

# **SCTPA Limited Pro 3.0 Diesel Truck 2021**

Credentials: The vehicle is to be four-wheel drive. Pulling vehicles may be held for post competition tech inspection. Failure to abide may result in a DQ. Final decision of legality resides with Snyder County Tractor Pullers Association (SCTPA) head tech official.

1. Maximum weight 8000lbs. (Dry weight 7900# for ice allowance at scales.)
2. The OEM chassis is mandatory. The vehicle must retain a full  $\frac{3}{4}$  or 1-ton size chassis. Wheel tubs, back-half conversions, tube chassis prohibited. Maximum wheelbase 158" and 102" maximum width. (outside tire to outside tire). Rigid suspension allowed. Hydraulic steering permitted.
3. The body must be OEM truck body, including full metallic floor pan but may have access panels that bolt securely to OEM floor, and must retain complete OEM firewall. Bed floor may be removed, but bed must then be covered. No flatbeds permitted. The body must retain full metal. Aftermarket steel hoods are permitted. The must be closed and securely latched while hooked to the sled.
4. Maximum engine size will be 460 cubic inch. Engines must come from factory in one ton or smaller diesel pickup truck. Engine must remain in stock location as intended by manufacturer. Engines may be interchanged between manufacturers. No aftermarket blocks permitted. Head must be OEM or OEM one piece cast replica for that brand engine. No billet heads of any material including cast. Outside dimensions of cylinder head must measure factory width and length. Head must retain OEM valve angle. All engines turning 4500 RPM and higher must be equipped with a harmonic balancer or damper meeting SFI Spec 18.1.
5. Front of engine block can be no farther forward than 17" of center line of front axle.
6. Engine must have cable surrounding block and head. Cable must be minimum 1/4" diameter located between cylinders #1 and #2. Cable must pass thru manifolds. Cable will have 4-6" of slack with a minimum of 2 cable clamps at splice.
7. All engines will have a deflection shield, running the complete length of the block casting. Shield must be securely fastened and must be .060" thick. (This equates to a steel inner fender).
8. Hook point must be no closer than 44" of center line of rear axle, hitch height maximum of 26 inch, with a minimum of a 3.75" X 3.0" opening. Hitch point must be easily accessed. No "trick" type hitches permitted. Hitch must be stationary in all directions. Hitch must be frame mounted. Hitch must be mounted center line of rear axle or behind. Hitch must not exceed a maximum of 25° angle from pivot point to hook point.

Drawbar height adjustment link if attached to rear differential housing the attaching point must be at axle centerline or below. No slotting of holes for adjuster attachment. No hitch supports or adjusters fastened to the rear axle housing shall be above the centerline of the rear axle. Pivot pin of drawbar can be no farther forward than center line of the rear axle. **Hook loop must be a minimum of 2.00 square inches total material at any point(1 in x 1 in), must be made of steel, and not more than 1.5 X 1.5 at hook point.** Final decision of legality of hitch resides with SCTPA head tech official.

9. Secondary hitch recommended. Minimum of 3/8" steel, located 12" below primary hitch on the same vertical plane. (You should be able to look directly through both at the same time - they need to be lined up.)

10. Competitors must make provisions at tech officials' request to allow inspection of the compressor wheel and housing. Failure to comply with the request will result in disqualification and banishment until the turbo is re-inspected. (Turbo must be inspected and will receive tamper-proof seal If competing more than 2 times at SCTPA events. This is to be done before the start of the season. If seal is broke, it must be reinspected. If found competing with broken seal, you will be disqualified.)

The turbocharger is smooth faced intake housing, limited to a maximum of 3.0" inlet, (no map ring) with all air entering through the 3.0" opening. Intake wheel must protrude 1/8th inch inside of opening. **Bore will be checked with a 3.005" turbo plug.** Plug must not be able to enter inducer bore and contact wheel. The vehicle driver will be responsible for making compressor wheel accessible for tech personnel to measure bore and inspect compressor wheel if needed. No removable plugs or reducers allowed reducing to legal spec. A SCTPA Legal 2.6 Smooth Bore Turbo charger is permitted in the class. Failure to abide may result in a DQ. Final decision of legality of turbo resides with SCTPA head tech official. Anyone running for Points must have tamper-proof seal on charger.

