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Note\* All rules are used as a guideline to promote safe operations of a sanctioned truck and tractor pulling for the pullers, crew, and spectators.

#### I CONTEST PROCEDURE

#### A. Procedure

- 1. Any contestant under 18 must have written consent from parent or guardian and prior approval from Pro Pulling League Safety Committee. Minimum age for competition is 16 years old. A member or per hook participant may drive multiple vehicles in the same class, if properly registered prior to event registration deadline.
- 2. Contestant may not be allowed to participate for emotional or physical reasons. (i.e. including drinking or illness, etc.)
- 3. Only driver will be allowed on vehicle when it is being towed or driven. No riders on tow tractors or track equipment will be permitted.
- 4. Driver must be in driver's seat while engine is running.
- 5. Vehicle must be in neutral or park while hooking to or unhooking from sled. Driver is recommended to raise hands while hooking or unhooking from sled. Two springs required.
- 6. Any driver or crew member found under the influence of drugs or using intoxicating agents in the track area will be disqualified. Area is defined as 30 feet within the track.
- 7. No videotaping is allowed closer than 30 feet from track or unless directed by head track official.
- 8. The first puller in the class will have the option of test puller. The test puller may accept their distance, come immediately back, drop five positions, or last. Track official must be informed of decision before leaving the track.
- For mechanical reasons only a puller may drop to last position in the class. This is allowed by track judge's discretion. Safety equipment does not qualify for a mechanical problem.
- 10. Once track is ready and competition director signals competitor to the track, competitor will have four (4) minutes to make a measurable distance under green flag conditions. Puller receives two attempts to move the sled. If on first attempt, driver lifts off the throttle before 100' the puller will

return to the start line and receive their second and final attempt.

- 11. Puller may spot the sled anywhere in bounds and behind starting line if they wish. This must be done while sled is coming back to the starting line from the previous pull. Only one sled spotting is allowed.
- 12. All pulls will start with a tight chain. No jerking of sled is permitted. Excessive jerking of the sled will result in disqualification.
- 13. Excessive loss of liquid will result in disqualification, if vehicle is under the green flag. Failure to stop will result in disqualification. Excessive is defined as any steady or intermittent stream equal to a spot on the track of ten (10) inches in diameter. Major mechanical breakage will not result in disqualification.
- 14. Pulling will be considered over when forward motion stops. Puller must stop immediately when flagged or be disqualified.
- 15. Any re-pull caused by contest malfunction, the puller may drop five (5) positions or drop to the end of the class. Puller may not move any weight or competitor will be disqualified.
- 16. All pulls will be measured to the nearest inch, unless a laser is used. At Champion Tour & Silver Series events, the laser will read out 2 decimal places. In the event of a tie, for first place only a Pull Off will incur at the conclusion of the class.
- 17. When possible, all contestants must drive off and on the track. Tow starting will be done at last resort and under track judge's discretion.
- 18. All pulling vehicles must pass a tech inspection and meet all safety requirements before they can pull at any event. The Pro Pulling League retains the right to inspect any vehicle at any time. Refusal will result in disqualification.
- 19. No competitor may compete in a class, once the class has started, if arriving late.

- 20. Boundary line will be 330' long to start the pull, even though a Full Pull may only be 300'. Competitor may not touch boundary lines at any time. The Full Pull line will be established by the Head Track Official no less than 300 feet and no later than the fifth competitor, after a sled reset. The Full Pull line can be set in front of a vehicle even if vehicle has gone past 300 feet at either 310, 320 or a maximum of 330 feet. White disqualification line(s) will be 330 feet for entire contest. If Head Track Official determines a floating finish is needed that will be decided by the fifth competitor as well.
- 21. While vehicle is at scales weighing, only one crew person allowed in scale-masters area.
- 22. Once entries have closed, Champions Tour team-mates only, which will be predetermined at the season's start, if have drawn numbers which makes back-to-back hooks the second vehicle will drop one position on the line-up sheet. The only place not permitted will be the last two hooks of the class.
- 21. Judges decisions are final. There is no appeal process. Disagreement will result in disqualification.

#### **B.** Decals

- 1. Eligibility for end of season points funds and purses money is dependent on displaying of sponsors decals in a prominent and visible location.
- 2. Purse money may be withheld from any competitor who fails to display proper sponsor and/or Pro Pulling League decals.

# C. Disqualifications

- 1. Out of bounds, this is described as any part of the pulling vehicle touching the white boundary line.
- 2. Loss of weight under green flag.
- 3. Loss or failure of safety equipment or equipment belonging to vehicle under the green flag.
- 4. Illegal fuel or water injection.

- 5. Loss of excessive liquid
- 6. Unsportsmanlike Conduct Any competitor or crew member displaying unsportsmanlike conduct at any PPL sanctioned events whether verbal or physical will be reason for that team's loss of points and purse for the event where the actions take place. Any second offence after official notification in writing by PPL Office will be cause for the competitor and team suspension for a up to one year and ten days from date of infraction.
- 7. Illegal equipment
- 8. Leaving the starting line under red flag
- 9. Excessive argument with track official.
- 10. Deliberate delay on event
- 11. Attacking of official
- 12. Intoxication of driver

#### **D. Points**

1. The following is the Pro Pulling League point's structure.

1st	. 50	7th	.38	13th26
2nd	. 48	8th	.36	
3rd	. 46	9th	.34	
4th	. 44	10th	.32	
5th	. 42	11th	.30	
6th	. 40	12th	.28	

- 2. All remaining competitors will receive 25 points respectively, if a measurable distance has been made under the green flag conditions. If a competitor does not make a measurable distance competitor will receive 15 points.
- 3. Disqualifications will receive last place points and money in their class.
- 4. Eligibility for any points at any event depends on competitor paying entry fee and passing tech inspection. It is competitor's responsibility to have a tech official inspect

their vehicle.

- 5. 2/3 of a class presented shall make the class official.
- 6. When a class has been officially presented, but must be called off because of any reason, the purse and the points will be split equally for all competitors based on the number of entries in the class.
- 7. Points must be obtained by vehicle. If frame, body, and/ or design changes for mechanical reasons during season, or ownership changes during the off-season, must be approved by the Pro Pulling League.
- 8. No rain out points is awarded if entries do not open.
- 9. If at the end of the season points races result in a tie, the highest amount of first place finishes will determine an overall points winner. If a tie occurs, the next place position (2nd, 3rd, and so on) will be calculated until a winner is determined. Groups included (CT/SS/MR/WS)

#### **E. Protest**

- 1. All protests must be made in writing and submitted and signed within five (5) minutes of class being protested completion. Protest must clearly define three items: Who is protested, what they are protested for (limited to one item per protest), and by who is protesting.
- 2. All protest fees will be in cash. A) If protested vehicle is found legal, then fee will be forfeited to person found legal. B) If vehicle is illegal, then vehicle is disqualified with a loss of purse & points and fee is returned to protester.
- 3. Fee for protest are as follows:

Cubic inch - \$1,250. Complete tear down. A 1% variance will be given for wear and tear. \$250.00 from protest fee for tear down is paid to the (Official/Shop Fee) in charge of the tear down.

Remainder of tear down fee is returned to protester or given to protested party pending outcome of tear down.

3a. Any protest at Midwest Region events involving an en-

gine tear down will occur at the PPL office within 24 hours of the protest. If vehicle is not delivered to office within time period, protest will be defined as a failure and suspension will follow.

- 4. Fuel, Visual, Turbo, performance enhancements, etc. \$500
- 5. Any competitor knowingly competing with a performance enhancing equipment verified by a Head Tech Official or refuses to tear engine down at the event will be disqualified for a period of 375 days and including actions discovered by protests, at all Pro Pulling League events nationwide. Suspensions will include driver and vehicle.
- 6. The officials and the protested are the only people allowed near the vehicle during protest. Anyone causing disruption during a protest will be disqualified.
- 7. The Pro Pulling League reserves the right to suspend a competitor for any rules violation and will receive written notice in five (5) working days.
- 8. Judges decisions during the event are final.

# F. Pulloffs

- 1. Each competitor will have two (2) attempts to make a measurable pull.
- In a pull-off each puller will hook in the order that they pulled in original class line-up. No dropping of positions is allowed in a pull-off.
- No splits or ties at Champion Tour and Silver Series events, if two competitors reach the Full Pull mark. One of the qualifying competitors will hook to the sled and make a measurable distance.
- 4. If the track official believes that an error has occurred in sled setting, pull-off may be restarted. In this case, the first puller may come right back or drop to last.
- 5. In a pull-off, a floating finish line will be used for all competitors.

#### G. Rain/Cancellations

- 1. Any class not completed for any reason will be considered a rain out.
- 2. A session of pulling will be official if 1/2 of the advertised classes are completed.
- If purse is not paid to canceled class, entry fee will be refunded.
- Promoter and Pro Pulling League Official will determine if a class or session is a rain out.

#### **H. Violations**

- Any first time violation will result in disqualification from that event.
- 2. Second time violation for the same infraction will result in a 375 day long suspension.
- If there is more than one disqualification in a class, the last available money will be split equally among those disqualified.
- 4. Anyone suspended will not be allowed in the track or pit area for the duration of the suspension. If vehicle is sold, vehicle will be allowed to pull, but suspended party must not be involved with vehicle in any way.

# **II GENERAL RULES**

# **A. Automatic Transmissions**

- 1. The use of torque converters, automatic shifts, etc. will be permitted.
- All vehicles using an automatic transmission must have an SFI Spec. 29.1 automatic transmission flex plate. No cast iron is permitted.
- 3. All vehicles using an automatic transmission will use a positive gear lockout.
- 4. All automatic transmissions must have an approved safety blanket over the torque converter area. A full length safety blanket is required. Tractor blanket must meet SFI Spec.

- 4.1. Short blankets will work for SMFWD.
- 5. Vehicles where SFI bellhousing is not available to cover the clutch, an SFI type bellhousing may be used consisting of 1/4" steel and cover 360° with an SFI 4.2 blanket.

#### **B.** Brakes

- 1. All pulling vehicles will have adequate stopping brakes.
- 2. All brakes in the driveline will be shielded 360° with 5/16 steel or 3/8 aluminum, around the brake components. Ends must be enclosed in the 1/8 steel or aluminum, no cast metal permitted to be used as part of shield.
- 3. All tractors and 2WD trucks will have working individual working rear wheel brakes.
- 4. All 4x4 trucks will have complete working front brakes.

#### C. Chassis/Skids

- 1. All pulling vehicles will have a wide front end. Front wheels must track within rear wheels.
- 2. Component chassis tractors, engine and sheet metal does not have to match, but meet PPL approval.
- Tractor Divisions: A front axle brace will be mandatory.

Front axle support to be made of 2.00" X .095 tubing or 2.00" X .120 mild steel tubing or same material as tractor frame rails. Front axle supports should connect to each frame rail in-line and extend towards front of tractor. Front skid/front axle support should have radius to prevent digging into track. Front axle support frame should be strong enough to support front end weight of tractor. Support should have a maximum of 4" ground clearance.

- 4. Suspension systems with air must utilize a self-contained system with the following components: Maximum of three pneumatic lines or hoses and one pressure gauge mounted on suspension's manifold system. Electrical wires are prohibited.
- Mini Rod are required skid bars. A. Skid must be 2" wide by 10" long mounted in line with both rails of chassis. B. Skid

must be center of front axle 10" wide with rolled edges and a minimum of 4" in length

- 6. All air or hydraulic suspension systems cannot have hydraulic, air or electric lines attached during these devices during competition.
- 7. 4x4 Trucks: Vehicles mst use wheels no more than 6 inches off the ground, within 6 inches of furtherest most point. Wheels should support the weight of the vehicle, 6 inches wide and 4 inches in diameter. Wheels should support weight of the vehicle.

# **D.** Clothing

- 1. Fire suits required in all classes, minimum of SFI 3.2. In flip top bodied vehicles without a firewall or working doors, the driver will be required to wear an SFI 3.2A-5 approved suit. B) Fireproof gloves, fireproof head-sock, and fireproof shoes must meet SFI Spec. 3.3. C) All helmets must meet Snell 2015 minimum, or SFI Spec. 31.1, 31.2, 41.1, or 41.2.d) Neck collars are recommended.
- 2. Helmet face shield must be worn down during competition.
- Crew shirts, long pants are highly recommended in the hot pit area.

# E. Clutch/Bell Housing/Gearbox

- 1. All engines using a clutch flywheel assembly will run a full block saver plate. Material being 1/4 aluminum or 3/16 steel minimum. Bell housing must be attached to block plate per manufacturer's specification.
- SFI approved and certified bellhousings are required for all divisions that don't use a OEM belhousing. SFI current certification sticker and manufacture sticker with date of inspection and expiration must be visible.
- 3. One cooling hole will be allowed in the bell housing, one (1) inch maximum diameter. Hole must not be in explosion area of bell housing.
- 4. No welding will be allowed in the explosion area of the

bell housing.

- 5. No chemical milling permitted.
- 6. 6.2 bell housing (tractor) must be mounted with 18 3/8" grade 8 bolts.
- 7. All inspection maintenance holes must be no wider than 8 1/2" inches and the ends of the holes shall be smoothly and fully radiused to produce and oval shape.
- 8. 6.1, 6.3 & 6.4 bell housings require seven (7) 3/8 grade 8 required, in the top half of bell housing to block. Eight (8) evenly spaced grade 8 or better bolts are required on bottom half of bell housing.
- All bell housing liner(s) material steel or titanium only permitted. Liner must be flush with bell housing flange.
- 10. No cast iron clutch components or flywheels will be permitted.
- 11. Billet steel, aluminum, SFI 1.1 or SFI 1.2 flywheels will be accepted.
- 12. Clutches, flywheels and related components must be mounted to engine on vehicles using automotive type engines.
- 13. Modified: All cross boxes must have a total material minimum of 1-1/2" billet aluminum or 3/4" steel material from nearest part of rotating gear to the outside edge.

If cross-box does not meet minimum material a safety blanket made of a minimum of 20 layers of ballistic nylon or 15 layers of Kevlar which will surround entire gearbox. Blanket will have a minimum width of 3X the width of the gearbox to give a horseshoe effect on end-capping gearbox. Blanket will be considered 1/4 steel to help meet approved total thickness.

14. All Mini Rods will shield transmission with blanket consisting of 15 layers of Kevlar or 20 layers of ballistic nylon attached at the top; forward to the engine plate and at the bottom to each side of the chassis.

- 15. All clutches on aviation, marine and industrial engines must be approved by the Pro Pulling League.
- 16. Pro Pulling League reserves the right to spot check any clutch components at any time.

#### F. Drawbars

- 1. Hitch must be rigid in all directions. Hitch length and height cannot change before, during, or after pull. Drawbars must have the pivot pin on the same plane as the hook point. Drawbar must be parallel to the ground within (SS/SF/PRO/2WD) 15°. No cam, "L" or drop down hitches or cam type rear ends permitted. Primary drawbar must be painted white.
- 1a. MOD drawbar must be parallel to the ground within maximum of 10 degrees over its 18" length permitted.
- 2. All vehicles are required a safety hitch. Safety hitch must be as strong as primary hitch and cannot be connected to primary drawbar. Safety hitch must be mounted eight (8) inches below primary on all tractors and twelve (12) inches below primary for all trucks. A safety hitch should be a minimum of 3/8" thick. Safety hitch must be painted orange.
- 3. All drawbars will have an opening minimum of 3.75" X 3"inches. Drawbar must be a minimum of one inch thick.
- 4. All classes through 6000-8000# must meet the following requirements: Drawbar must be a minimum of two (2) square inches total material at any point. This will include area of pin removed; pin will be a minimum .875. must be a steel drawbar, not more than 1.5 X 1.5
- 5. All classes above 8000# must meet the following requirements: Drawbar must be a minimum of 2.00 square inches total material at any point. This will include area of pin removed; pin will be a minimum .9375. must be a steel drawbar, not more than 1.5 X 1.5
- Any provisions or adjustments (ex. air pressure) that increase drawbar height after drawbar had been checked and "set" are prohibited.

- 7. Drawbars must have a flat or round rear edge cross-sectional surface. No "V" cut drawbars permitted.
- 8. Hitch point must be clear of interference and visible to hook and unhook sled chain.

#### 2WD Trucks

- A. Drawbar must be mounted solid to frame and rigid in all directions.
- B. Drawbar must be parallel to the ground.
- C. Hitch height not to exceed 30 inches.
- D. Pulling point can be no more than 1 1/2 inches from back of drawbar.
- E. Hitch length can be no shorter than 18" from hook point to center of rear axle, measured horizontally.
- F. No cable, chain or clevis allowed in hitching device.

#### Modified 4X4 Trucks

- G. Point of hook to centerline of rear axle shall be no less than 30% of vehicles wheelbase.
- H. Hitch height no to exceed 26 inches.
- I. Drawbar must be mounted solid to frame and rigid in all directions
- J. Pulling point can be no more than 1 1/2 inches from back of drawbar.
- K. No cable, chain or clevis allowed in hitching device.
- L. If bed is too long it may be cut to accommodate 30% drawbar.
- M. Hitch point must be clear and visible for hook and unhook of sled chain.

#### Tractors

- 8a.Minimum hitch length 18 inches from center of rear axle to hook point measured horizontally.
- 8b.Hitch maximum 20 inches and must be parallel to ground within 15°. One piece of steel material. No welds.

8c. Hitch adjuster and mounts no higher than centerline of rear axle.

Mini Rods

9a. Must have a 2" round hole, maximum of 2.25"

9b. Thickness around the hole must be .75" thick and no greater cross section thickness of .75"

9c. Minimum of .50" hitch/pull pin.

9d. Hitching device constructed of one solid steel piece which has a minimum thickness of 1.00". No tubing permitted.

9e. Adjusters must be no farther than 5.00" from point of hook.

# **G. Driveline Shielding**

- Loops on all driveline must be round.
- 2. All U-joints must be shielded 360° with 3/8" thick aluminum or 5/16" thick steel. Shield will be six (6) inches long minimum and centered on u joint. Inside diameter of shield will be no more than two (2) inches larger than u-joint. If aluminum is used on u-joint shield, and 1/8" insert will be put inside of shield at u-joint area six (6) inches wide.
- 3. All vehicles with planetary rear ends will have the drive line totally enclosed with 5/16" steel or 3/8" aluminum. The inside diameter will not be larger than two (2) inches larger than the largest universal joint. No more than 1/4" of driveline will be visible. Bolts holding shield together will be 3/8" grade or better, bolted every two (2) inches or closer.
- 4. All other vehicles not using planetary rear ends will have loops 360° around driveline two (2) inches away from driveline, made of 3/8" aluminum or 5/16" steel, and spaced every 36 inches.
- 5. Maximum length of driveline on a modified tractor is 48 inches.
- 6. 4X4 trucks will have three (3) loops per shaft, evenly spaced on driveline, 3/8" aluminum or 5/16" steel thickness,

two (2) inch maximum away from driveline.

- 7. All intermediate shafts between transmission and transfer case will be totally enclosed in 3/8 "aluminum or 5/16" steel, 1/4" of shaft may be visible.
- 8. The following rule will apply to all divisions that use solid driveline shields over 16 inches in length:

Tether to be constructed of a minimum of 2" wide by 1/8" thick nylon or polyester strap. One end of tether must attach to one side of the chassis, then go around the driveline shield, then attach to opposite of the chassis. Tether must be attached to chassis by a minimum of one 3/8" grade 5 bolt with a grommet on each side or wrap around the chassis and use a buckle to fasten it to itself.

All driveline shield components must be tethered on each end by two opposing restraints. Tethers must attach at 180 degrees of each other and a minimum of 3" and a maximum of 6" from each end of each driveline shield component.

9. Tether to be constructed of a minimum of 5/16" steel chain or 2" wide nylon thick strap. One end of tether must attach to driveline shield by a minimum of one 3/8 grade 5 bolt attached to a tab. (minimum of 2" wide) to be welded to shield while other end of tether must be attached to chassis by a minimum of one 3/8 grade 5 bold. Buckles and cinch are permitted for attachment. Holes through straps must have grommet.

Note: Modified can tether back to chassis where applicable.

Note: applies to Mini Rod division and the intermediate shaft on FWD.

Note: FWD drivelines that use driveshaft hoops must use same tether configuration to be attached to main or common hoop holder between chassis and hoop assembly.

# **H. Engines**

NOTE: All cubic inch limits (regardless of class) are to be measured plus + or minus- 1%

- 1. Shielding on v or y type engines must be from the base of the head to two (2) inches below the crankshaft throw. Frame may be used as all or part of the shield provided it is solid and covers the required area.
- 2. Shielding on in-line engines will run from hood to two (2) inches below crankshaft throw. Shield must be complete, no holes accepted. Shielding must extend complete length of block and be securely fastened.
- 3. All side shields must be solid. Shielding will be made of a total of .125 aluminum or .090 steel minimum of inch thick.
- 4. Engine fans must be completely shrouded with steel 1/16" or thicker. Electric fans excluded.
- All automotive engines equipped with a harmonic balancer must have balancer that is SFI Spec 18.1 and carry SFI identification.
- 6. All supercharger drive components will be shielded on top and sides with .060" steel or 1/8" aluminum. Side is defined as to the centerline of bottom pulley. Shield should be wider than drive components.
- 7. All vehicles using an automotive type supercharger will use aluminum blower studs, SEMA specs 6061 T-6 to secure blower to intake manifold. Blower straps meeting SFI Spec 14.1 or high-quality nylon braided straps are required at all events.
- 8. Carbureted, or injected, marine or aircraft engines using a centrifugal super charger must be shielded as follows:
- a. Shielding will be the same on both sides of the supercharger.
- b The shield will start at the same at the centerline and extend four (4) inches rearward and four (4) inches forward.
- c. Notching will be allowed only to fit around necessary components.
- d. On the front edge of the shield there will be a rolled lip, extending inward one inch and at a 90° angle.

- e. Shield will be constructed of 1/4" thick steel and be bolted every two (2) inches or closer with 3/8" grade 5 or better bolts.
- f. Shield to start at bottom of housing and go over top and down the other side.
- g. Superchargers, as specified in rules above, may use a safety blanket with the following properties: 22 ply ballistic nylon or 18 ply Kevlar.
- 9. All diesel engines will have a manual three-way dump valve installed ahead of the injection pump, to be operated from dash panel.
- 10. All diesel engines; truck or tractor permitted maximum deck plate of one inch.
- 11. Any tractor sheet metal consisting of nonferrous material must have additional shielding inside of hood area. No open vents or louvers in hood area without a minimum of .125 steel or aluminum in turbocharger space.
- 12. All turbocharged engines will have one cable totally surrounding the engine block and head. The cable will consist of 3/8" diameter and located between the first and second cylinders. Cable must pass through the manifold areas. Cable will have four (4) to six (6) inches of slack. There will be a minimum of four (4) clamps at all splices.

A second cable minimum of 3/8" diameter position on front half of engine. Cable will have four (4) to six (6) inches of slack. There will be a minimum of four (4) clamps at all splices.

- b. All inline turbocharged engines are required to have a cable(s) placed between first and second cylinder through exhaust manifold port area. Cable must be a minimum of one (1) 3/8 manufactured pendant line with a rating of at least 3000 lb or more from the manufacture that indicates rated load capacity with swaged sockets, shackles or appropriate fork and pin.
- 13. Firewall minimum thickness 1/16th aluminum, 1/16th steel or carbon fiber, or 1/8th Lexan.

