

# LIGHT LIMITED SUPER STOCK TRACTORS

## Vehicle Rules for VTPA Nationals

Nov 17-18, 2018

Freedom Hall, Louisville, KY

For questions, please contact Tom McConnell at (502) 931-5068

## NON-MEMBER CLASSES

### Light Limited Super Stock Tractors

Light Limited Super Stock classes will run Battle of the Bluegrass Pulling Series Rules (included below) with the following exceptions:

- 1. NO DIESELS at this event
- 2. 370 maximum Cubic Inchs
- 3. 3" max on inlet on turbocharger
- 4. Non-Turbo tractors have no cubic Inch Limit

### Battle of the Bluegrass LLSS Rules - 2018

#### Weight

- Tractor weight will be 6000lbs.

#### Engine

- Engine crankcase, block, and cylinder head must be of same manufacturer, or factory replacement and can be used in any agricultural transmission and rear end that used that brand of engine, or through its company mergers used that brand of engine.

Example:

CNH=	AGCO=
Case	Oliver
Farmall	Moline
International	White
CasellH	Massey Ferguson
Ford	AC
New Holland	Deutz

- Must be OEM engine block, no Billet steel or aluminum blocks.
- Engine must match brand of tractor.
- Rear of engine must be in stock location for make and model of rear end and transmission housing, with a maximum tolerance of a 1" adapter plate.
- A 1% tolerance will be given on cubic inch limitations to allow for normal engine wear.
- No V-8 Engines permitted.
- No Overhead cams allowed.

## LIGHT LIMITED SUPER STOCK TRACTORS

- The largest fuel system allowed is a “P”-pump with one plunger per cylinder and one injector per cylinder.
- No P-Pump larger than a P7100
- No electronically controlled fuel system allowed.
- No secondary source of fuel (liquid or gas) or oxygen enhancer allowed.
- Water injection allowed with oil lubricant only, no additives allowed in injection water, and water will be subject to testing.
- Computer can only be used for data acquisition, may not be able to control engine timing, or fuel delivery.
- No traction control.
- Exhaust must be discharged vertically; no rain caps or curved pipes at outlet allowed, and exhaust pipes must be securely fastened to tractor.
- Exhaust pipes must have two 3/8” grade five bolts set within 1” at 90 degrees to each other at least one foot below opening in the exhaust.
- Harmonic balancer must be shielded with at least 1/8” metal underneath the front of the block and secured to the frame with four 3/8” bolts.
- Engines must have one 3/8” safety cable completely surrounding the block and head passing between the first and second cylinders, through the exhaust manifold port area, with a minimum of four clamps at all splices with 4-6 inches of slack.
- Diesels must have a spring-loaded closing mechanism air shutoff. To be deemed acceptable, when activated. The shutoff mechanism must prevent boost of engine. The kill switch must be mounted securely to the back of the tractor and have a 2-inch diameter ring (minimum 1/8” thick). Operator must also be able to operate from the driver seat.
- Alcohol engines must have a kill switch to disable the ignition.
- Diesel fuel system must have manual three-way dump valve installed ahead of the injection pump, to be operated by the operator from the driver seat.
- Must have “Dead Man” throttle with two return springs that automatically returns to idle when released by operator.
- No mechanical fans allowed.
- Flywheel will be made of steel or aluminum and be SFI approved, absolutely no cast iron allowed, and all clutch assemblies will be steel and SFI approved. No cast iron.

### **Alcohol Engine Option**

- Maximum of 370 cubic inches for single turbo charged alcohol engines. No intercoolers allowed.
  - o This engine combination can run a maximum of one (1) smooth bore 3X4 Turbo
- #### **Turbo Restrictions**
- All turbo compressor and exhaust wheels must protrude into the housing no less than 1/8th of an inch.
  - The compressor wheel must measure no larger than 3-inch at the face of the wheel.
  - 0.200 MAF enhancement is to be placed in the neck of the compressor housing in the factory location.
  - Diesel engines that will be allowed to run a 3.4” smooth bore turbo, the compressor wheel must pro-

## LIGHT LIMITED SUPER STOCK TRACTORS

trude into the housing 1/8th of an inch and the compressor wheel must measure no larger than 3.400" at the face of the compressor wheel.

- No superchargers allowed.
- Turbocharger(s) must be under stock hood or shrouded end to end and 360 degrees around with .060" thick metal. Turbocharger(s) must also be shrouded if under a fiberglass or plastic hood.

