

2016/2017 SVTPA RULES

I. Preface

These rules are designed to provide guidelines for orderly conduct and reduce the risk of injury to both participants and spectators during each sanctioned pulling event. It is the responsibility of each participant to ensure that both their equipment and conduct comply with all applicable rules and regulations as set forth by our Sanctioning Body and the SVTPA. These rules may be amended at any time as necessary. No expressed or implied warranty of safety shall result from the publication or compliance with these rules. These rules are to be used as guidelines for conduct at each event, and are in no way a guarantee against injury or death to a puller, spectator or anyone involved with the event.

II. Membership Information

- A. All drivers & tractors must be registered with the Sanctioning Body and SVTPA.
- B. The Sanctioning Body membership dues are as follows:
 - 1. If paid by February 15th the fee is \$50 per driver and \$50 per tractor.
 - 2. If paid after February 15th the fee is \$75 per driver and \$75 per tractor.
- C. SVTPA membership dues are \$20 per driver/member and \$20 per tractor and must be paid by February 15th. You must pay SVTPA dues to be able to be in the pit area with drivers and tractors at events. SVTPA-only members do not have driver privileges, and can join anytime.
- D. One-day hook fees are available to non-members or non-registered tractors. All drivers and tractors must meet all guidelines set by SVTPA. The fee is \$50 and includes the insurance fee set forth by the Sanctioning Body as well as the hook fee.

Insurance Fee per Tractor	\$35.00
Hook Fee per Tractor	\$15.00
TOTAL for Tractor for 1-day hook	\$50.00

III. Insurance

The insurance coverage for those who hold a Sanctioning Body Competition License and/or Sanctioning Body Official License will be with a motor sports insurance services company.

IV. Points

- A. Points shall be awarded to all vehicles that have current memberships with the Sanctioning Body and SVTPA, and have legally entered and passed inspection at each event.
- B. A registered tractor, whose driver attends the driver's meeting, will receive 2 points. Roll call is taken at each driver's meeting.
- C. A tractor may collect points in any class it can legally pull in.
- D. If a class has a points tie at the end of the season, the tie breaker will be as follows: The tractor with the most 1st place finishes will take the lead position. If there is a tie for 1st place finishes, 2nd, 3rd, etc., placements will be reviewed until the tie is broken.

- E. Disqualification points will be given the last-place point value for that particular class. There are no DQ point differences between safety violations or equipment failures. The following chart shows an example of DQ points.

Place	Distance	Points
1	199 Ft.	20
2	195 Ft.	19
3	170 Ft.	18
4	DQ	16
5	DQ	16

- F. The Points Committee reserves the final authority to settle any questions or disputes regarding awarding of points.
- G. All published club pulls are point pulls, unless specifically titled as a “benefit” or “fun” pull.
- H. The SVTPA points are awarded in the following manner:

Place	Points	Place	Points
1 st	20	9 th	12
2 nd	19	10 th	11
3 rd	18	11 th	10
4 th	17	12 th	9
5 th	16	13 th	8
6 th	15	14 th	7
7 th	14	15 th	6
8 th	13	16 th – 20 th	5

V. Decal and Patch Requirements

- A. A competitor wishing to accumulate points for an eligible vehicle must have all sponsors decals prominently displayed in a highly visible area on each side of the vehicle.
- B. If the class requires the driver to wear a fire suit, a patch must be prominently displayed on the upper sleeve of the suit.

VI. Eligibility

- A. Events are open to 2-wheel drive, rear-wheel drive, rubber-tired tractors. No recapped tires, dual wheels, chains, studs or paddle tires are permitted.
- B. Drivers under the age of 18 must have a parent or legal guardian sign a consent form at the first attended event of the year. The minimum age requirement is:
1. 8 years for Stock classes;
 2. 12 years for Stock-Altered thru 1,600 lb. Mini-Rod classes; and
 3. 16 years for 1,850 lb. Mini-Rod class.
- C. All vehicles are subject to safety inspections and class rule checks.
- D. Any competitor refusing to have a vehicle inspected for eligibility shall not be allowed to pull until the inspection has been completed.
- E. All drivers should be clean and neatly attired; all tractors should be clean and painted.
- F. At the discretion of the official, any driver who does not attend the driver’s meeting may be removed from competing in the event.

- G. No vehicle may exceed 6 feet in width; nor shall any portion extend more than 8 feet in front of the center of the rear axle.
- H. Any tractor that is legal in a class may pull in any class that is higher on the performance scale.

VII. Classes

A. Stock

NOTE: There are four (4) stock classes, 900 lb. Junior and Adult, 1,000 lb., 1050 lb. The Junior class will be ages 8 thru 12, the driver will be 8 to 12 years old as of the first pull of the season. Class weight includes vehicle and driver.

1. Factory stock, commercially-available, garden tractor with cast block engine. Engine, chassis, and sheet metal must be from a factory-produced garden tractor or equivalent.
2. No high-performance alterations to engine or other parts of vehicle. Must use stock or “off-the-shelf” unaltered original replacement parts or camshaft, piston, valves, rod, carburetor, crankshaft, cylinder head, governor, ignition system, etc.
3. Shall not exceed .030 overbore from manufacturer’s specifications. Piston must be flush or below deck of block.
4. RPM’s are limited to a maximum of 4,000.
5. No port altering, grinding or polishing allowed.
6. Engine and vehicle must maintain stock appearance and utilize stock sheet metal.
7. Modifications to clutch, drive line, and transaxle assemblies are allowed to prevent breakage.
8. Billet steel or aluminum flywheel allowed. No welding or machining of cast flywheels.
9. All factory shielding, or equivalent, must be in place.
10. Chassis may be altered to accept non-original engine, but must maintain original wheelbase.
11. Pump gasoline or diesel only. No pressurized fuel tanks.
12. Single or twin-cylinder engines are allowed.
13. 900 lb. Junior and Adult will be up to 14.0 H.P./816 C.C./23.0 lbs./ft. of torque. Maximum tire size 23x10.50x12.
14. 1,000 lb. will be up to 18.0 H.P./980 C.C./35.0 lbs./ft. of torque. Maximum tire size 23x10.50x12.
15. 1,050 lb. will be up to 25.0 H.P./1,100 C.C./44.4 lbs./ft. of torque. Maximum tire size 26x12x12.