#### I. Exhaust

- 1. All vehicles must have exhaust discharging vertically within ten (10) degrees of plumb. Height to be a minimum of 8 inches above the bend in pipe which discharges vertically.
- 2. No megaphone pipes allowed.
- 3. Venturi-style headers permitted.
- 4. No rain caps permitted.

#### J. Fenders & Seats

- 1. All tractors must have some type of barrier between driver and tire. Barrier must be capable of supporting weight of driver.
- 2. All vehicles must have a strong and rigid seat.
- Fender must be constructed so that when driver is secured in the competition position, no part of driver's body can touch the tires.

#### K. Fuels & Fluids

- 1. Acceptable fuels are gasoline, diesel fuel, alcohol, and methanol. No fuels in pressurized containers. No oxygen carriers or combustion accelerators permitted.
- 2. No oxygen carriers or combustion accelerators allowed in water injection. Only water-soluble oil permitted in water injection. Water injection maximum reading on refractoneter is 5.0
- 3. No nitrous oxide, nitro methane, or propylene oxide. No ether bottles (starting aids) allowed inside of engine compartment.
- Top lube is allowed, but no nitro based top lube will be accepted.
- 5. Intercoolers will be permitted to carry only water and ice.
- Competitors will report to the scales full of fuel/water/ice etc.
- 7. All diesel tractors & trucks will have a fuel sampling valve.
- 8. All diesel powered competition vehicles will have a water

injection sampling valve, if no valve exists, the tank line will be unfastened to produce a sample.

- 9. All fluids are subject to diagnostic screening which includes but not limited to, specific gravity, mass spectrometer, oxygen concentration, and burn test(s).
- 10. Diesel fuel standards for PPL dielectric constant test are greater than 30 and less than 150. Diesel fuel specific gravity will range between .78-.88 @ 60F

#### 11 Methanol

- a. It is a liquid with a mild odor at ambient temperatures.
- b. It is sold in two US Federal Grades: A and AA.
- Both grades are acceptable for use in Pro Pulling League competition.
- d. Specific gravity for both grades, 20/20 is 0.7928

While specific gravity is the primary test used for methanol at PPL events, fuel check personnel may use various methods of chemical analysis as considered appropriate by them.

Note: Methanol is classified as a hygroscopic substance, which means that it readily absorbs moisture from the air. Because of this property, it quickly renders methanol illegal as a fuel for use in PPL competition.

# L. Ignition/Dataloggers

- 1. Electronic fuel injection is prohibited except diesel truck classes (2.6/3.0/DieselSS4X4).
- 2. Electronic timing delay devices or programmable ignition boxes prohibited (LTSS/MOD/2WD)

#### M. Tires

A-30.5X32 maximum of 210 inch circumference, when inflated to 10psi. Tread width not to exceed 31".

B-24.5X32 maximum of 210 inch circumference, when inflated to 10psi. Tread width not to exceed 25".

C-20.8 maximum of 220 inch circumference when inflated to 20psi. Tread width not to exceed 21.3 inches.

D-18.4 X 16.1

D1- 2WD Maximum of 143 inch circumference when inflated to 28psi. Tread width not to exceed 19 inches.

D2- Mini -Maximum of 143 inch circumference when inflated to 10psi. Tread width not to exceed 19 inches

# **N.Turbochargers**

- 1. All single turbocharger (regardless of size or division) or "atmospheric" turbocharger(s) on a multi turbo setup must have a Kevlar lined containment device (bag or blanket) that completely encloses the intake compressor housing.
- 2. Universal for single turbo classes less than 5" (2.6/3.0/3.6/4.1)
  - Bore Dimensions: All air must pass through a perfectly round, diameter bore, with no slots, grooves, or irregularities to allow extra air.
  - Compressor Wheel Tips: The outer tips of the inducer on the compressor wheel must enter the bore by at least 1/8 inch. Leading edges, nuts, or hubs do not count as tips.
  - Measurement: A plug with a one inch center opening and a 30 degree face will verify compliance. The plug must fit the bore and avoid contact with compressor blades

2a All single turbocharger vehicles will have a cross in front of the compressor wheel. 3/8-inch billet cross will be clamped on to the inlet of compressor cover.

- · Maximum diameter of cross on 3-inch turbo 7 inches
- Maximum diameter of cross on 4.1-inch turbo 8 inches
- · Maximum diameter of cross on 5-inch turbo 9 inches
- Maximum diameter of cross on 6-6.5-inch turbo 10 inches.

# 2b Turbocharger Cross-Over Pipe Shielding

a) Limited Pro Stock and Light Pro Stock turbochargers, the turbo pressure pipe between the turbocharger and the intake manifold must be a minimum of .120

- thick steel from turbo outlet thru 6" past the first elbow OR wrapped 360 degrees with a blanket.
- b) Blanket must be placed as close to the turbo outlet neck as possible and extend at least 6 (six) inches beyond the first bend in pipe or a minimum blanket length of 18 inches, whichever is longest.
- c) Any pressure pipe shorter than 18-inches must have a blanket covering the entire length of pipe.
- d) Blanket must be manufactured with a minimum of 5 (five) layers of Kevlar.
- 3. All turbochargers mounted outside normal engine shielding will be shielded in .060" steel. All intercoolers mounted outside of normal engine shielding will be .060 aluminum.
- 4. A manufactured exhaust wheel cage assembly must be used in and/or fastened to the exhaust housing with one set of ½ inch bolts installed 90 degrees of each other immediately (may be in pipe) as close to the cage as possible
- 5. Exhaust housing stainless star fastened by turbo manufacture.
- 6. All truck turbocharged engines should have; 2- 5/16 Grade 8 bolts, installed 90° to each other within one inch of each other and within 4 inches from exhaust housing flange.
- 7. All turbocharger alcohol engines shield spark plugs with minimum of .125 steel or aluminum within two inches any direction of centerline of spark plug.
- 8. Titanium turbocharger components prohibited.

# O. Safety Switches

- All vehicles will be required to use a kill switch.
- 2. Kill switch will be securely mounted to the back of the vehicle and have a two (2) inch diameter ring to attach the sled. Excludes key ring style.
- 3. A tie strap will be used during tech to show vehicles have been teched. A 1/4" hole will be used to securely hold tie

strap just above the kill switch. Only if tie strap is broken, decided by head track official, will competitor be given opportunity to pull again.

- 4. A white safety light is required to indicate that competition vehicle is in neutral during process of hooking or unhooking from sled. An additional reverse light, is highly recommended, amber in color will illuminate when vehicle is in reverse.
- 5. Kill switches on diesel motors will have the following:
  - a. Air shut off must be operated from driver' seat.
  - b. Air shut off will consist of cap or guillotine that closes off air into the engine. The cap or guillotine will be spring loaded. Butterfly systems not permitted.
  - c. Kill switches can have a maximum of 20 pounds of pull pressure to activate when tested with a fish scale.
- 6. Location of kill switch

The following specifications are the maximum the kill switch can be located vertical above the point of hook.

- a. Big Tractors (20 inch hitch) 40 inches
- b. Semi 36 inches
- c. Mini Rod 18 inches
- d. TWD / FWD 16 inches
- e. The kill switch can be mounted a maximum of 6 inches off center in any direction directly above point of hook.

#### P. Stabilizer Bars

- Stabilizer bars should be rigid in all directions and must support the weight of the vehicle for the heaviest class it will compete in.
- Stabilizer pads must not be more than ten (10) inches off the ground.
- 3. The stabilizer pad should be parallel to the ground and must be a minimum of five (5) inches square, with a minimum of 20" allowed from the outside of one pad to the other.
- 4. Stabilizer bars may be in no way connected to drawbar

assembly.

- 5. Stabilizer bars must have a brace that extends vertically twelve (12) inches from the rear most tip of the skid pads. There must be a support brace extending inward to frame axle or top of stabilizer bar arms. Vertical race should extend rearward a minimum of two (2) inches from radius of rear tire.
- 6.No cross bars between stabilizer bars behind the point of the drawbar hook.
- Stabilizer bars are required on all classes, except for 4X4 trucks.
- 8. Mini Rod- Pads Minimum of 3 sq. inches, maximum of 6 inches above the ground. Center of stabilizer bar pad must extend 2" behind tire

# Q. Weight

- 1. No loose ballast inside the vehicle will be permitted.
- 2. No vehicle weighing more than class will be permitted.
- 3. Any weight loss while hooked to the sled and under the green flag will result in disqualification. Any weight touching the ground, although may be attached to the pulling vehicle, the pull will be disqualified. Internal breakage is an exception.
- 4. Weights must not interfere with the kill switch, drawbar, or chain. An area of 5" wide and 12" high immediately above the drawbar must be free of obstructions.

# **III VEHICLE GENERAL RULES**

- All pulling vehicles are required to have a minimum of 2.5
   fire extinguishers which are fully charged. Extinguishers must be within reach of driver.
- 2. Seat belts must require 16.1 SFI Spec on all driver restraint assemblies and be worn during competition.
- All vehicles will have a safety switch. The safety switch will ground the ignition and the electric fuel pumps on spark ignition motors and shut off the air intake to diesel motors.

- 4. No batteries are allowed inside cab of the vehicle unless they are in a marine battery box and secured to the vehicle frame. Shielding is required for battery posts that are exposed.
- 5. All pulling vehicles will have a dead man throttle that will automatically return to the closed position. Throttles will work in a reverse to forward motion, reverse being closed.
- 6. All pulling vehicles must have a starter interrupter switch that will allow starter engagement only in neutral or park position on a transmission gear selector for mechanical reasons during the season.
- 7. All vehicles using a foot throttle must use a toe strap.
- 8. All vehicles using an automatic transmission must have a positive gear lockout.
- 9. Drivers or crew persons must be seated and in control of the pulling vehicle any time motor is started or running.
- 10. All pulling vehicles must have a neutral safety light.
  - a. A white light automotive quality, a minimum of 2 inches in diameter, must be mounted within 30 inches of hooking point. And within 6 inches of center line.
  - b. A light in the driver's compartment must be operated off the same system.
  - c. Both lights and the starter interrupter switch will be operated off of the shifter lever.
  - d. A neutral light should illuminate when vehicle is in the neutral position. Lens color should be clear.
- 11. Pro Pulling League reserves the right to refuse any competitor the right to attend or participate at any event.
- Pro Pulling League associated groups or state may set their own limitations, but must run Pro Pulling League safety rules.

# **IV** Tractors

1. All engine blocks must remain in original location as intended by the manufacturer. Sheet metal to be stock length

and location must be stock appearing

- Tractors must have grill and hood in place as intended by manufacturer.
- 3. Tractors must have stock block, agricultural type block, OEM replacement block. No automotive blocks permitted. Maximum of 8 cylinders permitted. Approved recasted/after-market block suppliers; (Hypermax, D&R, E-burg Components, Lemke, Chaos Fabrication, Heavy Metal Motorsports, Castners Preformance).
- 4. Maximum wheelbase is 114" and maximum length is 13' from the center of the rear axle to forward most part of the tractor.
- 5. Up to four (4) turbochargers permitted, but only three (3) pressure stages permitted.
- 6. All turbocharged engines on tractors will have one cable totally surrounding the engine block and head. The cable will consist of 3/8" diameter and located between the first and second cylinders. Cable must pass through the manifold areas. Cable will have four (4) to six (6) inches of slack. There will be a minimum of four (4) clamps at all splices. Maximum of 2 valves per cylinder.
  - a. All inline turbocharged engines are required to have a cable(s) placed between first and second cylinder through exhaust manifold port area. Cable must be a minimum of one (1) 3/8 manufactured pendant line with a rating of at least 3000 lb or more from the manufacture that indicates rated load capacity with swaged sockets, shackles or appropriate fork and pin.
- 7. A deflection shield between driver and engine from top of hood and top of transmission housing or clutch housing is required. Deflection shield will go from side shield to side shield. This will help provide a barrier during a flash fire.
- 8. All tractor engines are required to shield all rotating mass mounted on the front of the crankshaft. Shield to be frame rail to frame rail by a minimum .125 aluminum or steel fastened to the frame on each side by two evenly spaced bolts.

# (3/8-inch Grade 5 minimum.)

- 9. All tractors are required to have an approved bell housing blanket that meets the following specifications of a SFI4.2: 20 ply ballistic nylon or 20 ply Kevlar style 713 betting construction. At least seventeen (17) inches wide and long enough around the bell housing with six (6) inches of overlap, secured with a two (2) inch wide nylon web straps, with a steel "d" ring on one end and sewn the length of the blanket, except overlap area and long enough to pass back through the "d" ring and to be tied in a saddle cinch and with four (4) two inch nylon webs retaining strips, each at the front and back of blanket.
- 10. All tractors will run a safety tie bar system or a one-piece frame rail secured to the rear axle housing.
  - a. Tie bars will be mounted with at least four (4) axle housing bolts.
  - b. Tie bars will extend forward of bell housing area and be fastened to side of the block with a minimum of two (2) 5/8 bolts.
  - c. Tie bars will be of sufficient strength to supportweight of the tractor with the bolts used to split tractor removed.
  - d. All safety blankets will be mounted inside safety tie bar system.
- 11. On cast iron OEM chassis a 1/2" spacer plate is permitted for clutch clearance.
- 12. Only mechanical activated clutches permitted.

# **Component Chassis**

- 1. Component tractors are permitted. All new component tractors must have approval of sheet metal and engine combination from PPL Tech committee.
- 2. Front nose of the crankshaft can be no lower than 4" of the center of the rear axle.
- 3. Aftermarket chassis, replaces OEM clutch housing with an SFI 6.2 or 6.3 bell housing in its place.
- 4. The engine placement can be no farther forward than 60"

from the centerline of the rear axle to the rear of the block.

- 5. No four-wheel drive tractors will be permitted.
- 6. All tractors with a competition weight of 7,000# to 10,000# will require a 47.1 SFI Spec rollover protection.

#### **A. Hot Farm Tractors**

- Maximum weight permitted 9,500#
- 2. 20.8 x 38 Maximum tire size. No rim size larger than 38 in diameter.
- 3. Water Injection: High pressure water injection is allowed in the crossover pipe and ported water is allowed in the intake manifold only, not in the head. Water only permitted.
- 4. No cooling devices of any kind permitted. No ice on tractor during competition.
- 5. Engines Maximum cubic inch 510
- 5a. Any cast or re-manufactured cylinder head will be accepted. Cylinder head must retain OEM length and width for the engine application. Valves must retain OEM angle for engine application. 2 valves per cylinder maximum. No overhead cams.
- 5b. Not allowed to cross manufacturer's lines.
- 6. Turbos
- 6a. Intake 3.00" inlet, Map width enhancement is allowed. Maximum map width .200". MWE groove must be inside neck area where intake covered is measured at 3.00". Compressor wheel must protrude into three inch bore. Intake housing to be no larger than three inches at the face of the wheel.
- 6b. Exhaust 3.50" exhaust housing maximum. All turbine wheel blades protrude into exhaust housing bore. All air must exit through exhaust housing opening. No map width enhancements on exhaust housing permitted. Turbine wheel exhaust blade clearance maximum from exhaust housing, 0.060". (intent No cone shaped wheels) Turbine housing to be no larger than 3.50" inches at intersection of

turbine wheel face and tip diameter. No waste gates will be permitted. No variable geometric turbos permitted.

#### Manifolds:

- 7. Intake manifold maximum inlet size 3.75" measured on the outside diameter. One inlet pipe only.
- 8. Largest fuel injection pump allowed will be a P-8600 pump with only one plunger per cylinder.
- 9. Exhaust headers are allowed.
- 10. All other tractor rules apply.

# **B. Light Weight Super Stock Tractors**

- 1.Maximum weight 6300#
- Maximum cubic inch limit 504. No V-8 style engines permitted. PPL approved OEM aftermarket replacement blocks can be steel or aluminum.
- 3. No overhead cam tractors. No hemi-style heads permitted. Only two valves per cylinder must be parallel with each other and parallel within 15 degrees of cylinder wall
- 4. No alcohol/fuel injection is permitted in airstream before intake runner/port.
- 5. Component tractors permitted
- Intercoolers are not permitted.
- 7. 47.2 SFI roll-cage must be the minimum roll-cage for all tractors.
- All other Tractor rules apply.

# **C. Limited Pro-Stocks**

- 1. Maximum weight permitted 9500#
- Maximum cubic inch limit is 640. Maximum of 8 cylinders permitted. OEM aftermarket replacement blocks permitted. PPL approved OEM aftermarket replacement blocks can be steel or aluminum.
- 3. The only acceptable fuel is diesel
- 4. The turbocharger is smooth-faced intake housing, limited

- to a 4.1" inlet, (no map ring) with all air entering through the 4.1" opening. Intake wheel must protrude 1/8th inch inside of opening.
- 5. All exhaust will exit through a 4.5" opening in the exhaust housing. Exhaust wheel must protrude 1/8th inch inside of opening.
- 6. No waste gates permitted.
- 7. No air cooling devices in any manner permitted.
- 8. Maximum size injection pump is a P-7100 series pump allowed (2-5/8"W X 9-9/16" L X 8-3/16"H main pump body) only one plunger per cylinder. No billet housings.
- 9. Component chassis are not acceptable.
- 10. No overhead cams permitted. Outside of cylinder head must keep OEM length and width dimensions. Valves must retain OEM angle. Must retain a single manifold to the side of cylinder head. Manifold mounting surface must be 90 degrees to cylinder head/block mounting surface. Maximum of 2 valves per cylinder and OEM valve angle and configuration must be retained.
- 11. Aftermarket manifolds are allowed and must bolt in original port bolt pattern.
- Deck plates are allowed with a maximum thickness of 1.00".
- 13. No overhead-cams permitted.
- 14. Maximum tire size is 24.5" X 32".

# **D. Light Pro Stock Tractors**

- 1. All OEM chassis rules including shielding, safety, & SFI requirements, apply to this class plus the following rules.
- Maximum tire size not to exceed 24.5x32.
- 3. Component Tractors to weigh 8500#. Cast iron rear-end tractors 8700#.
- 4. No engine larger than 540 cid. OEM replacement blocks permitted. Must have PPL approval.

- 5. Cast or manufactured cylinder head will be accepted. Cylinder head must retain OEM length and width for the engine application. Valves must remain OEM angle for engine application. No overhead cams allowed. Maximum 2 valves per cylinder.
- 6. Diesel fuel only. P-7100 injection pump is the largest allowed. (2-5/8"W X 9-9/16"L X 8-3/16" H main pump body) Only one plunger per cylinder allowed. No billet housings.
- 7. Turbo: All exhaust will exit through a 4.5" opening in the exhaust housing. Exhaust wheel must protrude 1/8th inch. inside bore. Maximum inlet size is 5.00".
- 8. No inner/after coolers allowed. No CO2 or any other means of cooling the air in the piping or manifold. No ice filled or ice cooled devices on board tractor of any kind. All engine air must enter the inlet of the turbo at ambient air temp & humidity. Inlet air may not be drawn through or across any type of cooling device.

# E. Super Farm

- 1. Maximum weight permitted 9,300
- 2. Maximum tire size is 24.5" X 32".
- 3. Maximum cubic inch limit is 640. Maximum of 8 cylinders permitted.
- 4. Any cast or manufactured cylinder head will be accepted. Cylinder head must retain OEM width and length for the engine application. Valves must retain OEM angle for engine application. 2 valve per cylinder maximum. Cylinder head must retain OEM bolt pattern for exhaust manifold and intake. The stock exhaust manifold and intake bolt pattern must be used to attach the exhaust manifold and intake. No overhead cams permitted.
- 5. Intake manifold: Maximum inlet size 3.75" measured on the outside diameter. One inlet pipe only.
- 6. Aftermarket exhaust housing or header allowed, (exhaust housing foot must remain T4 foot bolt pattern).
- 7. Intercoolers are permitted with the use of water and/or

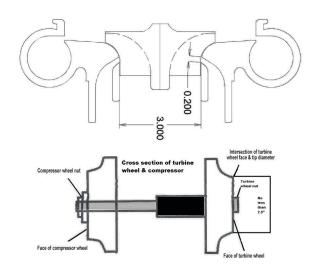
ice only.

#### Chassis

- 1. Components are not permitted.
- 2. OEM rear-end, transmission, and engine must be in stock location, bolted and secured to OEM chassis.
- 3. Engine cannot move independent or rear-end/transmission housing(s).
- 4. Stock transmission housing or manufacturer's replacement and stock final drive housings or manufacture's replacement.
- 5. Chassis and frame must remain stock from rear of engine block to the rear of tractor.
- 6. Tie bars are mandatory or full frame must be mounted rigid to engine, transmission, and final drive housings.
- Fuel Systems: Largest fuel injection pump allowed will be a P-pump OE housing with only one plunger per cylinder. No aftermarket pump housings permitted.

#### **Turbos**

- 1. Altering of a turbo housing to accommodate a smaller foot or base will not be permitted.
- 2. Exhaust housing and exhaust manifold bolt pattern shall be no larger than 2.75 X 3.5 inches.



#### Intake

- 1. Map width enhancement is allowed. Maximum map width .200". MWE groove must be inside neck area where intake covered is measured at 3"
- 2. Compressor wheel must protrude into three-inch bore.
- 3. Intake housing to be no larger than three inches at the face of the wheel.

#### **Exhaust**

- 1. All turbine wheel blades to protrude into three-inch bore. All air must exit through 3" opening. No map width enhancements on exhaust housing permitted.
- Turbine wheel exhaust blade to be no less than 2.90" in diameter at intersection of turbine wheel face and tip diameter.
- 3. Turbine housing to be no larger than three inches at intersection of turbine wheel face and tip diameter.
- 4. Exhaust housing will be measured at intersection of turbine wheel face and tip diameter.
- 5. No waste gates will be permitted.

- 6. No variable geometric turbos permitted.
- 7. All other tractor rules apply.

#### F. Pro-Stock Tractor

- 1. Maximum weight permitted 10,000#
- 2. Maximum cubic inch limit is 680. Maximum of 8 cylinders permitted. Acceptable blocks must have come from 2WD tractors. OEM aftermarket replacement blocks permitted, which will follow these guidelines:
  - a. 8 cylinders maximum.
  - b. Acceptable blocks must have come from 2WD tractors.
  - c. Camshaft must remain in the OE location. No overhead cams permitted.
  - d. Fuel injection pump must remain in OEM location.
  - e. Height maximum Center of crankshaft to cylinder head surface not to exceed one inch over OEM dimension (block, gaskets, deck/spacer plates)
  - f. Engine block must have marking/casting indication from manufacturer
  - g. Block will be inspected by PPL official before assembly and being placed in to service.
- 3. The only acceptable fuel is diesel fuel.
- 4. No combustible agents allowed in water injection.
- 5. One turbocharger is allowed, as is one pressure stage and one air compressing device. Turbochargers' compressor housing must be wrapped with a Kevlar style blanket. Turbo inlet maximum 6.5 inches with a .300 MAP Groove. Exhaust elbows are recommended to be schedule 10 pipe. All turbine wheel blades to protrude into six-inch bore. All air must exit through 6" opening. No map width enhancements on exhaust housing permitted. Turbine wheel exhaust blade clearance maximum from exhaust housing, 0.060" Intent-No cone shaped wheels. Turbine housing to be no larger than six inches at intersection of turbine wheel face and tip diam-

- eter. No waste gates or variable geometric turbos permitted.
- Intercoolers are permitted.
- 7. Drawbar must be no greater than 2 inches cross sectional over entire length of drawbar.
- 8. Maximum tire size will not exceed 24.5 X 32.
- All Pro-Stock tractors will require a 47.1 SFI Spec rollover protection.
- 10. All other tractor rules apply.
- **5.0 Pro Stock** class will follow all Pro Stock rules for OEM and component chassis, competition, and safety in addition to the following limitations:

## 1. Turbocharger:

- a. Turbo limited to a single, spec turbocharger manufactured and supplied by Wimer.
- b. Turbo dimensions are 5 inch smooth bore air inlet (no MAP ring) and a 5.370 inch exhaust outlet.
- c. No intercooler or aftercooler allowed.

