

TORC SERIES

COMPETITION RULES FOR

SPORTSMAN LIMITED 4X4 TRUCK

DEFINED AS- Vehicles built or manufactured as a four wheel driven type pickup or SUV, capable of being driven through the front wheels. Vehicle must be a standard manufacturer production model available to the general public in the United States, produced in amounts of a minimum of 5,000. Manufacturer body styles and engines must all be from the same manufacturer. Limited 4x4 is considered a spec division regulated by the following rules as well as all CCR and Safety Rules. Division rules supersede CCR.

Race Numbers are 400 to 499.

In 2010, PRO 4WD trucks will be allowed to participate in this class under the following conditions:

- A. Trucks must use an open front differential and weigh 10.5 lbs. per cubic inch displacement.**
- B. Trucks must use a legal Limited 4x4 or Limited 2WD engine package.**
- C. Trucks must use an automatic transmission and class legal D.O.T. tires.**

2. CHASSIS

- A. All frames must be built to the TORC Series spec design. (See Chassis Specifications in this section)
- B. Wheelbase of 113 inches, +/- one inch.
- C. Maximum overall width is 86 inches, outside of tire to outside of tire at the widest point.
- D. Overall width will be measured with all tires inflated to 20 PSI.

1. SUSPENSION

- A. All suspension components must be built to the TORC Series spec design. (See attached)
- B. No limits or restrictions on ball joints, spring rate capacities or pivot point bushings.
- C. Front wheel maximum wheel travel limit is 14 inches.
- D. Rear wheel maximum wheel travel limit is 16 inches.
- E. All four corners must be coil over suspension.
- F. Sway bars are allowed.

3. TRUCK WEIGHT

- A. Minimum vehicle weight is 3,600 pounds with driver.
- B. Weight is subject to change in interest of competition.

3. TRUCK BODY

- A. All fender and box side mounts must be a looped design.
- B. Roofline, rocker panels, and the top of the box sides must be parallel to the horizontal frame members.
- C. Fenders may be flared to outside of the tire.

6. ENGINE BLOCK

- A. All engines must use an OEM design cast iron block.
- B. Block must be available to the general public and had been made in quantities of at least 1,000.
- C. Dry sumps are allowed.
- D. Oil pan must have a $\frac{3}{4}$ inch inspection hole.
- E. Maximum engine setback is 40 inches measured from the bottom of the back of the block to the center line of the front upper A arm rear mount.

11. ENGINE

For 2010 this class will be allowed to use the Limited 2WD engine specifications. Vehicles using this option must weigh 10 lbs. per cubic inch displacement.

A. TORC Series spec. engine package.

1. 364 cubic inch maximum displacement.
2. No titanium or composite materials allowed other than the valve spring retainers.
3. Only TORC Series spec. Brodix heads are allowed. Serial numbers must remain intact.
Part numbers are: Chevrolet # SP-CH-WSORR
Ford # SP-FO-WSORR
Mopar # SP-MO-WSORR
4. No grinding, polishing or altering of any kind. The only alteration allowed to cylinder heads is for push rod clearance and to install a shaft rocker system. Use of any substance that may change or alter the shape or size of ports or combustion chambers is not allowed.
5. Valve guides must retain original angle and spacing as manufactured. Valve guides may not be tapered, thinned or shortened in any way. The maximum valve size is 2.080 intakes and 1.600 exhausts. Valve seat angles are to remain as manufactured within ± 1 degree. Minimum valve stem diameter is 11/32 inch.
6. Minimum combustion chamber volume allowed is 62cc. Cylinder heads may not be angle-milled more than 1 degree.
7. Flat top pistons only.
8. Lifter bore size must be stock.
9. No welding or material added to the block or heads allowed. Heads may only be repaired by Brodix, Inc.
10. Teams wanting to use a body not brand specific with the above motor packages may do so with written permission from the body design manufacturer. Valve covers must have generic logo or a logo the same as the body. Example; Toyota body, Ford/Brodix engine package with Toyota decal on the valve covers would be allowed with permission from Toyota.

B. E 85 ethanol fuels will be allowed as sold to the general public. No additives are allowed.
See Combined Class Rules Paragraph 27 for all fuel rules.

14. Ignitions

MSD ignition box must be used using a 7,800 RPM chip. All wiring must be exposed.

7. CARBURETOR and INTAKE MANIFOLD

A. Engines must use a single four (4) barrel carburetor. The maximum height limit is 7 1/4 inches from the valve galley rail to base of carburetor. Spacer may have four (4) holes or open plenum. No other devices may be used to increase or redirect air flow.

B. No modifications to the intake manifolds are allowed. Manifold must be used as produced by the manufacturer.

List of approved intakes are as follows: GM –Brodix # HV1000
Ford- Edelbrock #2981, 2980 or #2921
Mopar- Edelbrock #2915

C. No tubos, super chargers or Nitrous oxide.

8. FUEL INJECTION

Fuel injection is not allowed.

9. DRIVE PARTS

A. Engine to transmission adapter plate can be a maximum of 1/2 inch thick.

B. Auxiliary under drive and overdrive units are not permitted unless specified by TORC Series.

C. Motor crankshaft must be connected to transmission input shaft via a vane type torque converter.

D. Must be in stock order, engine, transmission, transfer case, differential via a drive shaft, engine must be in front of truck.

- E.** American Axle 9.25 inch “open” front differential must be used and have a 1 1/2 inch inspection bung. GM, 1999 to 2006 ¾ ton truck inner and outer front CV joints must be used.
- F.** The rear differential must be spool type only and approved by TORC Series Technical Director.
- G.** Rear differential must have a minimum of 1 ½ inch inspection bung placed in such a manner that TORC Series Tech can see and identify spool.
- H.** Any transfer case can be used.
- I.** Independent rear suspension is not allowed.
- J.** Rear axle may not rotate separately of the axle housing mounts.
- K.** No additional parts can be used in the drive line to increase performance in any way.

10. TRANSMISSION

- A.** GM Turbo 400 only and 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.

12. TIRES

Refer to COMBINED CLASS RULES (CCR 33.)

- A.** Maximum tire size of 33 x 12.50 or metric equivalent. Size and compound must conform to industry standards. A tire with an extreme variation of a durometer reading when compared to others being used will not be allowed.
- B.** Only D.O.T. tires are allowed.
- C.** Inner liners are not allowed.
- D.** Minimum air pressure on the starting line must be 13 PSI.
- E.** Equipment used to adjust air pressure during the race is not allowed.

13. WHEELS

- A.** Maximum wheel size is 10”x 15”, 10”x 16” or 9”x17”
- B.** Minimum backspacing for all wheels will be 3 ¾”.
- C.** All wheels must be in excellent condition free from cracks and 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.

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

ALL CCR APPLY AS SET FORTH IN THE TORC SERIES RULEBOOK.

Chassis specifications

All bare chassis must be supplied by TORC Series or its supplier. All trucks will be thoroughly inspected, numbered and tagged before they will be allowed to compete. This chassis is not to be considered a finished product. Teams are responsible to add material for their individual safety and durability needs and to meet or exceed all TORC Series rules. The basic chassis (as seen below) including the frame, front suspension arms and spindle upright as well as the rear suspension arms can be reinforced but the basic design can not be altered in any way. All of these parts must come from TORC Series or its supplier.

TORC Series is working closely with many suppliers to get you the best pricing available for this project. All savings will be passed along directly to our race teams. No profit will be realized by TORC Series pertaining to the building or maintenance of these trucks.