B. Stock Altered

1. Commercially available garden tractor with cast block engine. No recast, billet or plated block or heads except single cylinder engines are permitted to use billet heads. Engine block, chassis and sheet metal must be from a factory produced garden tractor.
2. Stock appearing hood and grille required. May switch to another manufacturer sheet metal or equivalent. Chassis may be altered to accept non-original engine but must retain stock length.
3. Engines must be factory productions or their OEM replacements with factory deck height.
4. Must maintain stock head bolt location/pattern and bolt size. Stock head gasket must fit over studs or bolts.
5. Single cylinder engines must be four cycle flat head design only.
 - a. Maximum bore size: 3.830 inches.

- b. Maximum stroke: 3.250 inches.
 - c. 37.500 cubic inch limit.
 - d. Maximum valve diameter: 1.380 inches Maximum valve lift: .330 inches.
 - e. Carburetor must be stock appearing Kohler type and mounted to engine with no more than 1.00 inch spacer.
 - f. Maximum carburetor venturi size 1.00 inches, no air entering after 1.00 inch restriction. Venturi must be round in shape
 - g. No reverse port engines allowed. Carburetors must mount to the original intake port.
 - h. Porting and polishing allowed.
 - i. Methanol fuel allowed.
 - j. Billet flywheel required. No RPM limit.
6. Twin cylinder engines must be factory produced. No billet or recast block or heads.
- a. No welding or externally visible modifications to block or heads.
 - b. Maximum bore size: 3.270 inches.
 - c. Stock crankshaft stroke for engine manufacturer.
 - d. 46.00 cubic inch limit.
 - e. Must use stock diameter valves for engine manufacturer. Must use stock rocker arms but may use adjustable valve train.
 - f. Maximum lift: .235 inches.
 - g. No fabricated intake manifolds or carburetor standoffs allowed. May use any stock manifolds for engine manufacturer.
 - h. Carburetor must be stock appearing for engine manufacturer. Maximum venturi size: 1.200 inches. Throttle shaft activated butterfly in stock location. No air may enter intake after 1.200 restriction.
 - i. Biller flywheel required. 5,000 RPM limit.
 - j. Pump gas only.
7. Any ignition system allowed. Electric fuel pumps allowed.
8. Maximum wheelbase: 56 inches.
9. Maximum tire size: 26x12x12. Maximum weight of vehicle and driver: 1,100 lbs.

C. PST (pro/super/twin)

1. Pro Stock
- a. 1050 lbs. maximum.
 - b. 50.5 in.³
 - c. Single cylinder Pro-Stock is defined as having a one cylinder, air cooled four cycle flat head, two valves same side, commercially produced manufactured cast block engine. Sleeves and welding permitted. Commercially produced manufactured cast block means made by Kohler, Wisconsin, Briggs, Tecumseh, etc. If copy is being made, copied block must meet basic manufacture specs. for that engine being copied. Crank and cam location, deck height, two valves same side, valve angle (maximum valve angle of 6 degrees), intake and exhaust port location and factory head gasket bolt pattern.
 - d. No reverse port engines.
 - e. A stock appearing Kohler type carburetor must be used if other than stock for the model engine being used. Standoff pipe or ram tubes are permitted. Choke may be removed. Single carburetor only. Air restricting venturi must be in stock position and carburetor not to be larger diameter than 1.200". Air controlled by butterfly in stock position in

carburetor, no slides, no injection, naturally aspirated only. No air entering after 1.200 restriction. Venturi must be round in shape.

- f. Methanol only.
 - g. Wheelbase 56 inches maximum.
 - h. Overall length 96 inches maximum.
 - i. Top placing tractors will be checked for, but not limited to: Fuel, Deck Height, Carburetor, Cubic Inch and Factory Head Gasket Bolt Pattern. in.^3 : 50.500 in.^3 zero tolerance. Formula for in.^3 is Measured bore x measured bore x measured stroke x .785 = in.^3 . All bores measured 90 degrees from thrust side. Stock Head bolt pattern, stock head gasket must fit over studs or bolts.
 - j. 48 cubic inch stock appearing block K-series Kohler engines will be allowed to run with the same weight/hitch as the Pro Stock. 48c.i. engines will have the same rules as the 50.5 Pro stocks, with the following exceptions. Stock Appearing Block K-Series Kohler Engine, open carburetion (no fuel injection), external welding allowed on the blocks (all-thread okay), if engine is sleeved, sleeve cannot be externally visible. Must have head/block restraint
2. Super Stock
- a. 1050 lbs. maximum.
 - b. 50.5 in.^3
 - c. Single cylinder Super Stock is defined as any tractor having one cylinder, air cooled four cylinder, flat head, two valves same side of engine.
 - d. No reverse port engines.
 - e. Any type of Naturally Aspirated induction is permitted.
 - f. Methanol only.
 - g. Wheelbase 56 inches maximum.
 - h. Overall length 96 inches maximum.
 - i. Top placing tractors will be checked for, but not limited to: Fuel and Cubic Inch Limit. 50.500 in.^3 . Zero tolerance. Formula for cubic inch is Measured bore x measured bore x measured stroke x .785 = Cubic Inch All bores measured 90 degrees from thrust side.
3. Pro V-Twin
- a. Maximum engine size is 45.5 cubic inches.
 - b. Engines with aftermarket/and or welded stock heads will run @ 1000# with a 13" hitch. Stock head engines with no welding will run @ 1050# with a 13" hitch. On stock head engines only minimal epoxy will be allowed, no excessive use on the external portion of the intake port. Maximum allowable amount would be an area of not more the 1 square inch per head.
 - c. Engine shielding rules: 1/8" steel or 3/16 aluminum on external side of cylinder extending from head gasket to frame. Shield must be attached to frame at the bottom and to the flywheel shield at the top to make rigid.
 - d. Wheelbase 56 inches maximum.
 - e. Overall length 96 inches maximum.
 - f. Engines: Must be a commercially available lawn and/or garden tractor engine. Only configuration accepted is V-twin type.
 - g. Carburetor: Limited to one (1) carburetor with one (1) venturi with one (1) throttle butterfly. Maximum venturi size will be 1.200". No air entering after the 1.200" restriction.

