

2025 WMR/BCRA SUPER SERIES SAFETY AND TECHNICAL RULES

SAFETY RULES:

A) DRIVERS EQUIPMENT

1. **All drivers must run one-way radios and transponders at all races.**
2. **Only Snell SA2010 or better helmets may be worn**
3. All drivers must wear an approved SF5 or better driving suit, Nomex or better is required. Must be clean and in good condition.
4. Nomex (or better) underwear (top and bottoms) is required if using a single layer suit.
5. Nomex (or better) gloves, socks, and shoes are mandatory.
6. Nomex (or better) head sock or helmet skirt is mandatory.
7. Safety belts cannot be more than 2 years old from the manufactured date. If there are no certification markings on the belts, they are considered older than 2 years.
8. Arm restraints are mandatory.
9. SFI approved Head and Neck Restraint Systems are mandatory.
10. A full containment seat is mandatory Note: nets are recommended with full containment seats. **No Low back seats, no fiberglass seats.**
11. No fueling of cars with driver in the car.

B. Physical condition

- 1.) All drivers are required to remove all dentures before starting an event.
- 2.) Corrective lenses worn by drivers must be of the safety type glass. Contact lenses are not recommended because of dust and foreign material.
- 3.) All drivers are recommended to have a physical annually to make sure they are fit to drive a race car. In the event of a hard crash, the Referee has the authority to remove a driver from the remainder of the racing events until the driver has a doctor's release allowing him or her to resume racing activities.

C. Track safety equipment

- 1.) Always make a mental note of where the fire crew, ambulance and track exits are located.
- 2.) Never run onto the racetrack during an event, or even after the flag has ended an event.
- 3.) Every entrant must have a 5lb dry powder fire extinguisher in their pit area.

D. Accidents

All entrants are expected to use every precaution to avoid injury to drivers, attendants, employees, etc. Extreme care and caution should be used in the case where a driver or other person is injured in a crash. Please wait for an official or ambulance attendant to arrive before trying to move driver. If part of the car is resting on part of the driver, use extreme caution in relieving pressure on the driver. Consider it your duty to help keep people who don't belong at the scene of an accident away from the accident.

CAR SPECIFICATIONS:

Major chassis or engine features considered to be new, innovative, unusual, not considered standard or not used by the majority of the current cars, are to be considered not approved or permitted. The board must specifically approve any such new items.

A. **Technical Inspections:**

All cars must meet official specifications and are subject to technical inspection prior to, during, and/or following any event. Any car owner or driver in charge, refusing to allow his car to be checked or leaving the track after being told of intent to check, shall be considered guilty of violation of specifications and will be disqualified.

Engine Specifications:

A. **Pushrod Type Engines**

1. Four cylinder in-line, two valves per cylinder, water cooled, using a **Fontana** factory aluminum block and an aluminum cylinder head.
Maximum of 174 CID (2852cc) Maximum RPM 8800
2. **Fontana** (Rhino)sealed spec engine –
Maximum 200 CID (3278cc) Maximum RPM (factory set and sealed) 7800
3. Four cylinder in-line, two valves per cylinder, water cooled utilizing an aluminum block and/or approved cylinder head.
Gaerte Block - Maximum of 174 CID (2852cc) Maximum RPM 8800
Mopar W-9 Block- Maximum of 171 CID (2803cc) Maximum RPM 8700
Toyota Engine- Maximum of 166 CID (2721cc) Maximum RPM 8700
4. All other push rod engines, using billet blocks, **Non-Gearte** or **Non-Mopar** blocks.
Maximum of 166 CID (2721) Maximum RPM 8700

B. **Single Overhead Camshaft Type Engines**

1. Four cylinder in-line, aluminum block and head, 2 valves per cylinder.
Esslinger ST, XT & RSI Only: Maximum of 161 CID (2639) Maximum RPM 10300
Esslinger EST sealed spec engine: Maximum 161 CID (2639cc) engine Maximum RPM (factory set and sealed) 9400
Esslinger BB7: Maximum 161 CID (2639) Maximum RPM 9800
Mopar SR11 / SR11X: Maximum of 161 CID (2639cc) Maximum RPM 9800 _

C. **Double Overhead Camshaft Type Engines**

1. Honda K-Series four cylinder in-line, water cooled, four valves per cylinder, must use Honda OEM cylinder block and cylinder head.
Max. of 154.6 CID (2533.5cc) Max RPM 9600(Maximum Stroke 99mm (3.98”)
2. The stock production “Cosworth Vega” four cylinders, in-line, four valves per cylinder, utilizing the stock production block and head. Alteration of the basic design of the head or block is prohibited. Maximum 127 CID (2082 cc).
3. Ecotec four cylinders, in-line, four valves per cylinder. Maximum 2400cc.

D. All engines must be normally aspirated, internal combustion, four cycle, reciprocating piston type, incorporating a maximum of six cylinders. Only one spark plug per cylinder will be allowed. Camshaft timing must be fixed. Any device used to alter camshaft timing during engine operation is prohibited. **EXCEPTION** – Production block and head engines 2400cc and under.

