

## **2018 THUNDER CAR RULES/SPECIFICATIONS (pending)**

The following specifications are shared with you and are similar to other Thunder Car specifications at other speedways. The rules are meant serve as guidelines for the construction of a "Stock Car" to participate in automobile racing. No express or implied warranty of safety shall result from publications of or compliance with these rules. They are intended as a guide and are in no way a guarantee against injury or death to participants, spectators, or others.

The promoter or his assigned steward must approve items not covered by these guidelines. These specifications are intended to be in effect throughout the 2018 auto-racing season. However, continuous development in auto racing and technology may necessitate changes in these guidelines, and management reserves the right to change them at any time.

***NOTE: THE PURPOSE OF THIS DIVISION IS TO PROVIDE AN INEXPENSIVE WAY FOR A BEGINNER TO PARTICIPATE IN STOCK CAR RACING AT LOCAL SHORT TRACKS.***

1. All thunder cars must be strictly stock for make and model of car.
2. Inspections may be made at anytime at the discretion of track officials.

### **WEIGHT**

1. 3200 lbs with OEM 2 barrel Carburetor
2. 3400 lbs with OEM 4 barrel Carburetor
3. Top five may be weighed immediately after the feature.

### **BODY**

1. The stock steel unaltered floor pan, stock front firewall will be used only.
2. No holes in the hood, roof or trunk lid. Hood will be kept in place at all times. 3. All stock sheet metal will be mounted on car at all times.
4. All doors and body panels will be welded together.
5. A complete firewall must seal trunk form driver's compartment. 16-gauge sheet metal minimum.
6. The only modifications to the floor pan or firewall are for repair of rust areas. All holes in driver's compartment must be covered with minimum of 16-guage sheet metal.

\* Fuel cell will be mounted in trunk area, between frame rails. Stock gas tank will be removed.

\* Fuel cell must be above center line of differential housing or 12" above ground, whichever is higher.

\*Max. 22 Gal. fuel cell.

7. Trunk floor may be cut to accommodate fuel cell. Minimum of 2-12 Ga. 1 ½" safety straps.
8. No spoilers allowed.
9. Aftermarket nose panel permitted.
10. Stock style bumper only if nose and tailpiece are not used. Bumper will be securely attached in place in stock location welded to frame rails. No front or rear bumper shocks allowed.
11. Ballast will be allowed, but must be bolted to frame or to cross member rails. All ballast will be painted white with number of car in contrasting color.
12. No Uni Bodies
13. There must be a lifting hook/tow chain securely attached to the frame at both the front and rear of car. Lifting hook must be easily accessible by tow truck operator.

#### **INTERIOR, WINDSHIELD, AND GLASS**

1. A four-post roll cage must be used with three door bars on driver's door. Driver's door must have 1/8" steel plate on door bars. Window net on driver's side is mandatory. Two bars on passenger side only.
2. Cage can be braced, rearward to the frame where it starts to kick up over the rear end. Bars may be added from firewall forward to protect frame and radiator. Front firewall, front or rear hoods optional.
3. All glass, headlights, tail lights must be removed prior to arrival at the track.

4. No broken glass shall be in the car. Car must be swept clean.
5. Full 3/8" bars minimum, in front of driver. 4 bars minimum. 3/8" solid bars with wire mesh.

### **ENGINE/BLOCK**

1. Engine block will be stock O.E.M. small block passenger car, for make and model of car.
  - \* No 400+ cubic-inch engines. 350 C.I. Small-block only for make and model of car. 350 C.I. Ford, 360 C.I. Chrysler, etc.
  - \* Block numbers will be checked. All blocks will have legible numbers.
2. Entirely Stock (May Run Aftermarket Valve Covers and Oil Pan)
3. Aftermarket air filter permitted.
4. Engine will be mounted in stock O.E.M. position.
5. Stock rear transmission mounts only, with stock transmission mount cross member, bolted to frame.
6. Must idle stock-850 RPM max.
7. No engine swapping between make and model of car.
8. No external vacuum canisters.
9. Drive shaft and all ballast must be painted white with number of car in contrasting color. Drive shaft hoop mandatory under drive shaft 6" to 8" behind transmission tail shaft. 1/4" chains may be used.

### **CYLINDER HEADS**

Steel stock heads only. No after-market, bowtie, or aluminum heads. No port work allowed. No roller rocker. Stock for make and model of car.

### **INTAKE MANIFOLD**

Must be strictly stock for make and model of car. Cast iron intake manifold only. No high-rise truck or marine type intakes allowed. No porting or polishing of any kind allowed. You will pull carburetor to inspect intake at track official's discretion.

