

# 2018 Wagler Event + UCC Qualifier Sled Pull Rules

- based off rules for WDP

Sunday September 30th

9:00am - 11:00am: Registration for Sled Pull

11:30am: Sled Pull Drivers Meeting

12:00pm: Sled Pull Start

## STREET STOCK DIESEL TRUCK

- Weight: 8,200 lbs.
- Batteries: The batteries must be securely mounted and in the factory location.
- Body: The body must be the OEM truck body including the full bed floor. The body must retain full sheet metal. Metal aftermarket hoods are permitted. No fiberglass hoods. The hood must be closed and securely latched while the truck is hooked to the sled. The complete OEM firewall and complete OEM floor pan is mandatory. A factory installed pickup bed or commercial aftermarket flatbed must be installed.
- Brakes: Four-wheel hydraulic brakes are mandatory and functional.
- Chassis: 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.
- Cooling System: Radiators must be in stock location and be of at least stock size.
- Compressed Gases: Use of any compressed gases is prohibited. This includes nitrous, propane, or any other.
- Credentials: All drivers must have a valid state driver's license. Vehicle must have current registration and current license plates. Proof of insurance may be required.
- Driveline: OEM transmission and transfer cases are mandatory. They must have been an option on a one ton or smaller pickup.
- Driver Restraint System: The OEM restraint system is mandatory and must be worn.
- Engine: The engine is limited to a stock appearing, OEM compression engine, available from the factory in a one ton or smaller truck.

- Exhaust: All vehicles are recommended to be equipped to direct exhaust upward. The exhaust must exit rearward of the driver's compartment. Stacks exiting through the hood or fender wells are prohibited. 3/8 bolts installed.
- Fuel: The fuel must be pump #1, #2 diesel, or soy/biodiesel. Off road fuel is prohibited. Must be commercially available fuel.
- Fuel Injection Pump: OEM Fuel Systems only
- Harmonic Balancer: All engines turning more than 3500 rpm must be equipped with a harmonic balancer or dampener meeting SFI Spec 18.1.
- Hitch: The hitch must be a receiver style hitch. Reinforcements are permitted. Reinforcements must not extend forward of the center line of the rear axle. Trick hitches are prohibited. Trick hitches will be determined by the Tech Official. The hooking point must be the rear most point on the vehicle and must be rearward of the stock location of the tailgate. The hitch must be horizontal to the ground and stationary in all directions. Bumper may be notched or removed. The hitch's height from the ground may not exceed 24 inches. The hooking point must have a minimum of 3" x 3-3/4" inside opening for the sled hook. The hooking point must be a minimum of 44 inches from the center of the rear axle to the hooking point. The hooking point will be where the hook touches metal. That is the hooking point.
- Interior: A complete factory OEM interior, including dashboard, door panels, headliner, etc. is mandatory. Aftermarket seats are permitted but they must be fully upholstered. All factory controls, lights, windows, signals, wipers, etc. must be retained and in working order. The use of hand throttles is prohibited.
- Rear End: Non-OEM rear end housings are prohibited. The rear end housings must have been for a one ton or smaller pickup. Rear axle bolts must be covered by a cap or shield.
- Steering: The vehicle must retain the full, original OEM steering gear. The vehicle must retain the original OEM power assistance, if it was so equipped. Additional stabilizers are permitted. Non-OEM power assist methods are prohibited.
- Street Equipment: Complete headlight and tail light assemblies (all) are mandatory and must be operative and must be installed during competition. Complete OEM windshield and all other windows are mandatory. Windows must be able to operate per factory specifications; they must open or close by electric or mechanical means.
- Suspension – Front: The factory suspension configuration must be retained. The upper mounting point for strut assemblies must be in factory location. Adjustable caster/camber pillow ball mounts are permitted. The lower control arm may be strengthened provided factory

mounting points are maintained. The lower mounting point for the strut assembly may be modified for improved caster and camber. Strut tower braces, lower tie bars, sway bars, and limit straps are permitted. Traction bars and devices are permitted. Final decisions rest with the Tech Official.

