

2019 FACTORY STOCK RULES

Last Updated: 12 December 2018

All drivers will be required to register with Thunderbird Speedway to be eligible to receive points and/or pay for regular nights and/or special events, excluding touring series that handle their own points and/or payouts.

2019 clarifications and changes are in red.

GENERAL

1. First DQ (tech disqualification) will result in loss of points and funds earned for the night. Second tech DQ will result in not being able to compete in the Factory Stock class for the remainder of the season.

SAFETY

1. No factory type shoulder belts or straps can be used. Racing belts are required on shoulders and seat and are not to be more than one (1) year old.
2. Snell 90, SA 95 or better helmet recommended.
3. Window nets, neck braces & fire suits are mandatory. Arm restraints are OK, but you must still use a driver's side window net.
4. Fire proof gloves and shoes are required.
5. MUST HAVE WORKING FIRE EXTINGUISHER MOUNTED SECURELY. NO WIRE TIES.
6. Raceivers are MANDATORY. You could be penalized and/or DQ'd for not using it.

FRAME

1. Any American OEM full body rear wheel drive passenger car. 1955 or newer, full frame or unibody car. Frame must match body and body must be OEM mounts in stock location.
2. Small trucks (Ford Ranger, Chevy S10, Dodge Dakota etc.) are allowed with the following restrictions. NO large size trucks. Trucks must meet minimum weight rule and follow the same safety rules. Engines must match make/model of truck. If stock engine exceeds the engine rules listed below, you may change to an engine that meets the rules. All suspension components must remain stock with the exception of lowering the frame and any allowed change as listed in these rules. Bed may be covered but must retain stock floor. Fuel cell may be located in the bed area.
3. Wheel base must match car, with no difference in length from side to side. 101" minimum for strut cars and 108" minimum for others. +/- 1" is OK.
4. Frame must remain unaltered. Frames may be "X" braced.
5. Factory floor pan must remain unaltered.
6. Camaros and Firebirds allowed. Strut cars allowed. Uni-body cars may tie frames together.
7. Trailing arms must match car and remain unaltered.
8. Front shocks must be inside of coil springs.
9. Frame can be tubed – round or square from center of rear end housing to rear bumper.
10. May not alter spring buckets, must remain stock.

ROLLCAGE

1. Main cage must consist of continuous hoops 1.75" O.D. tubing, with a wall thickness of at least .095" low carbon or mild steel.
2. Four post roll cage required, front down bars & rear hoop must be welded to OEM frame. Driver's head must not protrude outside roll cage with helmet on.
3. Rear hoop must have "X" brace. Front down bars must be tied together.

4. All door bars and uprights must be min 1.75" x .095" wall thickness.
5. Minimum of three door bars on both sides, parallel to ground, & perpendicular to driver. Minimum of four (4) uprights tied from front to top door bar on driver side and minimum of three (3) uprights on passenger side.
6. Driver's side 18 gauge thick door plate is mandatory. Steel only. Can be a single plate or welded in between the roll cage bars, but must be welded on all four sides. No tack or spot welding allowed on door plate.

BODY

1. Must be stock appearing. May be made from aluminum.
2. Must have factory stock steel roof and factory roof
3. Hood and trunks may also be made of aluminum but must be stock appearing.
4. No rear spoiler.

DRIVER'S COMPARTMENT

1. Minimum of three (3) windshield bars in front of driver.
2. Aluminum high back racing seat only, bolted to cage. Seat may be no further back than front edge of B-pillar.
3. All holes in floor board and fire walls must be covered with sheet metal. No other interior covers allowed. Enclosing of driver's compartment is optional.

FRONT SUSPENSION

1. All components must be stock and mount in stock location other than the following. Adjuster cups in allowed on front springs.
2. Must have stock upper A arms or optional tubular A arm with designated part #UP4100R.

STEERING

1. OEM steering column may be replaced with steel steering shafts (collapsible steering shaft recommended) with knuckles only.
2. Steering quickeners allowed.

3. After market power steering pump allowed.
4. Steering wheel and quick release may be aluminum.

SHOCKS

1. One (1) OEM or OEM replacement shock per wheel. Stock replacement racing shock are OK.
2. All four (4) shocks must be in stock location and stock mountings.

