

HOT FARM TRACTOR RULES

Each owner or driver who participates in pulling events operated under these rules is fully responsible for the safety of his equipment. Nothing herein should be construed as a guarantee against injury or death to participants, crewmen, family members, bystanders or spectators. Each participant at a pulling event must assure that their equipment and replacement equipment throughout the season meets the safety requirements for this class.

All 'Hot Farm' tractors must be stock appearing. All hoods, grills, fenders and frame must be stock appearing for make and model being pulled. Tractor must have a stock block or its factory replacement. OEM Stock Head. No Re-Cast Blocks/Heads. Any tractor is subject to a cubic inch check.

A wide front-end is required for all competition tractors.

Diesel fuel only.

No pressurized fuel tanks are permitted in this class.

Water for cooling purposes of the turbo will be permitted. No types of accelerants or oxygen extenders or the like will be permitted.

Tractors must be equipped with steel hitching device not more than 1.5" thick with a 3.5" diameter opening. Cross sectional thickness must be measured 1" min. to 1.5" max. Pulling point must not be more than 1.5" from back edge of the pulling device.

Tractors must hitch to a stationary draw bar with a max. 20" height, and a minimum of 18" from the center of rear axle to the hitch point, a clevis is not permitted.

All tractors must have wheelie bars that are able to support the weight of the tractor.

Any loss of weights or excess fluids or any part of the tractor during the pull, will result in a disqualification. Tarp straps are not allowed anywhere on the tractor.

OEM stock intake and exhaust manifolds must be used for that series engine (alterations for turbo mounting ONLY are allowed). No Recast Pumps

Legality of the injector pump by officials is based on the visual inspection of the outside housing and not the inner workings of the injector pump. No Billet Pumps.

20.8" x 38" " tires the largest allowed with cut tires permitted.

SAFETY EQUIPMENT: (See Farm Stock note below)

- Tractors must have steel engine side shields
- Tractors must use an approved blanket on the transmission and clutch area
- All engine fans must be shrouded with factory shroud or 1/16" thick steel shroud
- All tractors must have a safety kill switch or an air shutoff
- Each tractor must have a 2.5 lb. dry chemical fire extinguisher accessible to the driver while operating the tractor
- Must have at a minimum of a factory R.O.P.S. system capable of supporting the tractor at its heaviest weight class.

NOTE: A true farm stock tractor operating at no more than 10% over manufacturer's RPM specifications is released from the safety equipment requirements.

The exhaust MUST discharge vertically and MUST have two (2) Grade 5 cross bolts (3/8") in the exhaust elbow or pipe. Bolts must be installed 90 degrees to each other and within one (1) inch of each other as close to turbo as possible.

Driver must wear a motor sport designed helmet. (Snell 80 or higher).

Driver must be a minimum of 18 years of age to pull in this class /or if ages 16 or 17/ must present a signed and notarized statement of permission from a parent or legal guardian.

All drivers must wear leather shoes and long pants.

No more than one person is permitted on the tractor at any time.

Driver must remain seated and have at least one hand on the wheel at all times. Driver may not leave the seat of the tractor while it is running.

At each event Driver must declare at Registration and Tech which Turbo the tractor is utilizing and may not switch after that point for that event.

Cubic Inch/Turbo/Injector Pump combinations:

Option 1:

1. 9,500 pounds
2. 600 Cubic Inch maximum.
3. "A" Pump—inner cooler allowed. "A" pump must be derived from the German Bosch design, or
4. "P" Pump—no inner cooler
5. No sigma pumps OR MW or Re-Cast pumps are permitted.
6. All Fuel Injection Pumps must maintain stock OEM Dimensions

A single turbo-charger ONLY is permitted with the following:

7. Turbo-- INTAKE --

- A. Intake housing to be no larger than 3.1" at the face of the wheel.
- B. Compressor wheel must protrude into 3" bore.
- C. Map width enhancement of .180" Maximum is permitted. Must be in OEM location.
- D. All Air flow must go through the turbo intake and map ring, no other air flow will be permitted: IE. Drilled holes around the turbo intake

EXHAUST --

- A. Turbine wheel to be no less than 3.0" in diameter at intersection of turbine wheel face and tip diameter.
- B. Turbine housing to be no larger than 3" at intersection of turbine wheel face and tip diameter.

