# 2024 NSPA RULE BOOK



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Welcome to the NSPA truck and tractor pull.

NSPA (National Sled Pullers Association) offers this rule book as a guide for you. Updates, changes and/or corrections will be available to pullers via email, mail, or at events per pullers request. It is competitors responsibly to ensure they are using the most current rules.

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# Warranty Disclaimer

These rules are intended as guidelines for the sport of tractor and truck pulling. The rules relating to the safety of equipment are the responsibility of each driver who participates in the sport of tractor and truck pulling under these rules. No expressed or implied warranty of safety is intended or may be inferred form the publication of these rules, or the compliance therewith. Nothing herein should be construed as a guarantee against injury or death to participant's, bystanders or spectators.

Rules and specifications as set forth in this rule book are based upon the recommendations of competing members, crewmen and other participants in the sport of tractor and truck pulling. All participants must assume all liability for any damage or loss caused by or from their equipment and their use thereof.

The NSPA specifically states that it has not tested any equipment or use of equipment that it refers to in the NSPA rule book and makes no warranties either specific or implies with regard to or any use thereof. The user must look to the manufacture with regard to said warranties.

# SECTION 1 GENERAL INFORMATION

## Safety

At every NSPA sanctioned event, safety is the name of the game. The sport of truck and tractor pulling has more brute horsepower than any other motor sport in the world. With machinery this powerful, the aspect of safety cannot be overemphasized. There are many different types of safety equipment required, and this equipment will appear on many different areas of the vehicle. NSPA will not operate any pull nor allow any vehicle to operate at which a safety hazard is posed to anyone. Safety is everyone's responsibility. The promoter, puller, spectators, and NSPA officials must work together to ensure the safety of all involved.

## **Pulling Divisions and Classes**

NSPA offers seven divisions of pulling competition:
Pro-Stock 4x4 Pickup
Modified 4x4 Pickup
Two Wheel Drive Pickup
Econo Mod Tractors
6500 Light Super Stock Tractors
466 Light Limited Pro Stock
Modified Tractors
Super Field
Diesel Pickups

**Pro-Stock 4x4 Pickups** are developed using readily available parts and equipment and give the competitor a feel for the sport.

**Modified 4x4 Pickups** are some of the most powerful singleengine competitors in the sport. Some of these machines can produce in excess of 1,200 horsepower and are one of the crowd favorites in the sport.

**Two Wheel Drive Vehicles** can be pickups or T-buckets that meet truck rules. Crowds love to hear the ground-thumping horsepower and the thrilling "wheelies" these vehicles tend to display as long as they follow all truck rules.

**Super Stock Tractors** bring spectators back to their farm roots. While these tractors maintain a "stock" appearance, they are anything but stock in performance terms. Some tractors develop almost 25 times their factory-rated horsepower using the "stock" equipment. These tractors come in two varieties— alcohol (no smoke) and diesel (smoke).

**Modified Tractors** come in many shapes, sizes and configurations. Modified tractors can have Hemi's, Pontiacs, aircraft engines and more. This class is the only class in our association that can run multiple engines, and the "tractors" have very few design limitations. Some modified tractors can produce 8,000 horsepower when pulling!

**Super Field** slightly modified, see Super Farm Stock classes.

**Diesel Pickups:** see Diesel Pickup classes.

# Official NSPA Class Weights:

Pro-Stock 4x4 Pickup	6,200 pounds
Modified 4x4 Pickup	6,200 pounds
Two Wheel Drive Pickup	6,200 pounds
Hot Farm Tractor	10,000 pounds
Modified Tractor	7,200 pounds
466 light limited pro stock	8,500 pounds
Work Stock	8,500 pounds
2.6 Diesel 4x4	8,000 pounds
Limited Pro Stock 4x4 Diesel	8,000 pounds
Pro stock diesel 4X4	7,800 pounds
Super Street Diesel	8,000 pounds

All official weights include the driver and vehicle with oil, water and fuel, ready to compete. All drivers must be in their vehicle when it is weighed in. These weights are maximum weights with no overage allowance permitted. In addition, vehicles must have a minimum of 200 pounds of moveable ballast weight.

#### Points Accumulation.

- 1. 15 place points + 15 hook points = 30 points
- 2. 14 place points + 15 hook points = 29 points
- 3. 13 place points + 15 hook points = 28 points
- 4. 12 place points + 15 hook points = 27 points
- 5. 11 place points + 15 hook points = 26 points
- 6. 10 place points + 15 hook points = 25 points
- 7. 9 place points + 15 hook points = 24 points
- 8. 8 place points + 15 hook points = 23 points
- 9. 7 place points + 15 hook points = 22 points
- 10. 6 place points + 15 hook points = 21 points
- 11. 5 place points + 15 hook points = 20 points
- 12. 4 place points + 15 hook points = 19 points
- 13. 3 place points + 15 hook points = 18 points
- 14. 2 place points + 15 hook points = 17 points
- 15. 1 place point + 15 hook points = 16 points

Points are calculated from January 1 until December 31 each year.

Tie Breaker (End of Season)

If the end of the season points race results in a tie, the following formula will be used to break the tie.

Ties will be broken by using the greatest number of first place finishes at events counting toward that position. If a tie still exists, second place finishes, third place finishes, fourth place finishes, and etc. will be counted until the tie is broken.

A competitor may rebuild mid-season and retain previous points with the old NSPA membership as long as the person is not running his/her old vehicle on the NSPA membership. All points are non-transferable. In the event of a sale of the vehicle, points cannot be transferred to the new owner.

# Eligibility

- All contestants competing in any pulling contest sanctioned by the NSPA must be a current paid member of the NSPA.
- Contestants must be <u>at least</u> 18 years of age, or <u>at</u> <u>least</u> 16 years of age with parent or guardian written consent.
- 3. All vehicles must prominently display the NSPA competition number on the back of the vehicle.

# **Entry Procedures**

- The entry site will open a minimum of three (3)
  hours prior to the start time of the event, and the
  entry clerk shall make himself/herself available for
  one (1) hour after the end of the session.
- 2. Upon arrival at the event, all competitors must immediately go to the entry site.

- The competitor must present current NSPA membership information to the entry clerk.
- 4. Competitors who are not current NSPA competing members will be able to pay their membership fees at the time of registration.
- The entry officials have the authority to refuse return of entry fees and to revoke pit passes for any competitor if the entry official believes the competitor has fraudulently violated the entry procedure for monetary gain.
- 6. Entries close 45 minutes prior to the schedules start of a session.
- A competitor may enter late with permission of the presiding official. An event official must be notified of competitor's intentions to compete before the close of entries to be eligible for late entry.
- 8. Each vehicle may be entered in one class, and only one class.
- 9. All contestants will draw for their pulling position at the time of entry.
- 10. Classes in a given session will be run in that session, but not necessarily in the posted order.
- 11. If a puller breaks in a previous class and cannot make the pull order in the next session, the puller may check with the track official for extra time. It is the track official's decision whether or not to allow the puller to drop positions.
- 12. An approved late entry may drop positions. If the drawn position has been pulled or is being pulled at the time of entry, the vehicle may drop six positions or to last position if six positions do not remain to be

- pulled. This drop must be approved by the presiding official.
- 13. There will be a designated area set up by the pull track officials for a tech area. All vehicles will be routinely teched and officially weighed.
- 14. The tech inspection areas are open and closed the same hours as the entry site.
- 15. Drawbars are to be checked no sooner than three vehicles prior to hooking to the sled.
- 16. The area to measure the hitch heights will be cement, asphalt, wood, or graded and packed dirt. The area must have the event official's approval before use.
- 17. To scratch a vehicle and receive a refund of entry fees, the vehicle must be broken and unable to compete. The competitor is required to notify the entry clerk of his/her withdrawal prior to the start of the class. The refund of entry fees will make the competitor ineligible for hook points. If the entry clerk is not notified of the withdrawal prior to the start of the class, no refund of entry fees will be given.
- 18. Once a puller has scratched from a class, he/she may not re-enter that class for that session.
- 19. Any puller who breaks on the grounds will receive hook points for the class entered provided he/she does not request a refund of entry fees. Also, the puller who breaks will not receive any purse money unless there has been an honest attempt at a pull (tech official's discretion) by the vehicle in that respective class.

20. Once a puller has hooked to the sled, whether he/she can make a measurable pull or not, he/she may not be refunded entry fees for that class.

### **Exhibition Vehicles**

- All vehicles participating in or exhibiting at NSPA sanctioned events and hooking to sled must meet all NSPA safety requirements outlined in these rules.
- For safety and insurance reasons, all vehicles exhibiting at NSPA sanctioned events that do not meet current safety requirements outlined in these rules must perform before or after the NSPA event.

# **Operation of the Contest**

- Pulling vehicles must be operated in a safe manner at all times within the confines of the track, pits, and staging areas. Event officials have the right to stop and disqualify any vehicle if it is not being operated in such a manner as would be considered safe.
- Operator must remain seated during the pull and must have complete control of the vehicle at all times.
- Only the driver will be allowed on the vehicle when it is being towed or driven. No riders are allowed in or on any vehicle in the pit, track or adjacent areas, including tow tractors, competing vehicles, tow back and maintenance equipment of any kind.
- 4. No consumption of intoxicating substances by puller or pit crew while on promoter property is allowed. The promoter property includes pit areas, competition areas and staging areas. This rule applies to everyone in the pit area, including

- members, pit crew, pit pass holders and spectators while in the pit area.
- 5. Unprofessional and/or unsportsmanlike conduct (including but not limited to abusive language and/or physical action toward event official ((s)), fellow competitor(s), or spectator(s), or the deliberate delay of the event) will be just cause for a minimum penalty of total disqualification from the event. Disqualified competitors will lose any prior placings, prize monies, contingency monies, points, and/or event awards at that event.
- 6. In order to receive NSPA performance points, the contestant must hook and have a reasonable attempt at a pull. If the vehicle breaks on the ground, the competitor will receive only hook points for that class he/she is registered in prior to breaking. No prize monies for non-hooked pulls will be awarded.
- 7. All pulls must start with a tight chain. Contestants will be allowed a total of two (2) attempts to start the sled. If the driver lets off the throttle before the sled passes the 100' mark, he/she will get a second attempt, even if the sled ends up past the 100' mark. If no effort is made to back off the throttle, no second attempt will be given. Jerking of the sled by backing off the throttle will be considered grounds for disqualification by track officials. Track officials will use their own judgement on this call.
- 8. Each contestant has the privilege of, and the responsibility for, spotting the sled for both of his/her attempts. Pull back tractor operators/sled operators must be notified of where the contestant

- wishes the sled to be placed when the previous contestants unhooks from the sled. Use of another crew member is recommended in spotting the sled in order to expedite the show.
- 9. The sled will be towed back/driven back or forward to the starting line before each attempt. No official pull may start beyond the starting line in either direction. All sleds must be positioned so the front of the pan is even with the starting line, and the sled must be in gear before the contestant will be allowed to tighten the chain.
- 10. All pulls made during the contest will be measured to the nearest inch to the location where the most forward part of the sled's pan stops, either with a manual measuring crew or a mechanical device (i.e. laser, GPS, etc.)
- 11. Violation of any rule shall be just cause for disqualification.
- 12. Pulling vehicles must remain within the boundaries of the contest course during a pull or will be disqualified. The sled pan must be within the boundary line at the start of the pull. The chalk line is to constitute the track boundary.
- 13. Excessive loss of liquid by a pulling vehicle while in forward motion under the green flag during a contest on the track will be cause for disqualification, unless the loss of liquid is due to internal breakage. Track officials will have the final call on determining internal breakage. Excessive is defined as any steady or intermittent stream discharged on the track or a spot equivalent to more than eight inches in diameter.

- 14. If a vehicle is legal when hooked to the sled, and a breakage occurs while under the green flag due to unforeseen circumstances, the pull will be measured, unless the vehicle losses ballast or safety equipment.
- 15. When disqualified in a class less than full, a driver will receive points and purse monies for the last place awarded. If more than one driver is disqualified in a class that is less than full, all those disqualified will split the accumulated last place points and purse evenly.
- 16. Only when the original mechanical method of starting a vehicle fails to work will tow starting of that vehicle be authorized. Such towing shall only occur on the track with a tow bar (no chains or ropes allowed).
- 17. All pulling vehicles must be able to drive on the track and back up to the starting line under their own power. The vehicle must also be able to back up to the sled to unhook the chain, and then drive off the track under its own power unless breakage occurs at the event. Failure to do so will be cause for possible disqualification.
- 18. At any NSPA pull, it is mandatory for all drivers to attend any driver's meeting which may be called by the promoter and/or NSPA officials. With the exception of entry qualifications, all invitational pulls will be conducted under the same rules as all other NSPA sanctioned events.
- 19. No one is allowed on the track except for the track officials and the contestant when the vehicle is under the green flag. The track is defined as the area within 35' of any direction of the contest course boundaries, including a run-off area at the finish end

- of the track. At all times during competition (from the time the session starts until the session is deemed finished), there will be limited access to the track area at the discretion of the track official.
- 20. All pulls shall operate with two flagmen. The starting flagman will be responsible for the readiness of the track, pulling vehicle and contestant. The starting flagman will position himself/herself at the 100' marker, and shall be responsible for alerting the second flagman in the event of a sled malfunction. The second flagman will be responsible for the balance of the course. The same flagmen work for an entire class to assure consistency and equal treatment of all competitors in that class.