- h. Steel flywheel mandatory, along with the general flywheel shielding rules of 1/8" steel or 3/16" aluminum 360 degrees.
- i. Fuel: Methanol or Gas.
- 1. Super Stock and Pro V-Twin run together. Super Stock and stock head twins with no welding runs at 1050 lbs. with 13" hitch and Pro V-twins with aftermarket or welded heads run at 1000 lbs. and a 13" hitch height.
- 2. Pro Stock at 1050# with 13" hitch and Super Stock with open carburetor (no fuel injection) at 1025# with a 13" hitch. Pro V-twin stock head no welding tractors run 1000# and 13" hitch and 39 cubic inch V-twin can run at 1050# with 13" hitch.
- 3. 48 cubic inch stock appearing block K-series Kohler engines will be allowed to run with the same weight/hitch as the Pro Stock. 48c.i. engines will have the same rules as the 50.5 Pro stocks, with the following exceptions. Stock Appearing Block K-Series Kohler Engine, open carburetion (no fuel injection), external welding allowed on the blocks (all-thread okay), if engine is sleeved, sleeve cannot be externally visible. Must have head/block restraint.
- 4. These rules can be changed in order to promote fairness of the type's tractors at any time during the season.

D. Sportsman

- 1. Maximum engine displacement: 800cc with a maximum of four cylinders.
- 2. Garden-tractor style engines, excluding diesels, limited to 65.6ci (1075cc).
- 3. Must be naturally-aspirated, unless diesel. Diesel limited to two turbos.
- 4. Gasoline, diesel, or alcohol fuels only.
- 5. Maximum tire size: 26x12x12; maximum weight of vehicle and driver: 1,100 lbs.

E. Pro Sportsman

- 1. Maximum engine displacement: 1,500 cc (91.5 cubic inches) with a maximum of four cylinders.
- 2. Must be naturally-aspirated, unless diesel. Diesel is limited to two turbos.
- 3. Gasoline, diesel, or alcohol fuels only.
- 4. Maximum tire size: 26x12x12; maximum weight of vehicle and driver: 1,200 lbs.

F. Eliminator

- 1. Maximum engine displacement: 1,800 cc (110 cubic inches) with a maximum of 8 cylinders.
- 2. Diesel limited to two turbos.
- 3. Gasoline, diesel, or alcohol fuels only.
- 4. Maximum tire size: 31x15.50x15; maximum weight of vehicle and driver: 1,400 lbs.

G. Mini Rod

- 1. Aluminum or cast iron mass production OEM-type automotive or marine engine.
- 2. Maximum engine displacement: 2,800 cc (170.8 cubic inches).
- 3. If burning pump gas or alcohol, a supercharger or one turbocharger may be utilized.
- 4. If diesel engine, maximum of two turbochargers, with two pressure stages and choice of either water injection or intercooler.
- 5. Gasoline, diesel, or alcohol fuels only. No pressurized fuel tanks.
- 6. Maximum tire size: 31x15.50x15; maximum weight of vehicle and driver: 1,600 lbs.

H. Mini Rod

1. Aluminum or cast-iron automotive, marine, aviation, or industrial engines. No diesel engines or turbines.
2. Maximum engine displacement: 367.2 cubic inches (6.0 Liters).
3. Engines must be naturally aspirated; no blowers.
4. Gasoline or alcohol fuels only; no pressurized fuel tanks.
5. Maximum tire size: 31x15.50x15; maximum weight of vehicle and driver: 1,850 lbs.

VIII. General Rules

Note: Mini-rods (including 4 cylinders) must also comply with additional or overriding rules in Mini-Rod sections.

A. Clothing

1. All drivers must wear DOT-approved, Snell-rated helmets with chin straps fastened. Eyewear is required.
 2. All drivers, except for stock and stock-altered classes, must wear driver's suits that are zipped and closed to their fullest extent. The driver's suit may be either one-piece jumpsuit or two-piece type, and must show the patch proving a minimum SFI rating 3-2 A/1 or proof of equal protection.
 3. Fire resistant underwear, head sock and gloves, are not required for any class; however the Sanctioning Body does recommend them for use with all non-stock competition vehicles.
 4. Fire-resistant shoes are required to be worn while competing on any vehicle that has a driver protection cage. It is recommended that they be worn on all non-stock competition vehicles.
 5. Drivers of stock and stock-altered vehicles must wear long pants, a shirt with sleeves, and shoes/boots. If a jacket is being worn, it must be fully closed.
- B. All vehicles must have a secure seat which may not extend behind tires. Seat must have a back which stands a minimum of 3 inches above the top of the seat surface.
- C. All vehicles must have functional brakes and steering
- D. All vehicles must have a fully charged, functional fire extinguisher with a gauge within easy reach of the driver (minimum of 1 1/2 lbs. dry chemical or equivalent).
- E. All vehicles must be equipped with a "dead man throttle," with the rear-most position being idle.
- F. No portion of the tractor may interfere with the hitch of the sled during the pull. Chain and kill switch must be easy to hook without interference.
- G. Engine may not be used as part of the frame.
- H. Front tires must track within the tread of the rear tires.
- I. Exhaust must discharge vertically (+/- 10 degrees) upward and extend at least 12 inches from the exhaust port, with the exception of stock mufflers in stock tractors.
- J. All vehicles must have sturdy, safely secured fenders that will protect the driver from the tires.
- ### K. Stabilizer bars.
1. Must be used by all vehicles except for stock classes with OEM hitch.
 2. Must consist of 2 separate sections, each equipped with either skid plates or wheels.
 3. Skid plates are to be at least 3 square inches at the ground contact point.
 4. Wheels shall be at least 1-inch wide and 4 inches in diameter.

