

2024 Thunder Car Rulebook

2024 Revisions highlighted in RED

Any American made rear wheel drive car 1955 through 2010. No convertibles, no two seaters and no trucks. Ford to Ford, GM to GM, Mopar to Mopar etc. Minimum wheelbase 101". Gen 3 Camaros must be 54% Left. Only #34 Fox Body Mustang is allowed. No other Fox Body Mustangs. No mono balls or hemi joints in ANY cars other than steering shaft and carb linkage.

1. RADIOS:

Racing Radios with the ability to add RACEceiver is allowed. RACEceiver is mandatory.

2. BODY:

- a. Aftermarket nose ok, must match model. Hoods, fenders, roof and q-panels MUST be OEM stock. Doors may be stock or 20-gauge steel. Hood, doors, and trunk lid may be gutted. If you have sheet metal quarter panels MUST be stock configuration and 20-gauge steel. Bumpers MUST be in stock configuration or covered. Stock firewall MUST be in place. **All stock floorboards MUST be in place up to shock mounts, subject to 25 lb penalty if not met, Floorboard must be sealed off.** Spoiler may be NO wider than 60 inches centered on trunk lid. Spoiler can be no wider than the body, NO OVERHANG and no taller than 6 inches MAX. Battery MUST be in a covered box with a master switch located behind driver. MUST have full windshield with clear Lexan. Wing windows no longer than 10-inches. No air cleaner hole in hood. **Bodies must remain stock appearing and in full spirit of class. Body MUST match chassis generation.**
- b. There must be an open space at the top of the windshield for the class sponsor.

3. ROLL CAGE:

- a. Fully conforming roll cages are required. Front hoops allowed. External driver's door nerf bar optional. All bars are subject to the Technical Director's approval. Roll bars are required and must be of at least 1 ½ inches O.D. steel pipe, 1/8 inch wall thickness, 1 ¾ inches by ninety-five hundredths (.095) wall thickness on tubing. Roll bars MUST be welded or securely fastened inside the car to the floor pan and braced on the rear main bar. All roll bars must have 3 sissy bars on the driver's side connected with 3 vertical bars in the center with a minimum of 2 sissy bars on the passenger side. All cars MUST have a rear safety bar attached to the main cage to protect gas tank.

4. ENGINE HEADS:

- a. Approved stock production only. Bigger valves ok and all seat work must be on center line. Screw in studs ok. Rocker arms MUST be stock stamped steel. Rocker ratio MUST be stock per engine. Roller Tip Rockers must add 25 lbs. NO porting, polishing, deburring or port matching.
- b. NO angle milling. NO stud girdle. NO oil deflectors. NO titanium retainers, "steel only". NO titanium valves. NO epoxy. NO aluminum. NO welding. NO "N" heads. NO bowtie vortex. NO vortex. NO angle plugs. NO W2. NO world SR. NO Ford Motorsports. NO after-market. **NO Brzezinski (Stock dimension only).**

5. CAMSHAFT:

- a. .530 lift max; Hydraulic cam. Hydraulic lifters MUST de-pump FULL stroke of lifter. NO hydraulic rollers. NO solid lifter cams. NO stacking of hydraulic lifters. NO gear drives.

6. BLOCKS:

- a. Stock OEM production only with part number. NO Aluminum blocks.

7. INTAKE MANIFOLD:

a. Stock OEM cast iron Q-Jet or low rise two barrel. 2 big holes and 2 small holes, low rise. Ford equivalent or subject to penalty. Dodge equivalent or subject to penalty. No marine type. Must have part number. NO aluminum except sealed GM 602 crates. **NO Brzezinski (Stock dimension only).**

8. EXHAUST MANIFOLD:

- a. NO porting or port matching. NO lighting. **NO exit greater than 2 ½ inches.** MUST have muffler and pass at 95db. Headers add 25lbs. **NO Brzezinski (Stock dimension only).**

9. ROTATING:

- a. Option 1: MUST be of stock weight and dimension. Flat tops only. 2 valve relief pistons ok. MAX cubic inch 360. Stroke MUST match block. NO stroked or de-stroked. NO light weight.
- b. Option 2: See Weight

10. OIL SYSTEM:

- a. NO dry sumps. NO external oil pumps. NO external oil filters.

11. RADIATOR:

- a. Steel or aluminum ok. NO anti-freeze. MUST have a catch can.

12. CARBURETOR:

- a. Stock Holley 4412 500CFM 2 barrel with full choke horn. The part number MUST be on choke horn.

NO racing carburetors. NO screw in air bleeds. Must pass complete BLP gauges.

13. CARBURETOR SPACER PLATE:

- a. One inch (1") carb spacer or Canton Phenolic. NO tapered, CNC milled or ANY high- performance spacer.

14. AIR FILTER:

- a. 14-inch round, 3-inch tall, K&N allowed.

15. CLUTCH:

- a. MUST be stock cast iron flywheel; .870 thick or more. 1 clutch disk. All steel pressure plate, 10 ½ inch minimum. MUST have a 1-inch access hole in bellhousing for visual on clutch and a 1-inch hole in bell plate. NO racing clutches. MUST have scatter shield or belting. Clutch pedal and master cylinder can be aftermarket.