# **Weighting and Drawbar Measuring Procedures**

- All official weights include the following: Driver, vehicle with oil, water and fuel (ready to compete), and minimum 200 pounds of movable ballast.
- No vehicle that exceeds the class weight will be allowed past the scales. Weight limits are absolute weight limits-no adding of fuel or weights is allowed unless the vehicle is reweighed. Violation of the scale procedures is just cause for disqualification and forfeiture of placing, points, and prize monies/awards.
- 3. All drawbars will be measured at least three vehicles prior to hooking. After that time, the drawbar cannot be altered except for the minimum 200 pounds of the weight moved in either direction. Absolutely no air pressure is to be altered in the tires unless the drawbar is remeasured.

- 4. If a puller should move more than 200 pounds forward from the rear of the vehicle, the drawbar must be remeasured before pulling.
- 5. Drawbar can be remeasured after the pull at the discretion of the track official.
- 6. Air shock type devices are allowed on the vehicle as long as there are no lines or controls going to or from the devices to the operator's compartment.
- 7. A pulling vehicle must cross the scale before each class.
- 8. Weighing out is at the discretion of the track official.

# **Test Pull and Options**

- The first position puller will be the test puller and may take the pull if the weight transfer settings and operation are deemed correct. If the competitor does not take his/her first pull, he/she may immediately pull again, or drop to the sixth position. Sixth position is defining as the position immediately following the next five competitors and their attempts. If there are not six competitors remaining in the class, the competitor will drop to the last position in the class on the test pull option before leaving the track. Once the vehicle has left the track, no re-pull will be given.
- 2. The first position competitor is not to be disqualified for running out of bounds on the first attempt ONLY. He/she can repull immediately or drop to the 6th position. All other reasons for disqualifications apply. The competitor will be disqualified in the second/subsequent attempts if he/she goes out of bounds during that attempt.

- If the weight transfer needs further adjustment, the first competitor after each adjustment will be treated as the test puller and have the rights and privileges as such.
- 4. If the class is restarted, all the contestants having pulled previously will have the option to drop six places or pull in the defined order. Only the first official hook in the class shall have the "test puller" option as defined in this rule book. In the cast of a restart, it is the competitor's responsibility to notify the track judge of his/her decision to drop six places or pull in the order given.
- 5. If the first two vehicles in a class make a full pull, the class will be automatically restarted.
- 6. A class cannot be restarted due to sled settings after the first 1/2 of the class has hooked to the sled.
- 7. All decisions on repulls are to be made before the vehicle leaves the track.
- If a contestant must repull due to a contest malfunction, the contestant has the option to drop six positions to repull.
- Any disqualification on the first attempt bars a second attempt, except as noted in Rule Test Pull & Options #2. Should the class be restarted, the disqualified puller will be allowed to pull in the position drawn.
- 10. Contestants must pull at position drawn within three (3) minutes of the time the sled is deemed ready. Any delay will result is disqualification. If the presiding track official is notified, he/she may drop a contestant having mechanical problems six (6) positions. This change is position would constitute

- one of the contestant's two attempts. This drop may only occur once per contestant per class.
- 11. If a contestant experiences mechanical problem during a test pull (before the first official pull), the track official may grant the competitor the option of dropping to sixth position.
- 12. A competitor will have the option of dropping six places if breakage occurs on the first attempt, if such breakage occurs prior to the 100' line. The contestant will get a total of two chances.
- 13. If the last vehicle in the class experiences mechanical difficulty, the contestant will be allowed a maximum of six (6) minutes to hook and make an attempt.

#### **Pull-Offs**

- 1. In a pull off, each contestant in his/her turn will be allowed two (2) attempts at a measurable pull.
- The sled must be readjusted is the first contestant in a pull-off fails to reach 100' on an indoor track, or 125' on an outdoor track.
- If the first contestant succeeds in making another full pull, all contestants must pull at that setting unless, in the track official's opinion, the sled operator has made an error.
- 4. Order of the pull-offs will be in the order in which the contestants made full pulls, unless there has been a sled setting change by the track official. No dropping of six positions in a pull off is allowed.
- 5. If a pull off is not run on the same track and the same sled or in the same session, the first competitor will have the option of taking the first pull or dropping six (6) places.

#### **Inclement Weather**

- A session of pulling will be called a completed show
  if one half of the sanctioned classes have been run
  and all purse monies/awards for that session will be
  paid for all classes which are considered completed.
  Any class cancelled after two-thirds of the scheduled
  entries have pulled shall be considered a completed
  class for establishing the one half of the sanctioned
  classes.
- 2. Purse money will be paid to those classes which are deemed completed according to the results for those who have hooked. Those who did not hook in the class will share any remaining purse monies equally. Purse money for classes that do not compete will be divided equally at the time of cancellation.
- 3. If less than one half of the session has been completed and the promoter does not refund gate admission or honor rain checks, the promoter shall pay the purse to those entered in the cancelled classes on the same formula listed in the Rule Inclement Weather #2.
- 4. If less than one half of the session has been completed and the promoter does not refund gate admission or honor rain checks, the purse shall be paid in all completed classes. In classes where two-thirds or those entered have pulled, the purse for that class shall be paid to those who hooked according to the results. Those that did not hook will receive a refund of entry fees. For classes not started, the promoter shall return entry fees.

- If less than one half of the session has been completed and the promoter does refund gate admission or honor rain check, all entry fees will be refunded for competitors who have not yet pulled.
- The promoter and presiding official from NSPA shall mutually determine if and when an event shall be stopped because if inclement weather or track conditions.
- 7. In the event that a promoter adds unscheduled classes to those already scheduled, the unscheduled or rained out classes will be held following the scheduled classes, except for elimination. In this case, points classes will run first.
- 8. Inclement weather points (equal to hook points) will be given only to those officially entered in each rained out class. If a rained-out class is rescheduled on a date other than the originally scheduled pull date, points will be given at the rescheduled pull (no inclement weather points will be issued).
- 9. Any class not completed for any reason will be treated as a rained-out class.

# **Summary of Causes for Disqualification**

- 1. Loss of ballast weight under the green flag.
- Loss of safety equipment and/or failure of safety equipment to function while under the green flag.
- Excessive loss of liquids (steady or intermitted stream discharged on track or a spot equivalent to more than eight inches in diameter) under the green flag.

- Illegal fuel (nitromethane, nitrous oxide, other oxygen carriers, combustion accelerators, or any other fuel deemed illegal in class rules).
- Vehicle traveling out of bounds from 0-300 feet when hooked to the sled, crossing over or touching white lines. Last place will be awarded to contestant.
- 6. Unsafe operation of competition vehicle.
- Consumption of intoxicating substances by puller or pit crew.
- Unprofessional and/or unsportsmanlike conduct including abusive language and/or physical action toward event official, fellow competitor, or spectator and/or deliberate delay of the event. This will be just cause for a disqualification.
- 9. Leaving the starting line under the red flag.
- 10. Knowingly violating and NSPA rule.
- 11. The decision of the track official is final and shall not be appealable, provided, however, that with a showing of reasonable and good cause, the track official may, without liability, reverse or revise his/her decision. Calls of judgement are not subject to appeal and will be final.

#### **Violations**

- Violation of any rule shall constitute a suspension for 60 days and full tech of vehicle prior to return.
- The track official will make a determination of violation of a rule and impose the prescribed penalty.
- 3. Unsportsmanlike conduct.
- 4. The member may protest the track official's decision to the Owners.

#### **Protests**

#### 1. Protest Procedures:

- a. Any NSPA member competing in a pulling event may protest the legality of another contestant's vehicle. Protests must be made in writing on forms provided by the NSPA and delivered to the track official with the allowed time limits.
- Fuel Violation: Protest must be made before the vehicle leaves the pulling track (protest may be requested orally if forms filled out within 30 minutes of the oral protest).
- All other violations: Protest must be made before pulling session or within 30 minutes after the vehicle leaves the pulling track.
- The protest must specifically identify in detail the nature of the violation and be accompanied by the protest fee in cash in accordance with the fee schedule detailed in the NSPA rulebook.
- 3. The track official shall investigate and decide the protest as promptly as possible and shall inform the parties involved in the protest of his/her decision. The track official shall make and perform or schedule any appropriate inspections to determine the legality of the vehicle. During the investigation of the protest, the pretested member/vehicle will be allowed to compete until a decision is rendered.
- 4. Protest Fee: (Must be paid at the time of the protest)
  - a. Protests required engine/vehicle tear down \$500
  - b. All other protests \$100

    If the protest is sustained, the protest fee, less the cost of any required inspection, will be returned to

the protesting member. If the protest is not sustained, the protest fee, less the cost of any required inspection, will be forfeited to the protested member.

5. Protest review: If either of the parties does not accept the decision of the track official, the written protest shall be forwarded by the track official to the Owners. The purse of the event involved will be escrowed as to any competitor who could be affected by the protests until a final determination has been made and/or time period for filing an appeal has expired. The protested competitor and protestor shall be notified in writing of the determination. The notice shall include the violation and the penalty imposed.

### 6. Appeals:

a. In order to appeal the decision of the track official, the appealing member shall make a written request for an appeal and deliver it to the Owner's office within 10 days of issuance of the written notice of the imposition of the penalty.

# Inspection

- Inspections will be performed as determined appropriate by the track official and the Owners.
- On any spark ignited engines, the CID checker will be used on the winners of randomly drawn classes. If the winner is found to be illegal, the next placing vehicle will be checked. The winner will have the option to disassemble his/her engine. If found to be

- illegal, he or she will be banned from NSPA for one year
- For fuel checks, the track official will take samples as appropriate and test the samples in site when possible. An additional sample will be taken, sealed and promptly checked.

# **Voluntary Compliance**

Each competitor expressly agrees, by remitting membership funds and entering in at event, that by entering a NSPA sanctioned event that:

- For any dispute concerning any event, the rules of the NSPA, or any decisions of the NSPA official, the dispute shall be resolved pursuant to the procedure provided in the NSPA rule book.
- 2. The rules of the NSPA and any decision of the track official or NSPA Owners are binding.
- The competitor will subject his/her vehicle to any inspection determined necessary to ascertain the legality of the vehicle. The competitor will release and waive NSPA from any liability relating to the rules contained in the NSPA Rule Book or the conduct of a pulling event.

#### Sleds

All sleds must be NASOA licensed and must prominently display a decal denoting the date of approval and licensing. For complete rules concerning sleds, contact:

JEFF SOLLEY
364 MENEDICT LANE
NEW GALILEE, PA 16141
JHSOLLEY@WINDSTREAM.NET

- Any and all complaints, problems or suggestions need to be directed to the NSPA Executive Board, or one of its owners. Members are asked to address the issues before or after the scheduled events, and the Owners will handle the issues appropriately. Members are asked to refrain from delaying the contest with issues.
- Sled operator, tech official and sled transporter are the only persons to make decisions on their duties and their decisions and actions are final. No interference will be tolerated.

# SECTION 2 GENERAL RULES

#### **Brakes**

All competing vehicles must be equipped with independent working rear brakes (except 4x4 trucks). Four-wheel drive vehicles must have working front wheel brakes.

#### **Drawbars**

- Drawbars shall be constructed so that in the 1. event of drawbar breakage, the drawbar supports do not pull from a top link or brace above the centerline of the rear axle of the vehicle. If the NSPA tech inspector rules a vehicle drawbar is illegal and/or unsafe, the party involved can ask for NSPA Owners review by submitting a photo and construction information to the NSPA Owners. A drawbar which has provisions to be easily made shorter than legal length is not acceptable as a legal drawbar. Any vehicle with the drawbar hold-up device above the centerline of the rear wheels must have a single pin break-away type (slide out) drawbar. This rule does not apply to 4x4 trucks or twowheel drive trucks.
- 2. Drawbars must be rigid in all directions.
- All drawbars and hitching devices will be steel in all weight classes and divisions, including second drawbars and hitching devices.
- 4. All classes regardless of division must meet the following:

- a. Drawbar to be a minimum of two (2) square inches total steel material at any point.
- b. Any pin will be a minimum of 7/8" grade 8.
- c. Drawbar must be equipped with a steel hitching device and must measure 3 inches wide x 3.75 inches long hole. Must be a minimum of 1" thick and a maximum of 1 ½" thick. Hitch hole to be cut square 90\*, no irregular shape or weld build up to limit free movement of hook
- No portion of the vehicle may interfere with sled, chain or hook during a pull or while being hooked or unhooked.
- 6. An area six inches (6") wide and twelve inches (12") high immediately above the drawbar must be free of all obstruction, including kill switches, weights, wheelie bars or second drawbars, for ease of hooking and unhooking.
- Vehicles with second drawbars must have their primary drawbar eight inches (8") above the second drawbar. The hole in the second drawbar must be covered if not in use.
- 8. Drawbars and wheelie bars are not to be connected to each other.
- No trick hitches or cam type rear ends will be allowed. Drawbar distance from the center of the rear axle cannot change during the pull.
- 10. All vehicles are required to have tow hitch on the front of the vehicles. The hitch can extend a maximum of six inches (6") ahead of the further most front portion of the vehicle. The tow hitch will not be counted in the overall length when

measuring a vehicle. The tow hitch must have a three-inch (3") diameter hole positioned horizontally and be strong enough to push or pull the vehicle at its heaviest weight. The device is to be used for no other purpose.

