8000 Diesel Pro Stock Tractor

Rules apply through 2027 Season

Purpose: To build a Super Stock Tractor class that is appealing to our spectator. That will enable the TTPA to promote a wider verity of options to our promoter. Build an entertaining class that is affordable to someone that would like to start with an entry level "Pro farm Class".

Scope: To encompass a wide array of pullers that will build off former TTPA Super Stock Tractors.

Note: These rules are considered "maximum limitations" for the 8000# Diesel Pro Stock Tractors that pull in this class.

If our rules don't identify something you may want, DO NOT Assume and Ask Later as you will be in violation of the TTPA disqualification General Rules. The TTPA Board of Directors must approve Any & All requested changes.

Engine / Drive Train Specifications:

Engine means: Engine Block, Engine Heads, Cylinder, and Crankcase.

1. Maximum cubic inch allowed is 410 or a 315 twin charger, only the factory variance of sizing is allowed.
    a. Cummings (B Model) 360 cubic inch.
    b. No de-cubing per Board approval.
2. Engine head must be OEM agricultural-type for that brand engine.
3. No overhead cams allowed.
4. Manifolds:
    a. OEM manifolds for same brand block.
    b. No spacers between manifold and head.
    c. No tubing or box type Dimensional Head & Manifolds must be OEM Appearing.
    d. No intercoolers / after coolers.
    e. If an OEM intercooler manifold is used, it must be disconnected from all cooling means.
    f. No CO2 or any other means of cooling the air in the piping or manifold.

    Note: Alteration for turbo mounting allowed.
5. Maximum 2 valves per cylinder.
6. All components must bolt on in the original locations from the manufacturer, without modification.
7. Engines may be swapped for like engines. Example: Oliver 88 may use an Oliver 1800 engine; International 806 may use an 856 engine. John Deere 4010 may use a 4020 engine. As long as the cubic inch remains 407 or below.
    a. OEM adapter plates only.
8. Heads must be OEM and must look stock to the eye however after-market work can be preformed internally to the head, including Valve Train, Cam, and Pistons. Example no JD 55 series head.
9. TTPA cubic inch Tech is mandatory if there is not an existing seal.
10. Primary Fuel supply can have only one type, electrical or mechanical! You must have one or the other, not both combos. With one (1) regulated stable constant pressure fuel system, including the regulator, which no part of the fuel system can be adjusted, or be in reach from the driver's seat or driver platform. All adjustments must be made while standing on the ground (OFF) the tractor.
    a. The maximum size pump for diesel injection is a Bosch P-3000 or P-7100 with one (1)-13mm maximum pumping unit per cylinder.

11. Pump Tech is mandatory if there is not an existing seal.
12. Electric fans & Electric water pumps allowed.
13. Torque amplifier allowed but driver cannot shift during pull. Effective 2008 season.

Fuels: (See General Fuel Rule)

1. Diesel fuels only.
    a. Any diesel fuel that pass current NTPA Fuel Spec. 150 dielectric specification.
2. No pressurized fuels allowed. Example: LP gas
3. No nitrous allowed.
4. No nitrous paraphilia allowed on tractor. Functional or non-functional.
5. No Fuel fogging allowed. Period!
6. No ice or ice injection allowed or injected into any part of the fuel system, intake manifold, radiator, or any engine compartments. No ice period, anywhere on the tractor.
7. Water injection is allowed. No oxygen carriers or combustion accelerators.

Engine RPM's:

1. 3500 maximum RPM's – variances may be given by Board for competitive purpose.
2. Mandatory working governor will be RPM checked by TTPA Tech Official.
3. RPMs cannot be regulated (adjusted) off the hand and or foot throttle. All adjustments must be made from off the tractor at the pump.
4. The TTPA Tech Officials have the authority to pull the throttle for all Tech / RPM checks.
5. The owner / Driver is responsible for placing reflective tape on his/her flywheel / harmonic balancer for the RPM tech check.