5. Skid plates or wheels (center of wheels) are to be no less than 5 inches behind the rear of rear tires and bottom of wheel, not more than 5 inches above the ground. One shall be on each side of the tractor with the combination of the two strong enough to support the weight of the tractor when a jack is placed under them to raise the tractor. No spring-loaded anti-tip devices will be allowed
- L. **Bumper bars** are required and must consist of a bar extending vertically 6 inches from the rear most tip of skid pads. The top of the vertical bar shall be supported by a brace which extends to the wheelie bar, chassis, etc. No portion of weights or tractor may extend beyond the bumper bars.
- M. **Draw Bars:**
 1. All vehicles must have a draw bar that is stationary in all directions with hitching device, not more than 3/4-inch in thickness and must have a minimum 1 1/2 inch diameter opening.
 2. Cross section thickness must be equivalent to 1/2-inch round stock.
 3. Pulling point may not be more than 3/4-inch from the back edge of hitching device, parallel to and not more than 13 inches above the ground and within 2 inches of parallel.
 4. An area 5 inches wide and 12 inches high, immediately above the draw bar, must be free of all obstructions including weights and wheelie bars for ease of hooking and unhooking.
- N. **Fuel**
 1. All vehicles must have fuel lines that are either routed or suspended to keep them away from hot engine components, or be steel braided.
 2. All vehicles must have a manual shut off valve on low pressure side.
 3. Modified tractor classes that are allowed to use diesel engines must utilize injection pump intended for that engine. Modifications may be made to the internal workings of the pump.
- O. **Accepted fuels:**
 1. Alcohol
 2. Gasoline
 3. Diesel Fuel
- P. **Fuel Tanks** are not to be mounted to engine and should be vented away from engine and exhaust unless stock.
- Q. **Kill Switch**
 1. A kill switch must be incorporated into all competition vehicles that is capable of immediately shutting down the engine as well as electric fuel pumps.
 2. On diesel engines, the kill switch must activate the air shut off. No electrically operated air shut offs. Diesel systems may use a spring-loaded cap activated by a cable.
 3. The kill switch shall be located at the rear of the vehicle in a position that will allow for easy attachment/detachment. The switch must be located a minimum of 12 inches above the hook point and within 6 inches either side of center. The ring must be a minimum of 2 inches in diameter and strong enough to pull the switch.
- R. Flywheels and starter pulleys of any engine turning more than 4,000 RPM must be made of billet steel or aluminum.
 1. No welded fins, no stamped steel pulleys.
 2. All starter pulleys must have a retaining device to prevent pulley from coming off the crankshaft.
- S. **Tow Hitch:**
 1. All automotive engine tractors are required to have a tow hitch.

2. It is recommended that all vehicles competing at a weight greater than 1,250 lbs. be equipped with a tow hitch.
 3. The tow hitch will not be included in the measurement of the vehicle. The hitch can extend no more than 6 inches beyond the foremost portion of the vehicle.
 4. The hitch must have a 2 1/2-inch hole, preferably positioned horizontally and be strong enough to push or pull the vehicle at its heaviest weight.
- T. Any vehicle utilizing points must have a cover over the points.
- U. Starter carts shall incorporate a cover over the battery terminals to prevent accidental arcing.
- V. Blow-by tubes must exit forward of the rear tires and must be vented below the head of the engine, extending down to the engine pan unless routed in exhaust.

W. Shielding:

1. All cast iron Kohler or Wisconsin-type engines that have been modified for high performance are to have scatter shields opposite the camshaft side of the motor.
 - a. It must be minimum 1/16-inch (.060) steel or .090 aluminum.
 - b. Minimum dimensions must be from the bottom of the engine to 4 1/2 inches above the centerline of the crankshaft and must be at least 7 inches in width.
 - c. Shield must be attached to the chassis/hood in a secure manner at the top and bottom.
 - d. This rule does not apply to stock classes
2. All drive chains/belts must be shielded radially, top, front, and rear with minimum 1/16-inch (.060) steel or .090 aluminum. Shield must be wider than the chain/belt.
3. Snowmobile-type sheaves (both primary and secondary) must be shielded radially 360 degrees with minimum 1/16-inch (.060) steel. Shield must be wider than drive unit and be securely mounted. This shielding may be incorporated with the belt shielding.
4. Motorcycle engines which utilize a dry clutch (i.e., Harley Davidson-type), must be shielded top, side, and rear with minimum 1/8-inch steel or equivalent.
5. Pro Stock and Modified vehicles must have the clutch assembly covered 360 degrees with minimum 1/8-inch (.125) steel or equivalent.
6. All exposed turbochargers or portions thereof, must be shrouded 360 degrees with minimum of 1/16-inch (.060) steel except for inlet or exhaust.
7. All turbocharged engines must have two 3/8 bolts, grade 5 or stronger, in the vertical portion of exhaust pipe(s). Bolts must be installed 90 degrees and within 1 inch of each other.
8. All super modified and open-class vehicles must have round metal loops shielding driveshaft. Maximum of 1 foot between loops, minimum of 2 loops. The 360-degree loops must be a minimum of 1/4-inch (.250) aluminum or 3/16 inch (.187) steel, 3/4-inches wide and not more than 1 1/2-inch from the shaft in any direction. It is acceptable to use a solid tube (1/4-inch aluminum or 3/16-inch (.187) steel) to meet above requirements.
9. All U-joints must be shielded 360 degrees with 1/4-inch (.250) aluminum or 3/16-inch (.187) steel. The minimum length shall not be less than 1/2-inch greater than the U-joint assembly.
10. Motorcycle type jackshafts must be enclosed with minimum 1/8-inch steel or 1/4-inch aluminum.
11. Pressurized intercoolers must be shrouded 360 degrees with minimum 1/16-inch (.060) steel or equivalent aluminum, except for inlet and exhaust.