# 2. Competition:

5.0 Pro stock tractors are allowed to compete, under their own rules and regulations (excluding weight) in the heavy Pro Stock and Unlimited Super Stock classes at all levels.

# G. Unlimited Super Stock

- 1. Maximum weight permitted 8000#
- 2. Maximum cubic inch limit is 650. Maximum of 8 cylinders permitted.
- Engine management systems permitted.
- 4. Acceptable fuels are methanol, gasoline or diesel. No oxidizing agents allowed.
- 5. Up to four (4) turbochargers permitted, but only three (3) pressure stages permitted.
- 6. Overhead cams permitted.

- Maximum two (2) valves per cylinder which will only be controlled mechanically.
- 8. 1/8" cable must be wrapped around stages with multiple turbochargers. Cable must wrap two revolutions around turbo(s), clamped by a minimum of two clamps at splices. (ie. engine cable) or Turbo (Kevlar) blankets will supercede cables.
- 9. Maximum tire size not to exceed 30.5 X 32.
- 10. All Unlimited Super Stock tractors will require a 47.1 SFI Spec rollover protection.
- 11. All other tractor rules apply.

# H. Super Modified Tractors

**Turbine Horsepower Engine** Military Lycoming T-53-1 798 890 T-53-3 T-53-5 890 T-53-7 1000 T-53-11 1000 T-53-13 1400 T-55-1 1460 T-55-5 T-55-7 2650 T-55-7c 2650 T-55-11D 3400 T-55-L712 3750 T-64-6 2690 T-64-7 3435 T-64-412 3695 T-64-413 3700 T-64-415 4030 T-58-3 T-58-8 1150 T-58-10 1250 Pratt 12-4A 4100 3430 12-5A 4430 Isotov TV2-117L 1500

TV2-117H

TV3-117 M

TV4-117 O

1700

1900

2200

- 1. Any four reciprocating, internally combusted, automotive engine type tractors will be limited to 8-71 supercharger maximum.
- 2. Any three reciprocating, internally combusted, automotive engine type tractors will be limited to 14-71 supercharger maximum.
- 3. Three (3) Allison type powered engines.
- 4. Any two (2) industrial engines. Maximum of 2 pressure stages.
- 5. All turbine powered tractors will be limited up to 10,400 horsepower rating including water rated as 10%. (Ex. 2850 X2= 5700 + 10% water (570) = 6270 total HP. See Turbine Engines for horsepower ratings.
- 6. Competitors may disable engine or engines to meet class limits.

- 7. Weight Maximum weight permitted 7,800#
- 8. All automotive engines are limited to two (2) valves per cylinder.
- 9. No screw type superchargers allowed.
- 10. All burst panels must face away from drivers
- 11. Maximum bore spacing is 5.00".
- 12. No timing delay devices permitted.
- 13. All Super Modified Tractors will require a 47.1 SFI Spec rollover protection.
- 14. Kill switch at a 90-degree angle or less, to ease the function of switch

#### 15. Chassis

- a. No portion of the tractor may go beyond 14 feet from the center of the rear axle.
- b. Any Mod that has the frame bolted to the transmissions must have the frame bolted to the axle housing. Frame must be sufficient enough to withstand the bolts being taken from the plate of the transmission or rear end, and can still support the weight of the tractor.
- c. Drive shafts will not exceed 48 inches and no input or output shaft that attaches to a drive shaft will exceed 4 inches beyond a bearing.
- d. A one-inch material minimum below the end of the drive shaft shield and a bolt. The one inch material will be found in pilot holder at each end of the drive shaft shield. A minimum of 8318 grade #8 bolts will carry bearing assembly if attached to a vertical plate.
- e. All carrier bearings must be approved by the PPL.
- 16. Maximum tire size not to exceed 30.5 X 32.

## I. Modified Tractors

1. Any four reciprocating, internally combusted, automotive

engine type tractors will be limited to 8-71 supercharger maximum.

- 1a. Wedge heads that accept a stock OEM intake manifold bolt pattern limited to 70% overdrive
- 1b. Big Chief or any wedge head without a stock intake manifold pattern limited to 70% overdrive.
- 1c. Hemi heads are limited to 45% overdrive.
- 2. Any three reciprocating, internally combusted, automotive engine type tractors will be limited to 14-71 supercharger maximum.
- 3. Two (2) Allison type powered engines with a maximum of two staged turbocharger
- 4. Any two (2) industrial engines. Maximum of 2 pressure stages.
- 5. All turbine powered tractors will be limited up to 9,000 horsepower rating including water rated as 10%. (Ex. 2850 X2= 5700 + 10% water (570) = 6270 total HP. See Turbine Engines for horsepower ratings. Horsepower can be adjusted during the season.
- Competitors may disable engine or engines to meet class limits.
- 7. Weight Maximum weight permitted 7,700#.
- 8. All other Super Modified Rules apply.

### **J.Unlimited Modifieds**

- 1. The 8,100 lb. unlimited mod class will allow any combination of engine(s),transmission(s), and final drive. All other modified rules apply.
- 2. Screw Type superchargers that meet SFI 34.1 are allowed in the Unlimited Modified class and must use a SFI 23.1 pressure relief and a SFI 14.2 restraint. Screw Type superchargers are limited to 125% overdrive.

# K. Regional Modified Tractor (ESP/NYTPA/Western)

- 1. Modified tractors are limited to the following:
  - a. Three (3) blown automotive WEDGE HEAD motors with 8-71 blower limit, or a single staged turbo. No intercoolers will be accepted. Port fuel injection is acceptable. Three (3) blown auto save Wedge Billet (pressed material) Heads motors will run at 56% overdrive maximum.
  - b. Pontiac, Oldsmobile or heads of that nature will not be accepted on blown Chevy big blocks. All cylinder heads intake ports must remain in an O.E.M. configuration and accept O.E.M. intake manifold.
  - c. Five (5) naturally aspirated small blocks permitted.
  - d. Four (4) naturally aspirated big blocks (non-Hemi) permitted.
  - e. Two (2) blown Hemi or wedge motors with 14-71 blower maximum or 2 staged turbos, no intercooler permitted.
  - f. Three (3) naturally aspirated Hemi's permitted.
  - g. One (1) Allison V-12 with a 2-turbo setup or an aux. stage, plus a naturally aspirated automotive motor.
  - h. One (1) Allison V-12 with a single staged supercharger or turbo. Fuel injector system or carburetors, plus one (1) wedge automotive type engine with a blower maximum of 8-71.
  - i. One (1) marine or industrial engine and diesels may have up to 2 pressure stages.
  - j. Any combination of Turbine engines totaling 5,000 horsepower as rated by the military. Water alcohol injection permitted.
  - k. Two (2) Packard's running gas or alcohol with a 6.51 supercharger. Stock Packard butterfly must be maintained and used.
  - I. No more than two (2) Allison's on gas, with a supercharger ratio not exceeding 8.8-1. Two (2) Allison's on alcohol may not exceed supercharger ratio of 8.1-1. Butterfly area may be no larger than 28.4 square inches.

- m. Any other engine combination must be approved by the Pro Pulling League Tech committee.
- All automotive engines limited to two (2) valves per cylinder.
- o. A maximum bore spacing of 5.00" is allowed.
- p. All engines with burst panels must face away from the driver.
- q. A puller may disable an engine if their combination is over Modified Tractor limitations.
- 2 Modified chassis:

See Modified Tractor

- 3. Maximum tire size will not exceed 30.5 X 32.
- All Modified tractors will require a 47.1 SFI Spec rollover protection.

# **Turbine Engines**

Turbine Horsepower numbers recognized by the Pro Pulling League.

- 1. A turbine engine that exceeds 8000 RPMs on the output shaft will not use a clutch/flywheel assembly to an automatic transmission.
- 2. Exhaust pipe must extend a minimum of six inches above the bend of the pipe.
- No turbine will be operated beyond military specifications, temperature and RPM limits.
- 4. All air intakes shall be screened with a metal screen having a 3/16 inch or smaller openings.
- 5. Turbines under 1500 HP may use a steel containment shroud 3/8 minimum. 1/2 inch minimum is required for over 1500 HP. Shield must extend a minimum of five (5) inches forward and ten (10) inches aft of the turbine section and must have a minimum of 3/8 thick flanges. With engines where the engines cannot be fitted in the above size because of exhaust position, the required should be reached

as close as possible. extending radially inward from the shroud on both ends of the shroud, within a maximum of one (1) inch of engine and ID of flange must be maintained for cooling air inside the shroud. Flanges may be scalloped out to clear accessories, brackets or tubing and may be either rolled edges or tubing and/or steel rings attached by welding or riveting to the shroud.

- 6. Composite Containment Shroud A-The T-55 has multiple steel engine castings, the inner portion of the sandwich may be .032-inch minimum aluminum. B-All other jet engine types require 30 plies of 328 weave Kevlar 29 material with the steel Kevlar aluminum sandwich system. C- Numerous bolts inserted through the three segments are required. D-A 1/2-inch air gap must be maintained for all air movement. E-End flanges are not required when using Kevlar sandwich.
- 7. Exhaust stack diameter to be no smaller than one inch of engine outlet. All Mini Rods will shield transmission with a blanket consisting of 15 layers of Kevlar or 20 layers of ballistic nylon attached at the top forward to the engine plate and at the bottom to each side of the chassis. A minimum of a 1 inch nylon strap 12 to 16 inches behind rear most point of bell housing. Tether will be strapped across driveline and attached to chassis on each side.
- 7a. All turbine powered vehicles with the exhaust pipes connected to the engine will have a cable connection as follows: Engines with more than 1500hp rating have a minimum of 4 cables 3/8" thick. Engines under 1500hp will have a minimum of 4 cables 1/4" thick or larger. Cable must go on the outside of containment shield and be mounted 90 degrees of each other.
- 8. Two (2) over speed devices are required on turbine wheels.
- 9. Governor setting not to exceed manufacture's maximum specifications.
- 10. Over speed shutdown consisting of a speed monitor activating a normally closed solenoid valve located between the fuel control and fuel manifold. Trip setting to be low enough

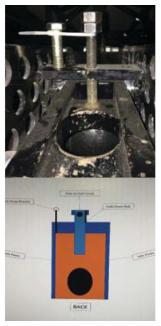
to prevent over speed in case of driveline failure.

#### L. Mini Rod

- 1 Maximum weight 2050#.
- 2. Any automotive type engine, with only two valves per cylinder and must accept a stock crankshaft. Maximum cubic inch is 575.
- 3. Maximum super charger limit is 14-71, limited to 45%. Single staged turbochargers permitted.
- 4. Turbocharger systems limited to a single 130mm or twin 88mm. Mechanical boost controls only permitted with a single regulator. Turbocharger safety equipment required.
- 4a. Turbocharger (s) (regardless of size or division) or atmospheric" turbocharger(s) on a multi turbo setup must have a Keylar lined containment device.
- 4b. A manufactured exhaust wheel cage assembly must be used in and/or fastened to the exhaust housing with one set of 1/2 inch bolts installed 90 degrees of each other immediately (may be in pipe) as close to the cage as possible
- 5. No portion of tractor shall exceed 8 feet forward of the center of the rear axle. Width shall not exceed 6 feet in width.
- 6. Front skid plate required and must be made from 1/8-inch steel and extend frame rail to frame rail and solidly attached under the front of the chassis. Skid plate formed at 90 degrees with a minimum 2.500-inch radius at bottom front of skid plate. Skid must extend rearward to the center of the front axle.
- 7. Maximum tire size is 18.4X16.1 with a maximum of 143-inch circumference when mounted on an 18" wide rim and inflated to 10psi.
- 8 Maximum of 13" hitch height. Minimum length of 6"
- 9. Planetary Axle Chassis Transmission fixture to SFI bell housing, per Manufacturer's requirements. Minimum of 2" total bolt material. SCS and TRB--3"=qty.8-3/8" grade8 studs. Lenco--2.1875"=qty.5-7/16" grade8 studs. ProFab--

#### **V. TRUCKS**

# A. Super Modified 2-Wheel Drive Trucks



- 1. Maximum weight of competition vehicle is 6200#.
- 2. Maximum wheelbase on all trucks is 165 inches regardless of body type. Air or hydraulic devices to raise or lower the front of the chassis is prohibited.
- 3. The 15 feet from center of axle overall rule will apply to all TWD trucks with the exception of a 10" inch over length allowance for cosmetic fiberglass only. No steel structure, reinforcement, or steel bumpers allowed pasted 15 feet.
- 4. Maximum width of vehicle is 96"
- 5. Any automotive type engine, with only two valves per cylinder and must accept a stock automotive crankshaft. Maximum cubic inch limit 575.

- Maximum supercharger limit is 14-71 hi-helix. No screw type superchargers permitted.
- 7. Maximum bore spacing is 5.00"
- 8. All burst panels must face away from driver.
- 9. Electronic control devices or programmable boxes for ignition timing are prohibited.
- 10. Any mass produced truck style body produced after 1936 may be used, all other bodies will be subject to a 200# weight reduction at nationally sanctioned events. See PPL Tech Committee for approval.
- 11. Fiberglass bodies are accepted. Must have working doors or escape hatch.
- Truck beds must be covered during competition.
- Grills, hoods and fenders must in place as intended by the manufacturer.
- Clear or factory tinted windows must be in place.
- 15. Only 1/4" Lexan, .060 steel, or 3/16 aluminum are the only materials allowed for firewalls. No plexiglass firewalls permitted
- 16. All vehicles must have vertical bumpers. Bumpers must extend minimum or 8" vertically. Bottom of bumper to be a maximum of 24" from the ground.
- 17. No fuel tanks, fuel lines, pressure gauges or pumps allowed in cabs. All hydraulic lines in cab must be shielded top and sides with a minimum of .060 aluminum.
- Non-planetary rear ends must run axle covers.
- Weights cannot extend more than 12 inches from drawbar.
- Drawbar top adjuster to accommodate a zip-tie for attachment to rigid bracket.

See photo and diagram:

## **B. Modified 4X4 Trucks**

1. Maximum weight of competition vehicle is 6350#.

- 2. No cubic inch limit.
- 3. Any automotive type engine, must be naturally aspirated, with only two valves per cylinder and must accept a stock automotive crankshaft.
- Rear of engine block can be no farther forward than the centerline of the front axle.
- 5. Maximum bore spacing allowed is 5.00".
- 6. Engine must be behind grill.
- 7. Front weights may not extend more than 60 inches from centerline of front axle. No loose weights allowed in cab or under hood allowed. Front weight boxes will be rigid and have a minimum of 8" of ground clearance for staging and competition.
- 8. Truck or van bodies permitted and must have complete firewall.
- 9. Planetary axles are permitted.
- 10. Tube frames are permitted.
- 11. Axle shields are required. Shield to be .060" thickness steel or aluminum. Shield not to be mounted to axle ends or hub bolts. A single hole may be cut in one to allow locking in of hubs.
- 12. Maximum wheelbase is 133 inches on all Modified 4X4 trucks. Wheels must be centered in wheel wells. Body must be lengthened or shortened between cab and rear wheel wells, to maintain rear wheels centered in rear wheel well.
- 13. Maximum tire size to be 112 inch circumference, when inflated to 30 psi with original bar, not to exceed 18 inches in width before cutting.
- 14. Front tow hitch will be strong enough to push, pull or pick the vehicle up. Only a 6x6 piece of steel with a minimum thickness or 1" and a maximum of 1.25" thickness will be allowed. A round three (3) inch hole is required in front tow hitch.
- 15. Clear plexiglass or factory tint glass permitted.
- 16. No mud flaps or dirt deflectors will be permitted.

- 17.No fuel tanks, fuel lines, pressure gauges or pumps allowed in cabs. All hydraulic lines in cab must be shielded top and sides with a minimum of .060 aluminum.
- 18. All air or hydraulic suspension systems cannot have hydraulic, air, or electric lines attached during to these devices during competition.
- 19. Hitch height maximum is to be 26" at point of hook before, during, and after pull. Hitch must be rigid in all directions and solidly mounted. Pulling point can be no more than 1"inch from back edge of drawbar. No clevis, chains, or cables permitted in hitching device. From point of hook to centerline of rear axle shall be no less than 30% of truck wheelbase and shall not slope any greater than 25° to hitch point.
- 20. No hitch supports or adjusters, if fastened to the rear axle housing shall be above the center line of the rear axle. Pivot pin of drawbar can be no farther forward than centerline of the rear axle.
- 21. Bumper Bars. A minimum 8 in vertical bumper bar be placed in line with each frame rail so bottom of bar is a maximum of 18 in. from the ground and located beyond the furthest most part of the body structure. Bumper bars must be braced forward to frame at both top and bottom (no "T" type bars). Bumper bar assembly including braces must be min. 1 1/2" x .095" wall steel tubing (square or round). Bumper bars must be securely attached to prevent collapsing on impact.

## 22. Front safety wheels

- a. All FWD vehicles must use (2) wheels no more than 6 inches off the ground, within 6 inches of the forward most part of the vehicle.
- b. Wheels must a minimum of 6 inches in diameter by 4 inches wide.
- c. Wheels must support the weight of the vehicle.
- d. Wheels must be raised or removed for the purpose

- of ground clearance when vehicle is not on competition track.
- e. Wheels must be at least 3 feet apart.
- 23. No digital, microprocessor, computer, or programmable ignition controls. No traction control ignition accessories. No six shooter, power grid systems or similar type ignition controls. (Starter saver allowed)

## C. Pro Stock 4x4 Trucks

- 1. Maximum weight is 6200#
- 2. Cubic Inch maximum permitted is 485.
- Aluminum cylinder heads permitted. Maximum of 4.90" bore spacing. No tunnel rams or sheet metal intakes. No spread port heads permitted as intended by the manufacturer.
- Aluminum Blocks permitted.
- 5. Any 4-barrel carburetors. Must have 4500 base plate flange.
- 6. All exhaust must exit vertical up thru the hood.
- 7. Wheelbase 134" maximum, sheet metal must conform to wheelbase. Fiberglass bodies permitted
- 8. Any make engine allowed with any body.
- 9. Hitch Height 26" maximum, before, during and after the pull and must be rigid in all directions. 36% of wheelbase.
- 10. Rear of engine block must be at least 12" behind the center of front axle tube.
- 11. Drive train will consist of the following: Any front axle, any transfer case, any rear axle. No planetaries permitted.
- 12. OEM frame rails only permitted.
- 13. Totally enclosed bell housings are required and must meet SFI spec. 6.1 or better.
- 14. Tire maximum 31x15.5x15. Street legal tires may run in this class, maximum is 16.5x12x35. Maximum measured outside corner to outside corner.

- Maximum width of truck no wider than 102"
- 16. No mud flaps or dirt deflectors allowed.
- No oxidizing agents or combustion accelerators permitted.
- 18.All other rules may be found in 4x4 Pro Modified Truck section.
- 19. All questions concerning engine legality must be approved by PPL tech committee.

# **D. Super Stock 4X4 Trucks**

- Maximum weight of competition vehicle is 6200#.
- 2. Maximum cubic is 410 and engine type must match body manufacturer.
- 3. Any automotive type engine must be limited to a single (4) barrel or 2 (2) barrels of carburetion with mechanical linkage, with only two valves per cylinder and must accept a stock automotive crankshaft. Aluminum aftermarket engine blocks permitted.
- 4. Fuel injection or any air compressing devices are not permitted.
- 5. Rear of engine block if moved must be a minimum of twelve (12) inches behind the centerline of the front axle.
- OEM bore spacing must be retained in engine.
- 7. Grill must be in original position.
- 8. Truck bodies permitted and must have complete firewall, no fiberglass or plastic bodies unless OEM. OEM frame rails same as manufacturer as truck only permitted.
- Axle shields are required. Shield to be .060" thickness steel or aluminum. Shield not to be mounted to axle ends or hub bolts. A single hole may be cut in one to allow locking of hubs.
- Maximum wheelbase is 134 inches on all Super Stock 4X4 trucks.
- 11. Maximum tire size to be 112 inches in circumference

once tire is inflated to 30psi. The outside edge of the narrow axle must overlap the centerline of the tire on the wide axle by at least one inch.

- 12. Clear plexiglass or factory tint glass permitted.
- 13. No mud flaps or dirt deflectors will be permitted.
- 14. No fuel tanks, fuel lines, pressure gauges or pumps allowed in cabs. All hydraulic lines in cab must be shielded top and sides with a minimum of .060 aluminum.
- 15. All air or hydraulic suspension systems cannot have hydraulic, air, or electric lines attached to these devices during competition.
- 16. Hitch height maximum is to be 26" at point of hook before, during, and after pull. Hitch must be rigid in all directions and solidly mounted. Pulling point can be no more than 1 ½ inches from back edge of drawbar. No clevis, chains, or cables permitted in hitching device. From point of hook to centerline of rear axle shall be no less than 27% of truck wheelbase
- 17. No digital microprocessor, computer or programmable ignition controls allowed. No traction control or ignition accessories allowed.
- 18. Read only engine and chassis monitoring functions will be permitted.
- 19.SFI Approved gloves, fire suit and shoes must be worn when pulling. Helmets must be Snell 90 or above.
- 20. All other rules not stated will fall under the Modified 4X4 truck category.

# E. Super Modified 4X4 Trucks

- 1. Maximum weight of competition vehicle is 6200#.
- 2. Maximum wheelbase permitted 133 inches.
- 3. Maximum engine size permitted 500 cubic inches.
- a. Maximum engine size permitted 575 cubic inches for OSTPA.

- 4. Rear of engine block can be no farther forward than center line of front axle.
- 5. Engine must remain behind grill.
- 6.Hitch height maximum is to be 26" at point of hook before, during, and after pull. Hitch must be rigid in all directions and solidly mounted. Pulling point can be no more than 1"inch from back edge of drawbar. No clevis, chains, or cables permitted in hitching device. From point of hook to centerline of rear axle shall be no less than 36% of truck wheelbase and shall not slope any greater than 33° to hitch point.
- Planetary transmission is permitted. SFI 4.1 must cover transmission.
- All other rules not stated will fall under the Modified 4X4 truck category.