Turbo's

1. Base bolt pattern will be no longer than 2.75 X 3.5 inches, or the metric equivalent of 69.85 X 88.9 mm.
    a. The compressor inlet measurement to be measured at the face of the wheel a maximum of 2.5 inches. Tips of wheel must protrude into opening at least 1/8 inch. ***Note:*** *Housing may use a reducer or slug if welded in place. No setscrews or previsions to remove slug. Tip of wheel must protrude into opening.*
    b. The exhaust outlet measurement to be measured at the face of the wheel a maximum of 2.8 inches. Tips of the wheel must protrude into 2.8 inch opening at least 1/8 inch. ***Note:*** *Housing may use a reducer or slug if welded in place. No setscrews or previsions to remove slug. Tip of wheel must protrude into opening.*
2. No throat reducers allowed in the throat area. A tight slip fit 2.5 diameter on the cold side wheel inlet, from the air cleaner, and a tight 2.8 diameter on the hot out to the valves outlet compressed side will be allowed. Anything used bigger than a tight slip fit is illegal. Or in metrics, 63.50 X 71.63 mm respectively. (See 3A & 3B 2009)
3. Only the air that passes through the smooth bore inlet opening is legal. No back cover cheaters allowed.
4. There will be no welding, or alterations in the foot turbo.
5. Turbo inlet / exhaust opening's need to be accessible for spot checks.
6. 315 cid or less is allowed 2 turbos (same turbo rule as 3A & 3B) Added for 2008 season.
7. All turbos will be teched and tagged before the start of the season, along with spot checks throughout the season.
8. Mandatory turbo tech by TTPA Tech Official. If sealed, does not need to be teched.

Tractor OEM Stock Appearing

1. Hood, Grill, Frame, Transmission, Rear Axles, Clutches, Brakes; Must be stock appearing and dimensional for that make and model. (See # 2 & 3 exception)
    a. Tractors are allowed to make sheet metal change as long as it stays on the original manufacturer. (Example JD on JD, IH on IH, ECT.)
    b. Chassis must conform to engine being used. Must remain factory OEM clutch housing, transmission case, rear end housing, and axle housing.
2. A tip-up hinged hood is acceptable. Hood must be hinged on the inside of hood, not seen by the eye.
3. A bubble or hood modification may be added to the hood only if space is needed for a turbo to be installed. The bubble or hood modification must be integrated into the hood to look factory finish. ('Finish look' is at the Board's discretion to look better, if need be.)
4. Homemade front axles are allowed.
5. Wide fronts only. No narrow front allowed.
6. Three point hitches are not allowed on the tractor. All hitches must follow N.T.P.A. hitch rule.
7. Brakes must be as good as original OEM, or better. Aftermarket brakes allowed.
8. Weights must not exceed rearward beyond the back of rear tire. A maximum of 114 inch wheel base is allowed unless tractor was originally produced with a longer wheel base. In the later case, the wheel base must remain stock. A maximum length of 13 feet from the center wheel axle to the forward most point of the tractor, including weights.
    a. No three point weight brackets allowed.
9. No differential locks will be allowed in competition and shall be deactivated at all times.
10. Any alterations to the chassis shell or the stock appearance must have approval.
    a. A covered stock appearing tube frame to include tie bars (Follow Current NTPA Specs).

Tires and Rims:

1. Rear Tire – Maximum size tire shall be 18-4-38.
2. Maximum width of rear rim shall be 18".
3. Rear chrome and aluminum rims allowed.
4. Front Tire – any size farm tire.
5. Front tire centerline must track on the inside line of the rear tires.
6. Front Tire Rim – steel, steel chromed, aluminum, and race rims allowed.
7. Any cut on tire is allowed.
8. Rear Radial tires are allowed.