- Suspension – Rear: An OEM style suspension is mandatory. Traction bars and devices are permitted. They must be bolted-on only; welds are permitted for attachment to the frame or axle housing. Traction bars, if installed, must have a chain or cable or some type of safety device mounted one foot (1') from the front support to catch the bar in case of failure. All OEM suspension mounting points must be retained and used. Sway bars, limit straps, and camber kits are permitted. Compression stops may be adjustable. All rear suspension must use at least one working shock absorber per wheel. Air bag spring assist is prohibited.
- Tires: All tires must be DOT approved street tires. 35-inch max on single wheel trucks. Cut tires are prohibited. No chains or studs. Tires and wheels of Dually trucks must run dual single wheels on front of vehicle. Dual wheels only on factory dual wheel trucks. 33-inch tire max on dual wheel trucks (rear tires)
- Transfer Case: Non-OEM transfer cases are prohibited. It must have been an option on a one ton or smaller pickup truck.
- Transmission – Automatic: Non-OEM transmissions are prohibited. Aftermarket torque converters, valve bodies, and internal components are permitted. Transmission brakes are prohibited. Any non-OEM floor mounted automatic shifter must be equipped with a spring-loaded positive reverse lockout device to prevent the shifter from accidentally being put into reverse. A functional neutral safety switch is mandatory. Vehicle must not start in gear. All transmission lines must be metallic or high-pressure type hose. All vehicles with engines running 4500 rpm or more and using an automatic transmission must be equipped with a transmission shield meeting SFI Spec 4.1 and must be labeled accordingly. A blanket type shield is permitted. It must be appropriately labeled as meeting SFI Spec 4.1 and it must extend from the rear of the engine block to the front of the tail housing with a minimum of six inch (6") overlap where it is fastened. All non-blanket shields must incorporate two (or one per manufacturers instruction) 3/4 " x 1/8" straps that bolt to the shield on each side and pass under the transmission pan unless the transmission pan is labeled as meeting SFI Spec 4.1. All vehicles with engines running 4500 rpm or more and using an automatic transmission must be equipped with a flex plate meeting SFI Spec 29.1 and be covered by a flex plate shield meeting SFI Spec 30.1.

- Transmission – Manual: Non-OEM transmissions are prohibited. A clutch meeting minimum SFI Spec 1.1 or 2.1 is mandatory on all engines running 4500 rpm or more. All manual transmissions must be clutch assisted. Sequential shifters are prohibited. All vehicles with engines running 4500 rpm or more and equipped with a manual transmission must have a flywheel shield labeled as meeting minimum SFI Spec 6.3 or greater. Applications for which an SFI Spec flywheel shield is not available may use properly attached SFI 4.1 or 4.2 blankets that completely cover the bell housing. It must be attached to the rear of the engine block and extend rearward to the transmission with a minimum of six inch (6”) overlap where it is fastened. All transmissions or clutch pedals will have a safety interlock switch so that the vehicle will not start in gear.
- Turbocharger: 2.5” stock appearing turbo with 0.200” map groove (no steps or angles, 2.5” before and after the map groove). A 2.550” slug will be used to tech the turbo to verify size. Turbo’s are allowed to be interchanged from different years, makes and models as long as they were offered from the factory on a 1-ton or less truck 6.4 Power stroke engines using the factory style twin turbos must use a stock size intake wheel on the atmosphere turbo (65mm).
- Water Injection: Water injection is prohibited. All system components must be removed from truck.
- Wheelbase: The vehicle must retain the original factory wheelbase and track width. Cab and chassis trucks may not exceed 172 inches center to center of axles. Front dual wheel spacers may be used only with accompanying positive-offset dually style wheels.
- Weights: Hanging weights will be permitted. No weight boxes. Suitcase weights ONLY. Weights must be on a vertical, removable mount in front of the bumper, not to extend further forward than 60” from the center of the front axle. Width of the weights is not to exceed 24”. All additional weights and ballast should be securely mounted in the bed or permanently mounted to the chassis. NO LOOSE WEIGHTS IN THE CAB OF THE TRUCK.

## **WORK STOCK DIESEL TRUCK**

- Weight: 8,000 lbs.
- Ballast: Ballast is permitted. Front hanging weight is permitted. No weights permitted in the cab of truck. No more than 60 in. from center of front axle.
- Batteries: The Batteries must be securely mounted can be in anywhere, but if in cab must be covered completely.

- **Body:** The body must be the OEM truck body including the full bed floor. The body must retain full sheet metal. Metal aftermarket hoods are permitted. Fiberglass hoods must be shielded on the underneath side with sheet metal or aluminum skin a minimum of .060 thick. The hood must be closed and securely latched while the truck is hooked to the sled. The complete OEM firewall and complete OEM floor pan is mandatory. A factory installed pickup bed or commercial aftermarket bed must be installed.
- **Brakes:** Front wheel hydraulic brakes are mandatory and functional.
- **Chassis:** 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.
- **Cooling System:** Must have a radiator and anti-freeze
- **Compressed Gases:** Use of any compressed gases is prohibited. (Nitrous or propane or any other)
- **Driveline:** An OEM transmission and transfer case are mandatory. They must have been an option on a one ton or smaller pickup.
- **Drive Shaft Loops:** Any U-joint that is visible from the side of the truck must be shielded to contain the U-joint and end of the shaft. Recommended to be at least six inch wide u-joint shields around the rear U-joint constructed of at least 1/4 inch steel or 3/8 inch aluminum that will safely contain the u-joint and the end of the rear shaft. All shields must be securely mounted to the vehicle. **Driver Restraint System:** The OEM restraint system is mandatory and must be worn.
- **Engine:** The engine is limited to a stock appearing, OEM compression engine, available from the factory in a one ton or smaller truck. Cubic Inch limit of 444 CI. Water pumps may be electric or factory. Electric cooling fans are permitted. No deck plate motors allowed.
- **Exhaust:** All vehicles must be equipped to direct exhaust upward. Hood Stacks are permitted. Two (2) 3/8 inch diameter bolts must be installed through exhaust pipe in a cross pattern within one (1) inch of each other and as close to the turbo as practical. This will be teched. Bolt heads welded to the pipe, or sheet metal screws to mimic this will be grounds for disqualification.
- **Fire Extinguisher System:** A fire extinguisher system is permitted, it must be securely mounted. All vehicles are recommended to have at least a 2 1/2 lb extinguisher with working gauge securely mounted within drivers reach.