### **EXHAUST MANIFOLD**

**Cast Iron Exhaust manifolds or headers (steel 1' 5/8" max) allowed. No two-stage headers. No crossover or 180 headers.**

## **CARBURETOR**

Carburetor must be stock O.E.M. for make and model of car.

- O.E.M. stock 4BBL carburetors allowed, must be for make of car.
- GM-Quadrajet, Ford-Fomoco, Mopar-Mopar
- Holley 2BBL-4412-500 C.F.M., with stock 1.378" maximum venture bore allowed.
- No double pump carburetors allowed.
- Aftermarket filters allowed as long as it will not require cutting hole in hood to fit on engine.

## **FUEL SYSTEM**

1. Stock manual fuel pump mounted in stock location on engine. Must shut off fuel supply to engine when engine is not running.
2. No electric fuel pumps allowed.
3. All fuel lines routed through drivers compartment will be enclosed inside rigid tubing from bending rear firewall through front firewall and sealed at both ends.

## **ELECTRICAL/BATTERY**

1. No dual point distributors.
2. Stock coil in stock location, must use stock distributor.
3. Battery must be securely mounted inside plastic battery safety box. Plastic battery case will be securely mounted to frame or roll cage bars behind driver's seat. Battery box top will be securely mounted to battery box.
4. Battery lines running from battery through front firewall will be mounted in flexible tubing, I.e. garden hose, etc. and sealed at both ends.
5. Ground wire will be directly to frame or roll bar.

## **TRANSMISSION**

1. O.E.M. stock automatic transmission with three forward gears and one reverse must function in all gears with engine idling.
2. 350 Turbo, Powerglide, and Stock Cast Iron Manual Transmissions are allowed. No aftermarket racing transmissions allowed (Berts, Brinns, or Falcons, etc.)
3. No Aluminum flywheels. Must utilize a stock, single-plate clutch.

## **COOLING SYSTEM**

1. Stock radiator in stock location.
2. Aluminum or plastic radiator allowed.

3. No electric fans.

### **REAR END DIFFERENTIAL**

1. Post traction limited slip, locked or welded, spider gears allowed.
2. 9" Ford rear end differentials allowed in non-Ford cars. Floaters will be allowed.

### **BRAKES**

1. No altering of stock brakes allowed.
2. Brake pedal must remain in stock location.
3. Cars must have fully functional brakes on all four wheels.
4. Rear disc brakes allowed. Brake assemblies must be in stock location on all four corners.
5. No brake bias or proportional valve permitted.
6. One O.E. M. master cylinder only for make and model of car.

### **FRAMES**

1. Body and frames must be O.E.M. stock for make and model of car in O.E.M. location. No switching or shifting of any body parts allowed.
2. Complete bumper-to-bumper O.E.M. stock frame for make and model of car, other than repairs needed to repair areas due to rust or damage.
3. Repairs to stub must retain exact O.E.M. measurements for make and model of car.

### **SUSPENSION**

1. O.E.M. stock suspension only for made and model of car. Front A-frames and rear suspension arms, O.E.M. stock for make and model of car. May run upper tubular A arms.
2. No coil-over, overload, cargo ratchet or air assisted shocks permitted.
3. Racing shocks permitted must fit in same brackets as O.E.M. stock, front, and rear, for make and model of car.
4. Racing springs allowed, must maintain stock O.E.M. frame and body heights for make and model of car.
5. Metric cars can reinforce O.E.M. upper A-frames only.
6. No lift bars or recovery shocks or spring recoils allowed.
7. No weight screw jacks.

### **WHEELS**

1. Reinforce racing type wheels mandatory. Right rear bead lock only.

2. Maximum wheel width is 8".
3. One-inch lug nuts are mandatory.
4. Any loss of tire and or tire & wheel requires a driver to find safety or pull off of racing surface to infield or exit track immediately.

### **TIRES**

1. Must run 70 series DOT approve, 15" DOT name brand tires on 8" wide rim (maximum).
2. Maximum tire is 255-70-15
3. No grooving, sipping or soaking allowed
4. Absolutely no racing tires disguised as DOT street tires allowed.

### **FUEL CELL**

1. Fuel cell mandatory. 22 gallon maximum capacity. Bracing in trunk permitted.
2. Fuel cell will be mounted in trunk area, between frame rails with 1 ½" clearance on all four sides. Minimum of two 12 GA x 1 ½" wide safety strapping, mandatory for safety.
3. Trunk floor may be cut to accommodate fuel cell.
4. O.E.M. fuel tank will be removed.
5. No electrical fuel pumps allowed.
6. Fuel line from trunk to engine compartment must be steel or steel braided. No copper or rubber allowed. Any fuel line run through driver's compartment will be enclosed in rigid tubing from inside trunk area to inside engine compartment will be sealed at both ends.
7. Tech inspector must approve installation.
8. Fuel cell will be a minimum of 12" above ground or above centerline of rear end differential housing, whichever is higher.

