crate Engine cars may use a spoiler with a maximum height of two (2) inches, must be straight and contain no curves. Open engines will not be allowed a spoiler.
    - **5.9.2:** Spoiler may have rear stiffener and must be one inch or more down from top.
    - **5.9.3:** Spoiler must be attached to rear of sale panels and may use a 2 inch by 5-inch triangle center support.
    - **5.9.4:** One piece rear spoiler is allowed, and no fins, lips, wings or wind generators allowed.
  - **5.10:** Tires must be the widest part of the car.
  - **5.11:** Car number must be minimum four inches thick and 20 inches tall and clearly visible, on both sides, top and back of car.
  - **5.12:** Maximum 4-inch plastic skirting allowed on bottom of doors, quarters and nose.

- **5.13:** Rear filler panel is optional.
- **5.14:** Refer to body diagram for complete details.
- **6.0: DRIVER'S COMPARTMENT**
  - **6.1:** Must have minimum three windshield bars in front of driver.
  - **6.2:** May have a Lexan or aluminum cowl panel in front of driver and can be no wider than the cockpit and no farther back than the steering wheel.
  - **6.3:** A full floor pan is required and must be made with a minimum 0.125-inch aluminum, or 0.060-inch steel.
  - **6.4:** Aluminum high-back seat only and must be bolted in, using minimum 0.375-inch bolts, next to left side frame rail and ahead of rear tires. Bottom of seat can be no lower than the bottom of frame rail.
  - **6.5:** Cockpit must seal the driver off from track, driveline, engine, fuel cell canisters and pumps.
  - **6.6:** Accumulators cannot be mounted between driver and left-side door bars. Oil coolers may not protrude above interior.
  - **6.7:** The only driver-adjustable devices allowed while the car is in competition is the brake adjuster.
  - **6.8:** No mirrors of any kind permitted.
- **7.0: FRONT SUSPENSION**
  - **7.1:** All components must be steel, unaltered OEM, in OEM location, and replaceable by OEM parts.
  - **7.2:** May use tube-type upper A-frames with or without aluminum or steel cross shaft.
  - **7.3:** Upper mounts can be moved.
  - **7.4:** May use OEM replacement stamped steel lower A-frames with rubber, nylon or steel lower A-frame bushings.
  - **7.5:** No offset or bearing type bushings
  - **7.6:** One welded shock mount on lower A-frame.
  - **7.7:** No adjustable top shock mounts.
  - **7.8:** OEM or OEM replacement rebuildable ball joints allowed.
  - **7.9:** Must use right and left lower A frames of the same design and be on the correct sides.
  - **7.10:** Lower A-frame mounts and bolt holes on frame must be in OEM location.
  - **7.11:** No screw-in lower ball joints.
  - **7.12:** No sway bar.
  - **7.13:** No unapproved suspension stops of any kind allowed. Front drop chains allowed and must be mounted frame rail to lower A- frame. Must have slack at ride height.
- **8.0: STEERING**
  - **8.1:** Rack and pinion steering is not allowed.
  - **8.2:** Idler arm, pitman arm, and center link must match frame.
  - **8.3:** All steering components must be OEM, steel and in OEM location and unaltered.
  - **8.4:** Outer tie rod end and adjustment sleeve may be replaced by a minimum 0.625" inch steel rod end and steel tube.
- **9.0: SHOCKS**
  - **9.1:** Only One nonadjustable, unaltered steel shock per wheel.
  - **9.2:** All shocks must fully collapse and extend at any time.
  - **9.3:** Maximum 7" inch stroke on front shocks and maximum 9" inch stroke on rear shocks.
  - **9.4:** May have one additional shock in the pull-bar area.
  - **9.5:** No shock may have external or internal bumpers or stops.
  - **9.6:** No shock can preload or pin any spring.
  - **9.7:** No threaded body, front coil-over, air, or remote reservoir shocks. No Schrader or bladder type valve allowed.
  - **9.8:** Front half of any shock may be shielded, and shield must be mounted on the shock.
