

# TORC SERIES

## 4 CYLINDER COMPETITION RULES FOR PRO LIGHT 2 WHEEL DRIVE TRUCK

*DEFINED AS-* Vehicles custom built or manufactured as a light duty two-wheel drive 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 Light 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.**

**NOTE:** In the interest of fairness and/or to improve competition and this being a highly competitive class please be advised that adjustments to the rules, motor, engine block, head, weight, plenums, and choke size may be announced within the racing season. Class competitors will be duly advised by TORC Series.

*For the 2010 season TORC/USAC is developing an alternate engine concept to reduce costs. Rules and regulations for this package will be released separately or in Bulletin form as they are developed.*

### 1. CHASSIS

- A. The standardized PRO Light 2WD chassis must be constructed in accordance to approved TORC Series standardized chassis prints.
- C. Frame must be constructed of 3"x 2" rectangular tubing only with a minimum wall thickness of 1/8".
- C. Wheelbase 106 inches as measured with TORC Series certified gauge.
- D. Maximum overall width 74 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 Truck will be measured as they pass over a 10 inch ride height block.
- D. All trucks must be left side steer only. Steering wheel, seat and pedals must be in approximate stock location.
- B. All chassis information such as ride height and tracking width are included in the TORC Series standardized chassis prints.

### 2. SUSPENSION

- A. All four corners must be a coil over suspension.
- B. Sway bars are allowed.
- C. Front suspension "A" arm must be constructed symmetrical about the centerline.
- D. Front wheel travel limit: 12 inches. Rear wheel travel limit: 14 inches.
- E. Four bar suspension only. Rear axle may not rotate separately of the axle housing mounts

### 3. SHOCKS AND BUMP STOPS

- A. Maximum of two shocks per corner.
- B. One spring stack per corner, maximum of two 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 may only be attached to the chassis of the truck. They cannot be attached to any moving suspension parts.

F. Bump stops will be allowed on front and rear of the truck. Bump stops will only be legal if they absorb the last 3 inches of upward compression.

#### 4. *RIDE HEIGHT OF TRUCK*

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

#### 5. *WEIGHT OF TRUCK*

- A. All trucks using individual runner intake manifolds must weigh a minimum of 2,800 pounds including driver and equipment.
- B. All trucks not using individual runner intake manifolds, including those using plenums or balance pipes, must weigh a minimum weight of 2,875 pounds.
- C. All Fords running the short deck block using individual runner manifolds must weigh a minimum of 2,750 pounds. All short deck Fords using a plenum or balance pipes must weigh a minimum of 2,800 pounds.
- D. Minimum front axle weight is 45% of total truck weight.
- E. All trucks must meet minimum weight and front percentage both pre and post race.

#### 6. *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. Roofline, Rocker panels and top of bed side must parallel to the horizontal frame members.
- C. Tires must retract into fender wells.
- D. Hood must be locked down with five positive pin fasteners equipped with clip cables. Three must be evenly spaced across the front of the hood and two placed in the rear corners of the hood.

#### 7. *ENGINE BLOCK*

- A. Four cylinders only.
- B. Maximum displacement:
  - 1. Two valves per cylinder - 2700cc (164.7ci).
  - 2. More than two valves per cylinder - 2500cc (152.5ci).
- C. Engine block must be of the same material as delivered by manufacturer and available for sale in the U.S.A.
- D. Engine must be of the same type as installed or optioned by the original manufacturer for stated series of race truck.
- E. Centerline of crankshaft cannot be less than eight inches above the lowest part of the frame rail, as measured from the front of the engine.
- F. Engine must remain in front of truck, no rear engine trucks will be allowed.
- G. Mandatory that the engine block and head be positioned between frame rails as viewed from the top.
- H. Magnetic steel crankshaft only.
- I. Blocks may not be modified by addition of material.
- J. TORC Series Technical Director must approve all manufacturer engine blocks.

#### 8. *ENGINE OILING SYSTEMS*

Dry oil sumps are allowed.

#### 9. *ENGINE HEADS*

- A. TORC Series Technical Director must approve all engine heads. Tech must have each approved head in inventory before said head can be used in competition.
- B. Aluminum heads are permitted.
- C. Valve location cannot be changed. Valve angle cannot be changed from stock location.
- D. No welding or material added except for repairs without TORC Series technical approval
- E. Spark plug location cannot be changed.
- F. Modification to combustion chamber allowed.
- G. Cam location and mounting cannot be changed.

## 10. CARBURETOR

- A. All trucks will run a maximum of two Weber side draft or down draft carburetors.
- B. All trucks using individual runner intake manifolds will have a maximum carburetor choke size of 42mm.
- C. All trucks using anything other than individual runner intake manifolds, such as plenums or balance pipes, will have a maximum carburetor choke size of 40mm.
- D. Choke size may be adjusted in the interest of competition.
- E. No modifications to throttle shafts, throttle plates or venturis.
- F. No fuel injection, turbo or superchargers.

## 11. IGNITION SYSTEMS

Only the Electromotive HPVI, HPXI, MSD 6214, 6211, Red Line spec. system or distributor ignition will be allowed.

## 12. ENGINE COOLING SYSTEM

- A. One radiator of any size may be used.
- B. Radiator must remain in front of engine.

## 13. DRIVE TRAIN PARTS

- A. Engine crankshaft must be connected to the transmission input shaft via a conventional clutch assembly or vane type torque converter.
- B. Maximum of three disk clutches may be used
- C. Must be in stock order, engine, transmission, and differential via a drive shaft.
- D. Rear differential must be spool type only, and approved by TORC Series technical director.
- E. 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.

## 14. TRANSMISSION

- A. Maximum five forward speeds manual.
- B. Automatic transmissions limited to four forward speeds and must operate through a conventional torque converter.
- C. 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.
- D. Manual transmissions must have neutral between each gear. Shifting must pass through neutral each time a gear is advanced or decreased. Sequential shifting is illegal.
- E. Remote accessory drives are not allowed.

## 15. TIRES

D.O.T. tires are mandatory. Refer to COMBINED CLASS RULES (CCR), paragraph 33.

- A. Maximum tire size will be 32" X 11.50" as indicated on tire. Metric tires may be used so long as they do not exceed the maximum tire size indicated above.
- B. Tires will not be allowed if circumference exceeds 101".
- C. Tires will be measured without load of vehicle.
- D. Tires will be measured from their widest and highest point, inflated to 35 PSI, mounted on a ~~standard 8 inch wheel~~ **race ready wheel**.
- E. No inner liner allowed.

## 16. WHEELS

- A. All wheels must be in excellent condition free from cracks or defects that could cause wheel failure.
- B. All bead lock rings must have recessed bolts.

## 17. 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.*