E. The preceding engine sizes are maximum permitted as produced. A .010” (.25mm) overbore permitted to save worn blocks.

Complete engines and/or major components must be available in a reasonably sufficient supply to all competitors at comparative prices. Officials reserve the right to disallow any engine for competition, which in its judgment does not meet the spirit and intent of competitive racing, in regards to cost and/or performance. Any engines not covered by the preceding specifications must be submitted for approval prior to entering the competition.

FUEL:

All Fuel must be standard grade methanol. No Performance additives allowed. VP Fuels M-3 and M-5 are not allowed. Top End Lubes are allowed, provided the fuel meets the "METHANOL SPECIFIC GRAVITY TEMPERATURE CORRECTION TABLE", after the additive has been added to the fuel.

All Fuels must pass the "METHANOL SPECIFIC GRAVITY TEMPERATURE CORRECTION TABLE" guide for temperature and purity ratio. Any fuels not matching the specific gravity reading will be disallowed and the car will be disqualified. Any and all points earned during the entire program (qualifying, heats and main event points) will be forfeited by the owner and driver.

Weight Rules:

DIRT: All dirt cars must weigh a minimum of **1035 pounds**; including water, oil, fuel and the driver. Cars may be weighed prior to and/or following any event. Cars weighed at the completion of an event may not add fuel or ballast to satisfy the minimum weight requirement. All cars are encouraged to weigh on the BCRA scales before the races.

DIRT: Chassis, body and running gear specifications

- 1.) The wheelbase must be at least 66 inches and no more than 76 inches allowed.
- 2.) The overall rear end width will be a maximum of 65 inches
- 3.) The right front tire cannot be farther out than the right rear tire when the right rear wheel is set at maximum width. (as measured straight line along outside RR to outside RF)
- 4.) No four-wheel drive cars allowed.
- 5.) All cars must have a fuel shutoff within reach of the driver while belted in.
- 6.) All cars must be equipped with wheel guards (nerf bars) on both sides and mounted directly to the frame. Nerf bars must be bolted to the frame. No pop rivets are allowed. The right nerf bar cannot extend beyond the outside of the right rear tire when the right rear tire is at maximum offset.

- 7.) All cars must have a firewall between the cockpit and the motor compartment.
- 8.) Front axles must be of tubular chrome alloy.
- 9.) All cars must be equipped with a throttle toe strap.
- 10.) No rear engine cars allowed.
- 11.) No rearview mirrors allowed
- 12.) All cars must have a muffler system capable of quieting the engine to meet sound and listed muffler requirements.
- 13.) Exhaust pipe or muffler **must not** protrude past the outside edge of the nerf bar.
- 14.) All highly stressed steering parts shall be made of 4130 steel or better. Aluminum pitman and steering arms are allowed. They must be one piece, un-welded and a web thickness of 1/2 inch minimum. 7075 T-6 or 2024 T-4 aluminum required.
- 15.) No carbon fiber or composite suspension or steering components allowed, including: radius rods, tie rods, draglinks, panhard bars, pitman arms, steering arms or torsion arms.
- 16.) No front axles, front or rear bumpers, left or right side nerf bars shall be made of aluminum or titanium.
- 17.) All cars must be equipped with a 5-point belt system securely fastened to the frame. No Y-type shoulder harness allowed. Belt Age: Year of Manufacture, plus two years
- 18.) Minimum belly pan (driver floorboard) is from the firewall to the front of the seat. Recommend 0.085" thickness for aluminum
- 19.) Steering components must meet with the approval of the tech. committee.
- 20.) Cars must be equipped with a front and rear bumper. No stubs pointing downward or outward will be allowed.
- 21.) All cars must have at least 3 throttle return springs, two of which are to be attached to the injector arm and be able to close the injectors on their own and one on the throttle pedal.
- 22.) Steering wheel must be of the flexible spider type, with a pad in the center.
- 23.) No oil coolers can be mounted outside the body.
- 24.) A positive kill switch, properly marked "ON" and "OFF" and mounted on the dashboard, is required on all cars.
- 25.) Body side panels must start at the firewall and extend to the front side of the driver's seat minimum.
- 26.) All cars must be equipped with a hood securely fastened.
- 27.) All tail tanks must have a bladder.
- 28.) All water-cooled cars must have a catch can for fluid recovery. (Pavement races only).
- 29.) All moving parts of the driveline must be covered.
- 30.) Drag-link tethers are mandatory. It is recommended that one end of the draglink tether to be mounted above the drag-link.
- 31.) All cars must have a suitable breaking device. Copper tubing is not allowed.
- 32.) Only a conventional torque tube type driveline will be allowed, with a single universal joint in front. No CV joints will be allowed.
- 33.) All cars must be of the open wheel, open cockpit type. The engine must be covered with a cowling secured in place, but need not enclose the sides of the engine compartment. The cars body, driver's seat, and fuel tank assembly must be mounted