### Cylinder Heads

- Cast iron OEM cylinder heads only. No billet or re-cast cylinder heads allowed.
- Cylinder head must match the engine block.
- Valves must maintain the factory angle, lateral movement of valves ONLY. Valves must seat in the bottom of the OEM head on all 6-cylinder engines.
- Cylinder heads are limited to two (2) valves per cylinder.
- One spark plug per cylinder ONLY.
- Only one (1) plate will be permitted between the top of the block and the bottom of the cylinder head, with a maximum thickness of 1 1/8th inch.

### Chassis

- Maximum length 13 feet measured from center of rear axle to forward most point, excluding tow hook.
- Maximum wheelbase 114".
- OEM tractor rear end, bell housing, transmission and axle housings only will be accepted, no component tractors allowed.
- No type of front-end suspension will be allowed; swivel axle front ends will be accepted.
- Allow tractors with cast tub (belly)-type frame (ie., Oliver, Cockshutt, White) to remove complete frame from front of transmission housing. The Engine and clutch housing to remain in original location and mounted solid as intended by original manufacturer, with motor mounts in the front and rear of the engine.
- No engine cradles.
- Once the tub is removed the rear of the engine cannot be exceed 60 inches from the center of the rear axle.
- Tractors that have removed the tub (belly)-type frame will be required to have 100lbs of non-movable weight mounted onto the belly of the tractor.
- Oliver style tractors must also run a SFI 6.2 or 6.3 bellhousing with SFI inspection sticker in place. If they continue to run the OEM bellhousing they will be required to run a 6 buckle 4.1 SFI rated blanket.
- All housings must stay in place, bolted ridged in all other chassis.
- Auxiliary transmission will be permitted.
- Skid plate must be mounted in-line with each frame rail and extend from the center of the front axle forward (on both sides) equal in strength to frame rail material. Skid must be securely mounted and braced to the chassis. Skid plate surface to be minimum of 4 inches wide and 12 inches long with a minimum 6-inch curve when measured from the front most part of rolled edge. Note: Skid plate must be able to support the weight of the front end when checked with jack. Maximum ground clearance is bottom of wheel rim not to exceed 4 inches with front tires in normal operating position.
- Tractors must have a full running frame rail from the axle housing to the front of the tractor or tie bars running from the axle housing to the frame. The tie bars must be able to support the weight of the

tractor with all of the bolts from the transmission housing removed.

### **Hitches**

- All hitches will be minimum 3 ½ inches long X minimum 3 inches wide at the hook point. Vertical thickness of hitch will be maximum of 1 ½ inch minimum 1-inch cross-sectional thickness. Hitch will be no shorter than 18" measured from the center of the rear axle to the hooking point.
- Maximum hitch height 20"
- Wheelie bars independent of hitch. Must be able to lift tractor with jack under pad in heaviest class tractor participates in. Pad to be no more than 10" above ground and should be minimum length of 32" from center of axle when set at the 10" maximum height.
- If the drawbar has provisions to be made SHORTER than the legal length (18 inches from the center of the rear axle) is not acceptable as a legal drawbar.

### **Tires**

- Maximum tire size 30.5 X 32
- Minimum tire size 24.5 X 32

### **Fuel**

- Acceptable fuels are diesel fuel, alcohol and gasoline.
- No oxygen carriers or combustion accelerators will be permitted.
- No ether starting aid can be on tractor.

### **Safety**

- Complete fire suit, fireproof gloves, head sock and fire shoes are required. Must meet SFI spec 3.3c. All drivers will be required to use a SFI approved 3.3 neck collar.
- All competitors will wear a full-face helmet. Snell 2005 rating or better.
- All tractors will have SFI approved clutch/flywheel assembly. No cast iron.
- All tractors will use a six buckle 4.1 SFI approved safety blanket.
- A safety light system is required. A white automotive quality light, minimum of 2" in diameter, must be directly mounted above or below the safety kill switch at the rear of the tractor.
- The light is to be activated by a shift lever such that it will only be illuminated when the tractor is in reverse.
- Must have at least 2 ½ lb. Fire extinguisher and be convenient to the operator.
- Roll cage is required to meet SFI 47.1 requirement. 5 point SFI harness is required.
- Side panels, firewall, and fenders are required on all tractors.
- Fenders must be constructed so that when the driver is secured in the competition position no part of the driver's body can touch the tire.

