

# Tisdale Motor Speedway

# THUNDER STOCK RULES

Revised January 2015

## A. Bodies

1. The thunder stock class will be open to any North American made 2 or 4 door hardtop or sedan, with a wheel base of not less than 107.5" on full-framed cars and 108" for uni-body cars.
2. a. External body must be stock appearing.
  - b. Sunroofs and t-tops must be enclosed.
  - c. No altering or channeling of body.
  - d. Nose cones allowed.
3. No aftermarket bodies allowed.
4. a. Internal panes may be removed for roll cage installation with stock floor and firewalls to remain in original location.
  - b. Gutting of vehicle allowed.
  - c. Front inner wheel wells may be removed.
  - d. Front hoop recommended.
5. a. Wheel openings may be radiused. Max 5".
  - b. Absolutely no cutting of rear inner fender wells.
6. a. Minimum car weight to be no less than 3400 lbs. with driver.
  - b. Ballast allowed. Ballast must be within 12" of center line of race car.
  - c. Top points cars may be weighed at the end of race day.
7. a. All sharp edges, torn fenders, bumpers and body panels must be repaired prior to next race day.
  - b. Handmade body parts must be constructed of steel.

## B. Bumpers

1. a. Stock bumpers in stock location.
  - b. Bumper may have minor reinforcement from behind or inside the body.
  - c. No cutting of bumpers.
  - d. No cow catchers.
2. Tow hooks or tow chains must be mounted to the frame or bumper, one in the front and one in the rear of the car.

## C. Frame and Suspension

1. a. Stock suspension only for make and model of vehicle.
  - b. Control arms, steering components and ball joints are to remain stock and in stock location for make, model, and year.
  - c. No offset ball joints.
  - d. No racing control arms.
2. a. Neoprene or polyurethane suspension bushings allowed.
  - b. No solid steel bushings.
3. a. Stock mounting location for shocks only.
  - b. One shock per wheel only.
  - c. No coil over or load leveler shocks.
  - d. No adjustable racing shocks.
4. a. Stock location for springs only.
  - b. Steel springs only.

- c. Vehicles must have equal number of leaf springs on each side; same length, thickness, and width.
  - d. Racing springs allowed.
  - e. Spring spacers allowed but must not be adjustable during the race day.
  - f. No weight jacks or weight jacking devices.
  - g. No lowering blocks.
  - h. No leaf sliders.
5. a. Anti sway bars cannot be adjustable and must be equally spaced side to side.
- b. No pan hard bars.
  - c. No chaining suspension.
  - d. Body bushings must be stock height or higher.

#### D. Radiators

- 1. Radiators must be mounted in stock location.
- 2. Only one radiator per vehicle.
- 3. Transmission cooler placement must meet tech committee specs.
- 4. Aluminum radiators allowed.
- 5. Radiator must be equipped with a stock type overflow tank.

#### E. Rear Differentials/Rear Ends

- 1. a. No quick change rear ends.
  - b. Rear end may be locked; mini spool permitted.
  - c. No floaters.
  - d. No electronic traction controls.
  - e. Factory full-locking (posi) only.
2. Differential housing must be stock design. Differential may be changed for a stronger unit but must be mounted in a stock way with no offset. (e.g. Ford 9" differentials are allowed in all makes.)

#### F. Transmission

- 1. a. Stock type automatic transmission only.
  - b. NO standard or manual transmissions.
  - c. No direct drives.
  - d. Scatter shield recommended.
2. a. Stock type torque converter.- b. No racing types of any kind.

3. Must have all gears operational at beginning of race day. (e.g. TH350 must have 3 forward and one reverse. PG must have 2 forward and one reverse.)

4. All drive-shafts must be steel, painted white, and have a safety hoop or chain near the front universal.

#### G. Tires

- 1. Tires must be DOT approved vehicle type to a max. P235-70
    - a. Any wheel must not exceed 15" rim diameter, stagger allowed.
  - 2. a. No ground grips or lugs.
  - b. No recaps, siping, or grooving.
  - c. No aggressive treads.
3. No racing brand tires (McCreary, Hoosier, etc.)

## H. Wheels

1. 8" rims allowed, same offset as street stock rules.
2. No aluminum or magnesium wheels allowed.
3. No wheel spacers allowed.
4. a. Steel wheel studs only.  
b. Stud threads must extend past the nut when rim is mounted.  
c. 1" lug nuts only.
5. Beadlocks rims allowed on right side only.