- Fuel: The fuel must be pump #1, #2 diesel, or Soy/Biodiesel. Must be commercially available fuel. Fuel cells may be used in place of regular fuel tank. Can be mounted anywhere but the cab.
- Fuel Injection Pump: The fuel injection pump is limited to cylinder number specific (I.E. 6 cylinder pump on 6 cylinder motor). The use of multiple high pressure common rail fuel pumps or HPOPs are permitted. The P pumps that are allowed are the p3000 and the p7100. Ag governors are allowed. No Sigma or 12 cylinder pumps allowed.
- Harmonic Balancer: All engines turning more than 4500 RPM must be equipped with a harmonic balancer or dampener meeting SFI Spec 18.1.
- Hitch: The hitch may be a receiver style hitch, reinforcements are permitted. Trick hitches will be determined by the Tech Official. The hitch must be horizontal to the ground and stationary in all directions. Bumper maybe notched or removed. The hitch's height from the ground may not exceed 24 inches. The hooking point must have a minimum of 3 inch by 3 3/4 inch inside opening for the sled hook and can't go above the frame. The hooking point must be a minimum of 44 inches from the center of the rear axle to the hooking point. The hooking point will be where the hook touches metal. That is the hooking point. May have drawbar type hitch. No part of the hitch can be above the frame rails. Drawbar angle must not exceed 25° angle from the pivot point to the hook point.
- Intercoolers: Only air to air intercoolers are allowed. No types of water to air coolers, no spray bars or water injection allowed. No individual runner intakes manifolds allowed. (Example ZZ custom)
- Kill Switches: All trucks are required to have kill switch located on the back of the truck, located near the hooking point. On trucks with an electric injection fuel pumps it must have an electric shut off or disconnect for the injection pump on the back of the truck. For trucks with manual injection pumps they must have an air guillotine of the spring loaded type, no butterfly type to kill the air intake to the engine. It is recommended to have an air shut off on all trucks.
- Rear End: Non-OEM rear-end housings are prohibited. The rear end housings must have been for a one ton or smaller pickup pick up. Rear axle bolts must be covered by a cap or shield.
- Safety Equipment: All drivers must wear a helmet, and a SFI 3.2a approved fire jacket and long pants, not necessarily fire suit pants.
- Suspension - Front: The factory suspension configuration must be retained. The upper mounting point for strut assemblies must be in factory location. Adjustable caster/camber pillow ball mounts are permitted. The lower control arm may be strengthened provided factory

mounting points are maintained. The lower mounting point for the strut assembly may be modified for improved caster and camber. Strut tower braces, lower tie bars, sway bars, and limit straps are permitted. Traction bars and devices are permitted. Air shocks are prohibited. Must be an OEM front end housing. Final decisions rest with the Battle of the Bluegrass Tech Department.

