



HOBBY/THUNDERCAR Rulebook 2021

Any American made rear wheel drive car 1955 through 1995. No convertibles, no two seaters, and no trucks. Ford to Ford, GM to GM, Mopar to Mopar etc. Minimum wheelbase 101". Gen 3 Camaros and 2005+ Mustangs Must be 54% Left

No mono balls or heim joints in ANY cars

BODY:

After market noses ok, must match model. Hoods, fenders, roof, q-panels MUST be OEM stock. Doors maybe 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 floor boards MUST be in place. Spoiler may be NO wider than trunk lid. Spoiler to be no taller than six inch (6"). Battery MUST be in a covered box with a master switch located behind driver. MUST have full windshield and can be lexan. Wing windows no longer than ten inches (10"). No air cleaner hole in hood.

Bodies must remain stock appearing and in full spirit of class.

There must be an open space at the top of the windshield for the class sponsor.

ROLL CAGE:

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 one and one-half inches ($1 \frac{1}{2}$ " O.D. steel pipe, one-eighth inch ($1/8$ " wall thickness, one and one-three quarters ($1 \frac{3}{4}$ " 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 have to have three (3) sissy bars on the driver's side connected with three (3) vertical bars in the center, with a minimum of two (2) sissy bars on the passenger side. All cars MUST have a rear safety bar attached to the main cage to protect gas tank.

ENGINE HEADS:

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 Rockers must add 25 lbs, roller tips only. NO porting, polishing, deburring, port matching. NO angle milling. NO stud girdle.

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 plug. NO W2. NO world SR. NO Ford Motorsports. NO after-market

CAMSHAFT:

.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.

BLOCKS:

Stock OEM production only with part number.

INTAKE MANIFOLD:

Stock OEM cast iron Q-Jet or low rise two barrel. Two (2) big holes and two (2) small holes, low rise. Ford equivalent or subject to penalty. Dodge equivalent or subject to penalty. No marine, must have part number.

EXHAUST MANIFOLD:

NO porting or port matching. NO lighting. NO exit greater than two an quarter ($2 \frac{1}{4}$). MUST have muffler and pass at 95db. If you have $2 \frac{1}{2}$ add a 25 pound penalty but exhaust must be $2 \frac{1}{4}$ all the way out. Headers must add 25lbs.

ROTATING:

Option 1: MUST be of stock weight and dimension. Flat tops only. Two (2) valve relief piston ok. MAX cubic inch 360. Stroke MUST match block. NO stroked or de-stroked. NO light weight.

Option 2: See Weight

OIL SYSTEM:

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

RADIATOR:

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

CARBURETOR:

Holley 4412 five hundred (500) cfm 2 barrel with full choke horn. The part number MUST be on choke horn and meter plate. NO racing carburetors.

If it does not say you can, you cannot. Please build to the rules, not around them.

CARBURETOR SPACER PLATE:

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

AIR FILTER:

Fourteen inch (14") round, three inch (3") tall, MAX.

K&N ok. CLUTCH:

MUST be stock cast iron flywheel; .870 thick or more. One (1) clutch disk. All steel pressure plate, ten half inch (10 1/2") minimum. MUST have a one inch (1") access hole in bellhousing for visual on clutch and a one inch (1") hole in bell plate. NO racing clutches. MUST have scatter shield or belting. Clutch pedal can be aftermarket.

TRANSMISSION:

MUST have all forward gears and reverse. Automatic transmission MUST have torque convertors, must have OEM part number.

REAREND:

Can be stock or nine inch (9"). Locked only. NO limited slips. NO Detroit lockers. Spring shackles ok. Floater rear ends ok with penalty. Floater with drum brakes add 25 pounds. Floaters with disc brake add 50 pounds. Must have steel OEM calipers.

DRIVELINE:

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

BRAKES:

MUST have ALL OEM brakes (4 working). Aftermarket brake pedal ok. Must Be Stock master cylinder. Remote brake adjuster must be under dash or hood. No aluminum calipers.

WEIGHT:

Option 1: Up to 360 cubic inch

Weight 3200
min Left 55%
max Rear 47%
max

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Option 2: Up to 400 cubic inch

Weight 3400
min Left 55%
max Rear 47%
max

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

Weight: 3250 min
Left 55% max
Rear 47%
max

SHOCKS:

Steel Body Non-Adjustable-Non Rebuildable- Mounted in Stock Location using Stock Mounting Hardware. \$100 Claim Per Shock. Claim must be made by a Thunder/Hobby Driver competing that evening. Claim must be in cash and 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.

RIDE HEIGHT:

Five inch (5") ride height from lowest part of car.

A-ARMS:

Stock OEM only, per make and model.

SPINDLE:

MUST be stock OEM.

CAMBER:

Two inch (2") right and one inch (1") left, max measured with square at top of wheel.

WEIGHT JACKS:

NO weight jacks. Pocket spring adjusters ok.

TRAILING ARM:

MUST be stock OEM dimension. MUST be in stock location. NO alteration allowed.

SWAY BAR:

One and one quarter inch (1 1/4") max in stock OEM saddles. All thread ok for adjustment.

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IGNITION:

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

FUEL CELL:

MUST be covered in twenty (20) gauge steel in trunk location. Fuel filter MUST be metal. Fuel line MUST be in conduit if located through car. Fuel cell no lower than ten inches (10") and no closer than twelve inches (12") from back bumper.

FUEL PUMP:

Mechanical only. NO electric. **Oberg fuel shut off mandatory.**

WHEELS:

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

TIRES:

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

SAFETY:

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

TRANSPONDER:

Location: Right rear frame rail; fifteen inches (15") behind center of rear-end.

CAR NUMBERS:

Doors: Twenty-four inch (24") MINIMUM

Roof: Thirty inch (30") MINIMUM

These rules can be adjusted anytime to even competition.

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