

SWOTPA RULE BOOK - 2008 TO 2010

Two-Wheel Drive Truck Rules

Class Representative:	Jack Urquhart
Drawbar Height:	30 inches
Drawbar Length:	18 inches
Maximum Weight:	6200 pounds maximum
Prize Money:	\$350 per class (when 2 classes are sanctioned with a minimum of 3 trucks per class)

1. Trucks will follow National Tractor Pullers Association (NTPA) rules as follows.
2. No blowers allowed.
3. No alcohol allowed.
4. Trucks must be naturally aspirated, carburetor only, maximum two (2).
5. A safety inspection will be mandatory before being allowed to hook to the sled.
6. All trucks must have the same engine that matches the make and model of body.
7. Trucks will pull 6200 pounds including the 200lbs movable weight.

The following is reprinted from the 2008 NTPA Rule Book.

A. Body/Chassis

1. The maximum length of the vehicle is no more than 15 feet from the centerline of rear axle to forward-most portion of the vehicle including weight racks.
2. The 15-foot from centre of rear axle overall rule will apply to all TWD vehicles with the exception of a 10-inch over-length allowance for cosmetic fiberglass only. No steel structure, re-enforcement, or steel bumpers allowed past 15-feet. Tow hook to be consistent with 15-foot rule.
3. Must run a minimum of 14-inch front rims with an automotive or front tractor tire.
4. Any wheelbase is permitted.
5. Front wheel and axle to remain in the visual centre of the front wheel well forward of front wheel. Maintain minimum of 2 inches of complete original type wheelhouse forward of front wheel. Must be able to see forward most part and rearward most part of tire from a side view.
6. Maximum width of vehicle is 8-feet.
7. Weights are not to extend forward to a maximum length stated in Rule A:1 above, nor rearward more than 12 inches from hitch point and must not interfere with hitching and unhitching of vehicle.
8. Any factory production body truck or van is allowed, including passenger-type bodies.
9. Funny car-type body and/or fibreglass body must have escape hatch or doors in top or back of body.
10. Vehicle must have a presentable van/pickup bed with cover or flatbed in place.
11. Chassis (frame) may be truck frame or fabricated frame like Modified tractors.
12. Vehicle must have hood, grill and fenders in place as intended by manufacturer.
13. Vehicle body style must be or have been available from a dealer as mass produced.
14. Vehicle must maintain original appearance.
15. Vehicle appearance:
 - a. Fibreglass hood scoops, spoilers, fender flares are allowed.
 - b. Allowed to use stock appearing pickup truck and van fibreglass bodies and body parts.
16. Driver must be in original driver compartment.
17. Side doors must be mounted and closed if vehicle was manufactured with doors.
18. Vehicle doors must have single latch design, allowing the door to be opened from both inside and outside.

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19. Flip-to-body type vehicles and vehicles that do not have two (2) working doors must have door glass lowered or removed while under green flag.
20. Vehicles with less than stock size window openings must have an escape hatch with a minimum size of 17-inches x 18-inches or large enough for driver to exit.
NOTE: Escape hatch will not be counted as a working door.
21. All TWD vehicles must have a presentable front windshield of glass, plexiglass or lexan. Factory-tinted glass acceptable. Stained or smoke glass not allowed. Tinted windows that impair track official's view of drivers compartment not allowed.
22. Vehicles in this division must have vertical bumpers at the rearmost point of the vehicle. Bottom of bumper is to be a minimum of 24-inches from the ground. Bumper to extend a minimum of 8-inches vertically.
23. Hood line variance: original hood line should be kept and a 3-inch maximum clearance opening will be allowed for speed equipment.

B. Driveline/Clutch

NOTE: Engine to clutch to transmission to be constructed like Modified tractor

1. Torque converters, automatic shifts, etc. are permitted.
2. No electronic, pneumatic or hydraulic device that effects the clutch system allowed. All staged or variable released clutches of any description prohibited. (This does not effect slave cylinder for clutch pedal.)

C. Driveline Shielding

Without planetary rearend:

1. If planetary rearend is not used, transmission to final drive must be like FWD trucks.
 - a. Vehicle must have three (3) round metal loops shielding on each drive shaft (two-piece drive shaft must have six metal loops).
 - b. 360 degree loop must be a minimum of 3/8-inch aluminum or 5/16-inch steel, 3/4-inch wide (or wider) and not more than 2-inches from the shaft in any direction.
 - c. End loops to be placed no farther than 6-inches from universal joints, with third loop in centre of shaft.
 - d. May use solid tube (3/8-inch aluminum or 5/16-inch steel) to meet the above requirements.
2. Drive shafts between engine and transmission must have solid shielding a minimum of 3/8-inch aluminum or 5/16-inch steel.
3. Vehicle must have 360-degree metal shield around the universal joints, 3/8-inch aluminum or 5/16-inch steel, minimum width 6-inches.
NOTE: If a split design is used, mount as in rule 6:a above
4. Axle and hub bolt shield required, except where planetary final drives are used.
 - a. Shield must be at least 0.060-inches thick.
 - b. Minimum diameter of axle end or hub bolts to be covered on both front and rear axles.
 - c. Mounting shield may not be mounted to axle end or hub bolts.
 - d. A hole may be installed in centre of front shield so lock can be operated, so long as hub end or axle bolts are covered.
5. No counter balancers permitted in driveline.