# **Drawbar Heights and Lengths and Angles**

Drawbars cannot be shorter or higher than the specifications listed below. Drawbar lengths are measured from the center of the rear wheels to the point of hook.

CLASS	HEIGHT	LENGTH	Degree
Super stock tractors	20"	27% of wheelbase	
Pro Stock 4X4 pickups	26"	36% of wheelbase	20 deg. max
Modified 4x4 pickups	26"	30% of wheelbase	25 deg. Max
Two Wheel Drive	30"	18"	
Super Stock Tractor	20"	18"	
Modified Tractor	20"	18"	
Super Farm	20"	18"	
Diesel pickups	24"/ 26"	44"	

# **Clutches, Flywheels and Automatics**

All torque converters and automatic transmissions must have a blanket built to the same specs as a super stock tractor blanket. The blanket is to extend from the rear of the engine block to the front of the tail housing. The blanket must be fastened forward securely with two (2) straps on each side, one above the crankshaft centerline and one below the crankshaft centerline. The blanket should have six inches (6") of overlap. Straps must be two inches (2") wide with not more than one inch (1") spacing between each strap.

- All pulling vehicles using an automatic transmission must be equipped with a positive reverse gear lockout.
- All pulling vehicles using a clutch are required to have a steel plate or steel billet flywheel. The flywheels must be made out of steel with the following mechanical properties: a. Tensile strength of 60,000 PSI
  - b. Yield strength of 40,000 PSI
    If aluminum is used, it must meet the same
    qualification. This rule includes all "out-of-field"
    tractors that desire insurance coverage at a NSPA
    event. Absolutely no gray cast metal allowed in any
    flywheel or clutch components.
- 4. All super stock tractors are required to have NSPA approved bellhousing blanket that meet the following minimum construction specifications:
  - a. 20 ply ballistic nylon or 20 ply Kevlar style 713 meeting construction
  - b. 17" wide and long enough to wrap around the bellhousing with at least a six-inch (6") overlap
  - c. Secured with six 2" wide nylon web straps with steel D-ring on one end and sewn the length of the blanket (except for overlap area), and long enough to pass back through the D-ring and be tied in a saddle cinch
  - d. And with four 2" nylon web retaining straps each at the front and back of blanket.
  - All super stock tractor's scatter blankets must be approved by NSPA officials prior to competing.
- 5. The flywheel, clutch and pressure plate components on all vehicles in all classes must be inspected by the

- NSPA official and/or NSPA tech committee prior to pulling in competition. Must have owner certification letter on file prior to competition at any event.
- 6. All Lenco type planetary transmissions must be covered with an approved blanket.
- 7. Clutch Automatics: clutch to be certified, and automatic to be covered with approved blanket from back face of clutch can to the tail shaft. Straps are to be fastened forward and to the rear of the clutch/flywheel assembly. All straps must be securely fastened, and the blanket must be secure against the rear of the block
- 8. Liners can be used and are highly recommended except as listed in this section.
- Any vehicle using two blown or supercharged automotive engines, three naturally aspirated automotive engines, or any industrial marine or aircraft engine that is turbocharged or twin staged supercharged on one clutch must use a liner in the bell housing.
- 10. Clutch can liner specifications:
  - a. Thickness to be 1/8" 4130 moly
  - b. Liner is to be secured to the can by drilling and tapping a single 1/4" hole through the bottom of the can so that the liner begins directly behind the starting right gear (if used). The liner must extend the full length of the can until the back of the clutch can begins to taper. If starter ring gear is not used, can liner must then extend from block saver plate rearward to where they can taper begins. Stand adjustment slot in liner should be cut directly under the slot in the can.

- Do not weld this piece of fillet metal to the stand adjustment slot cover.
- 11. No lightening holes allowed on transmission face of bellhousing except for one cooling hole. This cooling hole must not exceed one inch (1") in diameter on the face of the bellhousing. Refer to figure below for more information.
- 12. No chemical milling allowed.
- 13. The inspection/maintenance hole (I/m hole) in the bellhousing shall not extend farther forward at its top edge than flush with the cross-shaft hole nor farther downward at its bottom edge than to allow ½" bolt diameter edge distance for the fastening holes in both the bellhousing and I/m cover. The length of the I/m hole shall be no more than 8.5" (measured in a straight line) and the ends of the hole shall be smoothly and fully radiused to produce an oval shape.
- 14. There shall be twelve 5/16" grade 5 or better cap screws securing the cover to the bellhousing. The cover must have a plate or fillet that fits flush inside the housing. The cover and fillet must be steel. The fillet must be welded to the cover and all bolts must be flush to the inside.
- 15. There must be five (5) bolts (minimum 3/8" in diameter) used to secure the transmission to the bellhousing. Four-wheel drive trucks may have a minimum of four ½" bolts to secure the transmission to the bellhousing.
- 16. All bellhousings must be flush on the inside surface.
- 17. All automotive type engines with bellhousing and clutches will run a full block plate, either a

- commercially available unit, or minimum of 3/16" steel or minimum ¼" aluminum with five 3/8" grade 5 bolts evenly spaced on the bottom of the bellhousing.
- 18. Four additional bolts will be added to fasten bellhousing to block saver plate. These bolts are to be 3/8" grade 5 and between existing bolts on top half of bellhousing along with five (5) evenly spaced bolts between block saver and bellhousing on lower half.

# **Driveline Shielding**

- 1. All remaining drive train, excluding any additional manual transmission, must be enclosed in 5/16" minimum steel or 3/8" aluminum, round, inside diameter not to exceed two inch (2") more than the outside diameter of the largest universal joint, fastened every six inches (6") or closer, with 3/8" or larger bolts, grade 5, or butt and seam welded, and securely mounted to vehicle's frame. This applies to all vehicles with exposed drive shafts. No more than ¼" of end of driveline shall be visible with driveline shield in place.
- 2. In all divisions, if U-joints are used in any drive shaft application, the shield must be 5/16" steel or 3/8" aluminum with 1/8" steel insert in aluminum. The insert must be a minimum of six inches (6") wide.
- 3. All automatic transmissions with torque converters must be completely covered, 360 degrees, with a safety scatter blanket meeting NSPA standard SFI: 14.2. This must be from the back of the engine block to where the tail shaft bolts to main housing of the transmission and securely fastened in place using all

- straps intended. The opening at the bottom of the transmission/torque converter housing must be enclosed in steel (stock steel cover is acceptable). Remainder of the drive train is to be covered as prescribed in this section (except for four-wheel drive trucks).
- 4. All modified tractor engine automatic transmission combinations must have two front motor mounts, two rear motor mounts, and a support saddle for rear transmission with ½" maximum clearance or two (2) front motor mounts, support saddle at rear of engine with ½" clearance and a mount at rear of transmission. This is to prevent engine or transmission from dropping if breakage occurs.

#### Chassis

- Modified tractors with frame bolted to transmission must also have the frame bolted to axle housings to prevent splitting of tractor. Must be of sufficient strength to support the weight of the tractor (with bolts removed from plate of transmission or rear end) in the heaviest class being entered.
- 2. All tractors must have wide front axles. Front wheels shall track with the rear wheels.
- 3. Maximum width of vehicle cannot exceed 8'6".
- In all truck classes, air shock or air suspension-type devices are allowed as long as there are no lines or controls going to or from the device to the operator area.

# **Engines**

- A deflection shield is required on both sides of all engines. Shield must extend the complete length of block casting and be securely fastened. It is to be made of aluminum or steel a minimum of 0.060" thick or safety blanket material. Shields must be solid-motor mounts, filters, steering rods, etc. cannot serve as part of the shield. Solid frame rails with no holes can serve as part of at all of the shield, providing it covers required areas of block casting.
- Starter motors, fuel filters, oil filters and fuel injection pumps may not be used as shielding.
   Shielding may cover or pass behind starter and fuel pump,
- Shield on all V and Y type engines (including marine or aircraft and super stock types) must extend from base of head of the uppermost point of piston, travel to two inches (2") below center of crankshaft throw, and be securely fastened.
- 4. Side shield must be mounted independent of the engine block. Motor mounts, block saver plate, and header mounting or chassis mounting is acceptable.
- 5. All blow-by tubes must exit forward of rear tires. Engine crank venting blow-by tubes must be vented below the head of that engine and extend down to the engine pan.
- 6. All pulling vehicles must be equipped with a deadman's throttle. All throttles working in a forward-rearward direction shall be closed in the rearward direction. No hydraulic throttle linkage allowed, it must be positive two-way mechanical linkage. All foot throttles must have a

toe strap.

- All injection or butterfly shafts on engines must have dual return-to-idle arms and springs, one on each side.
- All automotive engines equipped with a harmonic balancer must be certified in writing by the NSPA Owners.
- A bolt in the crankshaft to hold the dampener pulley is required.
- All engine fans must be shrouded with steel 1/16" or thicker, 360 degrees. Electric fans are excluded from the shrouding rule.
- 11. Engines used in both automobiles and truck by manufacturers are classified as automotive.
- 12. The only accepted formula for calculation of cubic inch displacement on any piston type engine is 0.785 x stroke x bore x bore x the number of cylinders.
- 13. Shields on all super stock tractor in-line engines will be from sheet metal (hood) to two inches (2") below bottom center of crankshaft throw, and be securely fastened. They may be louvered, but no expanded metal allowed.
- 14. Turbocharged engines will have two 3/8" grade 5 or better bolts through the horizontal portion of the exhaust. Bolts will intersect each other at 90 degrees, within one inch vertically.
- 15. All diesel-fueled vehicles must contain a three-way shut-off valve with return to the tank. This valve must be located between the supply pump and the injection pump, and must be manually controlled from the operator compartment.

16. All classes to be allowed 1% cubic inch variance during engine cubic inch tech procedure.

## **Exhaust Systems**

- All exhaust systems must discharge vertically. Height
  to be a minimum of one foot above the bend in the
  pipe which discharges vertically measured from the
  top of the pipe to the bottom of the bend. All
  exhaust pipes must be securely attached. Vertical is
  defined as being within 20 degrees (in any direction)
  of being plumb.
- 2. No rain caps allowed.
- 3. Megaphone pipes are prohibited.
- 4. Venturi type headers are allowed.
- Turbocharged engines must have a two 3/8" grade 5 bolt in vertical portion of exhaust pipe(s), bolts to be installed 90 degrees to each other within one inch (1") of each other.

## **Fuel and Fuel Containers**

- All forms of nitromethane (including nitrous oxide and propylene) are illegal as fuel or fuel additives.
   Legal fuels (see class rules for specific fuel restrictions) are alcohol, methanol, water, diesel fuel aviation gas, race gasoline, propane gas and turbine fuel. Combustion accelerators are not allowed.
- Methanol is a clear, colorless fuel with a mild odor at ambient temperatures. Methanol is sold in 2 U.S.
   Federal Grades, A and AA. Either grade is acceptable for use in NSPA competition, or competitors should ensure that the methanol they purchase meets
   Federal standards and purity with no additives with

the exception of upper cylinder lubricant. The purity standards for each grade are shown below:

	Property	Grade A	Grade AA	
	Methanol conte	nt, wt. percentage, r	ninimum	
		99.85	99.85	
	Acetone and aldehydes, ppm, maximum			
		30	30	
Aceton	ie ,ppe			
Ethano	l, ppm, maximum 10			
	Acid (as acetic acid), ppm, maximum			
		30	30	
	Specific gravity, 20/20 deg C			
		.7928	.7928	
	Permanganate time, minimum			
		30	30	
	Odor	characteristic	characteristic	
	Distillation range at 100kPA			
	:	1 C must inc. 64.6	1 C must inc.	
64.6				
	Color, platinum-cobalt scale mix			
		5	5	
	Appearance	Clear, colorless	Clear, colorless	

.001 .001

Carbonizable impurities, color platinum-cobalt scale mix

30 30

- To be considered legal, methanol used in the NSPA competition must meet Federal standards because impurities beyond the limits established in the Federal standards in the fuel will result in disqualification.
- Competitors are cautioned to keep methanol containers tightly capped at all times to minimize the absorption of water. Competitors are encouraged to have their fuel checked for purity periodically.
- 5. NSPA official may check fuel at any event.
- 6. Pressurized fuels allowed in U.S. approved pressure tanks. No oxygen allowed.