## PRO STREET 2WD TRUCKS

### Vehicle Rules for VTPA Nationals

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## NON-MEMBER CLASSES

### PRO STREET 2WD TRUCKS

Pro Street 2WD Trucks classes will run Battle of the Bluegrass Pulling Series Rules (included below) with the following exceptions:

Sheet metal must be 1985 & Older

### Battle of the Bluegrsss 2018 Pro Street 2WD Rules 5200lbs

#### Hitch

- No Chains or cables.
- 42 inches minimum from the center of the rear axle to the hooking point.
- Hitch must be stationary in all directions.
- 28-inch max hitch height.

#### Engine

- 470CI Limit
- Engine must match the manufacture make of the truck.
- Limited to one Holley 4777 carburetor.
- Only the jets and pump can be modified.
- Air cleaner assembly must fit under the hood
- Cast iron intake ONLY
- 2-inch max on any spacer between the carburetor and the intake.
- Engine must have factory type oil system, no dry sump oiling system allowed.
- Oil pump must be in factory location.
- No shaft style rocker arms, must have stud mounted rocker arms.
- Roller Rockers are permitted.
- No titanium valves.
- Any battery powered ignition may be used.
- Headers are permitted and can exit through the hood or underneath.
- Electric fuel pumps are allowed.
- Cool cans are permitted, but not in the cab.
- Solid mechanical cast camshafts allowed, must use OEM type steel lifter.
- No Roller, mushroom, ceramic, shubek, etc. lifters allowed.
- No 502 blocks allowed.

- **Cylinder Head**

- Chevrolet allowed – Oval port head.
- Ford allowed – Dove head.
- Dodge allowed – 906, 452, 915 casting numbers.
- Cylinder heads can be ported and polished, no modifications of the port location and no raised runners are allowed.

- **Body and Chassis**

- Must run a full-size truck body, no less than ½ ton, no more than 1 ton.
- Body or bed alterations to gain class advantage is prohibited.
- Beds can be gutted, but must run factory front and sides.
- All beds must be covered.
- No cutting or gutting inside the cab, however any pieces or components that can be unbolted can be removed.
- Traction bars and struts are permitted.
- Front inner finder wells can be removed.
- All components must be in the original position on a stock frame.
- Must have factory suspension, can be solid with working front brakes.
- Cross member can be notched for oil pan.
- Must have doors and hood and must remain in the factory location.
- Factory tank in original location or in the bed.
- Tailgate may be removed for safety of person hooking the sled.
- Bumpers are optional.
- Must run a full glass cab.
- No narrowing of rear ends.
- Sled stop cannot be any longer than 12" past the bed.
- Rear weight rack is permitted but cannot exceed 12" from the back of the tailgate.
- Front weights must be under the hood and in the engine compartment. No weights can extend past the grill.
- 12.50X16X33 street legal tire only.
- Stall convertors allowed.
- Maximum 5 speed manual transmission
- 134" max wheel base (from the center of the front wheel to the center of the rear wheel)
- Must have factory radiator support with radiator behind it.
- Big rear ends allowed.
- Must have factory hubs that wheels bolt to.
- No cut gears or transfer case allowed.

**Safety**

- All trucks must be equipped with a kill switch.
- All trucks must be equipped with a blow proof blanket.
- All trucks must be equipped with drive shaft loops.
- All trucks must be equipped with U-joint covers.
- All trucks must be equipped with harmonic balancer cover or SFI approved balancer.
- All trucks must be equipped with fan stroud on an engine powered fan, fan must be covered.
- All trucks must have a SFI approved fly wheel and clutch.
- All vehicles/drivers must comply with general rules.

## **FARM STOCK & MUSCLE TRACTORS**

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### **NON-MEMBER CLASSES**

#### **FARM STOCK & MUSCLE TRACTORS**

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- Tractor must be original make, model engine and sheet metal
- No tractors newer than 1985
- Tractors must be stock in appearance and may be able to easily convert from pulling tractor back to stock farm tractor including such things as working lift arms. working PTO e
- No alterations to OEM chassis.
- VTPA reserves the right to determine if a tractor is too hot to compete in farm stock and muscle tractor classes.
- Speed limits are 6 & 7 MPH and if a tractor produces too much smoke, it can be disqualified.