### F. Limited Pro Diesel 4X4 Truck

- 1. Maximum weight 8000lbs. (Dry weight 7900# for ice allowance at scales.)
- 2. The OEM chassis is mandatory. The vehicle must retain a full ¾ or 1-ton size chassis. Wheel tubs, back-half conversions, tube chassis prohibited. Maximum wheelbase 158" and 102" maximum width. (outside tire to outside tire). Rigid suspension allowed. Hydraulic steering permitted. (Intent=no Isuzu or compact diesel chassis)
- 3. The body must be OEM truck body. Beds must be covered. No flatbeds permitted. The body must retain full metal, aftermarket steel hoods are permitted. The must be closed and securely latched while hooked to the sled.
- 4. Maximum engine size will be 460 cubic inch. Engines must come from factory in one ton or smaller diesel pickup truck. Engine must remain in stock location as intended by manufacturer. Engines may be interchanged between manufacturers.
  - a. No aftermarket blocks permitted
  - b. Head must be OEM or OEM one piece cast replica for that brand engine. No billet heads of any material. Out-

- side dimensions of cylinder head must measure factory width and length. Head must retain OEM valve angle.
- Front of engine block can be no farther forward than 17" of center line of front axle.
- 6. Engine must have cable surrounding block and head. Cable must be minimum 3/8" diameter located between cylinders #1 and #2. Cable must pass thru manifolds. Cable will have 4-6" of slack with a minimum of 4 cable clamps at splice.
- 7. All engines will have a deflection shield, running the complete length of the block casting. Shield must be securely fastened and must be .060" thick. (This equates to a steel inner fender)
- 8. Hook point must be no closer than 44" of center line of rear axle, hitch height maximum of 26", with a minimum of a 3.75" X 3.0" opening. 1/4" wall thick tubing material minimum thickness required for hitch assembly. Minimum of 1" material around pivot pin location of drawbar (circumference). Pivot pin at intersection of connection to hitch assembly requires 1/2" total thickness minimum (width). Hitch point must be easily accessed. No "trick" type hitches permitted. Hitch must be stationary in all directions. Hitch must be frame mounted. Hitch must be mounted center line of rear axle or behind. Hitch must not exceed a maximum of 25° angle from pivot point to hook point. Drawbar height adjustment link if attached to rear differential housing the attaching point must be at axle centerline or below. The drawbar adjusters cannot attach to anything above centerline of the rear axle. The adjusters must go down from drawbar. The adjusters can only go straight downward vertically or towards rear differential housing. No slotting of holes for adjuster attachment. No hitch supports or adjusters fastened to the rear axle housing shall be above the centerline of the rear axle. Pivot pin of drawbar can be no farther forward than center line of the rear axle.
- 9. Secondary hitch required. Minimum of 3/8" steel, located 12" below primary hitch on the same vertical plane. (You

- should be able to look directly through both at the same time they need to be lined up.)
- 10. The turbocharger is smooth faced intake housing, limited to a maximum of 3.0" inlet, (no map ring) with all air entering through the 3.0" opening. Intake wheel must protrude 1/8th inch inside of opening.
- 11. Exhaust must exit straight up, with (2) 3/8" bolts mounted in a cross pattern no more than 1" apart as close to the turbine wheel as possible, no more than 6" away from turbine wheel.
- 12. Intercoolers allowed. Dumping or draining intercoolers without a catch pan within 100 feet of competition track is prohibited.
- 13. Water injection is prohibited. All components must be removed from the truck.
- 14. Air shut off must have a cable that goes to the rear of truck operated by the sled operator and also one to the cab of the truck. Kill switch will be securely mounted to the back of the vehicle and have a two (2) inch diameter metallic ring to attach the sled.
- 15. Fuel Systems: Maximum of one P7100 pump (2 5/8"W x 9 9/16"L x 8 3/16"H main pump body), limited to one plunger per cylinder. The use of multiple high pressure common rail fuel pumps is allowed. Ford Powerstroke engine may utilize a second HPOP. Electronic fuel injection is permitted. A 3-way dump valve mounted before the injection pump is mandatory which can be operated by the driver while strapped in the seat.
- 16. No fuel lines or tanks permitted inside of truck cab unless securely mounted in marine box.
- 17. Fuel limited to diesel fuel. No alcohol, nitrous, propane or any oxygen enhancing agents allowed.
- 18. Must run DOT approved tire. Maximum tire height 35", no studded tires or chains. No alteration to DOT tires allowed. No sanding, siping, shaving, grooving or burnouts. Excessive wear or modification to OEM configuration is not

allowed and will be subject to tech official's review. Dual rear wheels are permitted on rear axle only. Maximum of 6 tires.

- 19. Front weights must be no more than 60" from the center line of the front axle to forward most point and be securely fastened. No weights are allowed in cab of the truck. If weights are located in the bed of truck they are to be securely fastened to the bed of the truck.
- 20. Drive train will consist of the following: Any front axle, any transfer case and any rear axle. No planetaries permitted.
- 21. Axle shields are required. Shield to be .060" thickness steel or aluminum. Shield not to be mounted to axle ends or hub bolts. A hole may be cut in one to allow locking in of hubs.
- 22. No cast iron clutches or flywheels permitted, must be SFI approved. Trucks with automatic transmissions, refer to General Rules.
- 23. SFI bell housing blankets and/or SFI blow proof bell housing required.
- 24. All U-joints must be shielded 360 degrees with 3/8" thick aluminum w/1/8" steel liner or 5/16" thick steel. Shield will be 6 inches long minimum and centered on u-joint. Inside diameter of shield will be no more than 2 inches larger than u-joint.
- 25. All intermediate shafts between the transmission and transfer case will be totally enclosed in 3/8" aluminum or 5/16" steel,  $\frac{1}{4}$ " of shaft may be visible.
- 26. Fire extinguisher (2.5#) or fire suppression system, Helmets-Snell 90 or better, SFI fire suits, head sock, gloves, shoes, and seat belts required.
- 27. No traction control permitted.
- 28. All other rules may be found in 4X4 Truck and General Rule sections.

# G. Pro-Stock Diesel Truck (3.6)

1. Maximum weight 7800lbs.

- 2. An OEM chassis is mandatory. The vehicle must retain the full OEM frame from center line of front axle to center line of rear axle. Full tube chassis are prohibited. Maximum wheelbase 158" and 102" maximum width (outside tire to outside tire.) Rigid suspension allowed.
- 3. The body must be an OEM truck body. No flatbeds permitted. The body must retain the full sheet metal, aftermarket hoods are permitted. The hood must be closed and securely latched while hooked to the sled.
  - a. Firewall Must have a complete firewall with no holes except for controls. Holes not to exceed ½" larger than the controls. May be constructed of a minimum 1/16" aluminum, 1/16" steel or 1/8" Lexan and must extend downward to the bottom of the frame.
- 4. Maximum engine size will be 460 cubic inches. Engine must come in one ton or smaller truck. Engine must be OEM replacement or its replica. A replica to be considered must retain stock bore spacing and operate with the stock crankshaft for the model without alterations for chassis mounting.
- Front of engine block can be no farther forward than 17" of center line of front axle.
- 6. Engine must have cable surrounding block and head. Cable must be minimum 3/8" diameter located between cylinders #1 and #2. Cable must pass thru manifolds. Cable will have 4-6" of slack with a minimum of 4 cable clamps at splice.
- 7. All engines will have a deflection shield, running the complete length of the block casting. Shield must be securely fastened and must be .060" thick. (This equates to a steel inner fender.)
- 8. Hook point must be no closer than 44" of centerline of rear axle, hitch height maximum of 26", with a minimum of a 3.75" X 3.0" opening. Hitch point must be easily accessed. No "trick" type hitches permitted. Hitch must be stationary in all directions. Hitch must be frame mounted. Hitch must be mounted center line of rear axle or behind. Hitch must not

exceed a maximum of 25° angle from pivot point to hook point. Drawbar height adjustment link if attached to rear differential housing the attaching point must be at axle centerline or below. The drawbar adjusters cannot attach to anything above centerline of the rear axle. The adjusters must go down from drawbar. The adjusters can only go straight downward vertically or towards rear differential housing. No slotting of holes for adjuster attachment. No hitch supports or adjusters, fastened to the rear axle housing shall be above the centerline of rear axle. Pivot pin of drawbar can be no farther forward than centerline of the rear axle.

- 9. Secondary hitch required. Minimum of 3/8" material, located 12" below primary hitch on the same vertical plane. (You should be able to look directly through both at the same time they need to be lined up.)
- 10. The turbocharger is smooth faced intake housing, limited to a maximum 3.6" inlet, (no map ring) with all air entering through the 3.6" opening. Intake wheel must protrude 1/8th inch inside of opening.
- 11. Intercoolers allowed. Dumping or draining intercoolers without a catch pan within 100 feet of competition track is prohibited.
- 12. Water injection is permitted. Lubrication only. No alcohol or oxygen enhancers allowed.
- 13. Air shut off must have a cable that goes to the rear of truck operated by the sled operator and also one to the cab of the truck. Kill switch will be securely mounted to the back of the vehicle and have a two (2) inch diameter metallic ring to attach the sled.
- 14. Fuel Systems: Largest fuel injection pump allowed will be a P-pump with one plunger per cylinder. (No Sigma pumps). The use of multiple high pressure common rail fuel pumps is allowed. Ford Powerstroke engine may utilize a second HPOP. Electronic fuel injection is permitted. 8 Cylinder cast aftermarket housing (Hypermax) permitted. A 3-way dump valve mounted before the injection pump is mandatory which can be operated by the driver while strapped in

the seat.

- 15. No fuel lines or tanks permitted inside of truck cab unless securely mounted in marine box.
- 16. Fuel limited to diesel fuel. No alcohol, nitrous, propane or any oxygen enhancing agents allowed.
- 17. Tires: May run DOT approved tire or bar tire.
  - a. DOT Tire: maximum tire height 35", no studded tires or chains. No alteration to DOT tires allowed. No sanding, siping, shaving, grooving or burnouts. Excessive wear or modification to OEM configuration is not allowed and will be subject to tech official's review. Dual rear wheels are permitted on rear axle only. Maximum of 6 tires.
  - b. Bar Tire: Maximum tire circumference or 112", when inflated to 30psi with original bar, not to exceed 18 inches in width before cutting. Maximum of 4 tires.
  - c. No combination of (bar/DOT) of tires permitted.
- 18. Front weights must be no more than 60" from the center line of the front axle to forward most point and be securely fastened. No weights are allowed in cab of the truck.
- 19. Drive train will consist of the following: Any front axle, any transfer case and any rear axle. No planetaries permitted.
- 20. Axle shields are required. Shield to be .060" thickness steel or aluminum. Shield not to be mounted to axles ends or hub bolts. A hole may be cut in one to allow locking in of hubs.
- 21. No cast iron clutches or flywheels permitted, must be SFI approved. Trucks with automatic transmissions refer to General Rules.
- 22. SFI bell housing blankets and /or SFI blow proof bell housing required.
- 23. All U-joints must be shielded 360 degrees with 3/8" thick aluminum w/1/8" steel liner or 5/16" thick steel. Shield will be 6 inches long minimum and centered on u-joint. Inside diameter of shield will be no more than 2 inches larger than

u-joint.

- 24. All intermediate shafts between the transmission and transfer case will be totally enclosed in 3/8" aluminum or 5/16" steel, ¼" of shaft may be visible.
- 25. Fire extinguisher (2.5#) or fire suppression system, helmets-Snell 90 or better, SFI fire suits, hat sock, gloves, shoes, and seat belts required. See General Rules for SFI specifications on clothing.
- 26. All other rules may be found in 4x4 Truck and General Rule sections.

## **H. Diesel Super Stock Trucks**

- 1. Maximum weight 7500 lb.
- OEM or tube chassis allowed. Wheelbase maximum 158"
- 3. Firewall Must have a complete firewall with no holes except for controls. Holes not to exceed ½" larger than the controls. May be constructed of a minimum 1/16" aluminum, 1/16" steel or 1/8" Lexan and must extend downward to the bottom of the frame.
- 4. Maximum engine size will be 460 cubic inches. Engine must come in one ton or smaller truck. Engine must be OEM replacement or its replica. A replica to be considered must retain stock bore spacing and operate with the stock crankshaft for the model without alterations for chassis mounting.
- 5. Front of engine block must remain behind the grill and front of engine block can be no farther forward than 25" of center line of front axle.
- 6. Engine must have cable surrounding block and head. Cable must be minimum 3/8" diameter located between cylinders #1 and #2. Cable must pass thru manifolds. Cable will have 4-6" of slack with a minimum of 4 cable clamps at splice.
- 7. All engines will have a deflection shield, running the complete length of the block casting. Shield must be securely fastened and must be .060" thick.

- 8. Hook point must be no closer than 44" of center line of rear axle, hitch height maximum of 26", with a minimum of a 3.75" X 3.0" opening. Hitch point must be easily accessed. No "trick" type hitches permitted. Hitch must be stationary in all directions. Hitch must be frame mounted. Hitch must be mounted center line of rear axle or behind. Hitch must not exceed a maximum of 33° angle from pivot point to hook point. No hitch supports or adjusters, fastened to the rear axle housing shall be above the center line of rear axle. Pivot pin of drawbar can be no farther forward than center line of the rear axle.
- 9. Secondary hitch required. Minimum of 3/8" material, located 12" below primary hitch on the same vertical plane. (You should be able to look directly through both at the same time they need to be lined up.)
- 10. Turbochargers Limited to a maximum of 3 turbochargers in 2 stage configurations. All trucks with fiberglass bodies require turbo shields, minimum of .060 aluminum.
- 11. Exhaust must exit straight up, minimum of cab height, with (2) -3/8" inch bolts mounted in a cross pattern.
- 12. Intercoolers allowed. Dumping or draining intercoolers without a catch pan within 100 feet of competition track is prohibited.
- 13. Water injection is permitted. Lubrication only. No alcohol or oxygen enhancers allowed.
- 14. Air shut off must have a cable that goes to the rear of truck operated by the sled operator and also one to the cab of the truck. Kill switch will be securely mounted to the back of the vehicle and have a two (2) inch diameter metallic ring to attach the sled.
- 15. Fuel Systems: Any fuel injection pump allowed. The use of multiple high pressure common rail fuel pumps is allowed. Ford Powerstroke engine may utilize a second HPOP. Electronic fuel injection is permitted. A 3-way dump valve mounted before of the injection pump is mandatory which can be operated by the driver while strapped in the seat.

- 16. No fuel lines or tanks permitted inside of truck cab unless securely mounted in marine box.
- 17. Fuel limited to diesel fuel. No alcohol, nitrous, propane or any oxygen enhancing agents allowed.
- 18. Maximum tire size to be 112-inch circumference, when inflated to 30psi with original bar, not to exceed 18 inches in width before cutting. Maximum of four tires permitted.
- 19. Front weights must be no more than 60" from the center line of the front axle to forward most point and be securely fastened
- 20. Drive train will consist of the following: Any front axle, any transfer case and any rear axle. No planetaries permitted.
- 21. Axle shields are required. Shield to be .060" thickness steel or aluminum. Shield not to be mounted to axles ends or hub bolts. A hole may be cut in one to allow locking in of hubs.
- 22. No cast iron clutches, or flywheels permitted, must be SFI approved. Trucks with automatic transmissions refer to General Rules.
- 23. SFI bell housing blankets and /or SFI blow proof bell housing required.
- 24. All U-joints must be shielded 360 degrees with 3/8" thick aluminum w/1/8" steel liner or 5/16" thick steel. Shield will be 6 inches long minimum and centered on u joint. Inside diameter of shield will be no more than 2 inches larger than u joint.
- 25. All intermediate shafts between the transmission and transfer case will be totally enclosed in 3/8" aluminum or 5/16" steel, 1/4" of shaft may be visible.
- 26. See General Rules for SFI specifications on clothing.
- 27. All other rules may be found in 4x4 Truck and General Rule sections.

## I. Pro Street Diesel Trucks

1. Maximum weight 8000#

- OEM Chassis is mandatory. The vehicle must retain the full OEM chassis. Wheel tubs, back half conversions and tube chassis are prohibited. Lengthening of frame allowed up to 158". Longer trucks (158"-172") must maintain OEM measurements for body being used.
- 3. The body must be OEM truck body including the full bed floor. No flatbeds permitted. The body must retain the full sheet metal. After market hoods permitted. The hood must be closed and securely latched when hooked to sled.
- 4. Maximum cubic inch 460. Engine must be in OEM locations for the body used. No aftermarket blocks permitted. Engine must have 3/8 cable surrounding #1 and #2 cylinders and must pass through the manifolds. 2 cables at splice with 4-6 inches of slack.
- 5. Cylinder head must be OEM or OEM replica for brand of engine. Outside of cylinder head must measure factory width and length. No billet heads of any material. Head must retain factory OEM valve angle. No deck plates permitted. Side draft and aftermarket intake manifolds are allowed.
- 6. Hook point to be no closer than 44" of centerline of rear axle. Maximum hitch height of 24" with a minimum of 3.75"x3" opening. Hitch must be stationary in all directions. Hitch must be frame mounted. The use of Reese style hitches is prohibited. Hitch must be centerline of rear axle or behind. Hitch must not exceed 25 degree angle from pivot point to hook point. Drawbar height adjustment link if attached to rear differential housing the attaching point must be at axle centerline or below. The drawbar adjusters cannot attach to anything above centerline of the rear axle. The adjusters must go down from drawbar. The adjusters can only go straight downward vertically or towards rear differential housing. No slotting of holes for adjuster attachment. No hitch supports or adjusters fastened to rear axle housing shall be above center point of rear axle. Pivot pin of drawbar can be no further forward than the centerline of rear axle.
- 7. Turbo is limited to a 2.6" inducer bore. Bore must be smooth. No MAP Width Enhancement groove (MWE) al-

- lowed. Compressor wheel must protrude into 2.6" bore for 1/8". Bore will be checked with a 2.605" turbo plug. Plug must not be able to enter inducer bore and contact wheel.
- 8. All vehicles must be equipped with upward pointing exhaust located either directly behind cab or out of truck hood. Two 3/8 inch diameter bolts must be placed through the exhaust pipe in a cross pattern within one inch of each other and within 12 inches of turbo.
- Front hanging weights are allowed, not to exceed 60 inches forward from the centerline of front axle. Ballast may be added in the bed of truck but must be securely fastened.
- 10. All trucks must have at least six-inch-wide u-joint shield around the rear u-joint constructed of at least 5/16-inch steel or 3/8 aluminum that will safely contain the u-joint and the end of the driveshaft. All shields must be securely mounted to vehicle. Any front shaft u-joints that can be visibly seen from side of truck must be shielded to contain the u-joint and the end of the driveshaft
- 11. A fire extinguisher system is permitted. 2.5# fire extinguisher must be securely mounted within reach of driver. A complete OEM firewall is required.
- 12. All drivers must have valid driver license and full SFI fire suit including helmet. Seatbelt/restraint must be worn.
- 13. The complete OEM floor pan is mandatory. Vehicle must maintain a complete firewall. Additional gauges and pillar pods are permitted.
- 14. Hand throttles permitted. Diesel fuel only (See fuels page for specs) No propane or N02 or any other oxygen enhancers allowed
- 15. Fuel Systems: Maximum of one P7100 pump (2 5/8"W x 9 9/16"L x 8 3/16"H main pump body), limited to one plunger per cylinder. The use of multiple high pressure common rail fuel pumps is allowed. Ford Powerstroke engine may utilize a second HPOP. Electronic fuel injection is permitted. A 3-way dump valve mounted before the injection pump is mandatory which can be operated by the driver while

strapped in the seat.

- 16. OEM rear or front ends required. Must have come factory in a one ton or smaller vehicle.
- 17. Axle shields are required. Shield to be .060" thickness steel or aluminum. A hole may be cut in one shield to allow operation of hub lock.
- 18. Safety switch (rain cap or guillotine) must shut off air to diesel engines. Switch will be securely mounted to back of vehicle. A 2 inch or bigger solid ring must be attached to end of switch. Ring must be zip tied to switch bracket. Switch must also be able to be activated in cab while driver is secured in vehicle.

## 19. Hydraulic steering permitted

- 20. Suspension The upper mounting point for strut assembly must be in factory location. Adjustable caster/camber pillow ball mounts are permitted. The lower control arm may be strengthened provided the factory mounting points are maintained. Strut tower braces, lower tie bars, sway bars, and limit straps are permitted. Traction bars and devices are permitted. Raising or lowering of vehicle height with suspension modifications is permitted but must be bolt on only. Welds permitted for attachment to frame and axle only. Blocked suspension permitted. No air bags. Rear suspension may be made solid.
- 21. Tires must be DOT approved with maximum size of 35x12.50. No studded tires or tire chains. No alterations to DOT tires permitted. No sanding, siping, shaving, grooving or burnouts. Excessive wear or modification to OEM configuration is not allowed and will be subject to tech official's review. No bar or terra tires.
- 22. Dual wheels are prohibited.
- 23. OEM transmission and transfer case must be used. Must have come factory in a one ton or smaller vehicle.
- Non-OEM transmissions prohibited. Aftermarket torque converters, valve bodies, and internal components are permitted.

- SFI bell housing and/or SFI blow proof bell housing or SFI blanket type shield must be used.
- 26. Water injection is prohibited.
- 27. Air to air intercooler only. No ice or water permitted truck during competition.

#### J. Hot Rod Semi

- 1. Maximum weight for competition is 20,000#.
- 2. Truck must be stock appearance for that year, model and make of truck
- 3. If hood is consisted of fiberglass an additional piece of either .125 steel or aluminum shall be place inside hood where turbochargers are located
- Tubular chassis are permitted.
- 5. One commercial truck engine only permitted. Engine must have been available in road use trucks. No non-commercial or specialty engines permitted. (QSK-19 has been approved for competition) It required that a 3/8 cable surround the head(s) and engine block. Maximum deck plate height allowance 1.25".
- 6. Electronic fuel injection permitted.
- 7. Two (2) air stages maximum are permitted on engine.
- 8. Transmissions and rear ends must be commercial truck factory components. Vehicles are required to have steel flywheel and clutch components. No cast clutch components permitted. All bell housings or transmissions must be covered by approved scatter blanket.
- 9. Mechanical clutches only will be permitted.
- 10. Vehicles are required to have a starter interrupter switch, which will only let vehicle start when in neutral.
- 11. Batteries must be located and mounted outside of driver's compartment.
- 12. A diverter valve that will permit fuel to return to the fuel tank in the case of an emergency is required.

- 13. Pressurized tanks, bottles, or cylinders are not permitted with the exception of air supply tanks used for air brake equipment.
- 14. Drawbar
- a. Drawbar must mounted to the frame.
- b. Maximum hitch height is 18 inches. Drawbar must adjust between 16 and 20 inches. C. Minimum drawbar length is 34 inches from center of the rear axle to the farthest point on hitch, and no longer than 30% of the wheelbase. D Drawbar must be equipped with a 3 X 3.5-inch round hole and free from any obstructions during hitching. E. Hook point may not be more than two inches from back edge of drawbar. F. Drawbar must be designed with a minimum of three inches of total material at any point. G. Pivot pin must be greater than one inch in diameter. H. No chains or cables permitted as drawbar.

#### 15. Kill Switch

Safety switch will activate the air shut off will be within twelve (12) inches of drawbar.

Vehicles that have electric fuel pumps will have switch connected to kill switch to stop fuel being pumped to engine.

Vehicles must have master electrical disconnect clearly visible to official.

Engine ignition and fuel supply master switches must be within easy operating reach of driver for disconnect.

### 16. Tires

DOT tires only. Maximum tire size to be 11X24.5 or 10X22. Maximum tread width not to exceed 10 inches.

Must have dual wheels and dual tires on rear axles. Only "Bud" type wheels permitted

No chains or cables permitted.

Cut tires are not allowed. No construction/agricultural or "bar" type treads permitted.