With planetary rearend:

6. If planetary rearend is used, transmission to final drive must use Modified tractor shielding.
 - a. All remaining drive train, excluding additional manual transmissions, must be

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enclosed in 5/16-inch minimum steel or 3/8-inch aluminum, round inside diameter not to exceed 2-inches more than outside diameter of the largest universal joint, fastened every 6-inches or closer, with 3/8-inch or large bolts (Grade #5), or butt and seam welded, and securely mounted to vehicle's frame. Applies to all vehicles with exposed drive shaft. No more than 1/4-inch of end of driveline shall be visible with driveline shielding in place.

NOTE: If U-joints are used in any drive shaft application, the shielding must be 5/16-inch steel or 3/8-inch aluminum with 1/8-inch steel insert in aluminum. The insert must be a minimum of 6-inches wide.

b. All TWD vehicles engine/automatic transmission, combinations must have either:

- (i) two front engine mounts
- (ii) *two rear engine mounts and a support saddle at rear of engine, with 1/2-inch clearance and a mount at rear of transmission.*

NOTE: *This is to prevent engine or transmission from dropping if breakage occurs.*

7. TWD vehicles with a drive shaft of 60-inches or longer must have a minimum 2-inch nylon strap in the middle of that span to secure the drive shaft shield to the frame.

D. Engine/Engine Limitations

1. Vehicles are limited to a single automotive-type engine.

Note: automobile engine is any engine or its replica available in a passenger car. Maximum eight (8) cylinders. A replica to be considered legal must accept and swing a stock crankshaft. No diesel engines permitted.

a. A limit of 575 cu. in. and two valves per cylinder.

2. Engine must be in stock location which is defined as being within engine compartment as manufactured, behind stock grill and in front of stock firewall.

3. Vehicle may run without radiator, and engine may be moved forward, but engine must stay behind the grill.

Note: Entire engine to mean anything that is bolted to the engine block.

4. Except for high performance-type started with crankshaft drive, rear of engine block may not be moved forward of centre line of front axle.

5. No pressurized systems.

6. Competitor must disable one ignition system by means other than a switch: (i.e. removal of spark plug wires on either end or by removal of the distributor for that system)

7. Fuel injection (and carburetors) and headers may protrude through the hood.

Note: Bubble or scoop is optional, but if used, the scoop or bubble must cover the carburetor(s) of fuel injection, if induction system protrudes through the hood.

8. Vehicle must have vertical exiting exhaust. Height of pipe must be a minimum of one foot above the bend.

Note: Vertical is defined as "being in plumb" with a 10-degree variance in any direction permitted.

E. Frame

1. Tubular steel frame is allowed.

F. Hitch

1. Vehicle must have floor or bed cover.

2. Vehicle may compete without tailgate or rear door(s) for greater hook point visibility.

3. No portion of vehicle may interfere with sled, chain or hook during pull or while being hooked or unhooked.

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4. An area of 5-inches wide and 12-inches high immediately above and below the drawbar must be free of all obstructions (including weights, wheelie bars and second drawbars) for ease of hooking and unhooking.
 - a. If body extends more than 12-inches behind point of hook, the open area must be 18-inches above drawbar and 24-inches wide at rearmost point of body.
5. Vehicle must have tow hitch on front of vehicle.
 - a. It may extend no more than 6-inches ahead of the farthest-most front portion of the vehicle.
 - b. It will not be counted when measuring length of vehicle.
 - c. It must have a 3-inch diameter hole positioned horizontally.
 - d. It must be strong enough to push or pull the vehicle at its heaviest weight.
 - e. It is to be used only for pushing or pulling the vehicle.

G. Safety

1. Vehicle must have a complete firewall with no holes except for controls. Holes not to exceed 1/2-inch larger than control.
2. Vehicles that do not have working doors must carry an onboard halon fire system with a minimum of three (3) nozzles located within the driver's compartment/engine compartment.
3. Flip-top or funny-car type vehicles must have body in lowered position before the vehicle may be moved under its own power.
4. Flip-top type bodies must have a safety lock to hold up the body.
5. Body may be raised to start engine and may stay in raised position while engine is running as long as vehicle is not in motion.
6. Operator's compartment
 - a. No radiator, heat exchanger, and/or water hoses allowed inside operator compartment.
 - b. If battery is inside operator's compartment, it must be safely enclosed and securely fastened.
 - c. No fuel tanks, fuel pressure gauges, fuel pumps and/or fuel lines inside operator's compartment.
 - d. If fuel tank is located behind the driver, a fire barrier is required from the firewall to the rear of the driver's seat. (0.060-inch aluminum or steel is acceptable fire barrier material.)

H. Tires

1. *Maximum tire size is 18.4x16.1* with a maximum of 143-inch circumference when mounted on an 18-inch rim and inflated to 28psi. The ground patch is not to exceed 19-inches based on original tread.