

# **DELCO 1/4 SCALE PULLERS**

## \*GENERAL RULES\*

- 1. Judges/flagman's decision is final. Any disagreement of their decision on any point of controversy will result in disqualification in that class. Scale person has final say of weight and hitch height.
- 2. Each contestant will sign a waiver releasing the club, sponsors, and/or officers of any liability in case of an accident.
- 3. Drivers less than 18 years of age must have a signed Parental Consent Form.
  - > minimum 5-13 years old for 8hp Youth Stock
  - > minimum 5-8 years old for 10hp and 12hp Stock class

**but** Youth must pass a performance test and they may have one parent on the track with them. Performance test must show that the Youth can demonstrate they can push in clutch, put in gear, run the throttle and safely operate the tractor. If parent touches the tractor while Youth is pulling, **unless an emergency**, the Youth's pull is done and they will be disqualified.

> minimum 13 years old for 20hp Sport Stock, Stock Altered, Super Stock.

Adult supervision is required for pullers up to age 13.

- **4.** Tractors will be operated in a safe and orderly manner at all times.
- **5. No** alcohol or drug consumption during the pull. Club officers may disqualify any person under the influence of drugs or alcohol at any time and they may be asked to leave the event.
- **6.** Operators must be fully clothed, including shoes. **No** open toed shoes or shorts.
- 7. Fire suits and fire resistant boots or leather shoes are required in stock altered and super stock.
  - > suits must be zipped and secured > (SFI 3.2 A/1 rating)
- 8. Helmets are required in stock altered and super stock classes, including tractors jumping classes.
  - > all drivers under 16 are required to wear a helmet in all classes.
- 9. Operator must have tractor out of gear and hands off the steering wheel in view of person hooking tractor.
- **10.** Driver must remain in seat with feet on footrest. Driver must have at least one hand making contact with the steering wheel at all times during the pull. Fingers cannot go between fender and tire; you may install handrail on fender to hang onto.
  - > all fabricated seats must have a minimum of a 3" back.
- **11.** 20HP Sport Stock, Stock Altered and Super Stock are required to have a kill switch with a 1" diameter ring at the rear of the tractor.
- 12. Stock tractors must have working reverse.
- 13. All tractors must be equipped with wheelie bars. Point of contact should be no more than 5" from the ground and no less than 5" behind the rear most part of the tractor. Tire skid plate needs to be at least 1" x 3" at ground contact and wheels need to be 1" x 4" diameter and must be strong enough to support the weight of the tractor (no light weight wheels).
- **14.** 20 HP Sport Stock, Stock Altered and Super Stock: "I" brackets required. "I" brackets must be 6" high attaching at the rear most part of the wheelie bars and be attached by two points. (example: midwest bracket)
- **15.** Drawbar must be horizontal and stationary in all directions. Must be at least 3/8" thick minimum with a 1 1/2" hole pulling point, with 3/8" minimum to 1" maximum from edge of hole to edge of hook plate towards the sled side. May not extend beyond rear tires and no higher than 13" off the ground. It shall not contact any part of the chain except the hook.
  - > Clevis must be approved stock classes only.
  - > drawbar must be easily accessible.
- **16.** Must have a 6" no zone around hitch point including top.
  - > "3" on each side of hitch point.
- 17. All tractors must be equipped with foot pegs or running boards.
- 18. Fenders required may be fabricated. At least 4" x 12" (on top tire) coverage on fabricated fenders.
  - > must be able to support weight of driver.
- 19. All safety equipment and weights must be secure. Wheel weight rods must be covered. Tractor will be