## I. Aspiration

1. Carburetion must be any stock 2 or 4 barrel carburetor.  
a. No Holley 4412 or higher performance upgraded stock or aftermarket carbs.  
b. No variable venture carbs.  
c. No modification except for choke plate removal.
2. Max. 1" adapter or spacer allowed.
3. Paper or washable element, 4" maximum height.  
a. No top flow air cleaners allowed.
4. No fuel injection allowed.
5. No electric fuel pumps allowed, MECHANICAL ONLY.
6. No turbo chargers.
7. No cool cans.
8. Pump fuel only. NO race fuels or additives. NO fuels containing more than 10% Ethanol.

## J. Roll Cage and Safety

1. All roll cage material must be a minimum of 1.66 OD steel tubing with a minimum of .095 wall thickness.
2. All roll cages must be attached to the frame with a minimum of 6 mounting points. No part of the roll cage may protrude from the bodywork.
3. The main hoop behind the driver must have a minimum of one cross brace. Drivers helmet must be below the roll cage.
4. A bar must be added to the center of the roof hoop for added protection.
5. 3 drivers side door bars must be used with a minimum of 2 supports per bar continuing down to the frame. 2 bars must be used on the other side of drivers compartment.
6. One dash bar is required running horizontally between door posts.
7. Drivers side pillar bar is MANDATORY.
8. Rub rails allowed. Maximum size 1x2" rect. or 1.75" round mounted a maximum of 1" from the body. Rub rails can only run from tire to tire in a straight line with a maximum overhang on either end of 4".
9. All seats must be steel or aluminum racing type, mounted securely to the frame and cage with back support.
10. Seatbelts are to be racing type 5 point 3" width mounted securely to the frame, seat frame, and/or roll cage. Shoulder belts must be mounted within 4" of the horizontal plane of the driver's shoulders. It is recommended that the shoulder harness be mounted slightly below the shoulders.
11. Drivers side window net is mandatory mounted securely to the roll cage.
12. All vehicles must have a windshield or screen (max 2" squares and min 10 gauge wire, or equivalent) with two 5/8" vertical bars.
13. Battery must be mounted securely. It must be encased in a marine type box if mounted in the drivers compartment.

14. Drivers must wear a minimum of fireproof coveralls and leather gloves (racing gear strongly recommended). Minimum DOT approved helmet (sa2000 recommended).
15. Each vehicle must have a clearly labeled kill switch which is easily accessible from outside the vehicle.

#### K. Engine

1. Maximum for a Dodge; 360 cu. In. .060 overbore  
GM; 350 cu. In. .060 overbore  
Ford; 351 cu. In. .060 overbore
  - a. Max 9:1 compression ratio.
  - b. Engines must stay within manufactures line (e.g. GM motor in GM vehicle)
  - c. All engines used in competition must be able to e used in a conventional passenger vehicle without alterations.
2. Engine location must be stock.
  - a. Motor must be placed so that the fuel pump is forward of the front cross member.
  - b. All engines must be chained down, one on each side.
3. No aluminum cylinder blocks.
4. Steel cylinder heads only.
  - a. No aftermarket heads.
  - b. No TBI or fuel injection heads dated later than 1986.
  - c. Ford cars: no SVO heads; Chrysler cars: no W2 heads, 360 cu. in. only. Must be 76cc heads or larger only.
  - d. Unaltered ch350i "engine quest" head is allowed.
5. No strokers.
6. Cast iron 2 or 4 barrel intake only.
  - a. No aluminum intakes.
7. Cast iron exhaust only; center dumps allowed.
  - a. No corvette manifolds.
  - b. No headers.
8. No porting or polishing.
  - a. No match porting.
  - b. No grinding or CNC machining of any kind on heads, exhaust manifolds, or intake manifold except for valve guides and seats.
9. Flat top or dished pistons allowed.
  - a. No domed pistons.
10. Hydraulic camshaft and lifters only.
  - a. No roller or solid camshafts or lifters.
  - b. No mushroom step lifters or roller tip rockers.
  - c. No machining permitted to install camshaft.
  - d. Must be able to remove lifter from top of lifter galley at any time.
  - e. Camshaft lift and duration are at your discretion.
  - f. Rocker ratio must be stock for make a model.
  - g. Stock type retainers and valves.
10. Any timing chain allowed.
  - a. No gear drive.
11. No dry sump systems.
12. No aftermarket ignition control boxes allowed.
13. No high output performance coils or ignition boxes.
14. Plugs and wires at your discretion.
15. Rev limiters allowed on HEI distributors.

## L. Brakes

1. No aluminum brake drums or components.
2. No rear disk brakes.
3. Stock routing and stock proportioning valve for make and model.
4. All brakes must be working.

IMCA hobby cars allowed to run but must follow IMCA rules completely.