- on the chassis centerline. A maximum variance of one inch overall (1/2" offset) will be permitted. All cars must have driver's compartment floorboard.
- 34.) All fuel must be contained in a single, conventional midget tail tank assembly located behind the driver and within the chassis frame rails.
 - 35.) Cars utilizing inline engines are limited to a maximum 45 degrees of layover (angle from vertical) as measured through crankshaft and or cylinder bore centerlines.
 - 36.) Independent suspension is not permitted. The cars axle connecting the wheels must be of one-piece tubular construction, without the capability of camber adjustment to the wheel assembly. Any other construction will be considered independent suspension.
 - 37.) Front axles must be constructed of SAE 4130 or a steel alloy equivalent in structural strength. Titanium and aluminum are not permitted. Front axles must incorporate the spool wrap-around design with spool to tubing gusset plates optional. Recommended .095 wall thickness.
 - 38.) The nut securing the wheel to the rear axle assembly must have a minimum inner thread diameter of 1.5 inches. Aluminum rear hubs are allowed on splined axles. Titanium rear hubs are not permitted.
 - 39.) Aluminum front hubs originating from a forging are permitted. Aluminum hubs must have a wall thickness of (.250) at the inner bearing bore. Hubs which are threaded in this area must maintain this thickness as measured from the bottom thread. Squared thread root design is recommended in this area.
 - 40.) All cars must have a tubular front bumper with a minimum diameter of .750", which may not extend more than 8" forward of the front torsion tube. The nose assembly may not extend forward beyond the inner confines of the front bumper. In the event a car does not utilize torsion bar suspension, the measurement will be taken from the axle, as compared to a torsion bar chassis. Recommended .065" wall thickness.
 - 41.) All engine coolant must be biodegradable. Water wetter is allowed.
 - 42.) Radio contact to or from the driver is not allowed, except for approved one-way communications from Official to Driver.
 - 43.) The use of onboard data acquisition systems (computers) is illegal. Exception: fuel pressure, oil pressure/temp., engine coolant temperature, and tachometer gauges are allowed. A **Tachometer** in working order is mandatory in order for the checking of the maximum RPM for Specific engine combination.
 - 44.) Adding weight – Paint weight(s) white and put car # on each weight. All weight must be bolted to the car within the frame rails of the car and between the front and rear axles.

Cage & Body Specifications

- 1.) Full cages are mandatory.
- 2.) No bolt on cage.
- 3.) Material 1.25" O.D., recommended .095" wall thickness; absolute minimum .083" wall thickness.
- 4.) Material to be 4130 tubing or equivalent.
- 5.) No butt weld or sharp bends allowed.
- 6.) All corners must be gusseted.

- 7.) There should be a minimum of 2 inches from the bottom of the top rails of the cage to the top of the helmet with the driver seated and safety belted in the car. Any car that does not have a sufficient clearance may not be allowed to run. The Referee's decision will be final.
- 8.)
 1. Right and Left side cockpit body panels may be a maximum of thirty-six (36) inches high as measured from the bottom frame tube at rear motor plate and projected rearward twenty-three (23) inches with a minimum eight (8) inches vertical opening from the afore mentioned point forward, including side visor.
 2. Side visors on roll cage will be limited to eight (8) inches tall.
 3. Panels attached to nerf bars will not be permitted.
 4. All paneling must not extend past edge of frame rails more than thickness of material.
 5. A 1" turnout is allowed on all body panels and sail panel edges, except for the sun visor.

Mufflers:

- Flowmaster Pro Series Outlaw Race Muffler: 13009130, 13509130, 13509135
- B&B Performance: FRAC-0375-S with side outlet
- Schoenfeld: 14272735-78
- Extreme Mufflers: 3515-3030, 3615-3030, 3515-3030-8, 3615-3030-8
- Coast Fabrication: 300x625x17-2s, 350x625x17-2s, 400x625x17-2s

TIRES:

TIRE RULES: Hoosier or American Racer allowed

13" diameter wheels only (8" left rear maximum width and 10" right rear maximum width)

FRONT TIRES: Hoosier – 7"x 13" D12 or D15 **or** American Racer – 7"x 13" SD-38

LEFT REAR: Hoosier 10"x 13" D12 or harder **or** American Racer 10"x 13" SD-38 or harder

RIGHT REAR: Hoosier 12"x 13" SP3 or American Racer 12"x 13" SD-48

****Bleeders are allowed**(bleeders cannot be controlled remotely)**

****Tire softening solvents are not allowed, softening of tires is prohibited****

Note: Any solvents or chemicals applied to the tires that have the effect of altering tire durometer will not be allowed. BCRA reserves the right to check by durometer any tire at any time on any car. Any tire showing a significantly different durometer reading from other like tires at a specific event may be disallowed by decision of the Referee.