SPRINGS

1. One steel spring only in OEM stock location.
2. NO adjustable shackles or lowering blocks except Camaros.
3. 16 inch rear coil springs or smaller.
4. **No spacer(s) of any kind in rear springs.**

REAR SUSPENSION

1. All components and mounts must be steel, unaltered, OEM, in OEM location and match frame.
2. Stock rear trailing arms must mount in correct stock location. All mounting brackets must be located in correct stock location and all mounting holes must be at the correct height.
3. OEM rubber control arm bushing only.
4. No independent rear suspension allowed.
5. No pan hard bars, spring rubbers, chains or cables allowed.

REAR END

1. Must be OEM for that car, GM-to-GM and Ford to Ford with the exceptions below. Must run OEM axles.
2. Must weld spider gears or may run mini spool. No torque dividing or limited slip differentials allowed. No aluminum spools allowed. NO FULL SPOOLS.
3. 9 inch Ford rear ends allowed. Floater rear ends are OK.
4. May drill flanges and rotors to take larger wheel studs.

BUMPERS

1. Bumpers must be approved OEM in OEM location. May have tube bumpers as long as they fit the car to OEM type bumpers.

2. Bumpers must be capped on the ends, with NO sharp edges.

TIRES & WHEELS

1. **Used asphalt take-offs - 8" or 9". Grooving Allowed. No siping allowed.**
2. **Used asphalt take-offs - 10". No grooving. No siping allowed.**
3. **No American Racers allowed.**
4. ALL tires must durometer 55 or harder.
5. **8" wheels only.** Bead lock OK on right rear only.
6. Wheel spacers allowed. No adapters allowed.
7. One-inch OD lug nuts mandatory on all four (4) wheels.
8. No bleeder valves.

BRAKES

1. Steel, unaltered OEM or unaltered OEM replacement, operative on all 4 wheels. Master cylinder must be OEM location, **unless using after-market pedals.**
2. Disc brakes are OK.
3. No antilock brake systems.
4. Pedals can be stock or replaced with aftermarket pedal assembly.
5. No brake adjusters or brake gauges.
6. Steel or plastic brake lines only.

EXHAUST

1. Headers are OK with 1 5/8" tubes with a 3" collector. Fender headers are OK. Cast iron OEM manifolds are OK. No center ram manifolds. **NO AFTERMARKET MANIFOLDS.**
2. If running (an) exhaust pipe(s), it/they must be under car type and must be secured properly.

FUEL AND FUEL SYSTEM

1. Must run OEM mechanical push rod fuel pump only.
2. 2 barrel Holley 500 (4412). Top 1 3/8". Bottom 1 11/16". Maximum 1-inch adapter to manifold. Must have choke horn.

3. Must run fuel cell, with metal container enclosure. **22 or 32 gallons maximum.**
4. Pump gas or racing fuel – No alcohol.

WEIGHT

1. **3000 lbs.** with driver before and after the race on Thunderbird scales.
2. Bolt on weight is OK.

BATTERY AND IGNITION

1. One 12-volt car battery only.
2. Must be mounted in approved battery box.
3. Must run OEM distributor.

TRANSMISSION AND DRIVE SHAFT

1. Coolers must be mounted in front of radiator.
2. All forward and reverse gears must be operational.
3. **Transmissions:**
4. a) **Manual:** Must be unaltered OEM 3 or 4 speeds, with minimum 10.5" clutch.
5. i) Hydraulic clutch release bearings are OK.
6. ii) Steel unaltered flywheel only with stock type pressure plate. No altering allowed. No Corvette parts.
7. b) **Automatic:** Must be unaltered OEM, with unaltered pump.
8. i) Must be in original bell housing, with minimum 10" torque converter and converter must hold minimum of three (3) quarts of fluid.
9. ii) Must have shield around outside of converter housing. Flex plate must be full, unaltered OEM, or OEM replacement.
10. Drive shaft **MUST BE PAINTED WHITE** and must have a safety chain or driveshaft loop.
11. **Must have blow-proof steel bell housing.**

ENGINE COMPARTMENT

1. Engine must be OEM location using OEM mounting holes for V8 motor mounts. Motor mount types are optional but must be in stock location.
2. Cross member must remain stock and unaltered in the stock location.

