

## TRI-COUNTY GARDEN TRACTOR PULLERS INC.

### **RULES AND REGULATIONS**

#### CLASSES / ENTRY FEES

**0-14 HP PURE STOCK 1000 LBS** –Entry Fee: \$10.00 Members / \$15.00 Non-Members

**12 HP S/A 1000 LBS / 14 HP Sport Stock 1050 LBS** –Entry Fee: \$10.00 Members / \$15.00 Non-Members

**16 HP Stock Altered 1050 LBS** –Entry Fee: \$20.00 Members / \$25.00 Non-Members

**Limited Open 1100 LBS** –Entry Fee: \$10.00 Members / \$15.00 Non-Members

**Hot Stock Twin 18-25 HP 1000 LBS** –Entry Fee: \$10.00 Members / \$15.00 Non-Members

#### MEMBERSHIP

Membership Fee: \$15.00 per tractor per class, if paid by first pull of the season, \$20.00 thereafter.

Memberships for non-participating tractor drivers, will be \$10.00, but the member must contribute help at pulls. They will not have voting rights.

Payout will be based on the number of tractors participating in the class- details will be at the entry table.

#### Members Only Points System

Each member will receive additional points for finish order as follows:

1<sup>st</sup> - 20 points, 2<sup>nd</sup> -19 points, 3<sup>rd</sup> -18 points, 4<sup>th</sup> -17 points, 5<sup>th</sup> -16 points, 6<sup>th</sup> -15 points, 7<sup>th</sup> -14 points,

8<sup>th</sup> -13 points, 9<sup>th</sup> -12 points, 10<sup>th</sup> -11 points, 11<sup>th</sup> -10 points, 12<sup>th</sup> -9 points, 13<sup>th</sup> -8 points, 14<sup>th</sup> 7 points,

15<sup>th</sup> -6 points, 16<sup>th</sup> and beyond -5 points

#### For Tractors to be Eligible for Point's Payout at Years End

- The tractor must participate in two-thirds of all the pulls for the season
- Primary Driver / Owner must make one meeting
- Members are expected to help at each pull
- If a tractor attempts to make a pull, hooked to the sled and gets a measurable distance, they will receive 5 points

\*\*Year-end points are tallied and the lowest 2 are dropped, a missed pull that would result "0" points for that pull will count toward these 2 drops\*\*

#### Protest Rule

A tractor may be protested by another contestant, if the contestant feels a tractor is illegal in any way as per motor specifications. By protesting another contestant the person bringing the protest will also be checked for legality. A tractor can be protested only by a contestant in the same weight class. Protest must be made before the start of the next class or 5 minutes after the last puller has pulled in the class.

#### Protest Procedure

- A \$50.00 protest fee must be paid at the registration table or to an officer of the club.
- Both the protested tractor and the person bringing the protest will then be obligated to tear down their tractor being protested, while the tech officials look on. (If the protester has multiple tractors, the protested will choose which tractor is checked.)
- If the tractor is found to be legal by the tech official, the protested will receive the protested fee back.
- If the tractor is found to be illegal by the tech official, the protester will receive the protest fee back.
- Illegal tractors will lose all prize money / points acquired for that day.

- Illegal tractor will have to be proven legal by the tech official before being allowed to pull again.
- If the owner of the protested tractor will not tear down the tractor in question, they will be found illegal and forfeit all prize money / points as well as be unable to compete again until proven legal by tech official.
- If any tractor is found to be illegal (in regards to engine specs.), that tractor and owner will be unable to participate in the points system for those classes for the remainder of the pulling season / forfeit all points / membership fees for that season.

### Safety Regulations

- Safety is of the utmost concern, Tri-County Garden Tractor Pullers are in no way responsible for accidents or articles lost or stolen.
- All contestants / contestants' guardians must sign the insurance release form before entering competition
- No alcoholic beverages permitted during the pull
- Entries for ALL classes will close 15 minutes prior to the start of the pull
- Driver must attend the driver meeting 10 minutes prior to the start of the pull
- All tractors running alcohol must have a 2.5 LBS fire extinguisher mounted on tractor
- All drivers must wear helmets, except the stock classes, where driver is over 16 years old
- All drivers in classes running alcohol or diesel, must wear fire suit jacket and long pants