- disqualified if any weights or equipment falls off and touches the ground while hooked to the sled.
  - > unforeseen driveline breakage does not disqualify the tractor or driver.
- **20.** Engine exhaust must discharge vertically above the hood or below the frame. Stock tractors with mufflers in place are not required to comply. (no side pipes)
- **21.** Any portion of the tractor touching the boundary line during a pull will result in disqualification. There is no "out of bounds" once the tractor passes the full pull mark, **except** in a pull off if the tractor goes "out of bounds" it will place last.
- 22. Batteries must be covered on all sides if not in stock location.
- 23. Tractor must be two-wheel drive, rubber tired.
  - > no track type tractors
  - > no tire chains
  - > no steel or dual wheels
- **24.** All starts must be with a tight chain (no jerking starts).
- **25.** Entrants will draw for position at the time of registration. Registration will be closed for each class at the start of that class. One stick will be pulled for both light and heavy classes.
- **26.** Number 1 pull position will be the test puller. Contestant may take the pull **or** come back 3rd official hook **or** come back last. Decision must be made **before** tractor is unhooked.
  - > if the test puller goes out of bounds or loses equipment the test puller still has the option of coming back 3rd or last.
- 27. Tractor may enter once per class. All tractors are allowed to move up classes.
  - > 8HP Youth class **only** may enter the class twice with same tractor, with a different driver.
  - > additional drivers at the discretion of the board.
- 28. Single engine only.
- **29.** In the event the contestant has to make a repair at the time of their hook, they are allowed to drop back 3 consecutive pulls or as time allows.
- **30.** Pull-off contestants are allowed to add fuel and/or move weight before pull-off and make repairs if time allows.
- **31.** Each tractor and contestant must weigh in after each qualifying hook, including full pulls. Hitch height 13" or less, class weight or less will be checked.
- **32.** No one except the driver and track official will be allowed on the track during the pull; except children (under 13) needing adult supervision. No walking in front of the tractor; must be walking on the clutch side of the tractor.
- **33.** Working zone for the track is 20 feet wide and 200 feet long minimum. Track to be determined day of the pull by the sled operator.
- **34.** Each contestant will be allowed two attempts or 50' to start the sled.
  - > all classes may coast past the 50' mark.
  - > pull off contestants are allowed 1 attempt.
- **35.** All tractors may be protested; **\$100** single cylinder, **\$200** twin protest fee per issue. Protest may be made by another participant in that class. If the tractor is found **legal** that puller will get the protest money. If the tractor is found **illegal**, the protester keeps the protest money. Tear down will be done at the end of pull day. The owner or designee of owner shall perform teardown. One tech official who is not competing in the same class and one board member shall perform the technical measurements and issue a pass or fail determination only.
  - A) you must prove tractor is legal to compete in the class again if found illegal.
  - **B)** board will be able to tear down any tractor without protest fee. All board members must be in agreeance of the tear down.
  - **C)** if tear down **is refused** the tractor is deemed **illegal** and will **not** be allowed to pull again until proven **legal**.
- **36.** No tractor may pull until tech/safety inspection has been performed and must have Delco tech tag visible. Techs may **not** inspect their own tractors **or** any relation/family.
- **37.** If you register and choose to leave before your class has pulled, you donate your money to the club. (equipment breakage does not apply)
- 38. No pressurized fuel

## \*STOCK CLASS RULES 0-20HP\*

 8 HP 19.5 CU. IN.
 16 HP SINGLE 36.75 CU. IN.

 10 HP 25.5 CU. IN.
 16 HP FLATHEAD OPPOSED 43 CU. IN.

 12 HP 30 CU. IN
 20 HP V-TWIN 38.75 CU. IN.

20 HP

FLATHEAD OPPOSED 50 CU. IN.