#### Kill Switches

- 1. All kill switches must be mounted independent of drawbar and/or wheelie bars.
- 2. No trailer type kill switches
- 3. All pulling vehicles must have an automatic ignition kill switch and/or air shutoff in working order at all times. Track officials and/or tech inspectors have the option of checking kill switches as many times as they feel adequate during the event. Switch must be checked with the engine running. The use of OHM meters and buzz boxes may be allowed, however, if there is any doubt of whether the device is installed properly, or the person using the device is not 100%

- certain of the readings he/she received, the pulling vehicle will be started to check the kill switch.
- 4. The kill switch must be located in the rear center of the vehicle (maximum of 6" off center in any direction) 24" above the point of hook.
- 5. All automatic type engines, Allison aircraft, marine, industrial engines, turbine or super stock tractor engines that are spark ignition types must use a waterproof, dustproof, tether-type safety stop switch as a kill switch on the competing vehicle.
- 6. On a spark ignition vehicle, the kill switch must break or ground the ignition circuit. On vehicles equipped with spark ignition engines and electric fuel pump(s), the kill switch must also break current to the fuel pump(s).
- The break-away kill switches must have attached to them a minimum two inch (2") diameter solid ring with a minimum of 1/8" cross-sectional thickness.
   The cable from the sled will be attached to this ring.
- Portion of the kill switch and mounting brackets must be able to withstand 32 pounds of pull per switch when pulled independently or collectively.
- 9. Kill switch ring must be secured with a single nylon tie strap (1/8"). For consistency, NSPA will supply the 1/8" tie straps during the tech inspection process at each event. The competitor will be responsible for placing the kill switch mechanism and securing the tie strap once a kill switch has been checked by tech officials.
- 10. If a vehicle has a kill switch or shutoff located in a legal position and it is pulled and the nylon strap broken during a pull, and the presiding official

inspects is and finds the switch capable of operating properly under normal conditions, the vehicle will be allowed to repull immediately or drop six (6) positions. Decision to drop must be made before the vehicle leaves the track. It is the puller's responsibility to see that the switch is checked by the official before leaving the track.

11. All ignition engines must have a master shut off switch (in working order) for all motors. This switch must be within easy reach of the driver.

## Safety

- If presiding official and the tech official feel a vehicle is unsafe, they have the right to prevent the vehicle from competing.
- All pulling vehicles muse be equipped with a minimum two-pound (2 lb.) Type C fire extinguisher, fully charged, in working condition and convenient to the operator.
- All drivers in all divisions must wear a helmet with chin strap fastened while pulling. If vehicle has an open driver's compartment, the helmet must have a full-face shield. Helmets must meet or exceed Snell 2015 rating for helmets. Loss of helmets is cause for disqualification.
- 4. Fire suit gloves and fire suit shoes are required to complete in the event.
- 5. Fire suits are mandatory for drivers in all divisions. Fire suits must meet the following requirements:
  - a. Minimum of one-layer fire suit on Nomex 3 or equivalent with the exception of flip pulling vehicles not equipped with working doors that

- are recognized and operable from the inside and outside and complete firewall.
- Drivers of these vehicles must wear three layers of fire protection (three-layer suit or two-layer suit with Nomex or equivalent fabric underwear).
- c. Escape hatches will not be counted as working doors.
- 6. A competitor must be seated in the vehicle when the engine(s) are being started and running and have complete control of the vehicle at all times.
- 7. A reverse safety light system is required on all pulling vehicles. A white automotive-quality light that is a minimum two inches (2") in diameter must be mounted directly above or below the safety kill switch at the rear of the vehicle. A light in the driver's compartment must be operated off the same system. Both lights are to be activated by a shift lever such that it will be lit only when the vehicle is in neutral gear.
- 8. All pulling vehicles must be equipped with a starter interrupter in the gearshift which allows the starter to engage only in a neutral gearshift position.
- Roll cages are required on all open cab vehicles. Roll cages will be 1-5/8" minimum in diameter with 0.120" wall. They will consist of a minimum of 2 loops and 2 braces which attach the main structure.
- All drivers must wear a lab belt or harness (preferred) while competing.

#### **Seats and Fenders**

- 1. All tractors must have a strong and rigid seat. All tip seats must be securely fastened while pulling. All seats must have side rails that are a minimum of 4" above the edge of the seat, must extend a minimum of ½ the distance from the back of the seat to the front edge, minimum strength equivalent to ½" pipe. If fenders are 6" or more above the seat and are 6" or less from the seat, no seat side rails are required. Seats will be thoroughly inspected by the tech officials.
- All modified tractors are required to have fenders and/or a shield between driver and any part of the rear tire. Must curl a minimum of 6" from vertical out over the tire. Fenders or shields must be able to support the weight of the driver.
- Fenders or tire shields must be constructed so that when the driver is seated, and the hands are on the wheel, he/she cannot touch the rear tire with any part of the body.
- 4. All super stock tractors must have a shield between the driver and tire (not necessarily a fender) to consist of a solid barrier between the driver and any part of the rear tires to be able to support weight of driver. The barrier must be a minimum of six inches (6") wide at the bottom, increasing to a minimum of 36" wide at the top and the barrier must curl a minimum of six inches from vertical out over the tire in the configuration as the tire.

## Stabilizer (Wheelie) Bars

- For tractors, stabilizer bars are required. The drawbar and drawbar assembly cannot be attached to the stabilizer bar assembly.
- 2. On modified tractors where the hitch and wheelie bars are connected to the same frame, the wheelie bars must be fastened at least four inches (4") ahead of the hitch.

## Supercharger/Turbocharger

- 1. PSI or screw-type superchargers will not be allowed in any class.
- 2. Supercharger restraints will be mandatory in all applicable classes.
- All turbochargers not under the hood must be completely shrouded (except for inlet and exhaust pipes) with steel 0.060" or thicker. Turbocharger(s) under fiberglass (except for inlet and exhaust pipes).
- 4. All intercoolers located outside the normal engine shielding must be shielded to same as turbochargers not under the hood with 0.060" or thicker steel.
- 5. All supercharger drive components must be shrouded in the top and sides with 0.060" metal, the shield is to be wider than the drive belt or chain and securely mounted. Blower shield must be wider than all components (idler, pulleys, etc.).
- 6. Shield must start on the center line of supercharger housing and extend five inches (5") rearward only allowing notching to fit around accessory components.

- Shield must extend eight inches (8") centerline of blower housing and notched only for accessory components (such as air boxes).
- 8. On the front edge of the shield, there will be a rolled lip extending inward one inch (1").
- 9. Shield will be 3/8" steel bolted every 2" or closer, 3/8" bolts or larger, grade 5 or better. Shield to start at bottom of blower housing. Holes or notches allowed only for accessory components. Shield must maintain its integrity.
- 10. On all pulling vehicles, the tubing in the pressure side of turbocharger to the intake must be under the hood or side shields, or be bolted or strapped securely.

#### Tires

- Contests are open to pulling vehicles with rubber tires. No dual tires, tire studs, or chains permitted.
   All power must be transmitted through the wheels.
- All new tires and/or tires sizes other than what is currently being used in NSPA competition must have prior NSPA Owners approval prior to being used.

## **Tire/Rim Safety Warning**

All tire/rim assembly may burst with explosive force causing serious injury or death if:

- a. 35 PSI cold inflation pressure is exceeded.
- b. The rim is welded without the tire first being removed.
- c. The tire is drilled or screwed onto the rim.

## Weights

- 1. Weights must be securely fastened and no transfer of weights while vehicle is moving will be allowed.
- 2. Weights must not extend rearward beyond tires (except in two-wheel drive trucks).
- Any ballast weight lost while hooked to the sled and under the green flag will be cause for disqualification. If weights touch the ground although they may still be attached to the pulling vehicle, the pull will be disqualified (internal breakage excepted).

#### **Fuel and Brake Lines**

All lines passing past clutch or bellhousing must be outside of frame or incased in heavy wall tubing.

## **SECTION 3**

# **Pro Stock 4x4 Pickups Specific Rules**

Refer to Section I and II for General and Safety Rules
Weights and Wheels

- Tires must be street legal. No tread alterations of any kind– sharpening, re-grooving, or tread touch up is not allowed. No larger than 33 x 12.5 x 16 or 305 x 16 only DOT approved with factory stamp. The size must be displayed on the tire.
- 2. Solid rear suspension is allowed.
- Any rear-end housing size permitted. Maximum of one-ton front-end housing allowed. The width of the housings is to be like the width of the factory housings.
- 4. Weights/weight bar must not exceed forward more than sixty (60) inches from the centerline of front axle.
- 5. The outside edge of the tire on the narrow axle must overlap the centerline of the tire on the wide axle by at least one (1) inch.
- 6. Tires can be sanded/trued up, but CANNOT alter tread design, pattern angle or shape.
- Weight box must be pinned after scale and before measuring hitch and can't be changed until done pulling.

## **Engine**

 Engine must be the same make as the vehicle. Rear edge of block to center of 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 after market. Any internal engine modifications allowed.

- 2. Any single 4500 carb flange, 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.
- All boxes must be sent away and sealed by MSD prior to pulling.

## **Body/Chassis**

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

#### Hitch

- Primary hitch must be secure to vehicle frame in all directions, Hitch stem may be any length, as long as point of hook is not less than 36% of wheelbase.
- Hitch point to rear axles centerline must be a minimum of 36% of wheelbase. This distance cannot change during the pull.
- Hitch stem angle must not exceed 25 degrees measured on the stem with angle finder. Main stem

- must be straight from point of hook to pivot point. (On the same place).
- 4. No part of hitch can be attached or come in contact with rear axle during pull except the stem adjuster.
- 5. Hitch adjuster must not locate more than 6 inches from point of hook.
- Hitch height cannot exceed 26 inches from point of hook to ground or track. This maximum cannot change during the pull.
- 7. No "L" shaped drawbars. No "reese style" or telescoping hitches. Stem must be rigid 1 piece.
- 8. No drawbar angle greater than the angle of the sled chain. Acceptable angle is 0 degree to a maximum of 25 degrees. This will be measured by the angle of a straight edge from the point of hook to the center of the pivot point.
- All turn buckles that control drawbar height from BELOW the drawbar must be vertical or angle FORWARD from the attachment point on the drawbar or axle housing. Attachment point on axle cannot be above centerline of axle housing.
- All turn buckles that control drawbar height from ABOVE the drawbar must be vertical or angle BACKWARD from attachment point on drawbar to frame.
- 11. Drawbar to be made of steel, minimum of two (2) square inches total material at any point. This will include the area of the pin with pin removed. Pins will be minimum 7/8-inch diameter. Drawbar must be equipped with steel hitching device constructed of not more than 1 1/2 inch square nor less 1 inch

- square (1 1/8 inch round stock) with an oblong shaped hole of 3 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 5/8 grade 5 bolts per side to the frame.

#### Transmission

1. Aftermarket transmission and transfer case allowed.

#### Fuel

- 1. Alcohol fuels and propylene oxide are not allowed.
- 2. VP Fuel only with all vehicles. Each vehicle must display 2 VP Racing Fuels decals one on each side.
- 3. VGM water is mandatory for all water injected vehicles.
- 4. A \$50.00 fine will be accessed for lack of fuel and water test ports for all classes. Also. For any minor infractions of fuel quality.

## **SECTION 4**

## **Modified 4WD Truck Specific Rules**

Refer to Section I and II for General and Safety Rules

- 1. Vehicles in this class must be 4 Wheel Drive.
- All pulling vehicles must have an automatic ignition kill switch/ or air shut off. All ignition engines must have a kill switch in working order within easy reach of the driver.
- No electronic traction control devices such as MSD Digital, Davis Electronics or power grid will be allowed.
- 4. No electronic fuel injector or metering devices allowed such as timing retards or fuel lean out must all be triggered manually by the driver as the vehicle pulls.
- Wiring and components must be readily visible for inspection.

## **Body Components**

- 1. Vehicle must have hood, grille & fenders in place as intended by manufacturer.
- Vehicle body style must be or have been available from a dealer as mass-produced. Fiberglass replicas will be allowed.
- 3. Vehicles must maintain their original appearance.
- 4. Vehicle appearance:
  - a. No bare chassis or flat beds permitted.
  - b. Must have metal frame.
  - Non-metal floor allowed in bed.
  - d. Windshield can be removed in foggy conditions at time of pull. If you Don't have

- windshield, you need to have your face shield down on your helmet.
- e. Fiberglass hood scoops, spoilers, fender flares are allowed. NOTE: Contact the OTTPA Board for Variance.
- 5. No onboard compressors or controls that can change the suspension. Single fill point for all air suspensions.

## Drawbars/Hitch

- Primary hitch must be secure to vehicle frame in all directions, Hitch stem may be any length, as long as point of hook os not less than 30% of wheelbase.
- 2. Hitch point to rear axles centerline must be a minimum of 30% of wheelbase. This distance cannot change during the pull.
- Hitch stem angle must not exceed 25 degrees measured on the stem with angle finder. Main stem must be straight from point to pivot point.
- 4. No part of hitch can be attached or come into contact with rear axle during pull except the stem adjuster.
- 5. Hitch adjuster must not locate more than 6 inches from point of hook.
- 6. Hitch height cannot exceed 26 inches from point of 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 degrees to a maximum of 25 degrees. This will be measured by the angle of a straight edge from the point of hook to center of the pivot point.
- 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 axle cannot be above centerline of axle housing.
- All turn buckles that control drawbar height from ABOVE the drawbar must be vertical or angle BACKWARD from attachment point on drawbar to frame.
- 11. Maximum hitch height shall be 26 inches. This maximum cannot change during the pull.
- 12. Drawbar to be made of steel, minimum of two (2) square inches total material at any point. This will include the area of the pin with pin removed. Pins will be minimum of 7/8-inch diameter. Drawbar must be equipped with steel hitching device constructed of not more than 1 ½ inch square nor less 1-inch square (1 1/8-inch round stock) with an oblong shaped hole 3 ¾-inch long by 3 inches wide.
- 13. No cam style 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 5/8 grade 5 bolts per side to the frame.

## **Engine Components**

**NOTE:** Automotive engine is any engine or its replica available in a passenger car. A maximum of eight (8) cylinders. A replica. No diesel engines permitted.