- **10.0: SPRINGS**
  - **10.1:** Only one steel coil, closed end spring per wheel allowed. May have one additional spring on the pull-bar and it may be progressive.
  - **10.2:** Minimum spring diameter is 4.5" inches O.D.
  - **10.3:** No progressive springs allowed.

- **10.4:** Front coil springs must be 9.5" inch free height with 0.5" inch tolerance
- **10.5:** Rear coil springs must be 11"-16" inch free height with .05" inch tolerance.
- **10.6:** No torsion bars, air bags, inner liners or spring rubbers allowed.
- **11.0: REAR SUSPENSION**
  - **11.1:** All components must be steel.
  - **11.2:** One steel coil or multi-leaf (rear) spring per wheel only. Minimum 4.5 inches O.D., maximum 11.0 inches to 16.0 inches free height.
  - **11.3:** May use one mechanical pull-bar.
  - **11.4:** Trailing arm/link bars must be solid tubing.
  - **11.5:** Steel or aluminum coil - over kits and steel coil - over eliminators allowed and must abide by shock and spring rule.
  - **11.6:** May use a minimum 19 inch long pan-hard bar measured straight center of hiem to center of hiem.
  - **11.7:** May use rubber bumpers on pan-hard bar or pull-bar only.
  - **11.8:** May use one additional coil-over eliminator clamp bracket per side and must be mounted permanently to the axle housing.
  - **11.9:** Only one floating birdcage with upper and lower links or one bracket with lower link mounted solid to axle tube per side.
  - **11.10:** A solid safety chain securely mounted frame to axle housing with no springs or rubbers is allowed. Must have slack during inspection.
  - **11.11:** Shocks and coil-over eliminators must be mounted to the birdcage or bracket below bottom of axle tube and to upper frame rail.
  - **11.12:** Spring using jack bolt may be mounted directly to top of axle housing.
  - **11.13:** May not use independent rear suspension or covers on any suspension components.
  - **11.14:** No adjustable under -slung or suspension stops of any kind. No lift, bake or sway bars.
- **12.0: REAR ENDS**
  - **12.1:** Any non-cambered steel OEM passenger car or truck rear end (housing and carrier) allowed.
  - **12.2:** All components must be steel.
  - **12.3:** Aluminum lowering blocks, axle cap, u-joint caps and drive flange allowed.
  - **12.4:** Safety hubs (floater) allowed.
  - **12.5:** A one inch Inspection hole in housing required. No heavyweight axle tubes (max .250" wall) or housing braces.
  - **12.6:** No scalloped ring gears.
  - **12.7:** Steel axles only and steel full or Mini spools must be used with OEM rear-end.
  - **12.8:** One piece drive flanges only.
  - **12.9:** A standard weight steel tube quick change may be used but must use 10-inch ring gear with aluminum or steel spool and one-inch-wide spur gears with bolt on rear cover.
- **13.0: BUMPERS**
  - **13.1:** Must have steel bumpers on front and rear at all times and welded or mounted with minimum .375" inch bolts.
  - **13.2:** Rear bumper must be constructed of minimum 1.25" inch O.D. x 0.095" wall thickness tubing and mounted a maximum of 6" inch beyond rear deck.
  - **13.3:** May be no wider than five inches outside of rear frame rails.
  - **13.4:** If wider than five inches outside rear frame rails it must be capped and bent forward 90 degrees or constructed in a loop design.
  - **13.5:** Must have at least one upright, minimum 1.25" inch O.D. x 0.065" inch wall thickness, from bumper to fuel cell guard.
  - **13.6:** Two-bar front bumper must be minimum 1.25" inch O.D. x 0.065" up to a maximum 0.095" inch wall thickness tubing.
  - **13.7:** Must be mounted frame-end to frame-end, no wider than width of material outside frame horns and with bottom loop parallel to ground.
  - **13.8:** Top bar must be directly above bottom bar, minimum 6.5" inch apart, measured center to center.
- **14.0: TIRES**

- **14.1:** Tire compound(s) will be determined based on track location and availability for each event.
- **14.2:** No chemical softening, or conditioning of tires.