16. TRANSMISSION:

- a. MUST have all forward gears and reverse. Automatic transmission MUST have torque convertors. Must have OEM part number.

17. REAR END:

- a. Can be stock or nine-inch Ford (9"). **Spool, welded, or open - steel aluminum ok.** NO limited slips. NO Detroit lockers. **NO Gold Track. NO Gleason. NO traction enhancing differential.** Spring shackles ok. Floaters with drum brakes ok and are allowed, no cambered snouts. Any rear end with disc brakes, add 25 lbs. Must have stock OEM calipers only.

18. DRIVELINE:

- a. MUST be steel; painted white. MUST have a loop twelve inches (12") behind transmission.

19. BRAKES:

- a. MUST have ALL OEM brakes (4 working). Aftermarket brake pedal ok. Aftermarket master cylinder ok. **Remote brake adjuster must be under dash OR hood - out of driver's reach.** **Stock calipers for make, model and generation only.**

20. WEIGHT:

Option 1: Up to 360 cubic inches:

Weight 3200 min

Max Left 55%-54% GEN3

Max Rear 48%

Option 2: Up to 400 cubic inches:

Weight 3400 min

Max Left 55%-54% GEN3

Max Rear 48%

Option 3: GM Sealed 602 Crate with 6000 chips; MSD #8727CT soft touch HEI rev limiter on right side of dash or firewall out of reach of driver:

Weight: 3225 min
Max Left 55%-54% Gen 3
Max rear 48%

Option 4: 602 Crate with aftermarket seal with 6000 chips; MSD #8727CT soft touch HEI rev limiter on right side of dash or firewall out of reach of driver (authorized rebuilt by TRE only)

Weight: 3275 min
Max Left 55%-54% Gen 3
Max rear 48%

21. SHOCKS:

- a. Steel Body Non-Adjustable, Non-Rebuildable, Mounted in Stock Location using Stock Mounting Hardware.
- b. \$150.00 Claim per shock. Claim must be made by a Thunder/Hobby Driver competing that evening. Claim must be in cash, in writing and presented to the Tech Director between qualifying and 15 minutes before the main event. If you refuse the claim, you will lose all money and points for the night.

22. RIDE HEIGHT:

- a. 5-inch ride height from lowest part of frame at driver's door.
- b. Nose and skirts 5-inch.

23. A-ARMS:

- a. Stock OEM only, per make, model and generation.

24. SPINDLE:

- a. MUST be stock OEM per make, model and generation.

25. CAMBER:

- a. 2 inch right and 1 inch left, MAX measured with square at top of wheel.

26. WEIGHT JACKS:

- a. NO weight jacks. Pocket spring adjusters ok.

27. TRAILING ARM/LEAF SPRING:

- a. MUST be stock OEM dimension. MUST be in stock location. NO alteration allowed. NO MONO BALLS.
Steel or poly leafs ok.

28. SWAY BAR:

- a. 1- ¼ inch MAX in stock OEM saddles. All thread ok for adjustment. NO Heim Joints. NO at frame adjusters.

29. IGNITION:

- a. Option 1: Firing order MUST be stock per engine. NO crank triggers. NO electronic tuning. NO MSD boxes on any combo.
- b. Option 2: 4-7 swap okay.
- c. Option 3: 602 - MSD#8727CT soft touch rev limiter

30. FUEL CELL:

- a. MUST be covered in 20 gauge steel in trunk location. Fuel filter MUST be metal. Fuel line MUST be in conduit if located through car.
- b. Fuel cell no lower than 10-inches and no closer than 12-inches from back bumper.

31. FUEL PUMP:

- a. Mechanical only. NO electric. Oberg type anti siphon shut off valve mandatory.

32. FUEL:

- a. No oxygenated fuel, NO CHP, CHP Plus, C-85 or E85.

33. WHEELS:

- a. 15 x 7 or 15 x 8 steel racing wheel. 5/8-wheel stud mandatory.

34. TIRES:

- a. Hoosier 970. NO softening inside or outside. NO poking. NO tire shine. The tire you qualify with you MUST start the main event with.
- b. Qualifying tires will be stamped at the scales prior to qualifying.

35. SAFETY:

MUST have race padding on all bars that your hands and head can reach. MUST have window net. MUST have 3-inch wide shoulder belt. ALL belts must be 5 years or newer. MUST have 2-inch sub belt. MUST have fire extinguisher. MUST have master electrical shut off behind the driver's seat. Helmet MUST be SNELL SA 2005 or newer. NO motorcycle helmets. Head and neck restraint recommended. Driver's suit must be clean with no visible holes. Racing gloves must always be worn. Holes around shifter must be covered. Seats must be aluminum. 2-inch belt okay with HANS or Youth.

36. TRANSPONDER:

- a. Location: Right rear frame rail; 15-inches behind center of rear-end.

37. CAR NUMBERS:

- a. Doors: 24-inches MINIMUM
- b. Roof: 30-inches MINIMUM

****ADDED WEIGHT MUST BE PAINTED WHITE AND CLEARLY MARKED WITH YOUR CAR #.
MUST BE MOUNTED SECURELY WITH MINIMUM ½ -INCH GRADE 5 BOLTS.**

**These rules can be adjusted anytime to even the competition.
If it does not say you can, you cannot. Please build to the rules not around them.**