- 1. Must have a 3-point engine mount and a support saddle for the rear of the transmission.
- 2. Engines must be naturally aspirated only.
- 3. Engine must be in stock location, which is defined as being within engine compartment as manufactured, behind stock grille and in front of stock firewall.
- 4. Vehicle may run without radiator, engine may be moved forward, but engine must stay behind grille,

- except for high performance type starters and accessories with crankshaft.
- 5. Rear of engine block may not be moved forward of centerline of front axle.
- 6. VP Racing Fuels only. No pressurized fuel system. No M3, M5 or oxygenated type gas allowed. No nitrobased fuel nitro or power enhanced alcohol will be allowed, no oxidizing type fuels. Top lube allowed. Each vehicle must display 2 VP Racing Fuels decals, one on each side.
- 7. No superchargers or turbo chargers allowed.
- 8. Engine may have a maximum bore spacing of five (5) inches.
- Automotive engines at all levels of competition are only allowed to run a maximum of two (2) valves per cylinder.
- 10. Fuel injection (and carburetors) and header may protrude through the hood.

**NOTE:** Bubble or scoop is optional, but if used, the scoop or bubble must cover the carburetors or fuel injection, if induction system protrudes through the hood.

- 11. Vehicle must have vertical exiting exhaust; height of pipe must be a minimum of one (1) foot above the bend. NOTE: Vertical is defined as "being in plumb" with a ten (10) degree variance in any direction permitted.
- Vehicles to conform to provision of Modified Tractor engine shielding. NOTE: Entire engine to mean anything that is bolted to the engine block.

#### Frames

- May be different from the make and model of the truck body.
- 2. Tubular steel frame is allowed.

## Wheels/Weights

- Center of wheels cannot exceed plus or minus six (6) inches of fender wells for wheelbase being used, which means a vehicle may run up to a maximum of 133-inch wheelbase.
- Wheels must be in fender wells as described above.
   The body may be stretched in the middle to accompany this.
- 3. The outside edge of the tie on the narrow axle must overlap the centerline of the tire on the wide axle by at least one (1) inch.
- 4. Weights/Weight bar must not exceed forward more than sixty (60) inches from the centerline of the axle.
- Tired are a minimum tire size to be 112-inch circumference on an 18-inch rim inflated to 30 PSI, with original bar not to exceed 18 inches on width before cutting.
- 6. All measurements on the rough are allowed + or -1 inch until can be measured properly on flat surface.

# SECTION 5 2WD Pickup Specific Rules

Refer to Section I and II for General and Safety Rules

NOTE: Vehicles in this division will adhere to all pertinent criteria of modified tractor safety, construction, unless variations are noted.

## **Body/Chassis**

- The maximum length of the vehicle is no more than 15 feet from centerline of rear axle to forward most portion of the vehicle including the weight racks.
- The 15 foot from center of rear axle overall rule will apply to all 2WD vehicles with the exception of a 10inch over-length allowance for cosmetic fiberglass only. No steel structure, reinforcement, or steel bumpers allowed past 15 feet. Tow hook to be consistent with 15-foot rule.
- 3. Maximum width of vehicle is eight (8) feet.
- 4. Vehicle must have a presentable van/pickup bed with cover or flatbed in place.
- 5. Chassis (frame) may be truck frame or fabricated frame like modified tractors.
- Vehicle body style must be or have been available from a dealer as mass produced.
- 7. Vehicle must maintain original appearance.
- 8. Vehicle appearance: Fiberglass hood scoops, spoilers, fender flares are allowed.
- Allowed to use stock appearing pickup truck and van fiberglass bodies and parts.
- Driver must be in original driver compartment. No farther back than center of vehicle

- 11. All 2WD vehicles must have a presentable front windshield of glass, Plexiglas or Lexan. Does not have to be a full windshield.
- 12. Hood line variance: original hood line should be kept, and a 3-inch maximum clearance opening will be allowed for speed equipment.
- 13. Vehicle to conform to provisions of modified tractor engine shielding.
- 14. All 2WD vehicles must have bumpers to prevent vehicles from passing over buckboard of sled while backing up to hook or unhook.

#### Frame

1. Tubular steel frame allowed.

NOTE: This allowance applies only to pickup truck style bodies of the following models: 1994 Dodge or newer, 1996 Ford or newer and 1998 Chevy/GMC or newer.

## Wheels/Weights/Tires

- 1. Weights are not to extend forward of maximum length stated in Rule Body/Chassis #1, not rearward more than 12-inches from hitch point and must not interfere with hitching and unhitching of vehicle.
- 2. Any factory production body truck or van is allowed including passenger-type vehicles.
- 3. Must run a minimum of 14-inch front rims with an automotive or front tractor tire.
- 4. Any wheelbase is permitted.
- 5. Front wheel and axle to remain in the visual center of the front wheel well. Maintain minimum of 2-inches of complete original type wheelhouse forward

- of front wheel. Must be able to see forward most part and rearward most part of tire from a side view.
- 6. Rear tire diameter shall not exceed 143-inch circumference when mounted on an 18-inch rim and inflated to 28 PSI. The ground patch is not to exceed 19-inches based on the original tread.
- 7. Maximum pull distance is 340 feet.

#### Driveline/Clutch

- No electric, pneumatic or hydraulic devices that effects the clutch system are allowed. All staged or variable released clutches of any description prohibited. (This does not affect slave cylinder for clutch pedal.)
- 2. All 2WD vehicles engine/automatic transmission combinations must have either:

NOTE: Engine to clutch transmission to be constructed like the modified tractors. Torque converters, automatic shifts, etc. are permitted.

## **Engine/Engine Limitations**

- Two front engine mounts, two rear engine mounts, and a support saddle for rear of transmission, with 1/2-inch maximum clearance; OR
- 2. Two front engine mounts, support saddle at rear of engine, with 1/2-inch nylon strap in the middle of that span to secure the drive shaft to the frame.
- 3. 2WD NSPA Competition a limit of 575 cubic inches and two (2) valves per cylinder.
- 4. There will be no timing delay devices allowed.

- 5. Engine must be in stock location, which is defined as being within engine compartment as manufactured, behind stock grill and in front of stock firewall.
- 6. Vehicle may run without radiator and engine may be moved forward but engine must stay behind the grill.

NOTE: Entire engine is to mean anything that is bolted to the engine block. Except for high performance type starters with crankshaft drive, rear of engine block may not be moved forward of center line of front axle. The engine is any engine or its replica available in a passenger car. Maximum of eight (8) cylinders. A replica to be considered legal must accept and swing a stock crankshaft. No diesel engines permitted.

## **Turbo Chargers**

 Allow only single staged turbochargers in the division and must therefore follow the safety rules that apply to all turbocharged engines which are found in the General Rules Section under Supercharger/Turbocharger.

#### Fuel

- 1. Fuel injection and carburetors and headers may protrude through the hood.
- 2. Race Methanol is permitted.

NOTE: Bubble or scoop is optional, but if used, the scoop or bubble must cover the carburetor(s) of fuel injection, if induction system protrudes through the hood.

#### **Exhaust**

- 1. Vehicle must have vertical exiting exhaust.
- 2. Height of pipe must be a minimum of one-foot above the bend.

NOTE: Vertical is defined as "being in plumb" with a 10degree variance in any direction permitted.

#### Hitches

- All trucks must have floor and bed covers.
- 2. Trucks may compete without tailgate or rear door(s) or cargo area for greater hook point visibility.
- No portion of the vehicle may interfere with sled, chain or hook during a pull, or while being hooked or unhooked.
- 4. An area 6" wide and 12" high immediately above the drawbar must be free of all obstructions (including weights, wheelie bars, second drawbars, etc.) for ease of hooking and unhooking.
- 5. Hitch angle to be parallel to the ground.

## **Driveline and Shielding**

1. All trucks must have three round metal loops shielding in each driveshaft (two-piece driveshaft will have six metal loops). 360-degree loop must be a minimum of 3/8" thick aluminum or 5/16" steel, ¾" wide (or wider) and not more than 2" from the shaft in any direction. End loops to be placed no further than 6" from U-joints, with third loop in the center of shaft, or can be solid tube (3/8" aluminum or 5/16" steel) meeting the above requirements. If planetary reductions at wheels are used, then modified tractor driveshaft shield criteria applies. All drive shafts between engine and transfer case must have solid shielding of 3/8" aluminum or 5/16" steel (minimum).

- 2. All trucks will have 360-degree metal shield around all U-joints, 3/8" aluminum or 5/16" steel minimum. Width must be 6" at minimum. In all divisions, if u-joints are used in any driveshaft application, the shielding must be 3/8" aluminum or 5/16" steel, with 1/8" steel insert in aluminum. The insert must be a minimum of 6" wide. If a split design is used, mount as described in Driveline Shielding Rule #1.
- 3. Axle and hub bolt shield required, except where planetary final drives are used. Shielding must be a minimum of 0.060" thick. Minimum diameter of axle end or hub bolts to be covered on both front and rear axles. Mounting shield cannot be mounted to axle end or to hub bolts. A hole may be installed in center of front shield, so lock can be operated (so long as hub end or axle bolts are covered).
- 4. No counter balancers permitted in driveline.
- 5. Engine to clutch to transmission to be constructed and shielded like modified tractor (see Clutches, Flywheels and Automatics). Transmission to final drive to be constructed and shielded like Modified 4x4 unless planetary rear end used. If planetary final drive is used, modified tractor shielding to be used.

## Safety

- 1. Burst panel deflector plate up or down
- All vehicles must have a complete firewall with no holes except for controls. All vehicles that do not have working doors must carry an on-board fire system Type C with a minimum of four (4) nozzles located within the driver's compartment/engine compartment.

- 3. All flip-top type bodies must have a safety lock to hold up the body.
- 4. All shielding on superchargers, turbochargers, centrifugal superchargers, intercoolers, etc., are to be the same as modified and super stock tractors.

## **SECTION 6**

## **Modified Tractor Specific Rules**

Refer to Section I and II for General Safety Rules

## **Engines/Shielding**

- 1. Modified tractors are those using a combination of engine(s), transmission(s) and final drives.
- 2. Burst panel deflector plate up or down
- Modified tractors limited to following motor configurations.
  - a. Three (3) blown wedge automotive motors. 8-71 blower limit or single stage turbo. Cast iron or aluminum blocks are accepted. No intercooler will be accepted. Port fuel injection is acceptable.
  - b. Four (4) naturally aspirated big blocks are accepted.
  - c. Five (5) naturally aspirated small blocks are accepted.
  - d. Two (2) blown Hemi or wedge motors with 14.71 blower maximum or two (2) staged turbos.
     Port ignition only. No intercooler allowed.
  - e. Three (3) naturally aspirated Hemi's.
  - f. One Allison V-12 with either a two-turbo set-up or an aux stage, plus a naturally aspirated automotive motor.
  - g. Single Allison V-12 with single staged supercharger or turbo, fuel-injector system or carburetors, plus one wedge automotive-type engine with blower maximum of 8-71.

- h. One marine or industrial-type motor and diesels may have up to two (2) pressure stages.
- i. No more than four (4) t-53s with water and alcohol injections (see also Turbo Engines).
- Two (2) Packard's running gas or alcohol with a 6.51 supercharger. Stock Packard butterfly must be maintained and used.
- k. One T-55 or one T-64 Turbine with water and alcohol injection only. No More T-55L-11 or T35 or JFTD-12 Turbines.

## **Maximum Tractor Weight**

Maximum tractor weight is 7,200 pounds, including 200 pounds of moveable weight. Legal weights include driver, weights, and fluids (fuel, oil, water, etc.), and considered competition ready.

#### **Rear Ends/Drives**

No driveshaft over 48" long allowed. No input or output shaft that attaches to driveshaft can extend more than 4" beyond a bearing.

## **Body Components**

No portion of a modified tractor may exceed 14' forward of the center of the rear end.

#### **Tires**

- 1. Tractors have a limit of 30.5" on width of the tires. Rim diameter is limited to 32" on tire widths over 24.5". Width is determined by manufacturer's size.
- 2. No tire repairs are allowed on rear tires (boots, section repairs, volcanized spots, etc.).

# SECTION 7 Tractor General Rules

No computers will be allowed that will control any mechanical operation of the pulling vehicle.

#### **Brakes**

All competing vehicles must be equipped with working rear wheel brakes.

#### **Drawbars**

Drawbars shall be constructed so that in the event of drawbar breakage, the drawbar supports do not pull from a top link or brace above the centerline of the rear axle of the vehicle. A drawbar, which has provisions to be shorter than legal length is not acceptable as a legal drawbar. Any vehicle with the drawbar hold up device above the centerline of the rear wheels must have a single pin breakaway type (slide out) drawbar.

#### DRAWBAR HEIGHTS AND LENGTHS:

Drawbar cannot be shorter or higher than specifications listed below. Drawbar lengths are measured from the center of the rear wheels to the point of hook.

CLASS	Height	Length
Super Farm Stock Tractor	20"	18"

Drawbars must be rigid in all directions. All drawbars must be parallel to the ground.

All drawbars and hitching devices will be steel in all weight classes.