ENGINE SPECIFICATIONS

1. Factory-sealed/IMCA-sealed GM 602 crate engines are OK.
2. Steel OEM V-8 Block only. NO GM BOWTIE, FORD SVO OR MOPAR W-2 BLOCKS, HEADS OR INTAKES ALLOWED.
3. NO GM POWER PACK HEADS. NO DOUBLE HUMP HEADS. OEM only. Enginequest (EQ) GM 76cc heads are OK.
4. Stroke must match block. NO 400 or larger cubic inch parts allowed.
5. Maximum 361 c.i. for GMs, 363 c.i. for Fords & 370 c.i. for Mopars.
6. Must use OEM or OEM like pistons. **Must use flat top pistons with four (4) valve relief pistons only.**
7. Stroke 3.48" for GMs and 3.5" for Fords & Mopars – I-beam rod 5.75" GM, Ford & Mopar.
8. TSS Approved OEM GM cylinder head. No Vortec heads, **unless running a 602 crate.** No Ford after-market SVO heads. No Mopar after-market W-2 heads. 360 heads only. No aftermarket heads allowed, except as noted.
9. No 305 heads allowed on GM 350. 305 heads can only be on a 305 GM block.
10. No headwork can be done on the heads. Only machine shop work will be flat milled only. No angle milling. No cutting heads for larger springs, valve guides or bosses.
11. **194 intake valves.** 150 exhaust valves. Must have four (4) valve reliefs.
12. Open chamber heads only. Must pass 76 c.c. test. No close chamber heads allowed. NONE.

13. No roller rocker arms. No roller tip rocker arms. Must use stamped steel rocker ratio of 1.5" for GM. May use screw in studs.
14. Cannot machine block, other than flat surface deck height. Piston cannot be higher than block. No zero-piston deck height allowed.
15. **175 lbs. max compression (hot) with five (5) rotations. No tolerance.**
16. Intake manifold must be stock cast iron or stock aluminum. No aluminum hi-rise, marine, air-gap or Vortec intakes (**unless running a 602 crate**). No porting polishing or alterations of any kind to head and/or intake. **Aluminum intakes with part #'s 2701 and 2101 are OK.**
17. Aluminum water pump and crankshaft pulleys are OK.
18. Camshaft lift not to exceed .450" at the valve retainer. No tolerance. This is basically a stock profile camshaft. No special grinds are allowed. Hydraulic only. OEM ONLY. No bleed down lifters.
19. Oil pan must have a one (1) inch inspection plug.
20. No Corvette parts allowed.

PROTEST

1. There is a driveline (engine, transmission, rear end, tires, wheels, brakes, shocks) protest fee of \$175. This can be done by any driver who finishes on the lead lap of the A Feature and has run two consecutive weeks at Tri-State Speedway in that class. In the event that two drivers are protesting the same car, the driver who finished lowest and on the lead lap, will get to protest.
2. The fee, in cash, must be taken to the tech man BEFORE the green flag drops. If your car's being protested, you will be told by track officials that you must report to tech immediately after your race and before going to the pit areas.

3. If the car that is found to be legal, the protest fee will go to that driver for gaskets, seals, oil, etc. to put things back together with.
4. If the car is found to be illegal, the protest fee will be returned and the driver that is found to be illegal will be disqualified and will lose all points and money earned for the night.
5. Revisions may be made to this rule, if needed, and will be updated here and on our social media pages.

ANY CAR THAT WINS FOUR (4) FEATURES WILL BE REQUIRED TO REMOVE A HEAD FOR INSPECTION AT THE TRACKS DISCRETION. IF CAR IS FOUND TO BE ILLEGAL, DRIVER WILL LOSE ANY MONEY EARNED FOR THAT NIGHT.

ALL RULES (OR INTERPRETATION THEREOF) WILL BE DETERMINED BY TRACK OFFICIALS. ALL TRACK OFFICIALS WILL HAVE THE RIGHT TO CHECK YOUR CAR AT ANYTIME, FOR ANY REASON. ALL TRACK OFFICIALS' DECISIONS ARE FINAL.

IF IT DOESN'T SAY YOU CAN – THEN YOU CAN'T!!!