IX. Aviation, Industrial, Military, and Commercial Marine engines

- A. Tractor pulling application when gearbox is used between engine crankshaft and the clutch:
 - 1. The gearbox output shaft must not exceed 1 1/2 (1.5:1) times the speed of the crankshaft.
 - 2. No torque converters behind the gearbox allowed.
 - 3. The shaft that accepts the flywheel must be made of solid billet steel and be a minimum of 2 1/4 inches in diameter, and must be heat treated 4140 steel and be 30 to 38 Rockwell.
 - 4. Clutch assemblies are limited to a maximum diameter of 11 inches.
 - 5. The bell housing used in the application must be bolted to a 1/4-inch or greater steel plate with a minimum of (12) 3/8-inch (grade 5) bolts evenly spaced around the bell housing. The plate must be securely fastened to the frame by (8) 3/8-inch (grade 5) bolts with 4 bolts on each side of the frame.
 - 6. The gearbox must be securely fastened to the frame by a 3/8-inch steel plate, or securely fastened to the rear of the engine.
 - 7. The gear box must be mounted and secured to the tractor sub-frame to withstand lifting the entire tractor weighted for the lightest class it can enter.
 - 8. The minimum construction specifications for the gearbox are 3/8-inch (.375) steel or 3/4-inch (.750) aluminum.
 - 9. Tractors using the above type of arrangement (A 1-8) must provide official proof of gearbox speed. No alterations to the above specifications unless approved by the officials.
- B. Tractor pulling application with clutch mounted on the crankshaft or on a shaft connected to the crankshaft:
 - 1. The shaft or adapter that accepts the flywheel must be made of solid billet steel, be at least 2 1/4 inches in diameter, be heat treated 4140 steel, and be 30 to 38 Rockwell.
 - 2. Clutch assemblies are limited to a maximum diameter of 11 inches.
 - 3. Bell housing used in this application must be bolted to an engine plate with a minimum of (12) 3/8-inch (grade 5) bolts evenly spaced around the bell housing. Engine plate must be minimum 1/4-inch steel (3/8-inch aluminum). Plate must be securely fastened to the engine or frame by at least (8) 3/8-inch (grade 5) bolts, with 4 bolts on each side of the frame. If using a single rail design, the plate on the front of the bell housing must be securely fastened to the frame by (8) 3/8-inch (grade 5) bolts, with 4 bolts on each side of the frame.
 - 4. No alterations to the above specifications unless approved officials

X. Automotive Clutches, Flywheels and Automatic Transmissions

- A. The use of torque converters and automatic transmissions will be permitted.
- B. All automatic transmissions must have a neutral safety switch.
- C. All torque converters and automatic transmissions must be covered with a scatter blanket that extends from the rear engine block to the front of the tail housing. Blanket must be fastened forward securely with two straps on each side, one above crankshaft centerline and one below the crankshaft centerline. Blanket should have 6 inches of overlap. Straps must not be less than 2 inches wide and not more than 1 inch spacing between each strap.
- D. For manual transmissions the bell housing must be a commercially-available steel bell housing, or the bell housing must be covered with a scatter blanket or be shielded 180 degrees from the top with a minimum of 1/4-inch steel..
- E. No gray cast metal allowed in flywheel or clutch components. All vehicles using a clutch will be required to have steel billet or aluminum billet flywheel with a tensile strength of 60,000 PSI and yield strength of 40,000 PSI.

- F. Lenco-type transmissions (excluding reverser) must be covered with a scatter blanket as described in this section, item C.
- G. All vehicles using an automatic transmission must be equipped with a positive reverse-gear lockout.
- H. Bell housing liners are highly recommended.
- I. Clutch can liner thickness to be 1/8-inch (.125) 4130 moly. Liner is to be secured to the can by drilling and tapping a single 1/4-inch (.250) hole through the bottom of the clutch can. If the liner does not fit, the liner length can be cut off to fit the depth of the can so that it begins directly behind the starter ring gear (if one is used). It must extend the full length of the can until the back of the clutch begins to taper. If starter ring gear is not used, can liner must then extend from the block saver plate rearward to where the taper begins. Stand adjustment slot in liner should be cut directly under slot in can.
- J. No lightning holes allowed on the transmission face of the bell housing. One cooling hole is allowed, maximum 1 inch in diameter on the face of the bell housing. Bell housing may not be welded or repaired in the explosion area of the bell housing.
- K. No chemical milling allowed.
- L. The inspection/maintenance (I/M) hole in the bell housing shall not extend further forward at its top edge than flush with the cross shaft hole, nor farther downward at its top edge than to allow a 1/2-inch bolt diameter edge distance for the fastening holes in both the bell housing and the I/M hole cover. The length of the I/M hole shall be no more than 8 1/2 inches, and the ends of the hole shall be smoothly and fully radiused to produce an oval shape.
- M. There shall be (12) 5/16-inch, grade 5 or better, cap screws securing the cover to the bell housing. The cover must have a plate fillet that fits flush inside the housing. The cover and fillet must be steel. The fillet must be welded to the cover and all bolts must be flush to the inside.
- N. There must be 4 bolts used to secure the transmission to the bell housing with 3/8-inch (.375) minimum diameter.
- O. All bell housings must be flush on the inside surface.
- P. All engines with a bell housing and clutch will run a full block plate, either a commercially-available unit or minimum 3/16-inch (.187) steel or 1/4-inch (.250) aluminum with (5) 3/8-inch (.187) grade 5 bolts evenly spaced on the bottom of the bell housing.
- Q. Titanium is approved for the bell housing.
- R. Non mini-rod tractors that utilize an automatic transmission must have minimum 1/8-inch (.125) steel or 1/4-inch (.250) aluminum from the back of the block to the tail shaft housing, covering the top and sides, extending 2 inches below the lowest point of the transmission or it must be covered with a scatter blanket.