All vehicles must meet the following: Drawbars to be a minimum of 2 square inches total material (steel) at any point. Any pin will be a minimum of 7/8". Drawbar must be equipped with a steel hitching device not more than 1-1/2" x 1-1/2" square (1-1/2" round stock), and with a 3" round hole, maximum of 3-1/2" round hole.

No portion of vehicle may interfere with sled, chain or hook during a pull or while being hooked or unhooked.

Area 6" wide and 12" high immediately above the drawbar must be free of all obstructions (including weights, wheelie bars), for ease of hooking and unhooking.

Drawbars and wheelie bars are bit to be connected.

No trick hitches, no cam type ends. Drawbar distance from the center of rear axle cannot change during pull.

All tractors required to have a tow hitch on the front of the vehicle. The hitch can extend a maximum of 6" ahead of the further most front portion of the vehicle, (hitch will not be counted in length when measuring vehicle). The hitch must have a 3" diameter hole, preferably positioned horizontally and strong enough to push or pull the vehicle at its heaviest weight. The device is to be used for no other purpose.

## **Clutches, Flywheels and Automatics**

All tractors must have a safety blanket SFI 14.2. The blanket should have a 6" overlap. Straps must be 2" wide, with not more than 1" spacing between straps. Straps to be fastened forward and to the rear of clutch/flywheel assembly. All

straps must be securely fastened, and the blanket must be secure against the rear of the block.

The flywheel, clutch and pressure plate cannot have any gray cast metal in their components. The flywheel may be either steel or aluminum. Pressure plate, floaters, and other clutch components must be steel. The clutch must be inspected and be approved. If during the year the puller replaces clutch components, the clutch shall be SFI approved or reinspected.

#### Chassis

All tractors shall have wide front axles. Front wheels shall track within the rear wheels.

## **Engines**

Shielding on all farm-stock in line engines will be from sheet metal (hood) to 2" below center of crankshaft throw and be securely fastened. They may be louvered, but no expanded metal. They must be 0.60" thick and made of steel or aluminum.

Starter motors, fuel filters, oil filters and fuel injection pumps may be used as shielding. Shielding may cover or pass behind starts or fuel pumps.

All Super Farm Stock diesel engines will be required to install a manual three (3) way dump valve with return back to the fuel tank. This valve must be located ahead of the injection pump, and manually controlled from the operator compartment.

All ether bottles (starting aids) must be placed outside of the engine compartment.

All blow-by tubes must exit forward of rear tires. Engine crank venting: All engine crank case venting "blow-by tube" must be vented below the head of the engine and extended down to the engine pan. All pulling vehicles must be equipped with a dead man throttle. All throttles working in a forward-rearward direction shall be closed in the rearmost position. No hydraulic throttle linkage allowed. Just be positive, two-way, mechanical linkage. All foot throttles must have a toe strap.

All diesel engines must have an external visible return to idle spring on fuel injection pump throttle arm.

A bolt in the crankshaft to hold damper pulley is required.

Engines used in truck by manufacturer are classified as automotive.

#### **Exhaust Systems**

All exhausts must discharge vertically. Height to be a minimum of one foot above the bend in the pipe which discharges vertically measured from the top of the pipe to bottom of the bend. All exhaust pipes must be securely attached. Vertical is defines as being within 10 degrees (with 5 degrees variance), in any direction of being in plumb. Rain caps may not be used. No megaphone pipes allowed.

Turbocharged engines must have two (2) 3/8" grade 5 bolts in vertical position of exhaust pipe(s). Bolts to be installed 90 degrees to each other, within one (1) inch of each other.

#### **Fuel and Fuel Containers**

All kill switches must be mounted independent of drawbar and/or wheelie bars

All pulling vehicles must have an air shutoff, in working order at all times. Track official and/or tech inspectors must have the option of checking kill switches, as many times as they feel is adequate at any event.

The kill switch in all Super Farm-Stock tractors must be located in the rear center of the vehicle (maximum of 6" off center in any direction) 48" above the point of hook.

On all diesels, the kill switch must activate the air shutoff required on all diesel engines.

A cable may be used for this purpose, but must have positive type enclosed cable for the air shutoff. The cap must have spring loaded closing mechanism. Systems to be deemed acceptable must at least prevent building of boost. It is recommended that a basket/seal arrangement be used to more effectively shut off air flow. Door or rain cap-type air shut-offs (no butterfly type) will be required on all selfignition engines with a separate control for driver. Control for driver not to be same as for sled.

The breakaway kill switches must have attached to them a minimum of 1/8" cross-sectional thickness. The cable from the sled will be attached to this ring.

Portion of the kill switch and mounting bracket(s) must be able to withstand 32 pounds of pull per switch when pulled independently or collectively.

Kill switch ring must be secured with a single nylon tie wrap (1/8"). The tie wrap must be broken for a repull. Addition: Competitor will be responsible for replacing the kill switch mechanism and securing the tie wrap once the kill switch is checked by tech official.

If vehicle has a kill switch or shutoff located in legal position, and during the pull it is pulled and the nylon strap breaks, and the presiding judge inspects, and kinds switch capable of operating properly under normal conditions, the vehicle will be allowed to repull immediately or drop six positions. Decision to drop Fire suits must be made before the vehicle leaves the track.

It is the puller's responsibility to see that an official check the switch before leaving the track.

All ignition engines must have a bar type master switch for all motors in working order within easy reach of driver.

All diesel engines must have a fuel shutoff calve control within easy reach of the driver (your normal fuel shutoff of diesel pump). All diesel engines must be equipped with an emergency shut down air shutoff at the air intake, which can be utilized from the tractor seat.

## Safety

If residing official and tech official feel that a vehicle is unsafe, they have the right not to allow the vehicle to pull.

All pulling vehicles must be equipped with a minimum 2lb. dry powder type fire extinguisher, fully charged, in working condition and convenient to operator. It must also be fastened with a quick release latch. All drivers must wear helmets. All helmets must be SFI approved. Loss of helmet is disqualification. All helmets must have chinstrap fastened while pulling.

All drivers in all divisions will be required to wear a 360degree neck collar meeting SFI spec 3.3 or a Hahn's device. Fire suits (jacket and pants), fireproof shoes and gloves and face sock will be mandatory for all drivers. Fire suits must meet the following requirements: All competing drivers at all events are required to wear a minimum protective clothing of SSFI 3.2 A-1 fire suit.

A qualified competitor must be seated in or on the vehicle when his/her engine or engines are being started and running and have complete control of the vehicle at all times. Only when the vehicle is hooked to the sled can the driver leave the seat with the engine running.

A reverse safety light system is required on all pulling vehicles. A white light automotive quality minimum 2" in diameter must be mounted directly above or below the safety kill switch at the rear of the vehicle. A light in the driver's compartment must be operated off the same system. Both lights are to be activated by a lever such that it will be lit only when the vehicle is in reverse.

All pulling vehicles must be equipped with a starter interrupter on the gearshift or on the clutch pedal, which will allow starter engagement only in a neutral gearshift position.

#### **Seats and Fenders**

All tractors must have a strong and rigid seat; all tip seats must be securely fastened while pulling. All seats must have side rails that are minimum 4" above the edge of the seat, must extend a minimum of one-half the distance from the back of the seat to the front edge, minimum strength equivalent to ½" pipe. If fenders are 6" or greater above the seat, and are 6" less from the seat, no seat side rails are required. Seats will be thoroughly inspected by officials.

All tractors must have a shield between the driver and the tire, (not necessarily fender), to consist of a solid barrier between driver and any part of the rear tires to be able to sufficiently support weight of the driver. The barrier must be minimum of 6" wide at the bottom, increasing to a minimum of 36" wide at the top and the barrier must curl a minimum of 6" from vertical out over the tire in the same configuration as the tire.

Fenders or tire shields must be constructed so that when the driver is seated, and the hands are in the wheel, he/she cannot touch the rear tire with any part of his/her body.

#### **Stabilizer Bars**

Stabilizer bars (wheelie) are required. The drawbar and drawbar assembly will not in any way be attached to the stabilizer bar assembly. The stabilizer bars will extend past the rear most part of the rear tires and be no more than 10" off the ground.

## **Turbochargers**

All turbochargers not under the hood must be completely shrouded except for inlet and exhaust pipes, with steel 0.060 or thicker. Turbochargers under fiberglass hoods must be completely shrouded with 0.60 metal under the area of the fiberglass, except for the inlet and exhaust pipes.

On all pulling vehicles the tubing on the pressure side of a turbocharger to the intake must be under the hoods or side shields to be bolted or strapped securely.

#### **Tires**

Contests are open to pulling vehicles with rubber tires. No four-wheel drive tractors allowed. No dual tires, tire studs or chains permitted. All power must be transmitted through the wheels.

## Tire/Rim Safety Warning

A tire/rim assembly may burst with explosive force causing serious injury or death if:

- 35 psi cold inflation pressure is exceeded.
- The rim is welded without the tire first being removed.
- The tire is drilled or screwed onto the rim.

## Weights

Weights must be securely fastened and no transfer of weights while the vehicle is moving will be allowed. Weights must not extend rearward beyond rear tires for tractor classes.

Any ballast lost while hooked to the sled will be cause for disqualification. If weights touch the ground although they may still be attached to the pulling vehicle, vehicle will be disqualified (internal breakage accepted).

#### Rollover Protection Device

A rollover protection device is required on all tractors. Roll cages will be 1-5/8" minimum in diameter with 0.120" wall. They will consist of a minimum of two (2) loops and two (2) braces which attach to the main structure. A 5-point harness seat belt will also be required. No exhaust tubing is allowed in the construction of rollover protection device

## **SECTION 8**

## Econo-Modified Tractor Specific Rules

Refer to Section I and II for General and Safety Rules

#### **Engine Components**

1. One V-8 cast iron production automotive engine block built by the original manufacturer allowed. The engine must have a cubic inch measurement not exceeding 380 cubic inches for small block engines and 475 cubic inches for big block engines. The only allowable engines are listed below:

Class Engine Manufacturer

General Motors Chrysler Ford

Small Block 283, 327 318, 340 302, 351W

350, 400\* 360 351C

Big Block 396, 427 383, 400 429, 460

454 440 460

- \*must be de-stroked to fit maximum cubic inches
- 2. Only steel connecting rods are allowed. No other rods are allowed (including aluminum and titanium).
- Roller cam and solid lifters.
- 4. Max RPM is 8000 for Small Block.

#### Heads

Vehicles may use any cylinder head except Hemi and aluminum.

#### Harmonic Balancers

Harmonic balancers must be approved or shrouded with  $\frac{1}{2}$  steel no more than one inch (1") from the balancer in any direction of rotation and must be securely fastened.

#### **Fuels**

Any fuel allowed, no oxygenated, no alcohol, no nitro

#### **Fuel Delivery**

Fuel must be delivered through a carburetor with a maximum of four (4) barrels. Single Carb. No injection system of any style or any turbo charging or supercharging will be allowed.

#### **Maximum Tractor Weight**

Maximum tractor weight for the classes is as follows:

Small Block 5400 pounds

Big Block 6000 pounds

Weight maximums include the driver, vehicle full of fluids (oil, fuel, water, etc.) and deemed ready to compete. A minimum 200 pounds of moveable weight is recommended. No tarp straps will be allowed to secure weight.

### Rear Ends/Transmissions

- 1. Tractor-style only rear ends and transmissions. No additional gearboxes allowed.
- 2. All tractors must be equipped with automatic transmissions.
- 3. Flywheel inspection cover must be in place.

### **Body Components**

- 1. Tractors must have matching hood and grill. Hood and grill components are not required to match the rear end of the tractor.
- 2. No portion of a modified tractor may exceed fourteen feet (14') forward of the center of the rear end.

### Tires/Rims/Wheels

- 1. Econo-Modified Tractors can operate with rear tires maximum size 18.4 x 38.
- 2. No radial tires allowed.

## Section 9

## SUPER FIELD TRACTOR RULES

All Vehicles Must comply to "General and Safety Rules"

- 1. Max OEM cubic inch 466 @ 3200 RPM, 466 504 OEM cubic inch at 2800 RPM (ie- Case 504).
- 2. Max tire size 20.8 X 38. Cut tire optional.
- 3. OEM stock head for that model or series of engine.
- 4. OEM stock intake & exhaust manifold (spacers allowed 1" maximum).
  - 5. Water Injection & Ice boxes NOT permitted.
  - 6. Any MM A pump (Any pump –P or less)
- 7. Stock out of the box 3LM-466 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-volt receptacle on back of tractor. Plug in must be within 12" of Kill Switch for easy access.
  - 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 steel fy wheel, steel clutch components & clutch blanket.
  - 11. Tube frames allowed
  - 12. Fuel: VP DX fuel mandatory.
  - 13. Test ports mandatory.
  - 14. Max weight 8,200 lbs

## **Section 10**

## LIGHT LIMITED SUPER STOCK Tractors

#### **Engine**

- 1. Blocks and crankcase shall be the same manufacturer or factory replacement.
- 2. Engine must match brand of tractor.
- 3. 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.