- C. All turbine wheel blades to protrude into 3" bore. All air must exit through 3" opening.
- D. Exhaust housing will be measured at intersection of turbine wheel face and tip diameter.
- E. No waste gates permitted.
- F. No variable geometric turbos permitted.
- G. No clipping of turbo wheels to allow larger wheel in a smaller housing.
- 8. Intake spacer no greater than 1". Maximum size of a Deck plate is 1" inch thickness.
- 9. Front weights may not extend more than 13' from center of rear axle to the front of weights. Rear weights may not extend more than 6" past rear tires, and may not interfere with hooking device or ability to hook and unhook the tractor from the sled.

Option 2:

- 1. 10,200 pounds
- 2. 640 cubic inch maximum
- 3. "A" Pump—inner cooler allowed, or
- 4. 3LM 466 Turbo with a compressor housing intake at maximum 2.9" I.D. and exhaust housing at no larger than a 360 with a maximum outlet of 3.06" I.D. will be permitted.
- 5. Front weights may not extend more than 11 feet from center of rear axle to the front of weights. Rear weights may not extend more than 6" past rear tires.

Option 3: NTPA HOT FARM RULES

- 1. 9,500 pounds
- 2. 510 cubic inch limit (+ or- 1. percent). Maximum of 8 cylinders permitted.
- 3. The Maximum allowed size pump for diesel injection is a P-Pump. (No aftermarket housing) Only one plunger per cylinder allowed.
- 4. Turbo restriction: 3" inlet X 3 1/2" exhaust outlet, no waste gates. Compressor wheel must protrude into the 3" bore. Intake housing to be no larger than three inches at the face of the wheel. No additional openings in compressor housing outside the 3" opening. The exhaust side to be no larger than 3.5" at the face of the wheel and the wheel should protrude the housing 1/8". MWE groove is allowed a maximum width of .200. MWE groove must be inside neck area where intake covered is measured at 3".
- 5. Engine head must be OEM agriculture-type (no aftermarket head} for that brand engine
- 6. No overhead cams allowed. Maximum of 2 valves per cylinder.
- 7. Manifolds
 - a) Intake manifold may be non-OEM with a maximum inlet size 3.75" measured on the outside diameter. One Inlet pipe only.
 - b) No intercooler or aftercooler allowed. If OEM intercooler manifold is used it must be disconnected from all cooling means. No CO2 or any other means of cooling the air in the piping or manifold. No ice filled or ice cooled devices onboard tractor of any kind.

All engine air must enter the inlet of the turbo at ambient air temp and humidity. Inlet air may not be drawn thru or across any type of cooling device.

c) Exhaust headers allowed

Heavy tough farm 11,000 & 12,500

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All Heavy Tough Farm Tractors must be stock appearing. Hoods, grill, fenders and frame must be stock appearing for make and model being pulled. Tractor must have a stock block or its replacement. No component tractors will be permitted in the class.

WEIGHT :

- 10,500 11,000 and 12,500 pounds
- No weight may extend more than 24" beyond the forward most point of the hood or front tires.
- Rear weights may not extend more than 6" past rear tires, and may not interfere with hooking device or ability to hook and unhook the tractor from the sled.
- No weights permitted on seat or deck.
- Any weights or external parts lost while hooked to the sled will be cause for disqualification of the pull.
- All weight must be securely fastened. Tarp straps are not allowed anywhere on the tractor.

RPM Limit:

- 3,000 RPM limit on all tractors.
- Tractors competing will be tested prior to hooking.
- Tractors may also be subject to a testing during competition and also at the end of the track. Tech officials will have the option to operate the throttle.
- Refusal by tractor operator will result in disqualification.

ENGINE:

- Must be OEM block or its replacement, no visual modifications to block
- Must have OEM stock head (no recast blocks or heads, no aluminum heads, no deck plates/girdles, no hard blocking, no intake spacers).

- Use of torque converters, automatic shift, etc. is permitted.

CUBIC INCH: Maximum 504 cubic inch, unless factory cubes are larger and must be factory cubic inch

FUEL PUMP:

- Stock appearing OEM style pumps required (No P Pumps, unless factory equipped). Legality of the injector

pump by officials is based on the visual inspection of the outside housing and not the inner workings of the

injector pump.