- **14.3:** Tire samples may be taken at any time.
- **14.4:** Tires may be ground, straight sided or grooved.
- **15.0: WHEELS, LUG BOLTS, LUG NUTS, AND MUD COVERS**
  - **15.1:** Steel reinforced 15" x 8" wheels only. No wide 5 allowed.
  - **15.2:** Aluminum spacer between hub and wheel allowed. Rim mounted bleeder valves allowed.
  - **15.3:** External, steel bead lock on right rear only and it cannot make wheel any narrower than 8 inches and no wider than 8.75 inches.
  - **15.4:** Must use only steel bolts.
  - **15.5:** Must use minimum 1.0 inch O.D. steel lug nuts.
  - **15.6:** Mud plugs allowed. Foam type or securely bolted plastic outer mud cover allowed on right side wheels.
  - **15.7:** Outer mud cover mounting tabs and rings must be integral to the wheel or bead lock or be securely welded to wheel.
  - **15.8:** Aluminum inner mud cover allowed on left rear only.
- **16.0: BRAKES, CALIPERS, AND HUBS**
  - **16.1:** Must be steel approved OEM, operative four wheel, drum or disc and operate on all 4 wheels.
  - **16.2:** Hubs/rotors and calipers, cannot be lightened and must maintain minimum OEM dimensions.
  - **16.3:** Rear rotors may be aftermarket 0.81-inch thickness and vented solid surface rotors only.
  - **16.4:** No scalloped or ceramic coated rotors.
  - **16.5:** One proportioning device allowed (one-to-one ratio), front to rear only.
  - **16.6:** Brake lines must be visible and must connect directly from master cylinder to calipers with no devices in between.
  - **16.7:** No shut off valves or pressure sensitive devices.
  - **16.8:** Bolt pattern may be changed, and larger studs installed.
- **17.0: EXHAUST**
  - **17.1:** Round tube headers only. Right side header must be directed towards rear of car.
  - **17.2:** At the same point, at end of header all primary tubes must enter directly into one collector.
  - **17.3:** Collector and turn down length maximum nineteen inches total.
  - **17.4:** Valve covers, and headers may be modified for pan evac system
  - **17.5:** No exhaust sensors, merge collectors, crossovers, extensions, inserts, or balance tubes permitted.
- **18.0: FUEL, FUEL CELL, AND FUEL SYSTEM**
  - **18.1:** Gasoline or racing fuel allowed. May use E10 and E85. Pump grade recommended. 99.9% Methanol allowed.
  - **18.2:** No oxygen bearing additives or nitrous oxide allowed. Upper cylinder lube additives may be used.
  - **18.3:** May not use performance enhancing or scented additives.
  - **18.4:** Fuel must pass both dielectric meter and chemical tests and sample(s) may be taken from any car at any time.
  - **18.5:** Racing fuel cell required, maximum 32-gallon capacity, must be in minimum 20-gauge steel container. Must be securely mounted behind rear axle, between rear tires, minimum four inches ahead of bumper, minimum 10 inches above ground. Must mount with a minimum one-inch square tubing or two solid steel straps around entire cell, two inches wide and 0.125 inch thick. All cell mounts must be steel, securely welded to frame/cage.
  - **18.6:** Protective tubing must cover rear and extend past both sides of cell. No part of cell shall be lower than protective tubing.
  - **18.7:** Fuel cell vents, including cap vent, must have check valves.
  - **18.8:** If fuel cell does not have aircraft style positive seal filler neck/cap system – a flapper, spring or ball type filler rollover valve is required.
  - **18.9:** Pick-up must be on top or right side of cell.
  - **18.10:** One fuel filter allowed and no cool cans.

- **18.11:** Mechanical OEM type push rod fuel pumps or belt driven fuel pump mounted at front of engine may be used.
- **19.0: CARBURETOR AND AIR CLEANER**
  - **19.1:** One naturally aspirated two or four barrel carburetor only with Holley OEM or OEM replacement booster. No ICT type boosters allowed. aerosol-style carburetors allowed.