XI. General Rules – Mini-Rod

A. Engine Shielding:

1. A deflection shield extending the complete length of the block casting is required on both sides of the engine. Shielding must be minimum 1/16-inch (.060) steel or equivalent strength aluminum and be securely fastened.
2. Piston powered aircraft, industrial, or military/commercial type marine engines must have a minimum of 1/8-inch (.120) thick side shields. This may be in one or two layers.
3. Shields must be solid. Engine mounts, filters, steering rods, fuel injection pumps, etc., may not be used as shielding.

4. Solid frame rails, with no holes, may serve as part or all of the shield provided that it covers the required area of block casting.
 5. Shielding of V or Y type engines (including marine and aircraft) must extend from base of head or the uppermost part of the piston and travel to 2 inches below bottom center of crankshaft throw, and be securely fastened.
 6. Shielding of inline engines shall extend from the bottom of the head (top of block) to 2 inches below bottom center throw of crankshaft.
 7. Side shields must be mounted independently of the engine block. Engine mount, block saver plate and header mounting or chassis mounting is acceptable.
 8. Engine fans must be completely shrouded with minimum 1/16-inch (.060) steel or equivalent. Electric fans shall be excluded from this rule.
 9. For mini-rod engines a bolt in the crankshaft is required to hold damper pulley.
- B. Engine/transmission combinations must have a minimum of 2 engine mounts and 1 transmission mount.
- C. All drivelines must have 3/8-inch (.375) steel 360 degrees around brake components, and both ends must be closed with 1/8-inch steel or greater.
- D. Driveline:**
1. The driveline must be enclosed with minimum 5/16-inch (.312) steel or 3/8-inch (.375) aluminum round shield; inside diameter is not to exceed 2 inches more than the outside diameter of the largest universal joint. Fastened every 6 inches or closer, with 3/8-inch or larger (grade 5) bolts, or butt and seam welded, and securely mounted to the vehicles frame. For mini-rods with an exposed drive shaft, no more than 1/4 inch of the end of the driveshaft shall be visible with driveline shielding in place.
 2. If U-joints are used in any driveshaft application, the shielding must be 5/16-inch (.312) steel or 3/8-inch (.375) aluminum with 1/8-inch (.125) steel insert in aluminum. The insert must be a minimum of 6 inches wide.
- E. Front skid plates are mandatory for the 1,850 Mini-Rod Class.
1. Skid plate mounted to center of the axle must be a minimum of 10 inches wide, with rolled edges front and rear. Plate must be a minimum of 6 inches in length, centered, and securely mounted to front axle or frame.
 2. Skid plate mounted in line with each rail (on both sides) equal in strength to frame rail material. Skid plate surface to be a minimum of 2 inches wide, 10 inches long, with a minimum 2-inch curved radius when measured from the front most part of rolled edge, or a maximum of 45-degree bend from the ground and a minimum of 1 inch in material past the bend.
- F. Either of the two options must be below the lowest portion of the tractor in the event of tire loss so skid will hit before anything else (on average the bottom of the rim will work).

XII. Event Procedures

A. Entry:

1. Registration will close 1 hour before event start time.
2. Driver's meeting will be held at least 15 minutes prior to event start time.
3. Scratching from a class prior to its start time shall constitute a refund of the entry fee.
4. Scratching from a class after it has begun shall not constitute a refund.
5. Pulling positions shall be determined by a random drawing at the time of contest entry.

B. Vehicle Operation:

1. All vehicles must be operated in a safe manner at all times. Vehicles with only one seat will have only one occupant. This includes tow and maintenance vehicles. Whenever vehicle is under its own power but not hooked to the sled, speed shall be comparable to being towed. Before any vehicle is started at any time, a capable person must occupy the seat.
2. The driver must remain in the seat for the duration of the pull attempt.
3. During active competition, the driver must have at least one hand on the steering wheel.
4. The flagman has the responsibility to stop any pull attempt considered unsafe.

C. Weights/Weigh-in:

1. All vehicles must have stationary weight brackets. No weights allowed in seat or hook point. All weights must be secured to the vehicle. Weights are not to extend more than 5 inches beyond the rear tire, nor shall they be positioned more than 8 feet in front of the center of the rear axle.
2. Weigh-in will occur before the pull is attempted. Vehicle must have all safety equipment in place; have sufficient fuel, oil, and water if applicable; and driver in the seat. If fuel or weights are added, the vehicle must be re-weighed. Weights may be relocated without repercussion. No vehicle exceeding their weight class will be allowed past the scales. At the discretion of the track official, an allowance may be made for an imperfect scale; however there will be no leniency on the accepted weight.
3. Neither weights nor weight brackets will be allowed as bumpers.

D. No air to be added to rear tires or taken out of front tires without re-weighing.

XIII. Contest Operations

A. General rules:

1. The track will be 200 feet in length.
2. If there is no barrier, the distance from the track will be a minimum of 30 feet, which is to include a 15-foot "No-Man's" land.