### General Tractor Regulations for all Classes

- Dead man throttle is required on all tractors, except pure stock classes
- Kill switch is mandatory in all classes
- Tractors must have working brakes
- Reverse is required for pure stock classes
- Tractors must have rear fenders and shall cover the front portion of the tire to the centerline of the rear axle
- Tractors must have factory built seat or equivalent with a 3 inch raised back
- Tractors must have a clean, neat, stock appearance and must have a stock appearing hood and grill
- Any portions of the tractor is not to exceed 24 inches from the center of the rear axle to the back of the tractor
- No portion of the front tractor boom or weights is to exceed 7 feet from the center of the rear axle forward, Diesel classes are 8 feet from the center of the rear axle.
- Wheelbase for all S/A classes is 52 inches max. Diesel classes is 56 inches maximum
- Width is not to exceed 10 inches from the rear tires or a maximum of 66 inches wide
- Back portion of the hitch is not to exceed 18 inches from the center of the rear axle
- Hitches must be horizontal / rigid and made from a minimum of 3/8 inch thick material and have a 1.5 inch hole for hook-up, with a 1/2 inch minimum to 3/4 inch maximum from the back edge of the hitch. Hitches must be straight from rod to rod-either a (H) style hitch or a straight (+) pintle style hitch. No drop hitches or extensions bolted to the hitch.
- All tractors must have a safety device to prevent turnovers (wheelie bars). This device is to have wheels or skid plates. Wheels must be a least 1 inch wide. Skid plates must be 3.0 x 3.0 at the ground contact point. Wheels / skid plates must be a minimum of 5 inches behind the rear tire and no more than 5 inches above the ground. Each wheel / skid plate must be able to support the weight of the tractor.
- For new tractors, club will allow a grace period of 2 pulls, for updating tractor to meet all rules, within limits.
- Turf tires must remain unaltered - not to be cut, soaked, drilled, or softened. No lug tires permitted. Tire is considered a turf tire if the manufacturer describes it as a turf tire from the factory. (tire marked as turf tire on the side wall from the factory)
- If exhaust is modified, it must be in an upright position and past the hood.
- Tractors must have all shields and guards over clutches, drive belts or drive train. Stock altered / hot stock tractors must have a 360° clutch cover made of 1/8 inch thick steel or 3/16 inch thick aluminum or 16 gage stainless steel.
- Motor kill switch is mandatory on all classes and must be within 8 inches of the hook point
- If running an electric fuel pump- it must shutoff through the kill switch.
- Single cylinder flathead engines only. (Pure Stock / 12 HP S/A / 14 HP Sport Stock / Stock Altered).

- Overhead valve engines are permitted for Limited Open / Hot Stock classes.
- After market starter pulleys must be securely fastened on the end.
- Rubber tires ONLY. No duals / chains / studs /steel wheels / ATV tires. Tires may be cut in all classes – see below for class specific rules:

### **Pure Stock**

23 x 10.50 x12 maximum tire size

Tires may be cut, no adding lugs between the factory bars.

No professional tires allowed. (Pitbull / Cepek / Lawntec / etc.) Vogel TT are legal.

### **12 HP S/A**

26 x 12 x 12 maximum tire size – Professional tires are permitted.

### **14 HP Sport Stock**

23 x 10.50 x 12 maximum tire size

### **Hot Stock Twin 18-25 HP**

26 x 12 x 12 maximum tire size – Professional tires are permitted.

### **16 HP S/A**

26 x 12 x 12 maximum tire size – Professional tires are permitted.

### **Limited Open**

26 x 12 x 12 maximum tire size – Professional tires are permitted.

## **Motor Specifications**

### **Fuel**

- **Pure Stock** – VP C-12 (green) only
- **12 HP Stock Altered / 14 HP Sport Stock** – Clear Alcohol or VP C-12 (green) only
- **16 HP Stock Altered** – Clear Alcohol or VP C-12 (green) only
- **Hot Stock Twin 18-25 HP** –VP C-12 (green) only
- **Limited Open** – diesel fuel, Clear Alcohol
- No additives, no nitrous oxide, no pressurized tanks, or fuel injection.

\*\*VP C-12 will be checked with a dielectric tester, set to zero and a hydrometer .750 specific gravity\*\*

\*\*Alcohol will be checked with distilled water for cloudiness and odor\*\*

### **To Find Cubic Inches**

Measure bore and divide by 2.

Take that number and multiply it by itself, then multiply answer by 3.1416.

Take that number and multiply it by the stroke.

The answer is your motors cubic inch.

Example:

Bore = 3.75 / Stroke= 3.25

$3.75/2=1.875$

$$1.875 \times 1.875 = 3.515625$$

$$3.515625 \times 3.1416 = 11.044687$$

$$11.044687 \times 3.25 = 35.9 \text{ cubic inches}$$

### To Find Valve Area

Measure the intake valve head diameter and divide by 2.

Take that number and multiply it by itself.