- All fuel injection pumps must maintain stock OEM Dimensions
- No Billet Pumps, no sigma pumps OR MW or Re-Cast pumps are permitted.
- Supply pumps are permitted.

THROTTLE: Tractors must be equipped with stock throttlespring loaded throttle.

TURBOCHARGER:

- Tractor is limited to a single turbocharger; the inducer bore on the compressor housing may be 2.6".

- The inlet will be measured using a 2.65-inch plug or Internal calipers. Measurement point will be at the actual

turbo housing inlet.

- A stock map width enhancement (MWE) groove is allowed.
- Turbo is limited to an out of the box borg warner s366 at this time with no modifications or machining to the

housing to allow a larger wheel. No clipped wheels or altered wheels allowed.

- Lesser turbos are allowed upon inspection or by tech officials prior to pulling.

- OEM stock intake and exhaust manifolds must be used for that series engine (alterations for turbo mounting

ONLY are allowed).

a) Compressor wheel must protrude into 2.6" bore.

b) Stock map width enhancement up to .145" permitted. Must be In OEM location

c) All Air flow must go through the turbo intake and map ring, no other air flow will be permitted: For example Drilled holes around the turbo intake are not allowed.

WATER :

- Water injection is allowed.
- No intercoolers.
- No types of accelerants or oxygen extenders or the like will be permitted.
- Competitor may be required to drain water and refill with new water approved by tech officials.

EXHAUST:

- MUST discharge vertically, and
- MUST have two (2) Grade 5 cross bolts (3/8") in the exhaust elbow or pipe. Bolts must be installed 90

degrees to each other and within one (1) inch of each other as close to turbo as possible.

FUEL TANKS: No pressurized fuel tanks.

FUEL:

- Fuel must be OEM equipped and intended whether diesel or gas.
- No oxygen or other accelerants such as methanol, cetane, propane, or any other that may be considered an
accelerant.

SHEET METAL:

- Must have original hood, grill, and sheet metal.
- Rear fenders are required.

DRAWBAR:

- Must be equipped with steel hitching device with thickness no less than 1" square or 1-1/8" round stock and

no more than 1-1/2" thick square or round stock.

- A minimum of 3-1/2" and maximum 3-1/2" diameter hole is required.
- A cross sectional thickness of 1" square minimum must be maintained at any given point of hitch loop.
- No bracing above center of axle except for complete factory setup.
- If above center, it must be cradled.
- Drawbar length is 18" from the center of rear axle to point of hook up.

- Drawbar must be stationary in all directions.
- Maximum height is- 20" from top of hitching device parallel to the ground.
- Any vertical clevis will be measured to center of loop.

TIRE:

- Tire size limited to 20.8 x 38.
- No cut tires, no tire studs or chains permitted.
- Four wheel drive tractors are permitted if front wheels are disengaged.
- No dual wheels.

BRAKES: All tractors must be equipped with both rear brakes working.

FRONT END: Tractors must be equipped with wide front end.

SAFETY EQUIPMENT:

- All engine fans must be shrouded with factory shroud or 1/16" thick steel shroud
- All tractors must have a safety kill switch or an air shutoff
- Each tractor must have a 2.5 lb.dry chemical fire extinguisher accessible to the driver while operating the

tractor

- Must have at a minimum of a factory R.O.P.S. system capable of supporting the tractor at its heaviest weight

class.

- All Tractors must have wheelie bars and roll bar or Factory ROPS.
- All tractors must have wheelie bars that are able to support the weight of the tractor.

Side Shields are required

Clutch must be steel, unless there is a safety blanket.

GENERAL RULES:

- Driver must wear a motor sport designed helmet. (Snell80 or higher).
- Driver must be a minimum of 18 years of age to pull in this class (or if ages 16 or 17 must present a signed

and notarized statement of permission from a parent or legal guardian).

- All drivers must wear leather shoes and long pants.
- No more than one person is permitted on the tractor at any time.

- Driver must remain seated and have at least one hand on the wheel at all times.
- Driver may not leave the seat of the tractor while it is running.

