



## **2023 THUNDER STOCK RULES**

*(Last Updated March 1, 2023)*

The rules herein shall refer to Evans Mills Raceway Park as “EMRP” These rules are intended to create affordable and fair competition. While they offer a good outline, every item cannot be covered by a written rule. Any questions regarding any item not specifically covered in these rules should be addressed with EMRP Officials prior to proceeding. No car, component, or equipment will be considered as having been approved by reason of having previously passed through inspection unobserved or undetected. All equipment is subject to inspection and approval by EMRP Officials. You may be assessed penalties including, but not limited to added weight, fines, loss of points, loss of handicapping, and suspension, car parts, components, and/or equipment deemed as not in compliance with these rules. Any car part, component, and/or equipment which does not conform to the specifications or tolerances contained in the 2023 rule book or is not otherwise approved by EMRP may not be used in competition in 2023 and is subject to confiscation at the discretion of EMRP Officials.

By competing at EMRP, you agree to have read the EMRP 2023 General Rulebook and the 2023 Thunder Stock rulebook.

### **ELIGIBLE VEHICLES**

- Any four (4) cylinder naturally aspirated engine (single or dual overhead camshaft) cars allowed.
- Front wheel or rear wheel drive only (no all-wheel drive cars allowed).
- All airbags must be removed.
- Must register year, make and model of car with the tech officials.
- No turbo charged, supercharged and or rotary powered cars allowed.

### **BODY**

- Bodies must be OEM to year, make and model of car.
- No self-tapping screws of any kind allowed.
- No sunroofs allowed - must be completely welded over with at least 1/8” plate steel.
- No fiberglass roofs of any kind allowed.
- Side skirts are permitted ONLY with approval from Tech Official(s).
- All glass and plastic must be removed.

### **INTERIOR**

- Complete factory floor pan must be used. NO EXCEPTIONS. Must be free from all holes.

### **WINDSHIELD AND REAR WINDOW GLASS**

- Factory windshield can be used, providing it is free of any and all cracks.
- Wire mesh or Lexan can be used and must have two (2) 1”x1/8” pieces of flat bar welded from center of roof down to dash supporting wire or Lexan.

- 3" maximum visor is allowed.
- NO mirrors allowed.

### **BUMPERS**

- All cars must have stock appearing bumpers.
- NO front air dams will be permitted on front bumpers.
- Safety chains are mandatory front and rear for towing purposes.

### **CHASSIS**

- Stock frames only. Must be straight.
- NO welding, cutting, chopping or lowering of frame will be allowed.

### **ROLLCAGE**

- 6-point roll cage of 1-1/2"x.095" wall tubing mandatory. Must have suitable headroom for driver.
- No front tubing in engine compartment allowed.
- Must have at least three (3) pipes of 1-1/2"x.095 thickness welded horizontally to the driver side roll cage.
- **NO square tubing of any kind can be used for structural support**
- Must have at least four (4) pipes of 1-1/2"x.095 thickness welded vertically to the driver side roll cage.
- No kinked or torch bent pipes allowed. Must be all mandrel bent. NO EXCEPTIONS.
- Must be free from holes, tears or any bubble gum welds. THIS WILL BE STRICTLY ENFORCED.
- All pipes will be completely welded.
- 1/8" steel plate welded to the entire driver side door bars is mandatory.
- Rear strut bracing is allowed ONLY from strut tower to strut tower.
- Must have four (4) 1/4" thick x 5" square steel plates welded and bolted underneath each main down pipe on roll cage.

### **GROUND CLEARANCE**

- Minimum ride height is 5".

### **ENGINE**

- **All engines must remain stock appearing and as manufactured.**
- **Engine must match the brand of car with stock intakes**
- **Engine block must be stock appearing**
- All sensors will be in stock locations.
- Cold air intake allowed
- No cutting harness to adapt to different style sensors.
- If engine wiring harness is repaired, it must be approved by tech.

### **EXHAUST**

- Headers will be allowed.
- Exhaust must exit behind driver with one muffler.
- No round glass packs or cherry bombs allowed.
- Muffler must be baffled (2-1/2" maximum diameter in and out allowed).

## **CARBURETOR**

- Stock OEM fueling only. NO EXCEPTIONS.
- OEM injectors only.

## **COOLING SYSTEM**

- Must be OEM. No aftermarket performance additives allowed.
- No antifreeze allowed (may use Water Wetter or NAPA Kool).

## **BATTERY**

- Battery must be mounted in the trunk or under hood and mounted in a marine type box with cover securely fastened to the chassis.
- Master switch is mandatory and must be clearly labeled and within driver's reach and kill all power when turned off, including electric fuel pump.