- Tractor must be stock in appearance of manufacturers; hood, grill, shell and fenders. Aftermarket frames are
  acceptable as long as they are an identical copy. Mix match sheet metal is allowed, wheelbase may not be
  altered from original frame.
- 2. All fabricated seats must have a minimum of a 3" back.
- **3.** Tractor frame may be altered for an engine change, but may not be lengthened.
- **4.** Wheelbase may not be altered from original equipment.
- 5. Engine need not be original, but must remain in stock form. A) Adjustable flywheels allowed
- 6. Maximum 2 cylinder, up to 20HP allowed.
- 7. Stock lift .330 camshaft, stock stroke for engine model.
  - > +.040 over bore allowed.
  - > piston must remain flush or below top of block.
  - > port and polishing allowed.
- 8. Must use stock unaltered carburetor O.E.M. carb for that mode
  - > 10 12.5HP = 26
  - > 16 20HP = 30
  - > choke plate optional.
- **9.** Stock size valves for engine model.
- **10.** Velocity stack allowed, must have air cleaner. (velocity stack & air filter **max** length 9" total, must use commercially made air filter)
- 11. Must use stock O.E.M. head, surfacing allowed. No internal modifications.
- 12. Must use stock type ignition system. Chevy points allowed with cover.
- 13. No electric fuel pumps, unless factory equipped.
- 14. No pressurized fuel.
- 15. No intake standoffs.
- **16.** RPMs must be controlled by the governor. No external springs for any reason.
  - > max RPM limit 4000 RPM up to 12.5HP (no load).
  - > max RPM limit 4500 RPM 16HP & 20HP (no load).
- 17. Transmission/transaxle must be original equipment for the tractor.
- 18. Modification to clutch, driveline, and transaxle are allowed.
- **19.** All flywheels, clutches and pulleys must be equipped with shielding if other than original equipment. It must be 1/8" steel or equivalent.
- 20. Maximum tire size is 26 x 12 x 12, 8.50 x 16, 9.50 x 15 will be allowed if original equipment.
  - > no professional pulling tires or paddle type tires or cepek big bars.
  - > tread design may be bar or turf type.
  - > any style tire cutting permitted.
  - > no ATV tires.
- **21.** Front weight may **not** extend further than 7 ft. From the center of the rear axle and weight may **not** extend more than 6" behind or above rear tires.
- **22.** Tube front axles are allowed. (must function as a stock axle)
  - > pivot in stock location
- 23. Pumped fuel only.
  - > no alcohol or nitro based fuel.
  - > e85 allowed

## \*SPORT STOCK\*

- 1. Engine size (ohv v twin 46 c.i. max, flat head twin (opposed) 60 c.i., flat head single 48 c.i.)
- 2. 4500 rpm with working mechanical gov.
- 3. No aftermarket blocks.
- **4.** All engines can use aftermarket pistons, rods, cams, steel crankshafts, ect.
- 5. No lift restrictions on camshafts.
- 6. Flat head engines may use billet heads.
- 7. Ohv must run stock appearing heads and no valve cover spacers, stock height valve covers.
- 8. No limitation on valve size for all engines.
- 9. 1 carb only for all engines with a max venturi size of 1.2
- 10. Intakes may be homemade or mix & match kohler/briggs aftermarket, etc.
- **11.** Naturally aspirated **only**.
- 12. Ignition all motors are allowed to run crank trigger ignitions. No electronic ignition or rev limiters.
- 13. 52" maximum wheelbase
- 14. No pro pulling tires (including cepek big bars) with a maximum of 26x12x12.
- **15.** Mixing of trans/frames/body parts is allowed, but must use garden tractor parts.
- **16.** Electric fuel pumps allowed, must be hooked to a kill switch.
- 17. No alcohol or nitro fuels