Take that number and multiply it by 3.1416

Answer is your valve area.

Do the same for the exhaust valve.

Add those two numbers together.

This is your total valve area.

Example:

$$\text{Intake valve} = 1.50 \quad \text{Exhaust valve} = 1.25$$

$$1.50 / 2 = .75$$

$$.75 \times .75 = .5625$$

$$.5625 \times 3.1416 = \mathbf{1.7671}$$

$$1.25 / 2 = .625$$

$$.625 \times .625 = .3960$$

$$.3960 \times 3.1416 = \mathbf{1.2272}$$

$$1.7671 + 1.2272 = 2.99 \text{ total valve area}$$

### Pure Stock Class

- Four cycle, single cylinder 0-14 HP engines allowed. Must be garden tractor type flathead engine, maximum CID = 33 inches
- VP-C-12 (green) fuel only
- Must remain factory stock stroke, stock bore, and stock valve size
- No port / polishing
- All motor parts must remain unaltered (OEM)
- Stock type garden tractor carburetor (kohler on kohler, briggs on briggs, etc.)
- Maximum carburetor size 15/16 inch diameter venturi, choke plate is mandatory
- No velocity stacks allowed
- Maximum clean up bore .030 inch
- Maximum block deck clean-up .010 inch. Tech official has .005 inch working tolerance
- Must run OEM head gasket
- OEM unaltered parts with the exception of allowing insert in rod.
- Stock head may be milled to true up surface, must retain inner and outer gasket surface
- Working air cleaner required
- 3600 RPM maximum – will be checked with the clubs tachometer
- Stock flywheels cast with all fins intact only (no steel flywheels)
- Must have working reverse gear
- Dead man throttle optional

- No electric fuel pumps allowed
- Cam specifications – 324 lift, 223 duration @ zero lash
- Covers / shields must be able to be removed, for inspection
- Crank must accept clubs degree wheel
- Must retain stock sheet metal (cub cadet on cub cadet, john deere on john deere, etc.)
- Must have stock wheelbase for that model tractor
- Stock frames, no lengthened frames. Notching frame for engine is permitted
- Must retain stock front axle – no lightened or homemade axles
- No locked rear-ends
- Tires 23 x 10.50-12 maximum (cutting permitted per tire cutting rules)
- All club general safety rules apply

#### **12 HP Stock Altered**

- Clear alcohol or VP-C12 (green) fuel only
- Flatheads motors only
- Maximum valve area = 3.00 square inches
- Maximum valve lift = .330 inches
- Maximum clean-up bore = .030 inches
- Maximum displacement = 30.16 cubic inches
- No stroker kits – must have stock stroke for engine as offered from factory
- No ram tubes, no homemade manifolds
- Velocity stacks are permitted
- Billet heads are permitted
- Stock type garden tractor carburetor
- Maximum carburetor size = 1.00 diameter venturi
- One firing spark plug only
- Maximum tire size 26 x 12.00 x 12 (cutting permitted per tire cutting rules)

#### **0-14 Sport Stock (will run with 12 HP S/A)**

- Single cylinder flat head only up to 14 HP
- Engines must be Kohler, Briggs, Tech etc. (no 2 cycle or aftermarket blocks)
- Engine must have its stock carburetor 1.00 venturi maximum
- Engine must have stock valves, maximum head diameter = 1.380 inch and exhaust maximum = .330 lift
- 3.530 = maximum bore
- Stock stroke = 3.250 maximum
- Billet heads are allowed
- Open exhaust permitted in upright position only
- 23 x 10.50 x 12 tire maximum
- Port / polishing permitted
- Piston can't pop out above cylinder block
- Spacer between carburetor and block 1.00 maximum
- Open RPM
- Steel flywheels required
- Clear alcohol or VP-C12 (green) fuel only

#### **16 HP Stock Altered**

- Clear alcohol or VP-C12 (green) fuel only
- Flathead motors only
- Steel flywheels are required on ALL Stock Altered tractor engines.
- Maximum valve size = 1.38 inch
- Maximum valve lift = .330 inch

- Maximum bore = 3.780 inches
- Maximum displacement = 36.50 cubic inches
- Maximum stroke = 3.250 inches
- Stock type garden tractor carburetor
- Maximum carburetor size = 1.00 inch diameter venturi
- Maximum carburetor spacer = 1.00 inch
- All stock altered tractors must have a mandatory guard covering the starter side of the motor that is secured to the frame and the head, covering the entire side of the block. Guard cover will be made of 1/8 thick steel or 3/16 inch aluminum or 16 gage stainless steel. A head tie down is mandatory on all flathead stock altered classes. (Not required on aftermarket blocks).
- Maximum tire size 26 x 12x 12