## **POWERTRAIN**

- Transmission swaps are allowed as long as it is a direct bolt-in replacement for year, make and model.
- No fabricating mounts allowed (IF IT DOESN'T FIT, DON'T USE IT).
- Drive shafts and C.V. shafts must be painted white.
- Rear wheel drive cars must have two (2) drive shaft safety hoops.
- Welded transaxles and differentials are allowed.
- No Aluminum or aftermarket racing flywheels are permitted.

## **SHOCKS**

- Must be OEM for year, make and model.
- No performance struts allowed.
- No coil overs allowed.

## **SUSPENSION**

- No spring modifications allowed.
- No cutting, welding or heating of springs is allowed.
- No progressive rate springs allowed.
- 5 degrees camber maximum
- Suspension and components must remain stock or OEM replacement.

## **BRAKES**

- Brakes on all 4 corners must always work
- No shutoffs allowed
- No brake bias adjusters allowed.

## **STEERING**

- Steering column must be in stock OEM location.
- Quick release steering wheel is recommended.
- Steering shaft and steering wheel center must be padded.
- Steering must be for year, make and model of car.

## **FIRE EXTINGUISHER**

- Onboard fire extinguisher is mandatory and must be within driver's reach.

## **DRIVER SEAT**

- Aluminum high back race seat mandatory.
- Seat must be mounted with 4-3/8" bolts in seat bottom and 2-3/8" bolts in seat back (must use fender washers on all bolts).
- Right side padded head restraint is mandatory.
- NO fiberglass seats allowed.

## **DRIVER RESTRAINT/PADDING**

- 5-point harness free from cuts, tears, frays or holes is mandatory.
- Harness must be five 5 years old or newer and have the SFI tag on them. To be eligible for use in the 2019 season, belts must be stamped 2014 or later.
- All pipes within drivers reach will be padded.

## **WINDOW NET**

- Approved SFI rated safety net is mandatory.
- Safety net must be equipped with a quick release.

## **WEIGHT**

- Minimum weight is one pound (1#) per c.c.
- This weight will be clearly marked on hood.
- Ballast weights must be lead or steel plated and securely mounted to the frame by weight ballast clamp
- The maximum weight per piece is 25#
- Welding the weight to the frame is not permitted.

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## **FUEL SYSTEM**

- 8-gallon fuel cell maximum.
- Stock tanks can be used.
- Stock tanks must remain under car. Extra straps are highly recommended.
- Fuel cell installation must be mounted inside trunk in a 20-gauge steel can with two (2) 1"x1/8" steel flat bar straps mounted to chassis.
- Fuel shutoff mandatory and must be clearly labeled.

**TIRES**

Street legal DOT tires only. No Drag tires, racing or racing recap tires allowed

No wheel spacers of any kind

All lugs must be present and properly torqued.

No Camber cut tires allowed

Minimum tread wear rating is 260 or higher and must be visible.

No camber cut tires allowed.

No altering of struts to fit tire size.

Tread depth is 1/8" minimum.

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## **WHEELS**

- OEM steel wheels only. Maximum width 8" with minimum backset or offset of 3".
- NO aluminum wheels allowed.
- Bassett or Aero standard weight wheels allowed. No lightweight wheels permitted.
- No wheel spacers of any kind allowed.
- Same size wheels must be used on each side.
- Must have a 1" lug nut on all wheel studs.
- 13, 14 and 15" wheels only.

## **DRIVER ATTIRE**

- Neck collar mandatory. Factory manufactured head and neck restraint recommended.
- One- or two-piece race suit mandatory. MUST BE free from holes, frays or tears.
- Racing shoes or boots mandatory.
- Racing gloves mandatory.
- Full-face helmet mandatory (Snell SA2000 approved or newer, NO EXCEPTIONS). No M rated helmets allowed.

## **RADIOS**

- One-way radio is mandatory. Frequency is 454.0000.
- No other form of one-way or two-way communication is allowed.

## **SCORING DEVICE**

- AMB x2 or AMB TranX x260 transponder is mandatory.
- No MX or kart transponders allowed.
- Transponder must be mounted 155" from the furthest forward point of the front bumper. Must be mounted on the lower right-side frame rail. In the event that a driver is unable to mount a transponder in this location, it is the driver's responsibility to notify Tech Official(s) to determine an alternative mounting location PRIOR to competing.
- Any driver caught moving their transponder mounting to gain an advantage will have their finish position adjusted and/or be disqualified from the event (including forfeiture of points and prize money).

## **PROTEST PROCEDURE**

- See General Rules.