11. All vehicles must be equipped with upward pointing exhaust located either directly behind cab or out of truck hood. **Two 3/8 inch diameter bolts must be placed through the exhaust pipe in a cross pattern** within 1" inch of each other and no more than 6" inches away from turbo outlet.

12. Intercoolers allowed. Dumping or draining intercoolers without a catch pan within 100 feet of competition track is prohibited.

13. Water injection is **prohibited**. All components must be removed from the truck.

14. Safety switch (guillotine) must shut off air to diesel engines. Switch will be securely mounted to back of vehicle. A 2 inch or bigger solid ring must be attached to end of switch. Ring must be zip tied to switch bracket. Switch must also be able to be activated in the cab while driver is secured in vehicle.

15. Maximum of one P-pump up to P7100 allowed. Ag governors permitted. The use of multiple high pressure common rail fuel pumps is legal. Multiple HPOP is legal. Electronic fuel injection is permitted. A 3-way dump valve mounted before the injection pump is mandatory which can be operated by the driver while strapped in the seat.

16. Hand throttles are permitted. Throttles will have a dead man throttle that will automatically return to a closed position. Throttles will work in a forward to reverse motion, forward being open. Two springs will be required on the hand throttle and one spring on the fuel injection pump. Diesel fuel only. No propane, NO<sub>2</sub>, or any other oxygen enhancers or compressibles allowed. No water injection permitted.

17. All drivers must have valid driver license. **A full fire suit SFI jacket, pants, helmet, and seatbelt/restraint must be worn.**

18. Tires must be DOT approved with a maximum size of 35x12.50. No studded tires or tire chains. No alterations to tires permitted. No bar or terra tires. Dual rear wheels are permitted on rear axle only. Maximum of 6 tires.

19. Front hanging weights are allowed. They must not exceed 60 inches forward from the centerline of front axle. Ballast may be added in the bed of the truck but must be securely fastened. Maximum weight including driver is 8000 pounds.

20. Drive train will consist of the following: Any front axle, any transfer case and any rear axle. No planetaries permitted. Any form of hydraulic steering permitted.

21. Suspension -Traction bars and devices are permitted. Raising or lowering of vehicle height with suspension modifications is permitted. No air bags. Rear suspension may be made solid (welded or bolted).

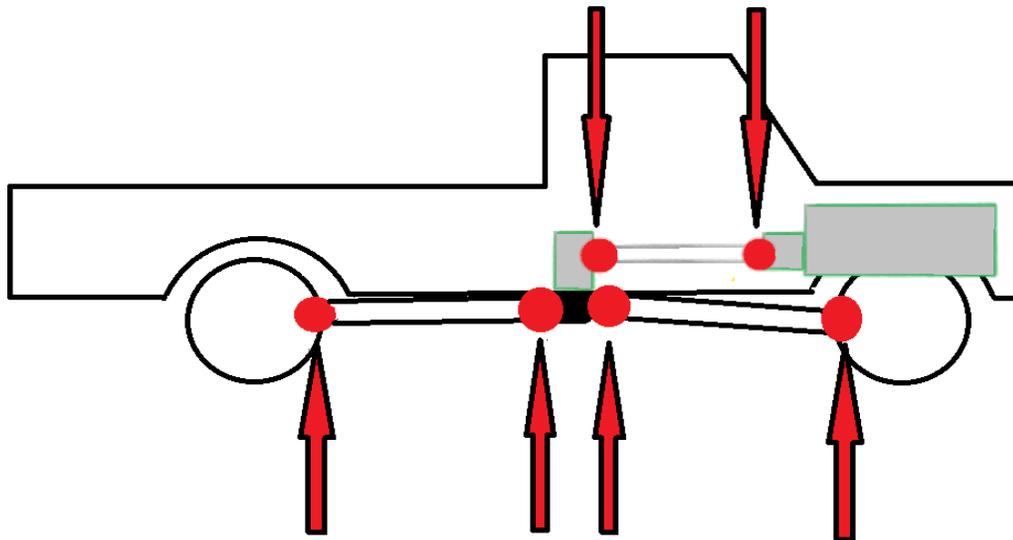
22. Axle shields are required. Shield to be .060" thickness. Shield not to be mounted to axle ends or hub bolts. A hole may be cut in one to allow locking in of hubs.