# 17. Axles & Suspension

- a. Tandem axle drive semi-trucks will be allowed to compete.
- b. No air or mechanical lifts for steering axles are permitted.
- c. The rear axle drive must be secured to the frame to keep a constant hitch height while hooked to sled during competition.
- d. Suspension components which are used to activate front tandem axle cannot exceed 18" from the centerline of the axle. (air bags and hydraulic cylinders are permitted and must be mounted in the vertical position.
- e. The rear drive axle must be rigid to the frame in all directions. Rear axle must not move from main frame of truck.
- f. 5/16" X 2" wide steel, 360° safety loop installed at center of front driveshaft and securely mounted to each frame rail by 2 bolts, 3/8" evenly spaced. 2---4-inch-wide nylon straps evenly spaced from the front differential to the back yoke of transmission. Strap must be secured by a minimum of 2 3/8" bolts with washers or buckles to each frame rail.

### 18. Chaining of axles

The rear drive axle must be rigid to the frame in all directions. Rear axle must not move from main frame of truck.

Chain binders are not permitted.

# 19. Weights

Weights must not interfere with hooking of sled to drawbar.

Weights cannot extend rearward more than 51 inches from the center of the rear axle.

Weights cannot extend more than 24 inches from stock forward most point.

20. Fluid testing procedures

Only fuel permitted is diesel fuel.

The only additive for water injection is a soluble oil.

# <u>VI</u> Member States of Pro Pulling League

\* Pro Pulling League associated groups or state may set their own limitations, but must run PPL safety rules.

# A. Badger State Tractor Pullers

Competition rule changes will be made at the annual fall meeting. All current members will be notified of rules changes on or before Jan 1. Competition rules will not be changed from Jan 1 to annual fall meeting. Rules concerning safety can be changed at anytime by PPL and/or BSTP officials.

Judges decisions during the event are final. In order to appeal a tech officials off track decision, the appealing member shall make a written request and deliver it to the competition director or class rep within 72 hours of the DQ or prior to the next event. The appeal shall be evaluated as promptly as possible. The meeting must allow parties involved to personally present their position or facts at the meeting. Only annual members have the right to appeal. There will be a \$500 nonrefundable appeal fee.

Fuel Flash Test - 1. Gather sample from vehicle. Typical sample should be a minimum of 16 ounces. Larger amount needed in case additional testing is required. 2. Place no more than 2 ounces of sampled fuel into metal 1/2 cup. 3.Use lighter provided, which the lighter will be replaced at the end of each season. 4.Ignite lighter, move flame towards edge of fuel sample for 10 seconds, no flame the fuel is legal.

### Disqualifications

Any rule infraction of fuel, water, cubic inch or illegal turbo will result in:

- 1st Offense Driver and vehicle is not allowed to compete for one year plus ten days with a \$5,000 reinstating fee.
- 2nd Offense Driver and vehicle is not allowed to compete for five years with a \$10,000 reinstating fee.
- 3rd Offense Driver and vehicle is not allowed to compete for life.

All diesel fuel in all tractor classes is to be below 150 on the dielectric test.

\* P8600 Injection pump not permitted in LLSS, 640PF & 466HF.

The largest pump allowed is Bosch P7100 injection pump with one plunger per cylinder and one injector per cylinder.

The injection body (main housing) may not exceed 2.75w X 8.25t X 9.5l. No electronically controlled systems.

# **Light Limited Superstock**

#### **General Rules**

- 1. Maximum weight for diesel tractors 6500#
- Maximum weight for alcohol tractors 6250#
- 3. 24. 5 or 30.5 tires allowed for tractors running alcohol.
- 24.5 tires allowed for diesel.
- 5. Datalog (or similar data recording devices) shall be the only electronics allowed on a tractor.
- 6. Must have 200# of movable weight.

#### Chassis

- 1. Chassis must conform to engine being used. Must retain factory (OEM) clutch housing, transmission case, rear end housing, and axle housings.
- 2. Front suspension air bag and coil over shocks are allowed, must be mechanical. No air tank/accumulator allowed..
- 3. Must be equipped with stabilzer bars and mandatory front axle bars or approved tire tether system.
- 4. Aftermarket transmission will be permitted, must be inside cast housings. (Pro-Fab/Atlas-Max)
- 5. Aftermarket fabricated steel axle housings allowed: Flange minimum thickness of 1 inch, housing minimum thickness of 1/2 inch.
- Must be equipped with SFI 47.2 roll cage including 5 point harness seat.
- 7. Any upgrade of sheetmetal must stay within bradn being used and must have written approval of BSTP board of directors.

# **Engine**

1. Maximum of 315 cubic inches (no tolerance) for twin turbocharged engines. Intercoolers permitted.

- 2. Maximum of 410 cubic inches (no tolerance) for single turbo-charged engines. Intercoolers permitted.
- Maximum of 370 cubic inches (no tolerance) for alcohol tractors. No intercoolers.
- 4. De-cubing of an engine is allowed. Engine must match the brand of tractor.
- 5. Cummins engine: AGCO brand tractors (Oliver, Moline, White, MF, Deutz, AC) also (CASE-IH series) run said engine or any other brand engine but must retain manufactures sheet metal. are permitted to run a Cummins engine or approval from BSTP B.O.D.
- A one inch adapter plate is allowed on decubing and Cummins engines, must not diminish the color continuity intent of de-cube rule.
- Cylinder head(s) must be the OEM casting for said tractor and engine block or factory replacement. 12 valves per cylinder head, no overhead cam. No aftermarket or remanufactured heads.
- 8. One inch deck plate allowed.
- 9. Water injection permitted. BSTP approved lubricants.

**Turbocharger**(s) shall not exceed a 3 inlet and a 4" outlet measured at the face of the wheel. The intake wheel and exhaust wheel must protrude into the maximum allowed inlet and outlet dimensions at least 1/8". Must be smooth bore No map enhancements or secondary air source. Only staged turbo for twin turbocharged tractor.

**Fuel Systems:** Up to P7100 series pump allowed, only one plunger per cylinder. No electronically controlled fuel system allowed.

1. No secondary source of fuel (liquid or gas) or oxygen enhancer allowed.

## Badger State Pro Farm

1. A Pro Farm tractor shall consist of the following: Stock motor block or OEM block that will operate with the stock

crankshaft for that model without any alterations for chassis mounting. Replacement blocks are acceptable. Stock transmission or OEM replacement transmission must be externally stock appearing, aftermarket gear boxes will be allowed inside of the stock transmission. OEM block cannot be altered in any way externally for normal repair or for mounting of fuel injection pumps. Internal webbing and water jacket to remain intact with provisions to re-bore motor block. Frame must remain stock from rear of block to rear of tractor on all Pro Farm. Clutch housing, transmission case, rear end housing must be OEM, no aluminum replacements. Any alterations in this rule concerning stock motor block or OEM must be approved by the BSTP and PPL.

- 2. Maximum weight 10,000#.
- 3. Pro Farm tractors use OEM cylinder head, intake manifold and exhaust manifold for that model or series engine. No overhead camshafts permitted. Maximum of 2 valves per cylinder. Recasted heads are permitted.
- 4. 650ci maximum with intercooler

4A - Exhaust - Turbo must measure no larger than 3.70" at the face of the turbine wheel. All turbine wheel fins must protrude into the 3.70" opening. Large foot turbine housing T6 (2.75X4.44) exhaust manifold bolt pattern is allowed.

4B- Intake- Turbo must measure no larger than 3.00" at the face of the compressor wheel. All primary compressor wheel fins must protrude into 3.00" opening. No intake slot allowed. No secondary air source of air and no slots of any kind allowed. Housing slots must be permanently disabled by welded shut. No temporary inserts or plugs allowed.

4C- Up to 650ci no intercooler permitted or up to 466ci with intercooler.

Intake - Turbo must measure no larger than 3,00" at the face of the compressor wheel. All primary compressor wheel fins must protrude into 3.00" opening. Map ring allowed, maximum slot width dimension .200" Entire slot width must stay with 3.00" bore dimension.

- 8. Acceptable fuels are diesel, gas, or propane. Tractor must run the original stock fuel for make and model declared.
- 9. No combustible agents allowed in water injection.
- 10. Fuel Systems: Up to one carburetor. Up to P7100 series pump allowed (2 5/8"W x 9 9/16"L x 8 3/16"H main pump body), only one plunger per cylinder. No electronically controlled fuel systems allowed
- 11. 3,000 RPM maximum monitor device required and shall be purchased from the association.
- 12. All engine blocks must remain in original location as intended by the manufacture, sheet metal to be stock in length and location must be stock appearance.
- 13. All sheet metal updates must be approved by the PPL and BSTP. Pro Farm tractors must have hood and grills in place as intended by the manufacture.
- 14. Wheelbase maximum 114 inches unless originally produced by manufacture longer, then must remain stock length. Maximum length 13 feet from the center of the rear axle to forward most part.
- 15. Tire size limit is 20.8 X 38 or 18.4 X 32. Tractors will be allowed to run cut tires. Maximum circumference of rear tire is no more than 220 inches at 20 PSI.
- No four wheel drive tractors allowed.
- 17. All rules in the general rules. All safety rules will be followed as Super Farm class.

# **Badger State 466 Hot Farm**

- 1. Maximum weight permitted 9,500#
- Maximum cubic inch limit is 466 with a 1 inch deck plate allowed.
- 3. Maximum tire size 20.8 X 38. Cut tires permitted. Radial tires permitted. Maximum circumference of rear tire is no more than 220 inches at 20 PSI.
- 4. Any cast or manufactured cylinder head will be accepted. No billet. Cylinder head must retain OEM width and length

for the engine application. Valves must retain OEM angle for engine application. 2 valve per cylinder maximum. Cylinder head must retain OEM bolt pattern for intake and exhaust manifolds. The stock intake and exhaust bolt pattern must be used to attach the intake and exhaust manifolds. No overhead cams permitted..

- Chassis requirements are the same as Super Farm division
- 6. OEM exhaust manifolds for that model and series engine only permitted on cylinder head.
- 7. Water injected permitted.
- 8. No pre-cooling for after-cooling of intake air allowed, no ice allowed on pulling vehicle.
- Overhead cams are not permitted.
- 10. Fuel Systems: Up to P7100 series pump allowed (2 5/8"W x 9 9/16"L x 8 3/16"H main pump body), only one plunger per cylinder. VP fuel only. No electronically controlled fuel system allowed.

#### 11. Turbos:

- 11a. Exhaust housing and exhaust manifold bolt pattern shall be no larger than 2.75 X 3.50 inches.
- 11b. Turbine wheel must protrude into housings.

#### 12. Intake:

- \* Intake housing to be no larger than 3.0" inches at the face of the wheel.
- \* No secondary air slots permitted or MWE groove.

#### 13 Exhaust

- \* All turbine wheel blades to protrude into three-inch bore. All air must exit through 3" opening.
- \* Turbine housing to be no larger than three inches at intersection of turbine wheel face and tip diameter.
- \* Exhaust housing will be measured at intersection of turbine wheel face and tip diameter.

14. No waste gates will be permitted.

### **B. Bush Pullers**

#### Pro Stock 4x4 Trucks

## Weight & Wheels

- 1. Tires must be street legal. No tread alterations of any kind -i.e.( sharpening, cutting, re-grooving, or tread touch up) is allowed. No larger than 33x12.50x16 or 305x16. DOT approved with factory stamp. Tire size must be displayed on the tire
- 2. Solid rear suspension allowed.
- 3. Any rear-end housing size is permitted. Maximum of One ton front end housing allowed. No air lockers or electronic locking devices. The width of the housings is to be like width of the factory housings.
- 4. Weights/weight bar must not extend forward more than sixty (60) inches from the centerline of the front axle.

## **Engine**

- 1. Engine must be the same make as vehicle. Engine must be in stock location. Rear edge of the block to the center of the axle can be no less than 14". May only run cast iron blocks with any cast iron heads or aluminum type heads. Also acceptable are NHRA pro stock legal with wedge shaped combustion chambers, no hemi type chamber (can have spark plug in middle through valve cover), OEM or aftermarket. Any internal engine modification allowed.
- Any single 4-barrel manifold required naturally aspirated. Sheet metal intake manifolds are allowed.
- 3. A 1% variance to the engine limit of 485 cubic inches.
- 4. Maximum engine bore spacing of 4.9 inch.
- 5. No electronic timing devices.
- 6. No traction control, no digital boxes.
- 7. MSD boxes must be inspected, sealed, and numbered

by MSD.

8. All NHRA pro-stock heads are legal

# **Body/Chasis**

- 1. A body components must have factory production OEM frame
- 2. Vehicle must retain the original wheelbase plus or minus ½ inch and stock appearance, 133" maximum.
- 3. Hood scoops optional.

#### Hitch

1. Any nonmember or puller that doesn't conform to rules shall lose 2 inches of hitch height, or 200 pounds or weight by their choice.

#### Drawbar

- 1. Primary hitch must be secure to vehicle frame in all directions. Hitch stem may be any length as long as the point of hook is not less than 36% of wheel base.
- Hitch point to rear axle centerline must be a minimum of 36% of wheelbase. This distance cannot change during the pull.
- 3. Hitch stem angle must not exceed 25 Degrees measured on the stem w/ angle finder. Main stem must be straight from the point of hook to pivot point. (On the same plane).
- 4. No part of the hitch can be attached or come into contact w/ rear axle during pull except the stem adjuster.
- 5. Hitch adjuster must not locate more than 6 inches from the point of hook.
- 6. Hitch height cannot exceed 26 inches from point hook to ground or track.
- 7. NO "L" shaped drawbars.
- 8. No drawbar angle greater than the angle of the sled chain. Acceptable angle is 0 degree to a maximum of 20 degrees. This will be measured by the angle of a straight edge from the point of hook to the center of the pivot point.

- 9. All turn buckles that control drawbar height from BELOW the drawbar must be vertical or angle FORWARD from the attachment point on the drawbar to axle housing. Attachment point on the axle cannot be cannot be above the centerline of axle housing. All turnbuckles that control drawbar height from ABOVE the drawbar must be vertical or angle BACKWARD from attachment point on drawbar to frame.
- 10. Maximum hitch height shall be 26 inches. This maximum cannot change during the pull.
- 11. Drawbar to be made of steel, minimum or two (2) square inches total material at any point. This will include the area of the pin with pins removed. Pins will be minimum of  $\frac{7}{8}$  diameter. Drawbar must be equipped with a steel hitching device constructed of not more than 1  $\frac{1}{2}$  " square nor less than 1-inch square (1  $\frac{1}{8}$  inch round stock) with an oblong shaped hole of 3  $\frac{3}{4}$  inch long by 3 inch wide.
- 12. No cam type rear ends. All rear ends must be welded or bolted by a minimum of 3 bolts per side solid with a minimum of 3 5%" grade 5 bolts per side to the frame.

#### **Transmission**

1. Aftermarket transmission and transfer case allowed.

#### Fuel & Water

- 1. Alcohol fuels and propylene oxide are not allowed
- 2. VP Fuel and water only with all vehicles. A \$50 fine will be accessed for lack of fuel and water test ports for all classes. Also, for any minor infractions of fuel or water quality. Each vehicle must display 2 VP Racing Fuels decals, one for each side.

## Super Field

- 1. Max OEM cubic inch 466 @ 3200 RPM, 467-504 OEM cubic inch at 2800 RPM (i.e. Case 504).
- 2. Max tire size 20.8 x 38. Cut tires optional
- 3. OEM stock head for that model or series of engines.
- 4. OEM stock intake & exhaust manifold (spacers allowed,

- 1" maximum) Great Plains and NETTPA rules.
- 5. Water Injection and Ice boxes NOT permitted.
- 6. 13mm P7100 pump max allowed see
- Stock out of the Box SXE362 turbo with no alterations to any internal wheels, housings, or shafts.
- 8. All tractors to be equipped with a Data Log RPM sensor. Female 110 bolt receptacle on back of tractor. Plug-in must be within 12 " of Kill Switch for easy access.
- 9. Ruling for going over RPM Limit:
  - 1st Dropped to last place points.
  - 2nd No points / No money that hook
  - 3rd Banned from association for 1 year plus 1 day from date of violation.
- 10. Tractors to be equipped with SFI approved steel flywheel, steel clutch components, and clutch blanket SFI rated 4.2.
- 11. Tube frames allowed.
- 12. Fuel: VP DX fuel mandatory
- 13. Test ports mandatory.
- 14. No shifting permitted during the run.

# Super Farm

- 1. No engine larger than 640 c.i. (1% tolerance)
- Engine head must be an OEM agricultural type for that brand of engine. Recast heads allowed with OEM dimensions. No overhead cams.
- 3. OEM stock intake and exhaust manifold for that series engine.
- 4. Precision Turbo 3x3.5 or 3x3 allowed. 3.6x4.55 smooth bore Box Turbo with a 132 exhaust housing. Or any previous year Box turbo with and additional 200#.
- 5. Intake manifolds may only be modified for mounting and attaching turbo inlet pipe.

- A maximum of one inch spacer plate between head and intake manifold allowed.
- 7. Only p7100, p3000, or 8000 series fuel injection pumps allowed with any plunger size.
- 8. Only VP DX Fuel permitted.

Note: Alterations for turbo mounting allowed. A spacer no larger than 3 inches allowed between the turbo and manifold is allowed on the outside.

# Light Super Stock

- 1. Weights: 6100# 505 ci alcohol single 4.6 and multi-charger tractors. 6400# 640 ci 5.0x5.25 single turbo, multi-charger diesel, LLSS 400ci or less Alcohol, 410ci diesel with intercooler.
- 2. Cummins power plant allowed in Oliver application. LLSS intercooler allowed on 300 twin chargers.
- Only engines considered legal to be used in super stock division must be available in two wheel drive farm tractors. (This applies to both OEM and component type)
- 4. Maximum or 1"deck plate between bottom of cylinder head and top of engine block. A maximum allowance of .130 total gaskets with a maximum of 640 ci total. No deck plate may be utilized on engines larger than 640 ci with the exception of the Unlimited Super Stock class.
- 5. No plates allowed between cylinder head (jug assembly) and crankcase, i.e. Deutz-Allis, Minnie, etc.
- Light SS class limited to 505 ci, only 2 valves per cylinder, must be parallel within 15 degrees of cylinder wall, OEM canted valve heads allowed.
- 7. OEM heads or two (2) valve aftermarket heads allowed, no operating inner coolers allowed.
- 8. No overhead cams or Hemi-style heads permitted.
- Maximum tire size is 30.5x32.
- 10. 400 series IH engines with 656 style rear-ends, 426 series Allis with 180 style rear-ends are allowed. Must retain

factory (OEM) clutch housing, transmission case, rear end housing, and axle housing.

- 11. Rim diameter limited to 32 inches on tire widths over 24 ½ inch.
- 12. Tractor must retain cast iron integrity from engine block to rear end, allowing cutting transmission and clutch inspection, must retain rigid. If the cast case is broken, this means it has lost integrity. It needs to be replaced before future competition. Excessive lightening causing safety concerns to be reviewed by board and class for approval.
- 13. Drawbar angle not to exceed 10 degrees up or down and remain rigid in all directions.
- 14. No HP puller tires in the Light Super Stock class.
- 15. No component tractors in the Light Super Stock class.
- 16. Maximum size of injection pump is a P-pump or Sigma with no limitations on plunger size.
- 17. 506 to 640 cubic inch engines are limited to one (1) 5.0x5.25 turbocharger.
- 18. All ether bottles (starting aids) must be placed outside the engine compartment.

# Single Engine Modified

- Weight is 6000 lbs with no tolerance unless noted otherwise.
- 2. Allowable fuels: alcohol, diesel, kerosene, any form of gas/race gas. Absolutely NO nitro methane or nitrous oxide allowed.
- 3. EFI allowed on any engine combination listed below.
- Maximum of one 600 ci hemi headed v8 automotive style engine with maximum blower size of 14-71, no screw blowers allowed.
- 5. One fuel injected Allison v12 aircraft engine limited to 8.8-1 Supercharger overdrive ratio.
- 6. One carbureted gas Allison v12 aircraft engine limited to

- 9.6-1 Supercharger overdrive ratio.
- 7. One carbureted gas Merlin or Packard style v12.
- 8. Any combination of n/a wedge head automotive style engines with a combined displacement of 1500 ci.
- a. Under 750 ci will be allowed to run at 7000 lbs
- Any combination of forced induction wedge head automotive style engine with combined displacement of 750 ci, no Billet blocks allowed.
  - a. Turbos limited to one per bank, non-staged.

Aluminum heads - 76 mm inducer compressor side, 76 mm exducer turbine side.

Cast iron heads - 88 mm inducer compressor side, 88 mm exducer turbine side.

Single turbo will be limited to 132 mm inducer compressor side.

- b. Under 355 ci will be allowed to run at 7000 lbs.
- c. Any type of engine driven blower excluding screw type, no overdrive limit, no variable speed device.
- 10. One ag or industrial style engine with a 4.1" inducer compressor side turbo limited to 505ci displacement on alcohol and unlimited displacement on diesel. Aftermarket aluminum heads allowed, no overhead cams or hemi style combustion chambers.
- a. One Lycoming t53 I-13 turbine with water injection at 6200 lbs.
  - b. Twin Lycoming t53 I-1, I-11 with water injection.
  - c. All turbines must be operated within military specifications.
- 12. Any combination of automotive style diesel engines limited to 900 ci displacement, may run one turbo per engine limited to 3" inducer compressor side and 3.5" exducer turbine side. No intercoolers, water injection is allowed.
  - a. Under 450 ci will be allowed to run at 7000 lbs.

- 13. One 1100 ci Ford gaa engine on alcohol limited to two (2) non-staged turbo chargers.
  - a. Gaa Ford tank engine limited to a 88mm inlet on turbo at 6000 lbs.

#### Classic Modified

- 1. Weight 5700
- 2. Tires: Maximum of 18.4 x 38 bias or radial, cut or uncut.
- Age of Tractor: 1972 and older, homemade tractors prohibited.
- Fuel: No pressurized fuel, Nitrous Oxide, nitromethane, propylene oxide, alcohol based fuels prohibited. Race gas only permitted.
- Maximum height 20" drawbar or less than 18 inches from center of rear axle. Drawbars must be stationary. No turnbuckles or clevis.
- 6. Engine: Must be 410 ci or smaller. 6 ci may be added to engine to require re-bore, no engine larger than 410 + 6 ci. If larger than 380 ci, there will be a weight handicap of 350#. Must be industry standard small block, no big blocks.
- 7 a. GM 283, 305, 327, 350, 400
  - b. Chrysler 318, 340, 360 no 360-390-400
  - c. Ford\_ 302, 351 Windsor & Cleveland, no 360-390-400
  - d. IH engine 345, 392
  - e. Olds/Buick/ Pontiac 307, 350, 389, 400, 403
  - f. Must be a cast iron block, cast iron heads, maximum eight cylinders, two valves and 1 spark plug per cylinder, Camshaft inside of block. The pump is a tech tool only; Engine under protest may be subject to tear down option. Engines subject to tear down by Bush Officials as deemed necessary
  - g. Center of axle to rear of block maximum of 72 inches.
- 8. Manifold/Carburetors: One four barrel naturally aspirated carburetor, 4500 base, Dominators allowed, Predators al-

lowed, no aerosol carburetors. No fuel injection, no throttle based injection. All intake manifolds can be low-rise type or high-rise type. No tunnel-ram, no sheet metal/aluminum intakes, no casted sheet metal type, no welded manifolds allowed. Headers must exit in an upward direction.