#### **Hot Stock Twin 18-25 HP**

- Stock downdraft carburetor 1.0 inch maximum
- Bolt on velocity stack permitted – can't go into carburetor, choke plate can be removed
- Venture must remain unaltered
- Fuel solenoid can be removed.
- Stock unaltered intake – NO carburetor spacers – carburetor must bolt directly to intake
- No port / polishing
- Stock OEM heads – NO welding
- No internal modifications
- No O-ringing allowed
- Copper head gaskets are permitted - .062 inch minimum thickness
- Stock / stock appearing valve springs are permitted (no conical valve springs)
- Adjustable rocker studs are permitted – rocker must remain unaltered
- Stock OEM camshafts ONLY – no reground cams
- No roller lifters – solid lifters permitted
- Stock unaltered OEM pistons = 3.268 inches
- Stock stroke = 2.64 inches
- Billet connecting rods are permitted - must be stock length = 4.495 inches
- Stock ignition ONLY – advanced timing is permitted
- Open RPM
- Must have steel flywheel
- 26 x 12 x 12 tires only
- VP-C12 (green) fuel only
- All other general rules apply
- Chassis / wheel base 52.00 inch factory appearing frame. Aftermarket frame rails are permitted
- No tube frames

#### **Limited Open**

- Compact diesel engines – 3 cycle liquid cooled engines – No automotive engines allowed
- 70 cubic inch limit
- Water injection will be allowed (drinkable H<sub>2</sub>O only)
- Electric supply pump is allowed – it must shutoff through the kill switch
- Stock heads – porting is permitted
- No billet heads or overhead cams allowed
- Injector and injection pump modifications allowed
- Cam box pumps only – no external pumps allowed – no electronic fuel injection
- No nitrous, propane, etc.
- One turbo charger – no inter-cooler or ice boxes permitted

- Turbo will be fitted with an air shut off and kill switch device mounted on rear of tractor – it must disconnect power to electric fuel supply pump along with activating turbo air shut off on the compressor side of the turbo.
- Exhaust “L” of the turbo must have minimum of 5/16 cross in elbow with exhaust to discharge vertically
- Must use stock intake / exhaust manifolds – no homemade manifolds allowed
- 56 inch wheelbase maximum – chassis may be altered to accept engine
- Tractor must have garden tractor rear end – No automotive or Panzer rear ends allowed
- NQS Pro / Super 50.5 CID singles and NQS 39.5 twins can complete in this class as well as any other TCGTPI classes (with a maximum of 3 hooks per event)
- Tube chassis are allowed per NQS rules

### Contestant Operating Rules

- Driver must put tractor in neutral and remove foot from clutch when hooking / unhooking from the sled
- Pull must be made from a tight hitch – NO jerking allowed – there will be one warning, if the action continues, puller will be disqualified
- Driver must keep one hand on the steering wheel at all times
- Driver must stay in the seat at all times while pulling and maintain safe control (no jumping in the seat)
- Tractor wheels must stay inside the marked boundaries at all times while pulling
- Pull will be complete when the sled has stopped all forward motion or the flagman’s red flag is signaled
- Weights must be securely fastened. Any weight or objects falling off while pulling or before the tractor is unhooked from the sled will result in disqualification, including excessive fluid loss.
- Hitch height for all classes on dirt and asphalt is 13 inches
- Weights are not to interfere with the hooking of the sled
- No moving weights while pulling permitted
- The puller has 2 attempts and may change gear, move weights and may restart as long as the puller stops before the marked cone on the track (before the sled crosses the line). The only exception is during a pull-off, when only one attempt is allowed.
- No changing gears while pulling
- Driver must weigh in before pulling
- Driver can be required to open hood for a visual safety / tech inspection when weighing in or out
- The number one puller in each class has the option of taking their first pull or dropping 5 tractors and trying again (except in a pull-off). Decision must be made before leaving the track by telling the track official.
- No double entering – anyone can pull, but no help on the track is permitted while contestant is pulling
- No standing at the end of the track or crossing the track while pull is underway. Owner or contestant’s helper must stay outside the white lines of track while pulling.
- The governing body (elected officials – track officials, flagman, scale operator, hook persons, person putting on the pull) of Tri-County Garden Tractor Pullers decisions will be final on any point of controversy. Disagreements will result in disqualification.
- The governing body (elected officials / person putting on the pull) of Tri-County Garden Tractor Pullers has the right to tech any tractor of discrepancy at any given time.
- Any conflict of interest of an individual class will be dealt with on a per class basis