  - **19.2: OPEN ENGINE**
    - **19.2.1:** One carburetor spacer/adaptor allowed with a maximum thickness of 2.20 inches including gaskets.
    - **19.2.4:** No throttle bore adjustable carburetor spacers.
  - **19.3:** May use Moroso part #64940 or speedway Motors part #545-64940 with GM crate.
  - **19.4:** Air cleaner top/stud and base cannot direct air into carburetor. No top flow air cleaner housings, air cleaner inserts or cold air boxes.
- **20.0: WEIGHT**
  - **20.1:** Minimum weight limit of 2,450 pounds at race end.
  - **20.2:** Weights must not be used in driver compartment or outside body.
  - **20.3:** All weights must be securely mounted with at least two 0.5-inch bolts and painted white with car number on it.
  - **20.4:** No titanium, magnesium, carbon fiber or tungsten components. Solid steel fasteners only. May use carbon fiber rock guard and a magnesium quick change center section.
- **21.0: BATTERY AND STARTER**
  - **21.1:** One 12 volt battery only, must be securely mounted between frame rails, and positive terminal must be covered.
  - **21.2:** Sealed batteries are recommended and NO lithium batteries.
  - **21.3:** Starter must directly engage flexplate/flywheel and mounted in OEM location.
  - **21.4:** Car must be able to start on its own without being pushed or pulled.
  - **21.5:** Car must leave initial staging area under its own power or may be required to go to rear of that race.
- **22.0: GAUGES AND ELECTRONICS**
  - **22.1:** No unapproved transmitting or listening devices (exception is mandatory one-way raceceiver radio). This includes cell phones and smart watches.
  - **22.2:** No timing retard controls, digital gauges (including tach) or cell phones.
  - **22.3:** No electronic monitoring computer devices capable of storing or transmitting information except memory recall analog tach.
  - **22.4:** Must use 12-volt ignition system.
  - **22.5:** Crank triggered ignitions are not permitted.
  - **22.6:** No electronic advance curve ignitions allowed.
  - **22.7:** Rev limiter may have external setting or internal preset.
  - **22.8:** Rev-control box must be accessible for inspection and out of reach from driver.
  - **22.9:** No additional unapproved ignition accessories.
  - **22.10:** All wiring must be visible for inspection.
  - **22.11:** Only gauges allowed are analog oil pressure, fuel pressure, brake bias, water temperature and tach.
  - **22.12:** Only OEM type alternator with internal regulator allowed.
  - **22.13:** No traction control devices of any kind are permitted.
  - **22.14:** Cameras pointing to any moving or suspension parts are not allowed. WiFi must be turned off.
  - **22.15:** Scoring Transponder must be mounted on bottom right rear of motor plate.
- **23.0: TRANSMISSION AND DRIVESHAFT**
  - **23.1:** Must have neutral position, two working forward gears and reverse gears that are operational.
  - **23.2:** With engine running, driver must be able to engage car in gear and move forward then backward.
  - **23.3:** No 5 speeds or quick change devices allowed, and the only OEM production transmissions allowed are 2, 3, 4 speeds and automatics.
  - **23.4:** Transmission must be one of the following.

- **23.5: OEM Type Manual:**
  - **23.5.1:** Bellhousing may have a hole for the throw-out bearing lever or hose only.
  - **23.5.2:** Must have explosion proof bellhousing at least 270 degrees around the top of clutch and flywheel area.
  - **23.5.3:** Must have a standard OEM case that uses working disk type clutch or approved cone or disk type coupler.
  - **23.5.4:** May use a steel or aluminum housing but clutch assembly must be steel.
  - **23.5.5:** The minimum diameter of the clutch disk is 5.5 inch.
  - **23.5.6:** Starter must directly engage the flywheel and may be forward or reverse mount.
- **23.6: Automatic Transmission:**
  - **23.6.1:** Must have an OEM appearing functioning pump and remain in an OEM or OEM appearing case.
  - **23.6.2:** Must have a SFI spec scattershield constructed of .125 x 3-inch steel mounted 270 degrees around the bellhousing.
  - **23.6.3:** Aftermarket aluminum or steel bellhousing may replace OEM bellhousing.