- Ignition All ignition must use MSD model 6AL or 7AL-2 system or equivalent with an RPM Limiting chip or dial.
   Tech inspections performed by using MSD model 89952 RPM Module/Chip test
  - a. Maximum of 8100 RPM. A 3 prong female electrical plug to be installed on tractor within 12" of kill switch for RPM monitoring. RPM to be pulled off the ignition box.
  - Must use a digital or analog style ignition system that utilizes a chip or dial for set RPM. No crank trigger or magnetos permitted.
  - c. Ignition boxes must be easily accessible for tech.
  - d. Rivets must be original. No tampering or modification. If factory seal/sticker is broken, a new box is mandatory.
  - e. Only the wiring per manufacture wiring diagram. No additional wires permitted.
- 10. Body All sheet metal must be retained to original dimensions in all directions. Entire unit can be moved up to 18 inches forward on chassis. Sheet metal and rear ends must be 1972 or older. Crossing sheet metal permitted. Bell housing and transmission may be removed if they were designed to be unbolted from the rear end at the factory. Auto Transmission, slipper clutches, shifting allowed. Front ends minimum width of 32 inches.
- 11. Length Maximum length is 14 inches center of rear axle to forward most point, including weights.

# **Unlimited Super Stock**

- 1. Only engine considered legal to be used in SS division must be available in 2WD Farm tractors. (Both OEM and Component type)
- 2. Cast rear-end tractors using single turbo weigh 7500#.

Component rear end tractors 6500#. Component Diesel weigh 6700#. Cast iron rear end tractors using multi-chargers weigh 7000#

- No EFI permitted.
- 4. Maximum tire size of 30.5 x 32.
- 5. Engine management system permitted. Only mechanical intake and exhaust valve control operation permitted.
- Class is "Unlimited" but must comply with all safety rules listed under the general and modified and unlimited safety rules that apply.

# **2wd Naturally Aspirated**

- 1. Maximum of 540 cubic inches.
- 2. OEM bore spacing per block and head
- 3. Aluminum block allowed.
- 4. No spread port Chevy heads. No billet or Hemi Heads.
- 5. Single Automotive engine.
- 6. Tires must be DOT approved. Max tire size
- 7. Planetary drives, drop boxes, aftermarket transmissions, and truck rear ends allowed.
- 8. Must have approved front and rear glass and firewall.
- 9. Hitch hook height is maximum of 30 inches. Hook point to be no closer than 18" from center of rearend on 14 ft vehicle length and 11" on shorter vehicles.
- 10. Stabilizer/wheelie bars are required, length must be a minimum of 2" back from further most point of the tire with a 5" square pad on the bottom. Maximum 6" high if within tire track or 10" high if not within tire track. Cannot be connected to the drawbar.
- 11. Kill switch must disable both ignition system and fuel supply if electric.
- 12. Race fuel or alcohol are allowed.
- 13. Multiple carbs, mechanical alcohol injection and sheet

# 3.0 Limited Pro Stock Diesel Pickups

Follow Western Series

#### 11,000 Mod Farm

Normal PPL general and safety rules will apply: wheelie bars, drawbars, fuel, and throttle.

- 1. Maximum weight will be 11,000 lbs
- Rear weights cannot extend more than three inches behind the rear tires.
- Front weights cannot extend forward more than 13 feet from the center of the rear axle.
- 4. All drivers must remain seated while operating their pulling vehicle on the track or will be disqualified (general disqualification rule applies).
- 5. Drivers must wear a safety helmet, long pants, long sleeves and closed toed shoes (a full-face helmet, helmet face shield, head sock, fire resistant gloves, fire suit and fire resistant shoes are recommended).
- 6. Factory rops or roll cages are suggested but not mandatory. All tractors must have a strong and rigid seat that is securely fastened to the tractor. Tractors without a cage are required to have a lap belt and be worn during competition.
- 7. All tractors may have engine side shielding, but not mandatory. Those having shields are to be made of steel or aluminum and be 16 gauge or .060 thick. No factory fan blades are allowed.
- 8. Diesel tractors must have air kill switches sufficient to stop the engine.
- 9. The kill switch fastener must not be placed over 8 inches from the centerline of the tractor. It can't be higher than 48 inches from the drawbar. The tractor weights must not interfere with operation of the kill switch.

- All tractors must have a 3-way fuel shut off system that can be activated from the driver's seat.
- 11. Other than the driver, no other riders are allowed in or on the pulling vehicle at any time, whether on the track, in the staging area, or in the pit area.
- 12. All tractors must have an OEM factory wide frontend, or a tech approved homemade that resembles an OEM front axle.
- 13. All tractors without OEM front axles must have front axle skid plates as per diagram.
- 14. The skid plates required a maximum of 4 inches of ground clearance.
- 15. Engine brand must match sheet metal brand and rear end brand; tractors must be equipped with stock appearing factory block or factory replacement form a kind model of tractor being pulled.
- All tractors must be equipped with individual working rear brakes.
- 17. No aluminum heads or recast heads will be allowed, only OEM heads. No 4 valve heads. No Deck Plates
- 18. All exhaust will discharge vertically. Two cross bolts 1/2 inch in diameter are to be used in the exhaust system of turbo tractors.
- 19. All tractors must retain a stock wheelbase measured from the center of the rear axle to the center of the front axle.
- 20. Maximum tractor length for all tractors will be 13' from the center of the rear axles to the furthest point forward (including weights). All tractors can have a 6 maximum tow loop that may exceed the 13' limit.
- 21. No computers are allowed that controls any mechanical operation of the vehicle.
- 22. All tractor classes with an RPM limit must have the connection/hookup to the remote unit for this device will be mounted at the rear of the tractor next to the 'air/ignition kill

switch.

- 23. All tractors in classes with an RPM limit will have their RPM sending device connected to the remote tachometer as they pull the sled down the track when the remote tachometer is mounted on the sled.
- 24. All tractors must provide a clear view from the hitch straight up and this area must be free from obstructions. This means that no weights should be placed in an area 8" wide extending upward from the top of the drawbar.
- 25. Maximum tire size will be 20.8x38, 18.4x42 or 24.5x32. Must be uncut, no shaving or grinding permitted. Radial tires are allowed. NO specialty pulling tires allowed. No Rear Aluminum Rims.
- 26. Maximum cubic inch will be 466. Except 504 case, 478 Hercules, 474 Ford
- 27. Maximum rpm will be 3000 rpm.
- 28. Tractors must run one of the turbochargers of the following per tractor. Turbo must be either a Switzer 3LM-466 turbo with 2.41 exhaust housing, billet wheel permitted or the Switzer S300 2.36 inlet turbo. The S300 is limited to a 91 housing with part number 177272 or 100 housing with part number 177209, turbo must be in the out of the box form with NO modifications. No billet of aftermarket wheels allowed.
- 29. No intercoolers, intake air cooling devices or water injection components are prohibited.
- 30. One fuel injection pump for Diesel motors. Fuel pump limits will be NO larger than 10mm A pump or 13mm Rotary pump. Other style pumps are allowed but no billet housings. P-7100 pump limit will be allowed but limited to 10,000lb
- 31. Only OEM manifolds are allowed. A one-inch spacer may be used for mounting purposes.
- 32. No component tractors-must have tractor transmission and rear end.
- 33. "shift-on-the-fly" (i.e., torque amplifiers, powershifts,

over/under etc...) Shifting on the fly is still allowed.

## **D** - Atlantic Pro Pulling

- 1. Modified tractors are limited to the following:
  - a. Three (3) blown automotive WEDGE HEAD motors with 8-71 blower limit, or a single Staged turbo. No intercoolers will be accepted. Port fuel injection is acceptable.
  - b. Pontiac, Oldsmobile or heads of that nature will not be accepted on blown Chevy big blocks. All cylinder heads intake ports must remain in an O.E.M. configuration and accept O.E.M. intake manifold.
  - c. Two (2) blown Hemi or wedge motors with 14-71 blower maximum or 2 staged turbos.
  - d. A single Curtis Wright R-3350 Cyclone 18-cylinder engine.
  - e. One (1) Allison V-12 with a single staged supercharger or turbo. Fuel injector system or Carburetors, plus one (1) wedge automotive type engine with a blower maximum of 8-71.
  - f. One (1) marine or industrial engine and diesels may have up to 2 pressure stages.
  - g. Any combination of turbine engines totaling 5100 horsepower as rated by the military. Water alcohol injection permitted.
  - h. Two (2) Packard's running gas or alcohol with a 6.51 supercharger. Stock Packard butterfly must be maintained and used.
  - i. No more than two (2) Allison's on gas, with a supercharger ratio not exceeding 8.8-1. Two (2) Allison's on alcohol may not exceed supercharger ratio of 8.1-1. Butterfly area may be no larger than 28.4 square inches.
  - j. Any other engine combination must be approved by the Atlantic Pro Pulling Board of Directors.
  - k. All automotive engines limited to two (2) valves per cylinder.

- I. A maximum bore spacing of 5.00" is allowed.
- m. All engines with burst panels must face away from the driver
- n. A puller may disable an engine if their combination is over Atlantic Pro Pulling limitations.
- 2. Modified chassis: See Modified Tractor
- Maximum tire size not to exceed 30.5 X 32.
- 4. All Modified Tractors will require a 47.1 SFI Spec rollover protection.

#### Modified 4X4 Drive Trucks

- 1. Maximum weight of pulling vehicle is 6,200 lbs.
- 2. Maximum cubic inch limit is 650.
- 3. Any automotive type engine, must be naturally aspirated, with only two valves per cylinder.
- 4. Maximum bore spacing allowed is 5.00".
- 5. No digital, microprocessor, computer, or programmable ignition controls. No traction control ignition accessories. No six shooter, power grid systems or similar type ignition controls in any class.
- 6. The use of airbags, air shocks, hydraulic cylinders or electronic controls as components of a chassis' suspension system is not allowed. This shall not prohibit the use of conventional sealed circuit shock absorbers that have no external plumbing lines or external reservoirs.
- 7. Hitch height maximum is to be 26" at point of hook before, during and after pull. Hitch must be rigid in all directions and mounted solidly. Pulling point can be no more than 1 1/2 inches from back edge of drawbar. No clevis chains or cables permitted in hitching device. From point of hook to centerline of rear axle shall be no less than 30% of truck wheelbase and shall not slope any greater than 33 degrees to hitch point.
- 8. The use of hydraulic cylinders to retract and or project a weight box is permitted if: A: The cylinders themselves inter-

- nally limit the travel within the allowable 60". No removable or fixed pins, or external stops, to limit the projection travel.
- B: During tech it will be pinned at exact position, and must stay in that position during weigh-in, hitch pad adjustment, and competition.
- 9. All other rules will follow the Modified 4x4 truck rules.

#### **Modified Two Wheel Drive Trucks**

- 1. No body restrictions will be in effect for the East Coast Pro Pulling.
- 2. Maximum length to be 15 feet from center of rear axle to furthest most forward point. Front wheels must be in the center of wheel well. Maximum wheelbase on all trucks is 165 inches regardless of body type. Maximum weight of all competition vehicles is 6200 lbs.
- Any timing delay devices MUST BE REMOVED from the pulling vehicle.
- Maximum cubic inch will be 575.
- 5. Flip top bodies must have escape hatch through roof, if driver cannot get out thru window.
- All other rules will follow the Modified Two Wheel Drive Truck rules.

# **PS/SS Combo Tractor Class**

- 1. Pro Stock Tractors will weigh a maximum of 10,000 pounds. All other rules will follow PPL Pro-Stock rules.
- 2. Super Stock Tractors will weigh a maximum of 9,500 pounds.
- No 4-Valve Heads Permitted.
- 4. No Overhead Cams Permitted.
- 5. Top charger must have one blanket surrounding the intake cover.
- 6. All tractors will have an SFI 47.1 Spec Rollover Protection.
- 7. Super Stock Tractors-540 cubic inch limit (No Big Block
- 8. Diesel Tractors Only Ag Type Blocks Allowed

- 9. Super Stock Tractors Using Alcohol for Fuel
  - a. Will not be larger than 504 cubic inches
  - b. Maximum of three turbochargers permitted. Weight 8500#
  - c. Engines only to be 6 cylinders
  - d. No intercoolers permitted.
  - e. All other follow PPL LT-SS
- Unless stated otherwise, all other General Rules will apply to East Coast Pulling Super Stock/Pro Stock Combo Tractor Class

#### Limited Pro Semi

- The class is open to three axle truck tractors with commercially available tandem drive axles. Driving steer axle not allowed. Vehicle license and inspection are not required.
- 2. The weight of the truck and the driver not to exceed 20,000 lbs. All ice, safety equipment etc. must be on the truck at weigh in.
- 3. The truck frame must be of the same style as factory available C channel frame normally found on class 8 trucks. No tube or custom chassis. The steer axle, along with front and rear suspension must be commercially available for a class 8 truck application. No air bags permitted on the steering axle. The addition or removal of springs, airbags, torque rods and shocks on the rear tandem is permitted. No hydraulic cylinders. No suspension component can be more than 18" from center of drive axle except for factory equipped components.
- 4. Transmission must be a make and model commercially available in a class 8 truck. Internal modifications permitted.
- 5. Trucks with air suspension must be equipped with chains or some type of limiting device on both drive axles to prevent the height of the frame from changing during the pull. Limiting device must not have any 'give' built in. The limiting device, chain or cable must be secured to the axle or sus-

pension at a point between the center of the axle and the air spring. Solid rear drive axle suspension permitted, however front drive must be chained or limited. Chains or limiting devices must be tight (no slack) by airing the suspension up completely when the hitch is measured. Four short chains or cables from the side of the frame down to the axle housings is recommended. No chains and binders going up and over the frame rails allowed. Breakage or failure of a chain or limiting device while hooked to the sled will be cause for disqualification.

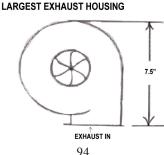
- 6. Maximum pressure in air system 130psi.
- 7. Tires must be DOT approved truck tires. Maximum tire size to be 11R24.5, 10x22 or 315/80R22.5. Maximum tread width 10". No bar type or agriculture type tread. No tire cutting or grinding allowed. No tire chains or cables allowed.
- 8. Puller must supply their own hitching device. Hitches must pull from a standard fifth wheel. Center of fifth wheel must be located in a position between the center of the front drive axle and the center point between the drive axles. Hitch cannot be longer than 45% of the measured wheelbase of the truck. Hitch length is measured from center of the rear axle to the hook point. The wheelbase is defined as measurement from center of steering axle to the center point between the drive axles. Hitch percentage will be calculated by dividing the hitch length in inches by the wheelbase in inches. Example: 84" hitch ÷ 187" wheelbase = 44.9%. Maximum hitch length 7 feet. Hitch must have a height adjustment range from 20" down to 16" with suspension in the 'pull ready' (raised against the stops) position. Hook point must have a 3.5" hole. Hitch height will be measured with suspension inflated and chains or limiting devices tight. Suspension height cannot be raised after the hitch is measured.
- 9. Extra ballast weight is permitted. Weights or brackets cannot interfere with hooking the sled to the hitch. Weights or brackets cannot extend more than 51" rearward past the center of the rear drive axle. Weights on front of truck cannot extend more than 24" forward of the stock forward most

point.

- 10. Engine must be a make and model that was commercially available in a class 8 truck. No multi engine setups allowed. Internal modifications to increase the displacement are permitted. Cylinder block and cylinder heads must be OEM castings. No billet heads. A single turbocharger is permitted with a maximum intake wheel inducer size of 4.100". Turbo size will be checked using a 4.200" plug. Turbo cannot be bushed down from a larger size. No oval shaped inducer bores. Compressor wheel must extend into the inducer bore and cover the map groove. Factory style map width-enhancement groove is permitted; maximum width .280", no other means for air to get to the compressor wheel are permitted. No slots or grooves that face completely forward from the intake wheel out.
- 11. Turbocharger intake must be accessible for inspection by tech official. Competitors must be prepared to expose the inlet of the turbo at each pulling event during tech inspection.
- 12. Trucks with fiberglass hoods must have a turbocharger shield mounted under or inside of hood. Shield to consist of .125" steel or aluminum mounted to contain debris in the event of a turbo failure.
- 13. Water only injection is permitted, windshield washer fluid is not permitted. No ether, methanol, propane or any other flammables or combustion enhancers are allowed in any form. Commercially available diesel fuel is the only fuel allowed. Nitrous oxide not allowed in any form.
- 14. Any ECM or control module must only be used only for engine control functions. No traction control either by wheel speed sensing, load sensing or any other method is allowed.
- 15. Truck must be equipped with a SFI approved clutch/ flywheel assembly. Engine bell housing must be shielded 360 degrees with any one of the following: a SFI approved shield; SFI approved scatter blanket(s) securely fastened and overlapped at least 6".

Automatic transmissions must be completely covered by an approved scatter blanket.

- 16. One scatter shield must be on all universal joints beyond the rear of the transmission. Scatter shield must be of a solid construction, 5/16" thick steel minimum and be able to contain debris or direct debris toward the ground. Scatter shields not required on the inter-axle driveshaft provided the top of the frame between the rears is securely covered with minimum 1/8" aluminum or steel. One drive shaft loop must be installed on any drive shaft over 36 inches long including those with a carrier bearing. Driveshaft loop should be near the center of the shaft and be capable of keeping the shaft from coming out of the vehicle in the event of breakage.
- 17. A minimum of one 4" diameter clear light must be on the rear of the truck, must be activated by transmission when shifted into neutral. Truck must be equipped with a transmission activated neutral start switch so that the starter will not engage unless the transmission is in neutral.
- 18. Brakes must act on all rear wheels. Parking brake chambers are required on at least one drive axle.
- 19. Turbocharger safety in General Rules.
- 20. An emergency engine air shut off is required. Shutoff must be capable of being operated from the driver's seat. A 2" diameter ring must be at the rear of the truck to operate the shutoff from the sled. Ring must be as close to center of the truck as possible and above the hook point of the hitch.
- 21. Engine driven cooling fans must have fiberglass blades.



metal blades not allowed. Fan must be inside a shroud.

- 22. Engine must be in the original OEM location.
- 23. Truck must be equipped with a master electrical disconnect switch mounted near the driver's side door steps and easily accessible to someone on the ground.

#### 466 Hot Farm

WEIGHT - 10,500 LBS.

- 1. Tractors must be agricultural tractors having chassis, engine, clutch, transmission, differential housing, hood and grill of the manufacturer. OEM Cylinder Head. No Recast, No Aluminum, No Overhead Cams Allowed. Engine, clutch, transmission and differential housings must be bolted together as one unit in stock location OEM Length & location from rear end housing to front of the engine. No Component. Injection Pump no larger than an A-Pump, one plunger per cylinder. Tractors must have wide front axle and must track within rear wheels. Tractors must have steel flywheel and clutch components. NO CAST. All clutch housing must have SFI Blanket. Manifolds OEM Intake and Exhaust.
  - a. NO OVERHEAD CAM, NO 4-VALVE CYLINDER HEADS permitted.
- 2. 466 Maximum cubic inches.
- 3. Water Injection is allowed.
- Intercoolers are allowed.
- 5. Turbo Smooth bore cover only. No slotted covers. A bushing with three-inch inlet not more than two inches from the compressor wheel. All air must go through the three-inch inlet, No oblong/egg shaped holes. Bushing must be sealed tight to compressor housing. Bushing must be welded to cover with three different one inch welds.
- 6. Must have side shields (Aluminum .125 or steel .090). Must have quick release fasteners to remove shields.
- 7. Exhaust must discharge vertically upward. Must be at least 18 inches above hood. No curved pipes or rain caps

- allowed. Exhaust housing must be T-4 housing and mount.
- 8. Vehicle with a plastic or fiberglass hood must be shielded in the turbo area with a minimum of aluminum .125 or of steel .060.
- 9. Minimum drawbar length of 18 inches from center of rear axle to point of hook. Drawbar must be rigid in all directions with maximum of 20 inches from top of hitch to the ground.
- 10. All tractors must have air shut off at rear of tractor and must be able to be operated manually by the operator from the seat.
- 11. Rear wheelie bars Pads on bottom of bars
  - a. A minimum of 5-inch square or 4x6 pads
  - b. Pads to be a minimum of 32 inches rearward from the center of the rear housing
  - c. Pads maximum of 10 inches off ground. Width of pads to be a minimum of 20 inches outside to outside.
  - d. Minimum 12-inch-high bumper bars top to be fastened to wheelie bar frame.
  - e. Wheelie bars must support weight of the tractor for weight class being pulled
- 12. Tires Maximum 24.5x32 Not over 38 inches. Firestone Pullers 2000 and/or older.
- 13. SFI 47.1 Roll cage mandatory.
- Diesel Fuel only. No Hot Fuel. Only additive allowed will be approved lubricants.
- 15. Driver MUST wear SFI Approved Fire suit, Helmet, Gloves, Shoes, Head/Helmet Sock. Seat Belt must be worn when pulling.
- All other rules can be found under Diesel Super Stock section.

## 6400 Pro Stock 4x4 Truck Rules

- Engine Limitations
  - a. 510 Cubic Inch limit with 1 percent allowance

- Must run single 4 barrel carburetor with a square mounting flange. No rectangular shaped mounting flanges allowed.
- c. Must be naturally aspirated no blowers
- d. No nitrous or nitrous accessories allowed on truck
- e. Aluminum engine blocks are not allowed
- f. No Pro stock style or Hemi heads allowed- must accept stock intake with no major modifications
- Intake manifolds will be limited to a single plane CAST intake that is readily available to the general public. Intakes must keep stock outer appearance with no major modifications.
- j. Custom, one off, non-production cast intakes are not allowed
- k. Tunnel Ram Intakes cast or sheet metal are not allowed. Anything that resembles a Tunnel Ram is not allowed
- I. No Sheet metal intakes
- m. No onboard computer or data systems
- n. Back of Engine block may not be mounted forward of centerline of front axle
- 2. Exhaust, Fuel and Carburetors
  - a. Upright headers allowed, headers underneath the truck should point straight back not toward the track, no turndowns
  - b. Must run Racing Gas (No Alcohol Allowed)
  - c. Fuel may be checked at Carburetor bowl
- 3. Frame and Body
  - a. No fiberglass body parts with the exception of the hood which may be fiberglass. Lift bodies will be allowed but must be deemed safe by the tech official and must be able to be locked in the up position. Firewalls must be made of either lexan or metal with no visible gaps. All front windshields must be lexan. (no plexiglass allowed) Both doors

must open from the outside.

- b. Maximum wheelbase of 135"
- c. Hitches must be at least 30% of the trucks wheelbase, rigid in all directions. Must have 3" wide by 3.5" long opening. Hitch height 26" maximum. No hitch angle greater than 25 degrees. Hitch may be adjusted from the top or bottom.
- d. Maximum tire size is 14.50" x 36" and DOT approved. No cutting or grooving allowed.
- e. Chassis must be production style. No tubular or chrome-moly chassis allowed. Chrome-moly bracing and supports are allowed. The front suspension MUST match the year of the frame on the truck regardless of body type. Frame must remain stock from front to rear other than mounts or bracing.
- f. Quick change gearboxes and over 1-ton power train will be allowed
- g. Must have stock style leaf/coil spring front suspension. Coil over shocks are allowed as long as they are used as a helper to the original suspension. No airbags or hydraulics allowed. Radius bars will be allowed.
- h. Weight box must be mounted rigid and extend a maximum of 60" to front of box from centerline of front axle.
- Must have working kill switch that kills fuel pump
- Vehicle must have working fire extinguisher

All other Safety Rules must follow the Modified 4x4 Trucks in the Pro Pulling League Rulebook.