Safety:

1. Wheelie bars – NTPA / Pro Farm Rule. Roll Cages (built to SFI specs), tie bars, front ski's, 5-point harness and a detachable steering wheel are mandatory.
2. Must have kill switch – Must kill electrical fuel pump, deactivate the air shut-off, per N.T.P.A. Pro Farm rules. Located in an area on the tractor, that is easily accessible to a TTPA tech, or TTPA track official.
3. All mechanical fuel pumps Must Have three (3) way dump (Diverter) valve.
4. No steel fan blades.
5. Must have factory appearing OEM fenders.
6. Must have 200 pounds of movable ballast weight.
7. Must have Engine side shields.

   a. Tractors with fiberglass hood assembly must add a side shield of .060 steel or aluminum to each side, inside the hood next to the engine compartment securely fastened to the frame. Each shield must be independent of hood assembly and extends vertically to base of the head in height and must be as long as the block in length. In the event of hood being open these shields would remain in place. ***Note:*** *This is in addition to current shielding rules.*
8. Must have "Dead Man" foot & hand throttle. SEE GENERAL RULES.
9. Must have (working) 2.5 LB, Fire Extinguisher (easy access for & by Driver).
10. Must have TTPA mandated RPM hook-up pigtail securely fastened to the rear of the tractor for easy access to the hooker & un-hooker of the TTPA pulling sled. No tractor will hook to the sled without this working devise.
11. SFI Clutches & Flywheels recommended for 2009 and mandatory for 2010. (If not must have blanket.)
   a. Recommended for 2009 and mandatory for 2010. All vehicles will complete an SFI Certification Form to be filled out by the driver with all SFI numbers to have on file in the TTPA Trailer pre-2010 season.
12. SFI Clutch Blankets recommended for 2012 and mandatory for 2013.

Drivers:

1. Driver must be at least 16 years old with valid proof.
2. Drivers will drive at their own risk.
3. Must wear Dot full-face helmet and neck brace.
4. Must wear SFI 3-2 / A1 fire-suit, head sock, gloves and shoes.

Tech Officials are: Divisional Rep & TTPA appointed Tech Official.

Note: All rules are in place for three (3) years, ending, (Post) 2027 Pulling Season. Rules may be changed at anytime for safety, if so desired by the TTPA Board. A non-safety rule can be changed if, 100% of "paid, active & current pulling membership of the class" agrees, and the board gives unanimous approval. By a vote of the Class Rep. and Board, the fairness rule may be instated anytime during the season by way of weight variance, hitch height, RPM & Etc.

Document released (1 year trial rules) January 2001 by A. Childs / TTPA board
Revised & approved - Feb. 2002 for three years. TTPA board
Revised Feb. 2003 - changed Rpm's from 3000 to 3250 Rpm's by class membership vote. Changed name
Approved by the TTPA board: Feb. 22, 2003
Revised &Approved by the TTPA board: April 17, 2004 to reinstate wording (Can use Rear Radial Tires)
Revised & TTPA board approved December 1, 2005 – Highlighted area's in light blue
Revised & TTPA board approved January 20, 2007 –. Engines 6a was added./ Injection Pumps 8a was added / Torque amplifiers 10a was added / Turbo's # 3 become obsolete & 3a & 3b supersede rule # 3./Tractor OEM Appearing Frame &Chassis- 10a was added. / Safety 1a was added
Revised 2/21/09 ~ Revised Rule #7 & #8A – Engines, #7 – Fuel, #1, #4, #8 – Turbo's, #1A – OEM Stock Appearing, #1, #7A&11 – Safety, & #3 – Drivers. Class approved & Board approved 02/21/09. 2nd Reading, March 20, 2009.
Cummings (B Model) 360 cubic inch, Added rule - # 1-B – No de-cubing, Added rule - # 2 – Engine head must be OEM Agricultural type, Added rule - # 3 – No overhead cams allowed, Added rule - # 4 – Manifolds, Added rule - # 4-A – OEM head and manifolds, Added rule - # 4-B – OEM intake and exhaust manifold assembly only, Added rule - # 4-C – No altered or modified manifolds, Added rule - # 4-D – No intercoolers / after coolers, Added rule - # 4-E – If OEM intercooler manifold is used it must be disconnected, Added rule - # 4-F – No CO2 or any means of cooling the air in the pipe, Added rule - # 5 – Maximum 2 valves per cylinder, Added rule – Tractor OEM Stock Appearing - # 1-B – Chassis must conform to engine being used, Revised rule - # 8 – Weights must not exceed