Single Engine Mod

*** WILL FOLLOW ALL NORTHWEST MODIFIED RULES WITH THE FOLLOWING EXCEPTIONS:

1. Weight Class: - 6200 and 7200 lbs. classes.

2. Engine Limit:

- a. Automotive -type cast iron block.
- b. Cast iron or aluminum heads. One (1) spark plug per cylinder. Two (2) valves per cylinder.
- c. Eight (8) cylinder maximum.
- d. Any intakes allowed.
- e. Two (2) four-barrel carburetors maximum or fuel injection. Naturally aspirated; no blowers.
- f. 540 cubic inch.
- g. Spark plug shielding - must cover the plugs to deflect plugs with a minimum of .060 metals.

3. Transmissions/Clutches. Clutches must meet minimum SFI Spec 1.1 or 1.2. Bell housing must meet minimum SFA Spec 6.1. Automatics must run a minimum SFI Spec. 4.1 blanket that extends from back of engine block to front of tail shaft. Blanket must have a minimum 6" overlap and must be tight to back of block.

4. Any Single Engine Modified Tractor with a hood must have a firewall in place.

5. Fuel: Gasoline or alcohol. No oxygen accelerators.

6. Driver's Safety a. Fire suit, leather boots, helmet and fire proof gloves are required. b. Head socks highly recommended. c. Roll bars required.

7. All tractors not pre-pumped and sealed will be pumped at the completion of every event. All competitors may be required at registration, to sign a transmission and clutch certificate waiver stating the competition vehicle meets all safety requirements

*** Only class specific vehicles are permitted to compete in this class. No farm, antique, or other modified tractors are permitted.*** Any driver arguing with a track official is subject to immediate disqualification. All decisions of the track official will be final at each pull. Any protests will be settled at next club meeting. All rules to be interpreted by officials. Any unforeseen problems or oversights will be ruled on by officials on sight. All general and safety rules apply. All rulings will be final. Officials reserve the right to allow or disallow a competition vehicle to compete on the basis of any safety concern or infraction.

Northwest Modified Tractor WILL FOLLOW ALL NTPA SAFETY RULES

1. Modified tractors are those using any combination of engine(s), transmission(s), and final drive.

2. No portion of tractor may exceed 14' forward of the center of the rear wheel.

3. Chassis – Modified tractors that have the frame bolted to the transmission shall also have the frame bolted to the axle housing to prevent splitting of tractor. The frame must be of sufficient strength that even when the bolts from the plate of the transmission or rear end are removed, the frame still supports the weight of the tractor in the heaviest class being entered.

4. Driveline/Driveline shielding: a. No shaft over 48" long allowed. No input or output shaft that attaches to drive shaft may extend more than 4' beyond a bearing. b. A minimum of 1" material between bolt and end of drive shaft shield. A minimum of 1" material to be in pilot holder at each end of the drive shaft shield. A minimum of eight (8) 3/8" (grade #8) bolts to hold carrier-bearing assembly if attached to a vertical plate.

5. Tires: a. Tires no more than 30.5" wide. b. Rim diameter limited to 32" on tire widths over 24.5"". Note: Width determined by manufacturer size.

6. Engine Limit:

- a. Naturally aspirated automotive engines (must be carbureted) up to three engines, not to exceed 2000 cubic inches collectively.
 - b. No more than two (2) pressurized automotive engines (blowers, turbos, or fuel injected) No cubic inch limit.
 - c. Turbine limit – 1 at 2300 H.P.; 2 at 1300 H.P. government rating.
 - d. Other – Truck, aircraft (diesel or Allison) pressurized limit one
- (1). 7. Modified Open Class: Northwest rules for Modified tractors apply. Pro-Stock, Super Stock, Mod-Stock can enter but must meet Northwest rules.

8. Any driver arguing with a track official is subject to immediate disqualification. All decisions of the track official will be final at each pull. Any protests will be settled at next club meeting.

9. All rules to be interpreted by officials. Any unforeseen problems or oversights will be ruled on by officials on sight. All general and safety rules apply. All rulings will be final. Officials reserve the right to allow or disallow a competition vehicle to compete on the basis of any safety concern or infraction.

10. All tractors must have ski bars and a roll cage.

V-8 Antique tractors

FOR ONE YEAR 2020, Northwest will allow tractors following the OH V-8 Antique rules to pull. All safety equipment is required. 2019 Northwest members will be consulted after the 2020 season in order for Board to determine what will be done for 2021.

