

# TORC SERIES

## COMPETITION RULES FOR

### PRO 2 WHEEL DRIVE TRUCK

*DEFINED AS-* Vehicles custom built or manufactured as a full size two wheel drive type utility vehicle. Vehicle must be a standard manufacturer production model available to the general public in the United States and produced in amounts of a minimum of 5000. Manufacturer body styles and engines must all be from same manufacturer. The PRO 2 WD class is considered an open production class regulated only by Class, CCR, and Safety Rules. Division rules supersede CCR. **Trucks built prior to 2001 can compete as Non-Standardized according to the TORC 2009 Rule Book.**

#### 1. CHASSIS

- A. The standardized PRO 2WD chassis must be constructed in accordance to TORC Series standardized prints.
- B. Frame must be constructed of 2"x 3" rectangular tubing only, with a minimum wall thickness of 1/8". Frame profile must remain unchanged. The 2" x 3" rails must remain intact from front to rear. Some teams have notched the frame to accommodate the steering rack per Western 2008 rules. This will be allowed in 2009 but will not be allowed in 2010.
- C. Maximum wheelbase 120 inches. Minimum wheel base 113 inches, as measured with TORC Series certified gauge.
- D. Maximum overall width 93 inches as measured outside of tire to outside of tire at a ride height of 10 inches.
- E. Truck wheelbase and overall width will be measured with all tires inflated to 20 PSI in outer tire. Truck will be measured as they pass over a 10 inch ride height block.
- F. All trucks must be left side steer only. Steering wheel, seat and pedals must be in approximate stock location.
- ~~F. Standardized chassis rules were updated in 2005. To receive a copy of this new print please call the TORC Series HQ.~~

#### 2. SUSPENSION

- A. Spindles may be reinforced or manufactured and must retain the same basic design and concept as originally mounted and produced.
- B. No limits or restrictions on ball joints, spring rate capacities, pivot point bushings.
- C. All four corners must be coil over suspension.
- D. Front wheel travel limits 18 inch maximum. Rear wheel travel limits 20 inch maximum.
- E. Four bar rear suspension only. Rear axle may not rotate separately from axle housing mounts.
- F. Independent rear suspension not allowed.

#### . SHOCK ABSORBERS AND SPRINGS

- A. Maximum of two shocks per corner.
- B. One spring stack per corner, maximum of three springs on one shock.
- C. External bypass allowed on one shock per corner.
- D. Determination of air shock usage will be done in the following manner: Truck will be presented to TORC Series technical, on level ground, at existing ride height. Truck height will be measured from a given point on the chassis, all canisters will be purged of air, and nitrogen or other charged support. If truck droops more than 1 1/2 inches the truck will be illegal.
- E. Bump stops will be allowed on front and rear of the truck. Bump stops will only be legal if they absorb the last 6 inches of upward compression.
- F. TORC Series technical director must approve all shocks.

#### 4. RIDE HEIGHT

- A. 10 inches measured as vehicle drives over 10 inch ride height blocks.
- B. Truck must race at 10 inch ride height.
- C. Trucks will be measured with all tires inflated to 20 PSI in outer tire.
- D. Trucks may be measured for proper ride height before and after competition.

#### 5. TRUCK WEIGHT

- A. Vehicle weight is set according to the following formula:
  - Two valves per cylinder and using a carburetor must weigh 9.75lbs./cubic inch.
  - Three or more valves per cylinder and using a carburetor must weigh 10.75 lbs. /cubic inch.
  - ~~Three or more valves per cylinder and using TORC Series approved fuel injection must weigh 11.25 lbs./cubic inch.~~
- ~~B. For those trucks using electronic fuel injection, please refer to the CCR.~~
- C. Trucks may be weighed pre and/or post race, and must weigh a minimum of 3,750 lbs.
- D. Weight is subject to change in interest of competition.
- E. Minimum front axle weight is 45% of total truck weight at race end.
- F. All trucks must meet minimum weight and front percentage both pre and post race.

#### 6. TRUCK BODY

- A. All fender and box side mounts must be a looped design only. Box sides must be full length including the taillight wrap around.
- B. Maximum body width 80 inches as measured form pillar A to pillar B.
- C. Roofline, rocker panels and top of bedside must be parallel to the horizontal frame members.
- D. Vehicle appearance must remain as factory produced. TORC Series Technical Director must approve changes in appearance.
- E. Tires must retract inside of fenders.

#### 7. ENGINE BLOCK

- A. OEM design, steel or aluminum.
- B. Block must be available to the general public at a price competitive with other manufacturers. ~~and had been made in quantities of at least 1,000.~~
- C. Maximum of 8 cylinders.
- D. Centerline of crankshaft cannot be less than 8 1/2 inches above the lowest part of the frame rail as measured from the front of the engine.
- E. Maximum engine setback of 42 inches from the front spindle centerline to rear of bell housing mount flange on rear of block.

#### 8. CARBURETOR

One four-barrel carburetor permitted.

#### ~~9. FUEL INJECTION~~

##### **Allowed:**

~~A. Fuel injection on overhead cam motors under 340 cubic inches.~~

##### **Not Allowed:**

~~A. Fuel injection is not allowed on pushrod motors.~~

#### 10. DRIVE TRAIN PARTS

- A. Engine to transmission adapter plate can be a maximum of 1/2 inch thick.
- B. Auxiliary under drive and overdrive units are permitted.
- C. Engine crankshaft must be connected to the transmission input shaft via a conventional clutch assembly or vane type torque converter.
- D. Maximum of three disk clutches may be used
- E. Must be in stock order, engine, transmission, and differential via a drive shaft.
- F. Rear differential must be spool type only, and approved by TORC Series technical director.

**G.** Rear differential must have a minimum of one inspection hole 1 ½ inch diameter located in such a manner that TORC Series tech can see and identify spool. If inspection hole does not exist, crew chief will remove differential for TORC Series technical inspection.

**11. TRANSMISSION**

**A.** Automatic transmissions must operate through a conventional torque converter.

**B.** Manual shifting of all transmissions is mandatory, unless other method need be employed for handicap condition of driver. TORC Series technical director must approve all non-manual shifting procedures.

**C.** Auxiliary under drive or over drive units may be shifted electronically, but only by manually operated switch.

**12. TIRES**

Refer to COMBINED CLASS RULES (CCR), paragraph 33.

**13. WHEELS**

**A.** Maximum wheel size is 10.0"x 15.0", 10.0"x 16.0" or 9.0"x 17.0".

**B.** Minimum backspacing for all wheels will be 3.75".

**C.** All wheels must be in excellent condition free from cracks or defects that could cause wheel failure.

**D.** All bead lock rings must have recessed bolts only.

**14. RADIOS**

Frequency must be registered with TORC Series.

All PRO trucks must be equipped with a two-way radio and a spotter.

Refer to COMBINED CLASS RULES (CCR), paragraph 37.

*ALL CCR APPLY AS SET FORTH IN THIS TORC SERIES RULEBOOK.*