# **E - Empire State Pullers**

See Modified Tractor

# Super Stock Tractors

See Super Stock Tractor Section

 Component tractors are permitted. Component tractors engine and sheet metal does not have to match manufactures

- Maximum tire size not to exceed 30.5 X 32.
- 3. Super Stock tractors will require a 47.1 SFI Spec rollover protection.
- 4. Unless stated otherwise, all General and Safety Rules must be followed set forth by the Lucas Oil Pro Pulling League Rulebook.

# **Empire State Heavy SS**

- 1. Alcohol SS Tractors weigh a maximum of 8000# and maximum cubic inch limit 504.
- 2. Diesel SS Tractors weigh a maximum of 8500#.
- 3. Pro-Stock Tractors weigh a maximum of 9000#
  - A. Pro Stock Tractors (5.1" turbo inlet and larger weigh 9000#
  - B. Single charger Tractors (5.0" turbo inlet and smaller weigh 9200#

No overhead cams permitted.

Specialized for Light Weight Super Stock Tractors in Empire State Pullers:

Engine block rule updating at the time of printing. See ESP executive board for final approval.

## Weight

- 1. Alcohol Super Stock Tractors will weigh a maximum of 6,300lbs and a maximum cubic inch limit of 504.
- Diesel Light Super Stock Tractors will weigh a maximum of 6.800lbs.
- Unless stated otherwise, all General and Safety Rules must be followed set forth by the Lucas Oil Pro Pulling League Rulebook

## **466 Pro Field Tractor**

- 1. Maximum weight 10,500#
- 2. Tire size 20.8-38 maximum.

- 3. Maximum cubic inch 466. 1% tolerance permitted.
- 4. Turbocharger Maximum of 2.6 inlet and the wheel must protrude into the 2.6 bore as well as having a T4 exhaust mount. A maximum .200 MAP groove allowed.
- No intercoolers.
- 6. Maximum injection pump of P7100 permitted. Must have 3-way dump valve and mechanical stop.
- 7. Cylinder head must be OEM no recast. Maximum of 2 valves per cylinder.
- 8. Water injection with pump lube only.
- 9. No nitrous, propane, or oxygen enhancers.
- 10. Diesel fuel only.
- 11. No fabricated intake or exhaust manifolds. (no headers or built intakes)

### **Chassis**

- Must be OEM AG chassis with factory sheet metal.
- 2. Tube frame rails permitted without front suspension.

# Safety

- 1. Roll bars unaltered for 2021 season.
- 2. 2022 SFI 47.1 roll cage required.
- 3. 2021 all tractors be required to have some type of ROPS. Lap belt permitted for ROPS.

## F - Mid Florida Tractor Pullers

### **TWD**

All general safety and rules will apply with the addition of the following:

Maximum weight 6200#.

- 1. Engine
  - a. Maximum cubic inch limit 605 cubic inch NA, 475 cubic inch blown, max 8-71 supercharger with a 17% overdrive max, diesel engine 420 cubic inch, single 3 inch smooth

bore inlet turbocharger. Mechanical fuel injection only, P3000, or P7000 series injection pump only, no intercooler allowed.

- No overhead cam engines, max two valves per cylinder, must accept a stock crankshaft for type of engine.
   water injection is allowed, with no additives No aluminum blocks.
- c. Allowable fuels are Gasoline, Methanol, or diesel fuel.

## Body

- a. Any mass produced truck or car style body allowed. No open cockpit bodies ,i.e.T bucket. Body must have a non transparent roof of some sort, fiberglass bodies are accepted.
- b. Truck beds must have a floor or be covered during competition.
- Grills, hoods and fenders must in place as intended by the manufacturer.

#### **Pro Stock 4X4 Trucks**

Pro-Stock 4WD trucks shall follow current PPL Rule Book except where superseded by the following rules.

- 1. Any truck body, any factory frame.
- 2. Carburetor must have a stock 4500 base plate. No billet carburetor. No stretched carburetor. No tunnel ram intake manifolds. No sheet metal intake manifolds. No billet intake manifold. No two piece or bolt together intake manifold. All intake manifolds must have a stock 4500 base. Intake manifold will measure no more than 10 inches from carburetor base to china rail base. Intake manifold plenum will measure no more than 13 inches from front to back measured on the outside.
- 3. Engine & Head Specifications:
  - a. Maximum 500 cubic inch. Any GM style block must be 4.84 bore spacing. Any Dodge style block must be 4.8 bore spacing. Any Ford style block must be 4.9 bore

spacing. No JC50, JC51, DRCE3, or aluminum blocks. Engine can be no further forward than 12 inches from the front of the block saver plate to the center of the front axle housing.

- b. GM may run any conventional port designed head.
   Ford may run an "A" style head. Dodge may run a B1 Head.
- c. Cylinder heads must have an identification logo or cast numbers to prove their original origin and how it was manufactured. GM cylinder head intake valve length cannot be any longer than 6.420 in overall length maximum.
- d. Conventional port designed head is classified as a head with the port spacing that must be left to right. GM cylinder heads intake flange measurements are a maximum of 4. 100 outside of port to outside of port but can be smaller. Measurement between runners is a maximum of 0.415 but can be smaller. If tech official has any discrepancies over casting or port measurements see Diagram #3
- 5. No spread port, billet, conventional spread port heads, Pontiac, GM LS heads of any kind, small block or big block are not allowed.
- 6. Headers and open exhaust allowed, must exit through hood or down and back.
- 7. No microprocessor, computer, or programmable ignition controls. No traction control ignition accessories. No six-shooter, power grid systems, or similar type of ignition controls. All data log systems and starting retards allowed.

# 8. Body Specifications:

- a. Factory wheelbase may be shortened or lengthened to maximum of 134 inches. Bedside may be altered in front of wheel wells to match wheelbase on all trucks.
- Rear wheel width cannot be narrower than 34 inches from the inside bead to the inside bead of rear wheels.
- c. OEM fiberglass components only. Front clip of the truck(firewall forward only) can be fiberglass.

- 9. No working hydraulic stops on front suspension during pull. Weight boxes must stay stationary before crossing the scales and cannot be moved until after the pull is over. Any air pressure adjustment requires a re-measurement of hitch height.
- 10. Any street legal tire may be run measuring up to or less than 35 inches in measured height. Terra and Cepek tires allowed along with any bar tire up to 31x15.50x15. No recapped tires allowed. Must have size on sidewall by manufacturer.
- 11. Any transmission, transfer case, front end, or rear end allowed. No planetaries.

## 12. Hitch Specifications:

- a. Hooking point has to be horizontal on the hitch. b. Drawbar will be 26 inches, 36% of wheelbase length. No drawbar greater than the angle of the sled chain (acceptable angle 0 degrees to a maximum of 33 degrees). The drawbar adjusters cannot attach to anything above the centerline of the rear axle. The adjusters can only go downward.
- 13. Acceptable fuels are race gas or alcohol. No oxygenated fuels, oxygen carriers, or combustion accelerators.
- 14. 1% tolerance on engine measurements.

# **Natural Aspirated Mini Rods**

All general safety and rules will apply with the addition of the following:

Maximum weight 2050#

# Engine:

- 1. Single naturally aspirated automotive V8 (S/B) 410ci max with maximum of 8 cylinders, 2 valves & one spark plug per cylinder.
- 2. Aftermarket blocks permitted, must retain OEM bore spacing and deck height. No aluminum blocks allowed.
- 3. Aftermarket & OEM cylinder heads are permitted. No

Hemi heads allowed.

- 4. Single carburetors only. No EFI or fuel injection of any kind.
- 5. Intake manifolds must be casted single plane. Sheet metal intakes or tunnel rams are prohibited.
- 6.No diesel engines permitted.
- 7. Any pump driven from the crankshaft must have appropriate shielding.

#### **Pro Stock Semi**

All general safety and rules will apply with the addition of the following:

Turbo limited to 4.1 inlet

#### **G** - Mid South Pullers

# **Light Limited Super Stock Weight**

1. Tractor weight will be 6250lbs.

### **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= Case, Farmall, International, CaseIH, Ford & New Holland

AGCO= Oliver, Moline, White, Massey Ferguson, AC & Deutz

- Must be OEM engine block, no Billet steel or aluminum blocks.
- 4. Engine must match brand of tractor.
- 5. 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.

- 6. A 1% tolerance will be given on cubic inch limitations to allow for normal engine wear.
- 7. No V-8 Engines permitted.
- 8.No Overhead cams allowed.
- 9. The largest fuel system allowed is a "P"-pump with one plunger per cylinder and one injector per cylinder.
- No electronically controlled fuel system allowed.
- 11. No secondary source of fuel (liquid or gas) or oxygen enhancer allowed.
- 12. Water injection allowed with oil lubricant only, no additives allowed in injection water, and water will be subject to testing.
- 13. Computer can only be used for data acquisition, may not be able to control engine timing, or fuel delivery.
- 14. No traction control.
- 15. All other PPL Tractor general rules will apply.

## **Diesel Engine Options**

- 1. Maximum of 315 cubic inches for twin turbo charged diesel engines with Intercoolers. (Turbo(s) must be staged). This engine combination can run a maximum of two (2) 3X4 smooth bore turbo(s). No MAF enhancement.
- 2. Maximum of 360 cubic inches for twin turbo charged diesel engines and no intercooler or after cooler allowed. (Turbo(s) must be staged) This engine combination can run a maximum of two (2) 3X4 smooth bore turbo(s). No MAF enhancement.
- 3. Maximum of 410 cubic inch diesel engines will run a maximum of one 3x4 smooth bore turbo. No MAP groove allowed.

# **Alcohol Engine Option**

- 1. Maximum of 370 cubic inches for single turbo charged alcohol engines. No intercoolers allowed.
  - a. This engine combination can run a maximum of one (1)

#### smooth bore 3X4 Turbo

#### **Turbo Restrictions**

- 1. All turbo compressor and exhaust wheels must protrude into the housing no less than 1/8th of an inch.
- 2. The compressor wheel must measure no larger than 3.00-inch at the face of the wheel.
- 3. Diesel engines that will be allowed to run a 3.4X4 smooth bore turbo, the compressor wheel must protrude into the housing 1/8th of an inch and the compressor wheel must measure no larger than 3.400" at the face of the wheel.
- 4. No superchargers allowed.
- 5. 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

- 1. Cast iron OEM cylinder heads only. No billet or re-cast cylinder heads allowed.
- 2. 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.
- 4. Cylinder heads are limited to two (2) valves per cylinder.
- 5. One spark plug per cylinder ONLY.
- 6. 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**

- 1. Maximum length 13 feet measured from center of rear axle to forward most point, excluding tow hook.
- 2. Maximum wheelbase 114".
- 3. OEM tractor rear end, transmission and axle housings only will be accepted, no component tractors allowed.

- 4. No type of front-end suspension will be allowed; swivel axle front ends will be accepted.
- 5. Allow tractors with cast tub (belly)-type frame (i.e., 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.
- 6. Once the tub is removed the rear of the engine cannot be exceed 60 inches from the center of the rear axle.
- 7. 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.
- 8. Oliver style tractors must also run an SFI 6.2 or 6.3 bell housing with SFI inspection sticker in place. If they continue to run the OEM bell housing they will be required to run a 6 buckle 4.1 SFI rated blanket.
- 9. All housings must stay in place, bolted ridged in all other chassis. Axle housing option. After market fabricated steel axle housing allowed with the following details. Flange minimum thickness of one inch. Housing minimum wall thickness ½ inch.
- 10. Auxiliary transmission will be permitted.
- 11. 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.
- 12. 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**

- 1. All hitches will be minimum 3  $\frac{1}{2}$  inches long X minimum 3 inches wide at the hook point. Vertical thickness of hitch will be maximum of 1  $\frac{1}{2}$  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.
- 2. Maximum hitch height 20"
- 3. 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.
- 4. 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**

1 .Maximum tire size 30.5 X 32 and Minimum tire size  $24.5 \times 32$ 

#### Fuel

- 1. Acceptable fuels are diesel fuel, alcohol and gasoline.
- No oxygen carriers or combustion accelerators will be permitted.
- 3. No ether starting aid can be on tractor.
- 4. 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.
- 5. All competitors will wear a full-face helmet. Snell 2005 rating or better.
- 6. All tractors will have SFI approved clutch/flywheel assembly. No cast iron.
- 7. All tractors will use a six buckle 4.1 SFI approved safety

blanket.

- 8. A safety light system is required. A white automotive quality light, minimum of 2" in diameter, the light is to be activated by a shift lever such that it will only be illuminated when the tractor is in reverse.
- 9. Must have at least 2  $\frac{1}{2}$  lb. Fire extinguisher and be convenient to the operator.
- 10. Roll cage is required to meet SFI 47.2 requirement. 5 point SFI harness is required.

All other PPL safety rules apply.

ATTENTION: If you have any questions on the rules above, please contact someone on the rules committee. Ask before you build, rules are subject to change.

Rules Revised

#### **Pro-Stock 4X4 Trucks**

Pro-Stock 4WD trucks shall follow current PPL Rule Book for Pro Stock Four Wheel Drive except where superseded by rules found herein.

- 1. Any truck body, any factory frame.
- 2. Carburetor must have stock 4500 base plate. No billet carburetor. No stretched carburetor. No tunnel ram intake manifolds. No sheet metal intake manifolds. No billet intake manifold. No two piece or bolt together intake manifold. All intake manifolds must have stock 4500 base. Intake manifold will measure no more than 10 inches from carburetor base to china rail base. Intake manifold plenum will measure no more than 13 inches from front to back measured on the outside.
- 3. Engine & Head Specifications:
  - a. Maximum 485 cubic inch. Any GM style block must be 4.84 bore spacing. Any Dodge style block must be 4.8 bore spacing. Any Ford style block must be 4.9 bore spacing. No JC50, JC51, DRCE3, or aluminum blocks. Engine can be no further forward than 12 inches from front of

block saver plate to center of front axle housing.

- b. GM may run any conventional port designed head.
   Ford may run an "A" style head. Dodge may run a B1 he ad
- c. Cylinder heads must have identification logo or cast numbers to prove their original origin and how it was manufactured. GM cylinder head intake valve length cannot be any longer than 6.420 in overall length maximum.
- d. Conventional port designed head is classified as a head with the port spacing that must be left to right. GM cylinder heads intake flange measurements are a maximum of
- 4. 100 outside of port to outside of port but can be smaller. Measurement between runners is a maximum of 0.415 but can be smaller. If tech official has any discrepancies over casting or port measurements see Diagram #3 -Page 116-.
- No spread port, billet, conventional spread port heads, Pontiac, GM LS heads of any kind small block or big block are not allowed.
- Headers and open exhaust allowed, must exit through hood or down and back.
- 7. No microprocessor, computer, or programmable ignition controls. No traction control ignition accessories. No six shooter, power grid systems, or similar type of ignition controls. All data log systems and starting retards allowed.

## 8. Body Specifications:

- a. Factory wheelbase may be shortened or lengthened to maximum of 134 inches. Bedside may be altered in front of wheel wells to match wheelbase on all trucks.
- b. Rear wheel width cannot be narrower than 34 inches from inside bead to inside bead of rear wheels.
- c. OEM fiberglass components only. Front clip of truck (firewall forward only) can be fiberglass.
- 9. No working hydraulic stops on front suspension during pull. Weight boxes must stay stationary before crossing the

scales and cannot be moved until after the pull is over. Any air pressure adjustment requires a re-measurement of hitch height.

- 10. Any street legal tire may be run measuring up to or less than 33 inches in measured height. Terra and Cepek tires allowed along with any bar tire up to 31x15.50x15. No recapped tires allowed. Must have size on sidewall by manufacturer.
- 11. Any transmission, transfer case, front end, or rear end allowed. No planetaries.
- 12. Hitch Specifications:
  - a. Hooking point has to be horizontal on hitch.
  - b. Drawbar will be 26 inches, 36% of wheelbase length. No drawbar greater than the angle of the sled chain (acceptable angle 0 degrees to a maximum of 33 degrees). The drawbar adjusters cannot attach to anything above centerline of the rear axle. The adjusters can only go downward
- 13. Acceptable fuels are race gas or alcohol. No oxygenated fuels, oxygen carriers, or combustion accelerators.
- 14. 1% tolerance on engine measurements.
- 15. Rules are locked in from 2019-2021. To unlock rules before 2021 there has to be a 70% majority vote from the class before it can be discussed.

Members must make 50% of pulls to be eligible to vote on any class rules or unlocking the rules.

## **Super Modified 4x4 Trucks**

- 1. 170" W/B or 133" W/B with 8:71 supercharger maximum weight 6600#.
- 2. 133" W/B with 14:71 supercharger maximum weight 6350#.
- 3. N/A trucks maximum weight 6350#

## **Engine**

- 1. Maximum of one engine 500ci (1% tolerance) for supercharged or turbocharged engines. Maximum wheelbase 170".
- 2. Trucks with 170" wheelbase may only run 8:71 conventional supercharger with 60° or less rotor angle at a maximum of 53.8% overdrive. No high Helix Retrofit superchargers allowed for 170 W/B 8:71 trucks.
- 3. Trucks with 133" wheelbase my run 8:71 conventional supercharger with 60° or less rotor angle at a maximum of 53.8% overdrive AND will be allowed to run same weight and hitch as 170" W/B truck. They may also run longer hitch than the 170" W/B if they chose.
- 4. Trucks with 133" my run 14:71 supercharger or less at a maximum of 30% overdrive. Helix blowers are allowed.
- 5. Aluminum or cast steel/iron blocks permitted. Rear of engine block shall be no father forward than center of front axle.
- Blower shields and restraints must be used. Exposed turbochargers must be shielded 360° with .060 metal.

#### Hitch

- 1. Hitch point for 170" W/B trucks with 8:71, can be no less than 18" and no more than 20" from center of rear axle. During/before/after pulling.
- 2. Hitch point for 133" W/B trucks with 8:71, must be greater than 18" from center of rear axle. During/before/after pulling.
- 3. Hitch point for 133" W/B trucks with 14:71, shall be 39>9" or longer from the center of rear axle. During/before/after pulling.
- 4. Hitch for N/A trucks will be 39.9" or longer.
- 5. Hitch height 26" maximum before, during and after the pull. Hitch must be rigid in all directions. All hitches must have a top stop to keep hitch from raising. The Stop Must be a minimum 3/4" Bolt. The support for the stop is constructed from a minimum 1 ½" angle iron ¼ " thick or 1 ½" square tubing 3/16" thick. No flat bar accepted. Support will run from

frame rail to frame rail and can be welded or bolted. Stop must not be connected to drawbar (IE) no Clevis or Heim Joints and must be within 6" of the back of the eye.

## **Body**

- A bed must be used, either original or flat and must have side rails
- 2. Fiberglass bodies permitted. Must have front fenders, windshield, and on-board fire extinguisher.

#### Other:

- 1. Alcohol or PPL spec diesel fuel only permitted.
- 2. All other safety and/or truck competition rules apply.

#### Small Block Mini Rod 2023-2025

Maximum weight 2050#

## **Engine**

- 1. Single naturally aspirated automotive V8 (S/B) 410ci max with maximum of 8 cylinders, 2 valves & one spark plug per cylinder.
- 2. Aftermarket blocks permitted, must retain OEM bore spacing and deck height. No aluminum blocks.
- Aftermarket & OEM cylinder heads are allowed. No hemi heads.
- 4. Single carburetors only. No EFI or fuel injection permitted.
- Intake manifold must be casted single plane. Sheet metal intakes or tunnel rams prohibited.
- 6. No diesel engines permitted.
- 7. Any pump driven from crankshaft must have appropriate shielding.

#### Chassis

- Maximum tire size 18.4 X 16.1, maximum wheel 20"
- 2. Hitch height maximum 13".

- 3. 96" maximum from center or rear axle to forward most point. Maximum width 72"
- SFI 47.3 roll cage.

#### **G-New York Tractor Pullers Association**

Specialized for Super Stock Tractors in

## **NYTPA Heavy SS Weight**

- 1. Alcohol SS Tractors weigh maximum of 7700# and maximum cubic inch limit of 504.
- 2. Alcohol SS Tractors weigh maximum of 8500 # with a maximum cubic inch limit of 410.
- 3. Alcohol SS with cast iron head weighs 8000# and maximum cubic inch limit of 504.
- 4. Diesel SS Tractors weigh a maximum of 8500#.
- 5. Pro-Stock Tractors weigh a maximum of 9000#
- 6. All other Super Stock rules apply.

All competing Super Farm tractors are to comply with PPL Super Farm Rules with the following exceptions for Mod Turbo/Limited Pro tractors.

- a. Tractors will weigh a maximum of 8,500 lbs.
- Engines will have a maximum displacement of 540ci.
- c. Tractors with a "P" series injection pump (1 plunger per cylinder) will run a turbo with a maximum inlet of 3.000" at the face of the wheel and a turbine with a maximum outlet of 4.000" at the face of the wheel.
- d. Tractors may also run an OEM Bosch "A" series injection pump (1 plunger per cylinder). No recast, billet or modified factory housing other than mounting or support fixtures.
- e. Tractors running a Bosch "A" Series injection pump will be limited to a maximum of (1) turbo charger with (1) pressure stage.
- f. Tractors meeting these requirements will be allowed to run a choice of (1) billet, recast, or fabricated intake or ex-

haust manifold. The stock manifold must be OEM for that make and series of engine. An OEM exhaust manifold turbocharger mounting flange may be altered to accept a turbocharger and still be considered OEM.

g. No billet cylinder heads will be allowed. Recast cylinder heads that allow factory OEM intake and exhaust bolt mounting pattern will be permitted.

#### H - Ohio State Tractor Pullers Association

Modified Tractors are limited to the following:

- 1. Three (3) blown automotive engines with 8-71 lower limit or single staged turbocharger. No intercoolers permitted, with port fuel injection only.
  - a. Wedge heads that will accept a stock OEM intake manifold bolt pattern are limited to 70% overdrive.
  - b. Big Chief or any wedge head without a stock OEM intake manifold bolt pattern are limited to 50% overdrive.
  - c. Hemi heads are limited to a maximum overdrive of 45%
- 2. Two (2) blown automotive engines with 14-71 superchargers will be permitted to run a 70% maximum overdrive or single staged turbocharger. No intercoolers permitted, with port fuel injection only.
- 3. A maximum bore spacing of 5.00 for automotive engines is allowed.
- 4. All engines with burst panels must face away from driver.
- 5. One (1) Allison V-12 with a single staged supercharger or turbo. Fuel injector system or carburettors, plus one (1) wedge automotive type engine with a blower maximum of 8-71.
- 6. Two (2) Allison's on gas with a maximum of 8.8-1 supercharged ratio, or two (2) Allisions on alcohol, with a maximum of 8.1-1 with stock Allison 9.5-inch blower wheel with water & alcohol. All engine air must enter thru a restricter plate which is has two holes 3.5 inches in diameter and material is .25" thick, no rounded edges, then into a stock

Allison type two port butterfly or a maximum three (3) Holly 850 CFM automotive -type carburettors, must use SFI Spec 4.2 blower containment device.