- 4. A 1% tolerance will be given on cubic inch limitations to allow for normal engine wear.
- i. All engines will be checked for cubic inch before the first pull.
- 5. No V-8 Engines permitted.
- Maximum of 315 cubic inches for twin turbo charged diesel engines. Intercoolers allowed. No MAF enhancement.
- 7. Maximum of 410 cubic inches for single turbo charged diesel engines. Intercoolers allowed.
- 8. Maximum of 470 cubic inches for single turbo charged diesel engines. No intercoolers allowed.
- 9. Maximum of 370 cubic inches for single turbo charged alcohol engines. No intercoolers allowed.
- 10. Cylinder heads must be the OEM manufacturer casting for said tractor and engine block or factory replacement block at the time of manufacture. Original casting must be

retained. Porting and polishing of the original ports is allowed.

Modifications to the cylinder head(s) to accept for billet, casted, recast, molded or any other kind of insert is NOT allowed. Cylinder heads limited to two valves per cylinder. No overhead camshafts allowed.

- 11. Turbocharger(s) shall not exceed a 3" inlet and a 4" outlet measured at the face of the wheels. No "step down" intake housing, exhaust housing or wheels of any kind allowed. The intake wheel and exhaust wheel must protrude into the maximum allowed inlet and outlet dimensions at least 1/8". No secondary source of air and no slots of any kind allowed. Housing slots must be permanently disabled by being welded shut. No temporary inserts or plugs allowed.
- i. No MAF enhancement on larger than 310 alcohol tractors, all plugs will be welded non-removable.
- ii. Diesel and less than 310 cubic inch alcohol single turbo can run MAF enhancement.
- iii. Allow diesel only 315 and under 2 (3.4"x 4 intake) chargers. No MAF enhancements.
- 12. Turbocharger(s) must be under stock hood or shrouded end to end and 360 degrees around with .060" steel or heavier. Turbocharger(s) must also be shrouded if under a fiberglass or plastic hood.
- 13. Use of supercharger(s) is not allowed.
- 14. 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.
- 15. No secondary source of fuel (liquid or gas) or oxygen enhancer allowed.

- 16. Water injection allowed with oil lubricant only. No additives allowed in injection water. Water will be subject to testing.
- 17. Exhaust must exit upward. Exhaust must have two (2) 3/8" bolts mounted in a cross pattern as close to the turbocharger as possible to prevent broken parts from exiting. No rain caps or curved pips at outlet allowed. Exhaust pipes must be securely fastened to tractor.
- 18. Harmonic balancer must be shielded with at least 1/8" metal underneath the front of the block and secured to the frame with four 3/8" bolts.
- 19. Turbo charged engines are required to have one (1) cable that must surround the engine block and head. This cable must be placed between the first and second cylinder through exhaust manifold port area. Cable must be a minimum of 3/8 in thickness. Cable must have a minimum of two (2) clamps at the slice. Cable must have approximately 4 inches of slack.
- 20. Fuel system must have manual three-way dump valve installed ahead of the injection pump. To be operated by the operator from the driver seat.
- 21. Must have "Dead Man" throttle with two return springs that automatically returns to idle when released by operator.
- 22. No mechanical fans allowed.
- 23. All tractors using a clutch will be required to have a SFI SPEC 1.1 or SFI SPEC 1.2 steel plate or steel billet flywheel. The flywheels must be made of steel with the following mechanical properties: Tensile strength 60,000 psi. Yield strength 40,000 psi. if aluminum is used it also must be SFI SPEC 1.1. Positively no gray cast metal allowed in any flywheel and clutch component.

- 24. The flywheel, clutch and pressure plate components on all vehicles in all classes must be SFI approved and numbered components. The flywheel, clutch and pressure plate components on all vehicles in all classes are subject to spot inspection.
- 25. Kill switch Diesel engines must have guillotine type air shutoff on inlet of atmospheric turbocharger. Gas/Alcohol engines must disable both ignition system and fuel supply if electric. This must be operated from the rear of the vehicle so the sled can shut the vehicle down.
- 26. The kill switch on all tractors must be located in the rear center of the vehicle (maximum of 6" off center in any direction), approximately 40" above the point of hook.
- 27. On a diesel, the kill cable must activate the air shut-off required on all diesel engines. A cable may be used for this purpose, but must have positive type enclosed cable for the air shut-off. The cap must have spring loaded closing mechanism. System to be deemed acceptable must at least prevent building of boost. It is recommended that a gasket/seal arrangement be used to more effectively shut off air flow. Door or rain cap type air shut-offs (no "butterfly" type) will be required on all self-ignition engines with a separate control for driver. Control for driver not to be same as for sled. No electrical operated air shut-off.

#### Chassis

- 28. Maximum length 13 feet. Measured from center of rear axle to forward most point. Excluding tow hook.
- Maximum wheelbase 114".
- 30. All tractors must have a wide front end.
- 31. OEM tractor rear end and transmission housings.
- 32. Component chassis may be allowed with approval of Officers.

- 33. All tractors must have front axle skid plates (skis specs below).
- i. 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 plate surface to be a minimum of 4 inches wide and 12 inches long with a minimum 6 inch curve when measured from the front most part of the rolled edge.

or

ii. Front axle support to be made of 2.00" x .095" chrome moly tubing or 2.00" x .120" mild steel tubing or same material as tractor frame rails. Front axle support

should connect to each frame rail in line and extend toward front of tractor. Front skid/front axle support should be strong enough to support front end weight of tractor. Support should be a maximum of 4 inch ground clearance.

NOTE: Skid plate must be able to support the weight of the front end when checked with a jack. Maximum of 4 inch ground clearance.

34. All tractors must either run safety tie bars mounted to the rear axle housing with at least four (4) axle housing bolts and extending forward to flywheel area and fastened to side of block or main frame with at least two (2) 5/8" bolts, or a one piece frame extending from front of tractor to rear of axle housing mounting bolts.

Tie bars or frame must be sufficient strength to support weight of tractor with the bolts used to split the tractor removed.

35. All safety blankets must be on the inside of tie bar and tie bar must be fastened forward of the rear of the engine block.

36. All tractors must utilize a roll cage and must have a five point driver restraint harness and driver seat mounted to the roll cage structure, independent of the tractor chassis. The five-point restraint must be a quick-release design and be securely fastened during competition. Failure to use the restraint system will be grounds for disqualification. The following SFI specs will apply: SFI 47.1 for 6,001 lbs to 10,000 lbs classes (3 Bar). Front diagonal braces on all roll cages must be shielded with a minimum of .060 steel or aluminum on the inside of the driver's compartment to prevent any part of the competitor's body being caught upon exit.

SFI Spec 45.1 roll cage padding is recommended in the head and shoulder area of the roll cages.

- 37. All vehicles with roll cages are required to have a quick release, removable or swing away steering wheel. Note: For ease of extraction of driver in event of injury.
- 38. All tractors must have a strong and rigid seat; all tip seats must be securely fastened while pulling. All seats must have side rails that are a minimum of 4" above the edge of the seat, must extend a minimum of one-half the distance from the back of the seat to the front edge; minimum strength equivalent to 1/2" pipe. If fenders are 6" or greater above the seat, and are 6" or less from the seat, no seat side rails are required. Seat will be thoroughly inspected by officials.
- 39. Stabilizer bars are required (no wheels allowed). The drawbar and drawbar assembly will not in any way be attached to the stabilizer bar assembly. The stabilizer bar must extend a minimum of 32 inches behind a line drawn from the center of the wheel to the ground. Pad must not be more than 10 inches off the ground before competition. The stabilizer pad must be a minimum of 5 inches square, with a minimum of 20 inches allowed from the outside of one pad to the other. No crossbars between stabilizer bars allowed behind point of hook.

- 40. All tractors in addition to stabilizer bars, must have a brace that extends vertically 12" from rear most tip of skid pads. There must be a support brace extending inward to frame, axle or top of stabilizer bar arms. Materials used must be of minimum strength of materials used for stabilizer bars. Design and material must withstand severe impact of sled. Vertical brace should extend rearward a minimum of 2" from the radius of rear tire.
- 41. Shielding on all tractors will be from sheet metal (hood) to 2" below bottom center of crankshaft throw, and be securely fastened. They may be louvered, but no expanded metal. All tractors that require tools for the removal of side shields must be equipped with an onboard fire control system. System must place one nozzle on each side of engine, inside the engine compartment. Not to be attached to the sheet metal.
- 42. All tractors required to shield all rotating mass mounted to front of crankshaft 360 degrees from front of engine block to inch in front of rotating mass. Shield to be from frame rail to frame rail by a minimum of .125 steel or aluminum, and fastened to frame on each side by a minimum of two evenly spaced bolts (3/8 inch Grade 5 minimum). The remainder of 360 degrees shield will be standard side and hood shielding. NOTE: Shield may be notched to allow belt to pass through and beneath frame to drive fuel or oil pump.
- 43. All inline engines are required to have an additional inner side shield consisting of .125 (1/8) inch thick steel or titanium or .250 (1/4) inch thick aluminum inside the current .060 inch steel or aluminum side shields with a minimum of 1/2 inch air gap. This shield is independent of the current side shield and must be attached to the vehicle chassis (frame) with a minimum of 5/16 fasteners at both ends and center on the bottom and to the engine block at both ends (bolted solid or with a length of 5/16 chain) at deck height on the top. This shield must extend from the bottom of the

head to the centerline of the crankshaft and extend the full length of the block on each side of the engine.

- 44. All tractors that utilize tube ladder-type frames must be covered on outside with steel or aluminum .060 thick.
- 45. Side shields must be mounted independently of the engine block. Motor mount, block saver plate and header mounting or chassis mounting is acceptable.
- 46. Fenders or tire shields must be constructed so that when the drivers is seated and the hands are on the wheel, they cannot touch the rear tire with any part of their body.
- 47. All tractors must have a shield between driver and tire (not necessarily a fender), to consist of a solid barrier between driver and any part of the rear tires sufficient to support weight of driver. The barrier must be a minimum of 6" wide at the bottom, increasing to a minimum of 36" wide at the top and the barrier must curl a minimum of 6" from vertical out over the tire in the same configuration as the tire.
- 48. Metal deflection shield between driver and engine from top of hood to top of torque or trans housing or clutch housing from side shield to side shield. This also serves as a flash fire shield.
- 49. Vehicle must have a complete firewall with no holes except for controls. Holes not to exceed 1/2 inch larger than control.
- 50. Starter motors, fuel filters, oil filters and fuel injection pumps may not be used as shielding. Shielding may cover or pass behind starter or fuel pump.

#### **Hitches**

51. All tractors regardless of division, must meet the following: Drawbar to be a minimum of 2 1/2 sq. inches total material (steel) at any point. This will include the area of the

pin with the pin removed. Any pin will be minimum of 15/16". Drawbar must be equipped with a steel hitching device not more than  $1\ 1/2$ " x  $1\ 1/2$ " square ( $1\ 1/2$ " round stock); and with an oblong shaped hole  $3\ 3/4$ " long and 3" wide.

- 52. Hitch will be no shorter than 18" measured from the center of the rear axle to the hooking point.
- 53. Maximum hitch height 20".

#### **TIRES**

- 54. Maximum tire size 30.5 X 32
- 55. Minimum tire size 18.4 X 38 Ag tires or old-style pullers 24.5s or 30.5s are allowed.

#### **FUEL**

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

## **SECTION 11**

## Super 466 Light Limited Pro Stock This is strictly a diesel class only

- 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.
- 2. Tractors must have grill and hood in place as intended by manufacturer.
- Tractors must have stock block, agricultural type block, OEM replacement block. No automotive blocks permitted. Maximum of 8 cylinders permitted.
- 4. Maximum wheelbase is 114" and a maximum length is 13 feet from the center of the rear axle to forward most part of the tractor.
- 5. All turbocharged engines on Super Stock Tractors will have one cable totally surrounding the engine block and head. The cable will consist of 3/8-inch 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 two
  - (2) clamps at all splices.
- 6. 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.

- 7. 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 0.125 aluminum or steel fastened to the frame on each side by two evenly spaced bolts. (3/8-inch Grade 5 minimum).
- 8. All tractors are required to have an approved bell housing blanket that meets the following specifications: 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.
- 9. No four-wheel drive tractors will be permitted.
- All tractors with a competition weight of 7,000 pounds to 10,000 pounds will require a 47.1 SFI rollover protection.
- 11. Maximum weight permitted 8,500 pounds.
- 12. Maximum cubic inch limit is 466.
- Maximum tire size is 24.5 X
   32,18.4x38,20.8x38,25.4x31 . Cut tires permitted.
   Bias or Radial tires permitted. Max square inch 440"
- 14. OEM stock head for that model or series engine permitted.
- 15. Components are not permitted.
- OEM rear-end, transmission, engine must be in stock location, bolted and secured to OEM chassis.

- 17. Engine cannot move independent or rearend/transmission housing(s).
- 18. Stock transmission housing or manufacturer's replacement and stock final drive housings or manufacturer's replacement.
- 19. Chassis and frame must remain stock from rear of engine block to rear of tractor.
- 20. Tie bars are mandatory or full frame must be mounted rigid to engine, transmission, and final drive housings.
- 21. OEM stock intake and exhaust manifolds for that model or series engine permitted.
- 22. Water injection permitted.
- 23. No precooling for after cooling of intake air allowed, no ice allowed on pulling vehicles. Only non members with intercooling weight must minus 300 pounds
- 24. Overhead cams are not permitted.
- 25. Fuel Systems: Up to P7100 series pump allowed (2 5/8 inch" W x 9 9/16" L x 8 3/16" H main pump body), only one plunger per cylinder. Diesel and biodiesel only. No electronically controlled fuel systems allowed.
- 26. Closed system air bag on front suspension with no control from driver's seat
- 27. Drawbar and Wheelie bars are not to be connected **Turbos**:
  - 11a. Exhaust housing shall be no larger than 3 X 4 inches.
  - 11b. Turbine wheel must protrude into housings.