## MINI-TRUCKS

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### NON-MEMBER CLASSES

#### MINI TRUCKS

Mini Trucks will be going by KOTTPA Rules (included below)

4300lbs/406 Cubic Inch

#### KOTTPA 2018 4300# MINI TRUCK 2WD RULES

1. Factory sheet metal, fiberglass hoods are allowed.
2. Factory firewall only to remain in factory location: driver & steering wheel to remain on left side of drivers compartment.
3. Must use factory compact truck rails, may reinforce from front to back; cannot add to rear of frame length
4. Must be compact style truck; S10, Ford Ranger, D50, Jeep Comanche etc, no full size. Any kind of motor to any kind of body.
5. Wheelbase must not exceed 109 ¼" from center of rear axle to center of front axle.
6. Front windshield mandatory, (can use glass or lexan); all other glass optional.
7. Beds must be covered if cut out; tailgates are optional.
8. Maximum truck length will be 153" from the center of the rear end to the forward most point of the truck, including weights. Maximum distance from center of the rear end to the absolute back of the truck, including sled stops, etc is 52". (A tow hook will be permitted and will not be considered in any measurement.)
9. Weights may extend no more than 12" from rear of factory frame, they may be mounted on sled stops. Weights must remain stationary while truck is in motion.
10. Up to one-ton rear end maximum. No Rockwells allowed.
11. Up to one ton six speed transmission with all working gears. No cut gears, may run automatic and stall converter. No auxiliary transmissions allowed.
12. Maximum rear tire size will be 33x12.50x15 DOT approved on a maximum 10" wide wheel, which will be measured inside bead to inside bead. Beadlock will not be considered part of the measurement.
13. 406 Cu. In. small block maximum with 0.50% tolerance (the 351 Cleveland will not be allowed in this class). May run aftermarket cast iron blocks but no raised cam blocks.
14. 2 or 4 barrel intakes, cast or aluminum; may run after market, intake may not exceed 7" tall, that is from the base of carburetor to the top of the block.
15. May run any camshaft
16. Cast heads only, may port and polish, may run after market, no 18\* or lower head, no aluminum heads. Under protest, determination will be made by actual measurement using a measurement tool.

## MINI-TRUCKS

17. May run any distributor which will fit into the original location, no mags.
18. Up to one 4 barrel, naturally aspirated carburetor, 850 CFM maximum with factory number on choke housing. Choke housing must remain stock. Numbers may not be altered. All air must go thru ventura. Carburetor "No Go Tool" must not exceed below factory casting ring in non-modified ventura. Tool must not enter bottom base plate. All other alterations are acceptable.
19. Exhaust headers may go up or back and down, no turnouts.
20. Lifters must remain stock dia. For engine make. (No Mushroom Lifters).
21. Can run Rev. Limiter cannot use ignition box that can alter timing when in motion.
22. Must run race gas, (NO ALCOHOL-NO NITROUS) These types only;  
VP, Citgo, Torco, Sunoco, or Renegade, up to 116
23. Hitch must be stationary in all directions: center of axle to point of hook 39 ¼" min.
24. Maximum hitch height is 27" from ground to point of hook.
25. No "L" shaped hitches. Hitch hole must be horizontal with ground.
26. Hitch may not exceed past front of bed, anchor pin should not be less than 7/8" dia.
27. No part of hitch to exceed 36" tall. Top stop not part of hitch.
28. Hitch adjusters for height must not exceed past factory frame.
29. Steel flywheel and safety bell housing and block plate.  
¼" shield 360 degrees: around the engine balancer: not less than 2" wide, except sfi approved balancer must have bar across front.
30. Engine cooling fans shielded 360 degrees: electric fans may not be covered.
31. Block shields must run the full length of engine and from top of frame to 1" above spark plugs.
32. All drive shafts must have 2 loops, 2pc shafts must have 4 loops. Minimum dimensions on loop material are .125 for steel, .250 for aluminum and 1" wide. No chains or cables to be used for loops. U-joints must be covered on top and both sides. Any driveshaft which has more than two universal joints is considered a two-piece shaft.
33. No fuel tanks, fuel lines or batteries in driver's compartment, batteries must be mounted in bed or engine compartment.
34. Must have neutral start switch with light mounted in rear and in cab to show in neutral.
35. Must have kill switch mounted in rear of truck to kill ignition and electric fuel pump.
36. No line brakes allowed.
37. Must have working fire extinguisher.
38. First place truck at each event will have fuel checked.
39. Rules have been locked in for a period of 4 years, 2015-2020 pulling seasons.