- 7. One industrial or marine engine twelve (12) limit. Diesel allowed. Only two (2) compression stages permitted.
- 8. Turbine powered tractors will not exceed a maximum of 5100 total "take off" horsepower. See Turbine Engines for engine horsepower ratings.
- 9. Two (2) industrial engines with 504 ci maximum and one stage of boost at "B" pulls.
- 10. Maximum weight 7,500#. At "B" & "C" pulls run same weight and engine limits.
- 11. All engines with burst panels must face away from driver.
- 12. A single CW R-3350 Cyclone engine 18 cylinder engine permitted for a one -year trial basis.

## **Super Modified 2WD Trucks**

- 1. No body restrictions will be in effect for the OSTPA. Maximum length to be 15 feet from center of rear axle to furthest most forward point. Front wheels must be in the center of wheel well. Maximum wheelbase on all trucks is 165 inches regardless of body type. Maximum weight of all competition vehicles is 6200 lbs.
- 2. No timing delay devices permitted.
- Maximum cubic inch will be 575.
- 4. Flip top bodies must have escape hatch through roof, if driver cannot get out thru window.
- All other rules will follow the Modified Two Wheel Drive Truck rules.

## **Pro-Stock Semi**

- 1. Maximum weight for competition is 20,000#.
- Truck must be stock appearance for that year, model and make of truck.
- 3. Tubular chassis are not permitted.

- 4. One commercial truck engine only permitted. 4a One turbo maximum. 4b- OEM cylinder head for same model and series engine required.
- 5. Fuel pumps are limited to only one plunger per cylinder.
- 6. Turbos are subject to 1/8" cabling.

Trucks containing Detroit Diesel 71 Series Engine to compete with two (2) turbos maximum in any configuration.

- 7. Diesel fuel and water are two fluids/fuel accepted.
- 8. Any Pro Stock Semi under 750ci to run a 20" hitch height and aftermarket heads.

All other safety rules will follow Hot Rod Semi rules.

#### **Pro Stock Tractors**

1. V-8 component PRO Stock tractors to use a 68" centerline of rear axle to back of engine block.

## **Super Stock Tractors**

- 1. Diesel Super Stock tractors will weigh a maximum of 8600# with a 20" maximum height drawbar.
- 2. Alcohol Super Stock tractors with a stock/OEM style head will weigh 8300# with a 20" maximum height drawbar.
- 3. Alcohol Super Stock tractors with an aftermarket head will weigh 8000# and compete with an 18" maximum height drawbar.
- 4. Alcohol Super Stock tractors 505ci with aftermarket head engines will run a 19" hitch.
- 5. Only one possible fuel permitted per vehicle.
- All other Super Stock rules will follow under the Super Stock category.

## 5200 lb. 2WD Modified

472 Cubic Inch Max Naturally Aspirated

1. Trucks may be entered in one class and one time only.

- 2. Only one carburetor allowed. Stock bore center only. No high-pressure fuel system. 12 PSI max. No electronically controlled fuel system.
- 3. Gasoline only. No alcohol, no oxidizer.
- 4. Special hitches allowed--Maximum 28" hitch height. Hitch must be minimum of 28" from center of rear axle to hitch point. Eyehook, minimum 3.75" diameter horizontal.
- 5. No trick hitches. Draw bar must be rigid in all directions.
- 6. Open exhaust allowed (in safe direction only).
- No dual wheels.
- 8. Planetary rear-ends permitted.
- 9. Weights must be secured safely. No weights in cab.
- 10. If truck bed is cut out, bed cover required.
- 11. 472 cubic inch engine limit, 2% tolerance. No aluminum blocks. No magnetos, engine and sheet metal must match.
- 12. No tunnel ram manifolds or sheet metal intakes.
- 13. Maximum frame length: 15 feet from center of rear axle to furthermost point at front of vehicle. Tow hook not to exceed 6" beyond 15' frame measurement.
- 14. Truck frame required. Fiberglass bodies allowed. All trucks must have front and rear fenders.
- 15. Aftermarket gear box (ProFab-SCS, etc) allowed. No aftermarket modified transmission gear kits.
- 16. DOT approved tires. Cut allowed Max DOT tire size 17.15X44. Max bar tire size 34X18.
- 18. Fuel cell must be in back bed of truck.
- 19. Cylinder heads permitted/allowed: Chevy (GM) Any conventional head with 24-degree valve angle. Cobra Jet, Super Cobra Jet, A-429 style, Blue Thunder, a-460, For Motorsports or Trick Flow, and Mopar that doesn't have canted valves.
- 20. Cylinder heads NOT permitted: Pontiac and Pontiac style, Olds, or DRCE head, Franks 12 degree spread port

or similar, Brodix Big Duke, or similar, Dart Big Chief, Ford Thor, Hemi'99 or Pro Stock, and NRC. No billet heads permitted.

All decisions by track judges/tech officials are final. Refer back to your general rules for more information.

Please read general and safety rules for all that apply to this class. All safety equipment required as described under safety rules and regulations of the Southern Pulling Rules handbook.

#### J - Western Series

Modified See Regional Modified Section

Pro Farm and 85 Limited PRO will run VP Racing Fuels DX Diesel Fuel and Water w/lubricant

#### **Pro-Farm**

- 1. Weight 9,000 lbs. P-pump, 9,500 lbs. A-pump
- Engine- Maximum 470 cubic inches. OEM stock block, head, intake manifold & exhaust manifold must be used for make and model of vehicle being entered. No aftermarket components allowed.
- 3. Chassis Maximum of 114" wheelbase unless originally produced with a longer wheelbase at which point the wheelbase will remain stock. Maximum length of 13 feet from center of rear axle to forward-most point of vehicle excluding the front hitch.
- 4. Tires 20.8-38 ONLY
- 5. RPM 3500 RPM maximum. Vehicle must have an ISS PRO #019R8906 magnetic pickup attached to the front of the engine to measure engine RPM's. The lead from the pickup to the rear of the vehicle is to be made of 14-16 gauge wire attached to a 110V, 3 prong female electrical outlet. The 2 wires from the pickup need to be attached to the 2 main spades, not the ground spade, of the electrical outlet. This outlet receptacle needs to be mounted next to the rear mounted air shutoff cable. Wire must be one (1) continuous wire outside the side rails and visible. NO SPLICES.

- 6. Fuel Pump Bosch P series pump allowed Model 3000 and 7100 only, No 8600 series allowed. 13mm plunger diameter maximum. Only one plunger per cylinder allowed.
- 7. Turbo STOCK GARRETT GT42 3" by 3". Any internal alterations to either the intake or exhaust side will be deemed illegal and the competitor will receive a LIFETIME BAN NOT ONLY FROM the PRO FARM class, but from ALL FUTURE PPL competition. Exhaust housing mounting pattern must not be any larger than 2.75" X 3.5".
- Fuel/Water Diesel fuel only. Water injection allowed. NO intercoolers of any sort allowed in the air intake system of the tractor.
- 9. Clutch/Blanket- Clutch must be SFI approved. Certification papers required. Tractors must be equipped with a minimum of 17" wide, 6 strap SFI 4.2 clutch blanket. Blanket must overlap a minimum of 6 inches.
- 10. No shifting gears (torque amplifier, etc) during the competition run. No shifting mechanisms that can be within transmission housing.
- Floorboard All vehicles must be equipped with a floorboard.
- 12. All other Super Stock OEM chassis and safety rules apply.

## 8500 Limited Pro

- 1. Maximum weight permitted 8500#
- Maximum cubic inch 470. OEM cylinder heads. Aftermarket manifolds permitted. Maximum of 2 valves per cylinder.
  - a. Any cast or manufactured cylinder head will be accepted. No billet. Cylinder head must retain OEM (Length/Width/Height) for engine application. Valves must retain OEM angle for engine application. 2 valve per cylinder maximum. Cylinder head must retain OEM bolt pattern for exhaust manifold and intake bolt pattern must be used to attach the exhaust manifold and intake. Manifold must bolt 90 degrees to head. No overhead cams permitted.

Bottom of head to top of port: A/C: 2.675 IH: 3.100 JD: 3.250 NH: 3.750

- No intercoolers
- Maximum 7100 P-pump. Maximum barrel and plunger size 13mm.
- 5. Turbo- Smooth bore 3.00" intake which must protrude in to the housing.
- 6. Tire size 24.5 X 32 only permitted. 48 lug maximum. (revisit fall of 2023)
- 7. All other Super Stock OEM chassis and safety rules apply.

#### **Modified 4x4 Truck**

Same as Champions Tour Modified Truck Rules

Including- No digital, microprocessor, computer, or programmable ignition controls. No traction control ignition accessories. No six shooter, power grid systems, or similar type ignition controls. (Started saver allowed)

## **Limited Light Super Stocks**

- 1. Maximum weight 6400# max on 30.5 tires.
- 2. Maximum weight 6500# max on 24.5 tires.
- 3. 370ci one single max 3"compressor on alcohol.
- 4. 410ci one single max 3" compressor on diesel.
- 5. Maximum weight 6700# max 410 ci, 3X4MAP, no intercooler.
- 6. Aftermarket cylinder heads permitted.
- 7. All other Super Stock / Tractor / Turbo Rules apply

## 6200 Pro-Stock 4X4

- 1. Maximum weight is 6200#
- 2. Maximum of one naturally aspirated engines, with a 485 cubic inch limit. Engine must match sheet metal.
- 3. Tires will be DOT approved and must maintain original tread pattern. Maximum tire size is 33x12.50. Tires will not

track past 50% of front to rear width. NO BARRED TIRES.

- 4. Vehicle will have stock frame. Air bag suspension is not to be controlled from inside the cab.
- 5. Vehicle will have a 133" maximum stock wheelbase, anybody style including fiberglass with a protective fire wall, one ton maximum front end, any size rear end. No flat bed.
- 6. Vehicle will be limited to a single "1 piece" carburetor.
- 7. No alcohol fuel allowed. Q-16 Fuel is allowed.
- 8. Use of after-market fuel injection systems is not permitted.
- 9. Vehicle will be equipped with SFI steel bell housing and block-saver plate. Must have shield around the clutch release hole.
- 10. Vehicle may run any transfer case.
- 11. Vehicle may use any cast iron block not exceeding 4.9 bore spacing. No aluminum blocks. Any after-market head having no more than two (2) valves per cylinder may be used. No hemi-heads. No sheet metal manifolds and no two-pieced or removable top tunnel rams.
- 11a. Engine location must be no less than 14" from center line of front axle to front of bell housing flange.
- 12. Allow functional hood scoops with open back. Hood perforations will be allowed for exhaust only.
- 13. Exhaust will discharge vertically or underneath and straight back.
- 14. Trucks will run steel, magnesium or aluminum flywheels that meet the following criteria:
  - a. Steel plate or steel billet flywheel will have a tensile strength of 60,000 psi and a yield strength of 40,000 psi.
  - b. Magnesium or aluminum flywheels will meet or exceed former SFI standards 1.1.
  - c. No cast iron permitted.
- 15. All u-joints must be covered 360 degrees with 1/8 inch steel or 3/16 inch aluminum having two (2) driveshaft hang-

ers per driveshaft 1/8 inch thick steel or 3/16 inch aluminum 1 inch wide, six (6) inches (maximum) above and below shaft.

- 16. All drive shafts shorter than 24 inches require one (1) hanger.
- 17. Automatic transmissions will have a 4.1 SFI-approved blanket or shield.

#### **Limited Mini Rod**

- 1. Maximum of 575 cubic inches naturally aspirated.
- 2. Maximum of 380 cubic inch with a 8-71 maximum supercharger only 23° heads O/D limited to 0% on helix rotors and 7% on standard rotors
  - a. All supercharged engines must use SFI Spec. 14.1 blower restraints.
  - b. Supercharger drive components must be shrouded top and sides with minimum 0.060" steel.
  - c. Blower shield must be wider than all components, idler belt, pulleys, etc. and be securely mounted.
  - d. If using an automatic transmission, you must use a 6 belt SFI approved safety blanket.
- 3. Turbochargers allowed on a maximum of 370 cubic inch small block engines with the following provisions:
  - a. Single pressure stage only.
  - b. All turbochargers must be completely shrouded, except for the inlet and exhaust pipes, with minimum 0.060" steel
  - c. Turbocharged engines must have (2) 3/8" bolts (grade 5) in horizontal portion of exhaust pipe(s). Bolts to be installed 90 degrees to each other within 1 inch of each other.
  - d. If using an automatic transmission, you must use a 6 belt SFI approved safety blanket.
- 4. Maximum weight 2000.
- 5. Diesel- Maximum 250ci. Maximum 4 cylinders, 2 valves

per cylinder, limited to a single turbo. No variable turbos permitted. Maximum weight 2300# Maximum 15 inch drawbar. Other diesel rules apply.

6. All other Mini Rod rules will apply.

## K - X-Calibur Pulling

X-caliber Tractor Tire Size Rules enforceable at only X-caliber events. Will not apply to other PPL regions.

- 1. Maximum tire size allowed for competition in all Limited ProStock classes is 24.5 X32 with a maximum of 210" circumference with a 1% variance when inflated to 10 psi. Tread width not to exceed 25'.
- 2. Maximum tire size allowed for competition in the Super Stock class is 30.5 X32 with a maximum of 210" circumference with a 1% variance when inflated to 10 psi. Tread width not to exceed 32".

6000lb Extreme Super Stock

#### Chassis

- 1. Maximum distance of 1 5/8 inch deck plate between bottom of cylinder head and top of engine block.
- 2. A maximum allowance of .130 total gaskets with a maximum of 504 cubic inch total.
- All tube ladder-type frames must be covered on outside with steel or aluminum 0.060 thick and run in the same plain as the crankshaft.
- 4. Appearance to remain stock of given brand and model.
- 5. Agricultural type rear ends—no component types.

## **Engine**

- 1. Light Super Stock class limited to 504 Cubic Inches.
- Engine block of given brand to remain consistent with that brand sheet metal. The engine block cannot be modified externally, except for normal repair or for mounting of fuel injection pumps.
- 3. Aluminum cylinder heads are legal.

- 4. Only 2 valves per cylinder must be parallel with each other and parallel within 15 degrees of the cylinder wall. No overhead cams or hemi-style heads allowed in Extreme Super Stock division.
- 5. OEM heads or 2 valves aftermarket heads allowed.
- 6. 44 Mag or larger ignition not allowed.
- 7. Aftermarket blocks permitted.
- 9. Intercoolers permitted.

#### **Tires**

- Tires no more than 30.5 inches wide.
- 2. Rim diameter limited to 32 inches on tire widths over 24 1/2 inch.

## Competition

- 1. Tractors can weigh 6400 pounds
- 2. Diesel Injection pumps limited to 1 plunger per cylinder.

All other OEM SS Tractor chassis and safety rules apply.

#### **Tractor Fuel Rules**

- 1. Gas tractors must be fueled with gasoline only. Alcohol may only be used as a coolant under low pressure.
- No oxygen, ether, propane, nitrous oxide, alcohol, or chemical based fuels can be used.
- 3. Fuel valve must be plumbed closest to the injection pump. The water valve must be plumbed closest to the water activating valve. Any tractor that is not plumbed for fuel and/or water test will be fined \$30 for the first violation. Any subsequent violation will result in tractor, driver, and owner being banished from all Xcaliber Pulling events for a year and a day from the date of violation.

## **ProFarm Tractor**

1. Maximum weight permitted 9,500#.

- Tractors are limited to 466 cubic inch maximum, must retain stock location of manufacturer, and be held rigid in place. No deck plates allowed between cylinder head and block.
- Tractors must have an Agricultural OEM cylinder head for that manufacture of tractor. No recast; No aluminum; No overhead cams allowed.
- 4. Tractors are limited to one injection pump up to a maximum P7100 Bosch pump with a 13mm barrel & plunger size maximum. No 8000/9000 P-series pumps, Billet pump housings or Sigma pumps allowed. No electronically controlled engines allowed.

## 5. 3500 MAXIMUM RPM LIMIT (NO TOLERANCE)

Tractors will be provided and equipped with reflective tape on engine balancer for RPM check. Tractor must have a positive throttle stop on the injection pump for maximum rpm. The engine rpm limit will be strictly enforced. Tractors will be checked at random or if protested. In either case if tractor is above rpm limit or refuses to be checked, the driver/tractor will be suspended from competition.

The only legal turbocharger for this class will be a single stock out of the box "UNALTERED" Garrett GT4202 journal bearing or GT4202R ball bearing (3" x 3") turbo with no modifications of any type or style allowed using the Garrett part numbers that are listed below. No other turbo will be allowed. Exhaust housings must be the T4 small base (2.75x3.50) bolt pattern. Part numbers and turbo must not be altered in any way.

#### **GT4202 TURBOCHARGER PART NUMBERS:**

7124025008	GARRETT GT 42 STANDARD CHRA
4518885011	GARRETT GT 42 BALL BEARING
	CHRA
4478840041	INTAKE COMPRESSOR COVER
	(BAND CLAMP OUTLET)
7577080002	INTAKE COMPRESSOR COVER
	(BAND CLAMP OUTLET)
7123400033	INTAKE COMPRESSOR WHEEL

7144700001	EXHAUST TURBINE WHEEL (STD.)
7144700007	EXHAUST TURBINE WHEEL
	(BALL BEARING)
7577070001	<b>EXHAUST TURBINE HOUSING 1.01</b>
7577070002	<b>EXHAUST TURBINE HOUSING 1.15</b>
7577070003	<b>EXHAUST TURBINE HOUSING 1.28</b>
7577070004	<b>EXHAUST TURBINE HOUSING 1.44</b>

- 6. OEM Intake & Exhaust manifolds only. No aftermarket or header style manifolds allowed.
- 7. Diesel fuel only. Water injection allowed. No inter-coolers of any sort allowed in the air intake system of the tractor.
- 8. Maximum tire size 20.8 x 38. Cut tires permitted. No clamp-on hubs allowed.
- 9. All other OEM SS Tractor chassis and safety rules apply.

#### **Pro Street Diesel Trucks**

(Western Series Rules)

#### **Pro Stock 4X4 Truck Rules**

- 1. Truck must weigh 6200lbs. No weight allowance.
- 2. Cubic inch maximum is 485 with a 1% variance. Block must utilize stock OEM per brand bolt pattern with an exception for additional bolts along lifter side of head or exhaust side of head. Must also use per brand OEM bore spacing.
- 3. Rear of engine block must be no closer than 14 inches +/- .250 inches to centerline of front axle.
- 4. Cast iron and/or aluminum OEM or aftermarket heads allowed. No Hemi type heads allowed. No more than 2 valves per cylinder. DRC 1 & 2 are allowed DRC 3 & 4 not allowed.
- 5. Engine block must be cast iron.
- 6. No split carburetors allowed.
- 7. Maximum engine bore spacing of 4.9 inch.
- 8. Any internal engine modification allowed.
- 9. Must have a stock frame not to exceed OEM 1-ton, no complete tube chassis from rear axle forward.

- 10. Cast iron or cast aluminum single 4 barrel manifold required. No sheet metal intakes, tunnel rams or any injection.
- 11. Fuel lines cannot be routed through cab, unless factory equipped.
- 12. Only one fuel tank or fuel cell allowed, and it must be full at weigh in. If truck is equipped with fuel cell, it must be mounted in the bed or on the weight rack—from the grill forward.
- 13. Alcohol fuels are not allowed. Pump gas or racing gas only. Racing fuels can include oxygenated fuel. No additives of any kind may be used in fuel.
- 14. Fuel may be checked if protested. Amount of protest money will depend on cost of fuel check (minimum \$50.00)

A Person Protesting puts up money to have fuel checked. If legal, person protested gets half of the protested money. If illegal:

1st Offense: Driver and truck will sit out for 4 hooks with no points and no money.

2nd Offense: Driver and truck banned for 1 year and 10 days.

- 15. Any transfer case allowed.
- 16. Any transmission allowed.
- 17. Front axle is to be no larger than 1 ton. Any rear axle allowed.
- 18. Maximum wheel base 133" with 1/2 inch tolerance.
- 19. Hitch must be the furthest point of truck, except for safety bumpers.
- 20. Maximum height of hitch-26" to point of hook. Hitch must be the furthest point of truck, except for safety bumpers. The hitch must be solid in all directions and secured no more than 6" from hook point. The hitch must have a minimum 3"  $\times$  3 3/4" oval opening. Hitch must be rigid in all directions.
- 21. Point of hitch to center of rear axle shall not be less than 36% of wheel base.

- 22. No clevis, chain or cable allowed in hitching device.
- 23. No portion of hitch can be greater than 25 degrees or less than 0 degrees.
- 24. Any hitch with adjusters on top of hitch must be equipped with adjuster on bottom of hitch attached within 6" of hook point and below centerline of rear end housing.
- 25. Hitch must be straight plane from hitch point to hook point. No portion of hitch may attach to rear end housing except for adjuster bar.
- 26. Tires must be street legal, no tread alterations, no larger than 33X12.5 or metric equivalent of 305-70 DOT approved.
- 27. Body must be factory appearance. Fiberglass bodies allowed. Must have working driver's door. Body must have firewall. Dash and bed floor may be removed. If bed floor is removed, a bed cover must be used.
- 28. Any header upright or down swept is allowed.
- 29. Front brakes or drive line brakes allowed.
- 30. Front and rear traction bars allowed.
- 31. Weight racks will be allowed but cannot exceed 60 inches from center of front axle to farthest point of weights on rack.
- 32. Solid suspension permitted.
- 33. Track official has the right to red flag any truck slipping the clutch excessively or bouncing hard.
- 34. Foot throttles must be equipped with toe strap.
- 35. If hood is cut out for air cleaner, must run hood scoop. Hood scoop may be operational at rear.
- No automatic traction control devices of any kind allowed.
- 37. Air bag suspension is not to be controlled from inside the cab, air bag system is not to be adjusted after weighing and hitch check.
- 38. Truck sheet metal and engine must be of the same

brand but frame can be different.

No Traction Control.

## **Light Modified Tractor**

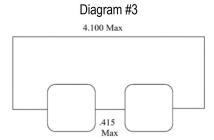
Modified tractors must follow all safety rules outlined in the general rules portion of the rule book.

All rules in this class are for the first year (2024) and will be monitored throughout the year and adjusted if necessary.

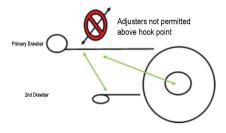
1. The Modified Tractor class will allow the following tractor/ engine configurations with

specified weight allowances:

- a. Single Naturally Aspirated Engine 6500lbs
- b. Single Hemi/1471 Limit or Industrial Six Cylinder One Turbo 5900lbs
- c. Single Chevrolet/1471 Limit or Diesel Single Turbo 6000lbs
- d. Single Allison/8.1 Supercharger 9.5 wheel 6000lbs
- e. Single T53-13 Turbine 1800 max hp 6000lbs
- 2. No tire repairs allowed on rear tires (boots, section repair, vulcanized spots, etc.)
- 3. No driveshaft over 48" long allowed. No input or output shaft that attaches to the drive shaft can extend more than 4 inches beyond a bearing. A minimum of 1 inch material between bolt and the end of drive shaft shield. A minimum of 1 inch material to be in the pilot holder at each end of the drive shaft shield. A minimum of 8 3/8 inch grade #8 bolts to hold the carrier bearing assembly if attached to a vertical plate.



## 3.6, 3.0, 2.6 Diesel Truck Drawbar



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Pro Pulling League Truck & Tractor Pulls

**Outlaw Diesel Super Series** Drag Races





2023 Pull of the Year





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