**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. Turbo rule effect tell 2020

**Exhaust:** All turbine wheel blades to protrude into four-inch bore. All air must exit through 4" opening.

Turbine housing to be no larger than four inches at intersection of turbine wheel face and tip diameter. Exhaust housing will be measured at intersection of turbine wheel face and tip diameter. Wheel fins must protrude into housings and have same number of fins on both wheels. No waste gates will be permitted.

## SECTION 12 Work Stock Rules

#### General

- Weight limit is 10,000 lbs. Maximum, with driver. If over 8,500 lbs. you may run at an adjusted hitch height per the discretion of NSPA officials.
- 2. Vehicle must have a valid state registration and be street legal
- 3. Draw bars are NOT allowed
- 4. Must be street driven, can be trailered in
- 5. No Utility beds, fuel tanks or toolboxes
- 6. General rules apply
- 7. Must have a helmet and fire extinguisher

#### Hitch

 Hitch height 26 inches for 8500 lbs. maximum weight 24 inches for 8501 lbs. to 10,000 lbs.

#### Turbo

- 1. Stock appearing required for turbo
- 2. S472 or smaller turbo

#### Fuel

- 1. Single fuel pump
- 2. T4 Turbo 472

#### **Drive line**

1. Drive line loops required for all members, If they pull for the first time not required but if

they pull more than once must be on the pickup.

## **SECTION 13**

## 2.6 Pro Street Diesel Class

#### **Following PPL Rules**

- 1. Maximum weight 8000lbs
- 2. 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 the sled.
- 4. Maximum cubic inch 460. The engine must be OEM locations for the body used. No after market blocks permitted. Engine must have 3/8 cable surrounding #1 and 32 cylinders and must pass through the manifolds. 2 cables at splice with 4-6 inches of slack.
- 5. The 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. The head must retain factory OEM valve angle. No deck plates permitted. Side draft and aftermarket intake manifolds are allowed.
- 6. Hook point to ne no closer than 44" of centerline of rear axle. Maximum hitch height of 24" with a minimum of 3.75" X 3" opening. A hitch must be stationary in all directions. The hitch must be frame mounted. The use of Reese style hitches is prohibited. The hitch must be centerline of rear axle or behind. The 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 the centerline of the rear axle. The adjusters must go down from the 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) allowed. The 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.
- 9. Front hanging weights are allowed, not to exceed 60 inches forward from the centerline of front axle. Ballast may be added to the bed of truck but must be securely fastened.
- 10. All trucks must have at least six inch wide u-joint shields around the rear u-joint constructed of at least 5/16 inch steel or 3/8 inch aluminum that will safely contain the u-joint and the end of the driveshaft. All shields must be securely mounted to vehicles. 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 the driver. A complete OEM firewall is required.
- **12.** All drivers must have a valid drivers license and full SFI fire suit including a helmet. Seatbelt/restraint must be worn.
- **13.** The complete OEM floor pan is mandatory. Vehicles must maintain a complete firewall. Additional gauges and pillar pods are permitted.
- **14.** Hand throttles permitted. Diesel fuel only (see fuel pages for specs). No propane or NO2or any other oxygen enhancers allowed.
- 15. Maximum of one P pump up to 7100 allowed. 13MM plunger limit. Ag governors permitted. The use of multiple high pressure common rail fuel pumps is legal. Clarification Fuel Systems Maximum of one P7100 pump (2 5/8"W x 9 9/16"L x 8 3/16" H main body pump), limited to one plunger per cylinder. The use of multiple high pressure common rail fuel pumps is allowed. Ford Power stroke 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 and front ends required. Must have come factory in a one-tone or smaller version.

  Clarification OEM differential required. Must have come factory in a one ton or smaller.
- **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 switches (rain cap or guillotine) must shut off air to diesel engines. The switch will be securely mounted to the back of the vehicle. A 2 inch or bigger solid ring must

be attached to the end of switch. Ring must be zip tied to switch bracket. The switch must also be able to be activated in the cab while the driver is secured in the vehicle.

- **19.** Hydraulic steering permitted.
- 20. Suspension The upper mounting point for strut assembly must be in the 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 and lowering of vehicle height with suspension modifications is permitted but must be bolted 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 a maximum size of 35 x 12.50. no studded tires or tire chains. No alterations to the tires permitted. 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.
- **24.** Non-OEM transmission prohibited. Aftermarket torque converters, valve bodies, and internal components are permitted.
- **25.** SFI bell housing and/or SFI blow proof bell housing or SFI blanket typ3e shield must be used.
- **26.** Water injection is prohibited.
- **27.** Air to air intercooler only. No ice or water permitted in the truck during the competition.

## SECTION 14 3.0 Limited Pro Stock Diesel

#### **Follow Outlaw and PPL Rules**

- **1.** Maximum weight 8000 lbs. (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).
- 3. The body must be OEM truck body. Beds must be covered. No flatbeds. The body must retain full metal, aftermarket hoods permitted. They must be closed and securely fastened while hooked to the sled.
- **4.** Maximum engine size will be 460 cubic inch. Engines must come from the factory in one tone or smaller diesel pickup truck. The engine must remain in stock location as intended by the manufacturer. Engines may be interchanged between manufacturers.
  - A. No aftermarket blocks permitted.
  - B. The head must be OEM or OEM one piece cast replica for that brand engine. No billet heads of any material. The outside dimensions of cylinder head must measure factory width and length. The head must retain OEM valve angle.
- **5.** Front of engine block can be no farther forward than 17" of center line of front axle.
- 6. The engine must have a cable surrounding block and head. Cable must be minimum 3/8" diameter located between cylinders #1 and #2. Cable must pass through 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. The 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 ½" total thickness minimum (width). Hitch point must be easily accessed. No "trick" type hitches permitted. The hitch must be stationary in all directions. The hitch must be frame mounted. The hitch must be mounted center line of rear axle of 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 the centerline of the rear axle. The adjusters must go down from the 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 further forward than centerline 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 1/8" inside the 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 of 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 the truck operated by the sled operator and also one to the cab of the truck. Kill switch will be securely mounted ti the back of the vehicle and have a 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 body pump), limited to one plunger per cylinder. The use of multiple high pressure common rail 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 a 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 alterations to DOT tires allowed. 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 front axle to forward most point and be securely

- fastened. No weights are allowed in cab of the truck. If wights are located in the bed of truck that are to be securely fastened tom 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 he .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 with 1/8" steel liner or 5/16" thick steel. Shied 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, ¼" of shaft may be visible.
- **26.** Fire extinguisher (2.5#) of fire suppression system, helmets-Snell 90 or better, SFI fire suit, head sock, gloves, shoes and seat belts required.
- **27.** No traction control permitted.

## **SECTION 15**

## **Pro Stock Diesel 4X4 TRUCK**

Weight - Maximum weight 7800 pounds.

**Body** - Trucks must remain stock appearing. Must have full size steel or OEM type body. The OEM chassis is mandatory. The engine must be in the OEM location for the body used. The vehicle must retain the full OEM chassis. Wheel tubs, back-half conversions, tube chassis, etc., are prohibited.

Engine - Maximum engine size will be 460 cubic inches. Engines must come from factory in one ton or smaller diesel pickup truck. Engine must remain in stock location as intended by manufacturer. No aftermarket blocks permitted. Heads must be OEM or OEM replica for that brand engine. Outside of cylinder head must measure factory width and length. Heads must retain OEM valve angle. Front of engine block can be no further forward than 17" of centerline of front axle. Aftermarket intake allowed.

Hitch - 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-degree angle from pivot point to hook point. No hitch supports or adjustors, if 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.

**Turbocharger** - The turbocharger is smooth faced intake housing, limited to a 3.6" inlet, (no map ring) with all air

entering through the 3.6" opening. Intake wheel must protrude 1/8 inch inside of opening.

**Exhaust** - 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" from the turbine wheel.

**Clutch/Flywheel -** No cast iron clutches or flywheels permitted.

**Fuel Safety** - Fuel safety kill and/or air shutoff must be installed on the rear of the truck. Kill switch will be securely mounted to the back of the vehicle and have a 2" diameter metallic ring to attach to the sled. No fuel lines or tanks permitted inside of the truck cab unless securely mounted in marine box.

Computer chips and boxes permitted.

**Fuel Systems** - Largest fuel injection pump allowed will be a P-Pump with only one plunger per cylinder.

(No Sigma pumps).

**Tires** – 34 x 18.00 x 15. Bar and cut tires permitted. Maximum tire size to be 112 circumferences. When inflated to 30 PSI with original bar, not to exceed 18 inches in width before cutting. Maximum of 4 tires permitted.

Water Injection - Water injection permitted.

**Weights** - Front Weight 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 truck, if in bed of truck, they are to be securely fastened to bed of truck.

**Fuel** - Fuel limited to diesel fuel. No alcohol, nitrous, propane or any oxygen enhancing agents allowed. **Drivetrain** - Drive train will consist of the following: Any front axle, and transfer case, any rea axle. No Planetaries permitted. OEM chassis only, no tube chassis permitted.

**Axle Shields -** Axle shields are required. Shield to be 0.60" 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.

**Bell Housing -** S.F.I. bell housing blankets and/or S.F.I. blow proof bell housing is required.

**Drive Shaft Loops -** All U-joints must be shielded 36. Degrees with 3/8-inch-thick aluminum or 5/16-inchthick steel. Shield will be 6" long minimum and centered on U-joint. Inside diameter of shield will be no more than 2" larger than U-joint. All intermediate shafts between the transmission and transfer case will be totally enclosed in 3/8-inch aluminum or 5/16-inch steel, 1/4 inch of shaft may be visible.

**Suspension -** Suspension modifications are permitted. Removable suspension blocks are permitted.

**Safety** - Fire extinguishers, helmets Shell 85 or better, S.F.I. fire suits, shoes and seatbelts are required. **Wheel base** - Maximum wheel base 158" and 102" maximum track width (outside tire to outside tire).

# SECTION 16 Super Street Diesel Class

**NOTE:** All trucks meet PPL 2.6 safety rules(Pro Street General Safety)

Weight - Weight class will operate at 8000 lb.

**Engine** - Trucks must have stock block, 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. Maximum engine size will be 460 cubic inches. Engine must come in one ton or smaller trucks. Front of engine block remain behind the grill.

Wheelbase – must be factory wheelbase and non-modified.

Fuel - No nitrous, propane or alcohol – Diesel ONLY.

**Water Injection -** Water injection is permitted in this class.

**Turbochargers** – Compound setups are limited to a 3.6 large turbo setup. Single turbo has no limit.

**Ballast** - Hanging weights allowed – Weights must not extend more than 60" from centerline of front axle (weights must be secure).

Hitch – Must have a drawbar. 26" Hitch height for 8000lbs., 24" hitch height for 8100lbs. Hitch hook point must not be less than 44" from centerline of rear axle/ 3" X 3.75" drawbar opening. Secondary hitches required. 200-pound deduction in weight for not having a safety hitch. Hitch must not exceed a maximum of 33-degree angle from pivot point to hook point. Reese style hitch allowed but must be reinforced.

**Suspension - Rigid suspension allowed.** 

**Drop Boxes -** Drop boxes, reversers allowed.

**Helmet** – 2015 or newer Snell 85 or better helmets required.

**Fire Suits -** S.F.I. fire suit required.

**Clutch/Fly Wheel** - No cast iron clutches or flywheels permitted.

**Bell Housing -** S.F.I. bellhousing blankets and/or S.F.I. blow proof bell housing required.

Drive Shaft Loops - All U-joints must be shielded 360 degrees with 3/8-inch-thick aluminum or 5/16inch-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. 4X4 trucks will have three loops per shaft, evenly spaced on driveline, 3/8-inch aluminum or 5/6-inch steel thickness, 2-inch maximum away from driveline. All intermediate shafts between the transmission and transfer case will be totally enclosed on 3/8-inch aluminum or 5/16-inch steel. 1/4 inch of shaft may be visible.

**Fire Extinguisher -** Fire extinguishers, helmets and seatbelts required.

**Exhaust** - Exhaust must exit straight up, minimum of cab height, with 2-3/8 inch bolts mounted in a cross pattern.

**Air Shutoff** - Air shutoff's required, consisting of one cable to the rear of the truck to be operated by the sled, and also a cable inside the driver's compartment.

**Kill Switch** - Kill switch will be securely mounted to the back of the vehicle and have a 2-inch diameter ring to attach the sled.

**Axle Shields** - Axle shields are required. Shield to be 0.060-inch thickness steel or aluminum. Shield not to be mounted to axle ends or hub bolts. A hole may be cut in ne to allow locking in of hubs.

**Tires -** 35-inch tire maximum height, tread width not to exceed 18 inches. Cut or sharpened tires allowed. Tires and wheels must stay in the center of the wheel wells as intended by the manufacturer.

**Fuel Injection -** Mechanical or electronic fuel injection permitted.

**Engine** - All engines will have a deflection shield, running the complete length of the block casting. Shield must be securely fastened and must be 0.060 inches thick.