rearward of back tire, Added rule - # 8-A – No three point weight brackets allowed, Revised rule - # 10 – Any alterations to the chassis must have approval, Revised rule – Tires and Rims - # 7 – Any cut on tire is allowed, Added to Note – All rules are in place for two (2) years, (Post) 2011 Pulling Season. & RPM & ECT, Class approved – 01/16/10 – Board approved – 01/16/10 – 1st Reading & 02/20/10 2nd Reading

Rule Revisions ~ 01/14/2012 ~ Revised Engine Rule #1 ~ Changed C.I. from 407 to 410 or a 315 twin charger, Added rule #2-A ~ No cutting of head or intake to gain access to intake (International), Deleted rule #6 ~ Not applicable, Added to Fuel Rule ~ See General Fuel Rule, Added to Safety Rule #1 ~ Front ski's and 5 point harness, Revised Safety Rule # 4 ~ to say, No steel fan blades, Added to Tire Rule #3 ~ Aluminum wheels, All rules in place for three (3) years, (Post) 2014 Pulling Season.

Class approved ~ 01/14/12 ~ Board approved ~ 01/28/12 ~ 1st Reading & 02/00/12 2nd Reading ~ Deleted rule #2-A ~ No cutting of the Head or intake, Revised rule #4-C ~ Dimensional Heads & Manifolds must be OEM Appearing, Added Safety Rule #12 ~ SFI Clutch Blankets recommended for 2012 & Mandatory for 2013.

Revised 01/17/2015 ~ Class Approved 01/17/2015 ~ Board Approved 02/21/2015 ~ 1st Reading & 03/28/2015 ~ 2nd Reading ~ All rules in place for one (1) year post 2015 Pulling Season. Revised Engine Rule ~ Deleted #4-A ~ Head and & same series engine, Deleted #4-B ~ OEM Intake and exhaust manifold assembly only, Deleted #6 ~ External component will be factory original, Deleted #7 ~ No 30 Series JD engines allowed, Deleted # 7-A ~ John Deer may use block, Added #7 ~ OEM adapter plates only, Added #9 ~ TTPA cubic inch tech mandatory, Added #11 ~ pump tech mandatory, Fuels Rules ~ Added #1-A ~ No B-100, Any diesel fuels, Engine RPM Rules ~ Delete #6 ~ No reflective tape, Turbo Rules ~ Deleted #2 ~ No altitude kits, Deleted #3 ~ Inlet, outlet, diameter wheels measurements, Added #2 ~ 000 to measurements, Added #3 ~ 000 to measurements, Added #5 ~ smooth bore, Added #10 ~ Turbo Rule for 1-year, Added #11 ~ Mandatory Turbo tech.

<u>2016 Rule Revisions:</u>

Class voted to leave the rules as is for 3 years post 2018 Pulling Season. Class Approved ~ 09/26/2015 & Board Approved 09/26/2015 1st Reading & 10//24/2015 2nd Reading.

Class voted to leave the rules as is for 3 years post 2021 Pulling Season. Board Approved 02/23/2019.

<u>2022 Rule Revisions:</u>

Fuel Rule #1-A Changed to 2022 NTPA Fuel Spec. 150 Dielectric Spec, Turbo Rule take out extra 0's, Class Rules approved for 3 years post 2024 Pulling Season. Board approved 1st Reading ~ 03/27/2022 & 2nd Reading ~ 05/07/2022.

<u>2025 Rule Revisions:</u>

Engine Rule #1-b: add "per board approval", #10-a: add "or P-7100"; Fuel Rule #1-a remove "No B100" and "2022" add "current". Rules in place for 3 years post 2027 Pulling Season. Board Approved 1st Reading ~ 12/28/2024 & 2nd Reading ~ 01/25/2025.

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