CROWD
15 FEET WIDE
15 FEET WIDE "NO-MAN'S" LAND
TRACK

3. If there is a barrier, the distance from the barrier to the crowd will be a minimum of 10 feet, which may include the required 10-foot "No Man's Land"

CROWD
BARRIER
10 FEET WIDE "NO-MAN'S" LAND
TRACK

4. During active competition, the only personnel inside of "No-Man's Land", "hot pit" and staging area shall be track officials, the active competitor, and the sled operator. Only the active competitor and credentialed people are allowed between "No-Man's Land," "hot pit," staging area, and the crowd.
5. A weight transfer sled, which conforms to the rules set forth by the Sanctioning Body, will be used in competition.
6. Anyone assigned to an operations position shall remain on that duty for the entire class (i.e. flagman, measuring crew, sled operator, scale operator, etc.).

B. Contest Procedures

1. The Head Track Official (end flagger) and Sled Operator will decide if the sled is deemed as "set".
2. Competitors must pull in the position as drawn. In case of mechanical breakage, confirmed by an official, the contestant may drop to the last position. If breakage is not evident, the puller may drop 6 positions which counts as the puller's first pull attempt; therefore, only one attempt remains.
3. Once the track and sled are set and ready for competition, the puller has 3 minutes to hook and make an attempt to pull.
4. Each driver has the right to have the sled spotted to a particular location on the starting line. The driver or assigned crew member has the responsibility to clearly request the location before the sled is returned to the starting line. In the case of a second attempt, a different location may be requested. The entire sled must be within the chalk lines at the start of the pull attempt. No official pull may be started beyond the starting line, or in back of the starting line. All sleds must be started in gear and with front of sled even with the starting line.
5. Each competitor will be allowed two attempts to make a measured pull. An attempt is defined as moving the sled 1 inch or further. If the competitor lets off the throttle on the first attempt and raises a hand before reaching the false start line, the competitor will get a second attempt, even if they went beyond the false start line. If no attempt is made to back off of the throttle and the competitor is flagged before reaching the false start line, no second attempt will be granted. The intent is not to slam on the brakes, but to come to a smooth, safe stop.
6. False start line for all classes is 75 feet.
7. On any re-pull caused by contest malfunction, the competitor may either re-hook immediately or drop 6 positions.
8. Competitor will be able to drop to last if breakage occurs on the first attempt and has let off the throttle prior to crossing the false start line. Puller will be eligible for 1 more attempt.
9. Only the test puller, and only on the test pull, will the competitor have the option of dropping an out-of-bounds disqualification; all other disqualifications on this or subsequent attempts will apply. Should the class be restarted, the competitor disqualified during the course of competition will be allowed to re-pull in the position drawn.
10. If a class is restarted, all competitors having previously pulled will, in descending order, have the option to drop to last without forfeiting any pull attempts. In the case of a restart, it is the competitor's responsibility to alert the track officials of their decision.
11. If the last competitor in the class has difficulties, this puller will have 6 minutes to hook to the sled and make their first attempt to pull.
12. If a vehicle is legal when hooked to a sled and breakage occurs while under the green flag, the pull will be measured. However, losing equipment, ballast (weights), liquid, or going out-of-bounds will result in disqualification with no measurable distance.
13. With only the exception of local rules requiring the engine not to be running, all vehicles must be in neutral/park while being hooked and unhooked to/from sled. During this time, the puller will show hands in clear view in order to be safely hooked or unhooked.
14. All pulls are to start with a tight chain.
15. Any tractor that is competing in a class must stay by the track until the class has completed.

16. Judgment calls by event officials are final and cannot be appealed. Both officials on the track must be in unity for a disqualification.

C. Test Puller

1. The competitor pulling in first position of each class, as determined by draw at time of entry, is considered the test puller.
2. Provided that the sled is deemed set, the test puller may accept their distance, or refuse their distance and hook immediately or in the 6th position for their two potential attempts.
3. If the test puller has mechanical problems during the test pull, (before first official pull), the track official may grant the competitor the option of dropping to last position. This would mean that the test puller has dropped the test pull and will have a potential of 2 additional attempts.
4. It is the test puller's responsibility to inform the finish flagman if they wish to take or drop the test pull. Leaving the track without informing the official assumes that the puller wishes to accept their pull.

D. Pull-Off

1. A "floating finish line" may be used at the discretion of the head official and the sled operator in a pull-off situation only. The added distance shall be a 10% maximum. Extended boundaries must be clearly marked. Competitors must be informed of floating finish line prior to the pull-off.
2. Order of pull-off will be in the order which the vehicles made full pulls or tied distances.
3. The puller must make the pull attempt within three minutes of the time that the track is ready.
4. If a pull-off is not completed because of rain, curfew, etc., points for the places involved will be divided evenly among all those qualified for the pull-off.
5. In the case of a second pull-off, if all qualified competitors do not wish to hook again, the points and/or purse for the places involved will be divided evenly.

E. Inclement Weather

1. A session of pulling will be called a completed show if 1/2 of the sanctioned classes have been run. Any class canceled after 2/3 of the scheduled entries have pulled shall be considered a completed class for establishing if 1/2 of the classes of a session or event have run.
2. For any class in which the entered competitors do not get an official chance to compete, all competitors with competition vehicles on the grounds will receive 5 inclement-weather points.
3. The head official, promoter, Sanctioning Body representative, and/or event director shall be the only parties involved in determining if and when an event shall be stopped due to inclement weather or track conditions.
4. Any class not completed for any reason will be treated as a rained-out class.
5. Any class not pulled for any reason entitles a refund.