#### \*STOCK ALTERED\*

- 1. Must run factory looking hood and grill. Must have stock length frame.
- Single cylinder, four cycle, flathead engines only (16 HP max.)
   \*\*\*NQS stock altered and 30 cubic inch super stock allowed running in this class per NQS rules\*\*\*
   30 cubes must run 50 lbs. Lighter and no nitro.
- 3. Tractors with ohv engine, twin cylinder engine or engines without steel flywheels or shielding will be allowed to compete, but will be limited to 4500 RPMs regardless of flywheel or shielding (20HP max).
- 4. Engines must be Kohler, Wisconsin, Tecumseh, Briggs, Onan, Kawasaki or Honda.
- **5.** Engine block must be o.e.m. stock appearance. Recast blocks are allowed.
- **6.** Maximum engine bore 3.78", maximum crankshaft stroke 3.25", 36.5 cubic inch limit.
- 7. Carburetor must be Kohler type. Chokes may be removed.
- **8.** Carburetor must be mounted to the engine with no more than 1" spacer.
- 9. Carburetor may **not** exceed one inch venture (must be stock location).
- 10. Billet heads are permitted along with aftermarket stock heads.
- 11. Porting and polishing are permitted.
- **12.** Blocks may be relieved.
- 13. Velocity stacks allowed.
- **14.** Camshaft may be reground.
- **15.** Maximum valve lift .330.
- 16. No welding allowed in engine blocks. No external modifications allowed on engine blocks.
- 17. Starter pulleys must be billet aluminum or steel. Factory starter pulleys and stamped steel are not allowed.
- **18.** All other engines **cannot** exceed Kohler specifications.
- **19.** All engines must have a scatter shield opposite the camshaft of the engine, must be made of 1/8" steel or 3/16" aluminum, must cover full height and width of block, be attached in a secure manner to frame and head or head plate.
- 20. Steel flywheels are mandatory, if running unlimited RPMs.
- **21.** All thread through finned area acceptable.
- **22. No** pressurized fuel tanks. **No** nitrous oxide.
- **23.** Pumped gas **or** alcohol (must be clear).
- 24. Gas specific gravity .750 max (tested with dielectric tester).
- 25. No oversized valves, stock size only, 1.380".
- 26. Wheelbase 52" max.
- 27. No portion of any tractor may exceed 7 foot from the center of the rear wheels, including weight.
- **28.** Maximum tire size 26 x 12 x 12. Tire tread pattern may be bar **or** turf type (no paddle type). Professional pulling tires are allowed.
- 29. Foot peg, platform and seat must be in stock location.
- **30.** Tractor must have garden tractor rear-end. Locked rear-end permitted.

\*\*THINGS WE WILL TECH\*\*

BORE 3.780 MAX VALVE LIFT .330 MAX CARB SIZE 1.0 VENTURI STROKE 3.250 MAX VALVE SIZE 1.380 MAX

#### \*SUPER STOCK\*

- 1. Tractor must be stock in appearance and must have a hood, grill, seat, and fenders in place.
- 2. Tractor frame may be modified.
- 3. Transmission and rear axle housing need not be original equipment for the tractor, but must have been original manufactured for garden tractor use. Internal parts may be modified.
- **4.** Engine need not be original equipment, but must meet the following rules:
  - > 1 or 2 cylinder (50.5 cubic inch) > 4 cycle
  - > original rated at 20HP or less
- **5.** 1/16" metal shield must be provided over all belts, chains, etc. **6.** 1/16" metal shield must be provided over turbocharger.
- 7. 1/8" steel **or** 3/16" aluminum shields must be provided 360 degrees around the flywheel (steel flywheel **only**) and clutch. 4500 RPM max limit for cast flywheel.
- **8.** Oxidizers (ie..nitrous oxide), pressurized fuel tanks are not allowed. There are no other limitations on fuel or fuel systems.
- **9.** Maximum tire size 26 x 12 x 12. Tire tread pattern may be bar **or** turf type (no paddle tires). Professional pulling tires are allowed.
- **10.** Maximum length of 8 feet from the center of rear axle forward, including weights. Maximum wheelbase length 56".
- 11. NQS pro-stock and super stock 50.5 cubic inch max are legal to run in this class.

# **CLASS PULLING ORDER**

# LIGHT CLASSES

13 & UNDER 8HP	850 LBS.
OVER 13 8HP	950 LBS.
UP TO 10 HP	1050 LBS.
UP TO 12.5 HP	1050 LBS.
UP TO 16 HP	1050 LBS.
UP TO 20HP	1050 LBS.
STOCK-ALTERED	1050 LBS.
SUPER STOCK/PRO-STOCK	1050 LBS.
SPORT STOCK	1050 LBS.

# **HEAVY CLASSES**

13 & UNDER 8 HP	900 LBS.
OVER 13 8 HP	1000 LBS.
UP TO 10 HP	1100 LBS.
UP TO 12.5 HP	1100 LBS.
UP TO 16 HP	1100 LBS.
UP TO 20 HP	1100 LBS.
STOCK-ALTERED	1100 LBS.
SUPER STOCK/PRO-STOCK	1100 LBS.
SPORT STOCK	1100 LBS.

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