- **23.7: Aftermarket Manual Transmissions:**
  - **23.7.1:** Must use full steel unaltered OEM or OEM flexplate with starter mounted in OEM location and must bolt to explosion proof bellhousing.
  - **23.7.2:** Approved aftermarket transmissions are: Bert #LMZ, Bert gen 2 models 1300 & 1400, Brinn #70001, Brin Predator # 70600 (new addison), Falcon # 60100, Jerico # JER00021, RaceGator # 140002, or Mitchell Machine Bullet Internal Clutch.
- **23.8:** Disqualification will come from the use of an unapproved transmission.
- **23.9:** No ball spline transmissions
- **23.10:** Drive Shaft must be a minimum 2" inch diameter and painted white.
- **23.11:** Must use steel drive shaft and steel slip-yokes.
- **23.12:** 360-degree drive shaft loop required and must be constructed of at least 0.25 inch by 2.0 inch steel, or 1.0 inch tubing.
- **23.13:** Drive shaft loop must be mounted 6" inches back from front U-joint.
- **24.0: ENGINE LOCATION, PULLEYS, BELTS, and RADIATOR**
  - **24.1:** Rear of engine must be mounted at least 72" inch forward from centerline of rear axle.
  - **24.2:** Engine offset must be kept within two inches of centerline of front crossmember with engine level.
  - **24.3:** Minimum 11" inch engine height from ground to center of crankshaft.
  - **24.4:** Radiator must be mounted in front of engine.
  - **24.5:** No vacuum pumps.
- **25.0: ENGINE OPTIONS AND SPECIFICATIONS**
  - **25.1:** All cars utilizing the GM 604 Crate engine must clearly display on driver side front roof post the word "CRATE". Must be contrasting in color from body, minimum 2-inches tall. Chevrolet Performance emblem in the same location will be acceptable.
  - **25.2: CRATE ENGINE**
    - **25.2.1:** Must use unaltered sealed GM 604 crate engine. Upon inspection, any different, altered or missing GM seal bolts may result in disqualification.
    - **25.2.2:** Oil pan may be replaced by approved repair center with Champ pan #CP100LTRB and Champ pickup #100SB, or Kevko pan # IMCA92 and Kevko pick-up #1005-3/4.
    - **25.2.3:** Crate engine must use a maximum 6,800 RPM limiter and two (2) inch spoiler.
    - **25.2.4:** Disqualification for any crate engine not using required spacer, distributor, rev limiter, pushrods, valve springs or rocker arms.
  - **25.5: OPEN ENGINE**
    - **25.5.1:** All engines must be able to be used in conventional passenger car without alterations.
    - **25.5.2:** Open engine must use 7,200 rpm limit with a spoiler or may use 7800 rpm without the spoiler. This may be accomplished by using one unaltered, nonadjustable 12 volt ignition box and one rev limiter.
    - **25.5.3:** External engine casting and threaded holes cannot be altered.



- **25.2.4:** Any American make steel engine block along with aftermarket and OEM performance blocks may be used.
- **25.2.5:** Cast Iron or aluminum intake manifolds only
- **25.2.6:** Must use steel heads and oil pan.
- **25.2.7:** Stud mounted rocker arms only. No shaft, pedestal or offset rocker arms.
- **25.2.8:** Must use magnetic steel retainers.
- **25.2.9:** No stud girdles, mushroom lifters or titanium engine components.
- **25.6.10:** Conventional flat tappet cam and lifters only, cannot alter lifter bores.
- **25.6.11:** OEM firing order cannot be changed (GM: 1-8-4-3-6-5-7-2).
- **25.6.12:** No light weight engine blocks.
- **25.6.13:** 'Wet' sump oiling system only.
- **25.6.14:** All belt driven accessories must be on front of engine.
- **25.6.15:** May use rear mount starter, fuel pump or aluminum bellhousing. If you use 1 or all 3 you must add 20 pounds total weight to the midplate.
- **25.6:** Accumulator allowed.

XR Events  
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 Silver Bay, MN 55614  
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