XIV. Causes for Disqualification

- A. Decisions of the event officials are final. Arguing with event officials can/will result in event disqualification or suspension. Upon second occurrence, membership can be revoked for one year from date of second occurrence.
- B. Any competitor or member of a pit crew found in the staging, competition, or run-off areas in possession or under the influence of an intoxicating agent or drug, or having a measurable blood alcohol content during event activities, shall be barred from any further involvement or participation in the event and may face suspension, fines or termination of competition license.
- C. Delay of contest, unsportsmanlike conduct, using edge of fender as a grasp point, attempting to leave under a red flag, loss of ballast weight, failure to have all safety equipment in place, or deliberate attempt to cause slack in sled chain will result in disqualification.
- D. Excessive loss of liquid on the track, either while hooked to the sled at the starting line and not moving or while in forward motion, and not due to internal breakage, may result in disqualification. Excessive loss is defined as any steady or intermittent stream discharged onto the track, or a spot equivalent to more than 8 inches in diameter.
- E. Depositing of any equipment onto the track during the course of competition (mechanical breakage excluded) will result in disqualification.
- F. During the course of competition, vehicle may not touch any marked boundary lines or disqualification will result. Sled may go out of bounds and not result in disqualification.
- G. Any practice utilizing competition vehicles, tow vehicles, or other event-related equipment before, during, or after the event and at the event site, which are deemed deliberate and unsafe by officials, are cause for disqualification.

XV. Penalties

- A. If deemed necessary, a puller and/or vehicle may be placed on temporary suspension. Possible causes include, but are not limited to: arguing with event officials, fighting, alcohol or drug abuse during an event, illegal vehicle advantages, unsportsmanlike conduct, unsafe behavior, etc.
- B. Suspension can range from 1 to 5 pulls within a 350 mile range of puller's home address.

XVI. Protest Procedures/Fees/Appeals

- A. Verbal protest must be made within 5 minutes after the end of the class in question. This must be followed by a formally written protest which must be delivered to the entry clerk within 30 minutes. Forms are to be made available by the promoter or Sanctioning Body official.
- B. The protest must specifically identify the nature of the violation. The protested tractor can be pulled in other classes at that event before submitting to be checked.
- C. Tear down is by owner or owner's mechanic. At the request of the owner of the vehicle in question, this process may be completed with the only witnesses being the owner, owner's mechanic, and an event official. If a protested driver will not submit vehicle for inspection, it will be considered illegal. An illegal vehicle must be proven legal before being allowed to compete again. A tear down protest deposit consists of a deposit of \$100 for the first item, and \$50 for each additional item in question. This deposit shall be made at the time of the protest in cash. Protest may only be made by competitors in the same class as the vehicle in question.
- D. If the protested tractor is found to be legal, then the deposited money is given to the tractor's owner.

- E. If the protested tractor is found to be illegal, then the deposited money will be returned to the protestor.
- F. For each protested item found to be legal, the protestor shall forfeit the corresponding deposit. If said engine is illegal, the owner will forfeit all winnings and entry fees of the day for all classes that the vehicle would be in violation. The deposit for all items proven illegal will be returned to the protestor.
- G. The event official shall decide the protest as promptly as possible and shall inform the parties of the protest decision.
- H. If either of the parties does not accept the decision of the event official, the protest may be appealed within 10 days of the official's decision to the Sanctioning Body for a final decision.
- I. The purse of the involved portion of the event will be escrowed until a final determination has been made or the time period for filing an appeal has expired.
- J. A second sustained protest against either owner or driver within a 3-year time period can result in up to a 1 year suspension from time of second protest plus a loss of accumulated points.
- K. Even if the situation cannot be resolved on the spot, all relevant data (including photos, if applicable) must be collected prior to the protested vehicle (or sled, etc.) leaving the event site.

XVII. Voluntary Compliance

- A. The participant agrees to be bound by all of the decisions, rules, and regulations of SVTPA and the Sanctioning Body.
- B. The participant agrees to be bound by the decisions of the event manager or their designee, SVTPA and Sanctioning Body officials.
- C. The participant, by entering a sanctioned event, agrees not to bring any action or litigation against the event manager or their designee, SVTPA, the Sanctioning Body, owners of the pulling track, event sponsors, or event officials for any loss, damage, or injury caused by decisions, malfunctioning electronic or mechanical equipment, due to negligence or otherwise.
- D. The participant further agrees that any disputes concerning any event shall be resolved pursuant to the procedures provided for in this rulebook.
- E. The participant agrees to indemnify and hold SVTPA and the Sanctioning Body harmless for any costs incurred as a result of the failure of the participant to comply with the procedures and postscripts provided for herein.

XVIII. Sled Requirements

Shenandoah Valley Tractor Pullers Association will follow the current National Sled Association guidelines in the operation and maintenance of the sled during each season. There will be a sled committee appointed each season by the President to review and inspect the sled before each event.

XIX. Additional Rules

Host club/state may enforce specific rules, which are stricter than those included in this rulebook. Those rules may center on: fuel limitations, helmet rating, additional fire protective clothing, additional shielding, and increased size of fire extinguisher or seat belts

XX. Warranty Disclaimer

The rules promulgated in the current rule book are intended as guidelines for the sport of garden tractor pulling, and the rules relating to the safety of equipment are the responsibility of each driver who participates. No expressed or implied warranty of safety is intended nor inferred from publication or compliance of these rules. Nothing herein should be construed as a guarantee against injury or death to participants, bystanders or spectators. Specifications and rules set forth in the current rulebook are based upon the recommendations of competing members, crew members, and other participants in the sport of garden tractor pulling. All participants in a sanctioned event must assume all liability for any damage or loss caused by or from their equipment or the use thereof. The Sanctioning Body and SVTPA have not tested equipment, nor the use of equipment referenced in the current rulebook, and makes no warranties expressed or implied with regard to any use thereof. The user must look to the manufacturer with regard to said warranties.

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