### **APPEARANCE/ CAR NUMBERS**

1. Numbers with letters are allowed. Make the letter large enough to be seen from the scoring tower.
2. Numbers must measure minimum of 22" high by a minimum of 15" wide. The thickness of the number must be no less than 3".
3. Color of the number must be contrasting with the car color.
4. Numbers must be located on both doors and roof of the car. Put the roof number so it can be seen from the tower when the car is in the front stretch.
5. Car number above the right rear bumper is recommended.

6. The car must be washed prior to each weekly event . Throughout the night, if the number becomes covered with mud, it must be cleared before participating in the next event so the scoring team can read the number.
7. If you are caught cheating after a race, you will be disqualified for the night. You will lose purse winnings and points for the event. If you are caught cheating a second time, you will be barred for two weeks and lose all points for the year.

## **SAFETY**

It is the sole responsibility of each competitor for the effectiveness and proper installation, per the manufacturer's specifications to be adequate for competition at every event. Each competitor is expected to research and educate themselves for continued improvement regarding their own personal safety equipment.

### **Seat Belt/Restraint System**

1. Each car should be equipped with an approved 5-point seat belt restraint system within the date of the belt expiration. Seat belts restraint systems shall be installed in accordance with the directions and application of the system supplier or manufacturer.
2. 2. Seat belt webbing that comes into contact with any sharp or unradiused metal edge should be protected from that edge by means of push on grip vinyl trim.. Seat manufacturers supply the seat with trim protecting the webbing from abrasion or cutting under impact conditions and should be used to their specifications.
- 3.

### **Helmet, Fire Suit, Gloves, Window Net, and Other**

1. Each driver must wear an approved full-face helmet, fire suit with top and bottom, and racing shoes and gloves. The driver should wear the helmet and other safety equipment in accordance with the directions provided by the helmet manufacturer and/or supplier and the driver should make sure that equipment dates and quality/protection needs meets the needs of competitive racing.
2. Head and Neck restraints are strongly recommended.
3. Driver door net or triangle is required
4. Fire Extinguisher easily accessible to driver is recommended
5. Roll bar padding is recommended around driver's compartment.

**RACEceiver.** RACEceiver (one way) Radio is mandatory and shall be used by drivers during all wheel packing, hot laps, heat races, and B/A Main sessions.

**Additional Rules:**

1. Officials may change any of the Thunder Car rules in the interest of fairness and safety at any time and all decisions are final!
2. Cars may be inspected at anytime. If car is found illegal, driver will lose all money and points for that night.
3. Top 5 Finishers will be weighed immediately following feature unless otherwise announced.
4. Thunder Cars will follow all track procedures and car entry requirements

**Three (3) Consecutive Wins Handicapping**

Any driver or car in the Super Streets, Thunder Car, or FWD Compact division that wins three consecutive A Main events at Gas City I-69 Speedway will be required to start the next A Main feature at the tail of the field. If the next event is a special paying event, the handicap will not be assessed until the next regular event if the consecutive win streak is still in place. Handicapping will end if consecutive streak is broken.

**Thunder Car Points of Emphasis For Weekly Tech Inspection.**

Top3/Top5 will be inspected weekly

- Weight
- Heads - No aluminum
- Carburetors
- Tires
- Safety - Seat Belts, Fire suits, etc.

**DISCLAIMER:**

**THE PROMOTER/TRACK OFFICIALS SHALL BE EMPOWERED TO PERMIT MINOR DEVIATION FROM ANY OF THE SPECIFICATIONS HEREIN OR IMPOSE FURTHER RESTRICTIONS THAT IN THEIR OPINIONS DO NOT ALTER THE MINIMUM ACCEPTABLE REQUIREMENTS.**

**NO EXPRESSED OR IMPLIED WARRANTY OF SAFETY SHOULD RESULT FROM SUCH ALTERATIONS OF SPECIFICATIONS. ANY INTERPRETATION OR DEVIATION OF THESE RULES IS LEFT TO THE DISCRETION OF THE PROMOTER/TRACK OFFICIALS. PROMOTER/OFFICIAL DECISIONS ARE FINAL.**

**Note: The absence of a specific rule does not imply approval, consent, or permission regarding the subject.**