23. Transmission, Automatic: Non-OEM transmissions are **permitted**. Aftermarket torque converters, valve bodies and internal components are permitted. Any non-OEM floor-mounted automatic transmission shifter must be equipped with a spring-loaded positive reverse lockout device to prevent the shifter from accidentally being put into reverse gear. A functional neutral safety switch is mandatory. All transmission lines must be metallic or high-pressure-type hose. All vehicles with engines running 4500 RPM or more and using an automatic transmission must be equipped with a transmission shield meeting SFI Spec 4.1 and must be labeled accordingly. A blanket-type shield is permitted; it must be appropriately labeled as meeting SFI Spec 4.1 and it must extend from the rear of the block to the front of tail housing with a minimum six-inch overlap where it is fastened. All non-blanket-type shields must incorporate two (or one, per manufacturers instructions) 3/4 inch by 1/8 inch straps that bolt to the shield on each side and pass under the transmission pan unless the transmission pan is labeled as meeting SFI Spec 4.1. All vehicles with engines running 4500 RPM or more and using

an automatic transmission must be equipped with a flex plate meeting a Minimum SFI Spec 29.1 and be covered by a flex plate shield meeting SFI Spec 30.1

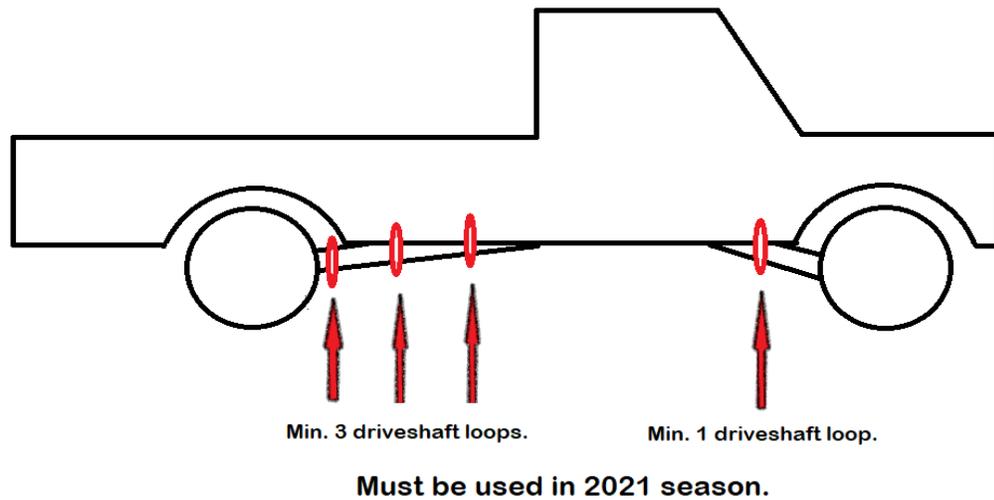
**24. Transmission, Manual:** Non-OEM transmissions are **permitted**. Aftermarket internal components are permitted. A clutch meeting minimum SFI Spec 1.1 or 1.2 is mandatory on all vehicles. All manual transmissions must be clutch assisted. Sequential shifters are prohibited. All vehicles equipped with a manual transmission must have a flywheel shield labeled as meeting minimum SFI Spec 6.3 or greater. Applications for which an SFI Spec flywheel shield is not available may use a properly attached SFI 4.1 or 4.2 blanket that completely covers the bell housing; it must be attached to the block and extend rearward to the transmission with a minimum six inch overlap where it is fastened.

**25 A. All trucks must have at least six-inch-wide u-joint shield around EVERY u-joint constructed of at least 1/4 -inch steel or 3/8 aluminum that will safely contain the u-joint and the end of the driveshaft. All shields must be securely mounted to vehicle.**



**MUST BE COVERED FOR 2021 SEASON.**

**25 B. Minimum of 3 driveshaft loops on rear driveshaft and as many as practical (minimum of 1) on front driveshaft evenly spaced. Constructed of at least 1/4 inch steel or 3/8 inch aluminum that will safely contain the drive shaft.**



26. Front brakes are mandatory.

27. A fire extinguisher system is permitted. Minimum of a **2.5# fire extinguisher** must be securely mounted within reach of driver. A complete OEM firewall is required.

28. Additional gauges and pillar pods are permitted. A single aftermarket seat is permitted but must be equipped with a safety restraint system. Cab may be gutted.

29. The batteries must be securely mounted. They may not be located in the driver compartment or forward of weight bar. Master Disconnect Recommended.

\*\*\*All interpretation of these rules lie with the SCTPA Tech Officials and their decision is final.\*\*\*