1. All contestants enter class at their own risk.
2. Tractors must be made in 1972 or older.
3. Tractors will weigh 6,500 pounds.
4. Frame must be stock, no extensions, must be stock wheel base. If modifications are made to the frame for safety during fabrication process, the modifications must be made of steel (no aluminum frame rails). Modifications are to be made only for safety and must be connected to the stock rear end/transmission housing. No extensions will be permitted. Must be stock wheel base.
5. Front end may be homemade, but must retain stock wheel base. Must be wide front end.
6. Tractor must be equipped with high back seat.
7. Hood and grill must be in place with stock appearance.
8. Fuel tank must be in front of grill/radiator.
9. big block limit of 521 CID.
10. RPM Limits: Small block—6,000; Big block—6,000.
11. Maximum of 8 cylinders, no turbo or diesels. Naturally aspirated, no turbines or supercharges.
12. Gasoline only.
13. All engines must have working air cleaner.
14. Engine must be governed by MSD Rev Limiter, no extra plugs permitted at the chip location. Chip must be easily accessible for insertion of a club chip at the discretion of the officials.
15. All engines must have plastic or electric cooling fans.
16. A single carburetor with a limit of four barrels. No fuel injection.
17. Must have cast iron block and cast iron or aluminum heads.
18. Spark plugs, engine block and harmonic balancer must be shielded. All dampers must be SF or shielded.

19. Must have a "dead man" throttle. If the throttle is released, throttle must immediately return to idle. Carburetor must be equipped with double return spring.
20. Hand shifted torques can be used if OEM equipped.
21. Tractor must have working reverse light. Light must be illuminated when tractor is in reverse.
22. Tractor must have neutral start/safety switch.
23. Auxiliary transmission allowed. No automatic transmissions.
No differential locks. No Powershifts. T/A is permitted.
24. Maximum tire size: 18.4 x 38, cut tires permitted. Radials are permitted.
25. All tractors must have a working kill switch. If tractor is equipped with electric fuel pump, kill switch must also kill power to the electric fuel pump.
26. Maximum hitch height: 20 inches.
27. Minimum of 18 inches from center of the rear axle to the hitch point. Hitch must have 3 1/2 inch hole, 1 inch thickness of hitch plate with 1 inch material from hitch point to rear of plate.
No clevis permitted. Drawbars shall be constructed so that in the event of drawbar breakage, the drawbar supports do not pull from a top link or brace above the centerline of the rear axle of the vehicle. Safety officials must be able to easily inspect the drawbar area of the competition vehicle.
28. Safety bars to prevent the tractor from splitting required.
29. Clutch and fly wheel must be shielded 360 degrees by ASFI approved bell housing. All drive shaft couplers or U joints must be shielded 360 degrees by no less than 1/4 inch steel. All competitors may be required at registration, to sign a transmission and clutch certificate waiver stating the competition vehicle meets all safety requirements.
30. Fire extinguisher mandatory.
31. Helmet required. Full fire suit required. Leather boots and gloves (leather or fireproof) required.
32. Seatbelts and roll cage required.
33. Ski Bars must be attached to the frame of the tractor.
34. All exhaust must exit vertically and be in the upright position.

35. Wheelie/anti-tip bars required. Wheelie bars must not be more than 10" from ground. Pad must not be more than 10" off ground; pad must be a minimum of 5" x 5" square. Wheelie bars must support tractor in heaviest class pulled.

35. Must have sled bumpers.

36. Rear weights not to extend greater than 6 inches past the furthest point of the rear tire. Front weight cannot extend more than 12 feet from the center of the rear axle. Wheel base of 102.

37. Driver must be 18 years of age. 16 - 18 years old permitted with written permission of parent or guardian, and that parent must be present at the track at time of pull. Permission granted only at the discretion of track officials.

38. All tractors subject to inspection at all times by officials.

39. All rules to be interpreted by officials. Any unforeseen problems or oversights will be ruled on by officials on sight. All general and safety rules apply. All rulings will be final. Official's reserve the right to allow or disallow a tractor to compete on the basis of any safety concern or infraction.

40. Any driver arguing with a track official is subject to immediate disqualification. All decisions of the track official will be final at each pull. Any protests will be settled at next club meeting.

41. All tractors must have fenders.

42. The board retains the right to add a RPM reader if there are issues in the next 2 years.