- Suspension - Rear: An OEM style rear end is mandatory. Traction bars and devices are permitted, and welds are permitted for attachment to the frame or axle housing. The rear suspension may be solid. Air bag spring assist and air shocks is prohibited.
- Interior: Interior may be stripped with just a driver's seat and a dash. Hand throttles are permitted.
- Tires: The tires must be DOT street tires, 12.50X35 inch max. Cut tires are prohibited. No chains or studs. No duals allowed period. Four (4) Tires only. Transfer Case: Non - OEM transfer cases are prohibited. It must have been an option on a one ton or smaller pickup truck.
- Transmission - Automatic: Non - OEM transmissions are prohibited. Aftermarket torque converters, valve bodies and internal components are permitted. Transmission brakes are prohibited. Any non - OEM floor mounted automatic shifter must be equipped with a spring-loaded positive reverse lockout device to prevent the shifter from accidentally being put into reverse. A functional neutral safety switch is mandatory. Vehicle must not start in gear. All transmission lines must be metallic or high pressure type hose. All vehicles with engines running 4500 RPM or more and using an automatic transmission must be equipped with a transmission shield meeting SFI Spec 4.1 and must be labeled accordingly. A blanket type shield is permitted, it must be appropriately labeled as meeting SFI Spec 4.1 and it must extend from the rear of the engine block and extend rearward to the transmission with a minimum of six (6) inch overlap where it is fastened. All non-blanket shields must incorporate two,(or one per manufacturer's instruction) 3/4 inch by 1/8 inch straps that bolt to the shield on each side and pass under the transmission pan unless the transmission pan is labeled as meeting SFI Spec 4.1. All vehicles with engines running 4500 RPM or more and using an automatic transmission must be equipped with a flex plate meeting SFI Spec 29.1 and be covered by a flex plate shield meeting SFI Spec 30.1.
- Transmission - Manual: Non - OEM transmissions are prohibited. A clutch meeting minimum SFI Spec 1.1 or 2.1 is mandatory on all engines running 4500 RPM or more. All manual transmissions must be clutch assisted. Sequential shifters are prohibited. All vehicles with engines running 4500 RPM or more and equipped with a manual transmission must have a flywheel shield labeled as meeting minimum SFI Spec 6.3 or greater. Applications for which an

SFI Spec flywheel shield is not available may use a properly attached SFI 4.1 or 4.2 blankets that completely cover the bell housing. It must be attached to the rear of the engine block and extend rearward to the transmission with a minimum of six (6) inch overlap where it is fastened. All transmissions or clutch pedals will have a safety interlock switch so that vehicle will not start in gear.

- Turbocharger: T-4 mounting flange is the largest allowed. Turbos must be a smooth bore 2.6" turbo. No clipped wheels or step down covers. Billet compressor wheels are allowed. Inducer bore must be non-removable. All air must go through the 2.6" inducer bore. The wheel must protrude into the 2.6" bore 1/8 inch. Turbo will be checked with a 2.650 plug or internal calipers. Throat area of compressor cover may not exceed 5.5 inch diameter. The 6.4 Power Stroke engine may utilize the factory twin turbo configuration. The driver will be responsible for making turbo accessible for tech personnel to measure and inspect.

- Water Injection: Water injection is prohibited. All system components must be removed from truck.

- Wheelbase: 158" MAX wheel base unless OEM wheelbase is longer. Front dual-wheel spacers may be used only with accompanying positive-offset dually style wheels.

## **LIMITED PRO DIESEL TRUCK**

- Weight: 8,000 lbs.

- Chassis: The OEM chassis is mandatory. The vehicle must retain the full OEM chassis. Wheel tubs, back- half conversions, tube chassis are prohibited. Maximum wheelbase 158" and 102" maximum width (outside tire to outside tire.) Rigid suspension allowed. Hydraulic steering is allowed.

- Body: The body must be an OEM truck body, including the complete OEM floor pan and must retain complete OEM firewall. Complete bed floor, hitch is allowed to protrude thru the bed floor w/minimum amount of floor removed. No flatbeds permitted. The body must retain the full sheet metal, aftermarket steel hoods are permitted. The hood must be closed and securely latched while hooked to the sled.

- Engine: Maximum engine size will be 460 cubic inch. Engines must come from factory in one ton or smaller diesel pickup truck. Engine must remain in stock location as intended by manufacturer. Engines may be interchanged between manufacturers.

- o No aftermarket blocks permitted

- o Head must be OEM or OEM one piece cast replica for that brand engine. No billet heads



of any material. Outside dimensions of cylinder head must measure factory width and length. Head must retain OEM valve angle.

o Front of engine block can be no farther forward than 17" of center line of front axle.

o Engine must have cable surrounding block and head. Cable must be minimum 3/8" diameter located between cylinders #1 and #2. Cable must pass thru manifolds. Cable will have 4-6" of slack with a minimum of 4 cable clamps at splice.

o 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)

• Hitch: Hook point must be no closer than 44" of center line of rear axle, hitch height maximum of 26", with a minimum of a 3.75" X 3.0" opening. Hitch point must be easily accessed. No "trick" type hitches permitted. Hitch must be stationary in all directions. Hitch must be frame mounted. Hitch must be mounted center line of rear axle or behind. Hitch must not exceed a maximum of 25 degree angle from pivot point to hook point. No hitch supports or adjusters fastened to the rear axle housing shall be above the centerline of the rear axle. Pivot pin of drawbar can be no farther forward than center line of the rear axle. 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.)

• Turbocharger: The turbocharger is smooth faced intake housing, limited to a maximum of 3.0" inlet, (no map ring) with all air entering through the 3.0" opening. Intake wheel must protrude 1/8th inch inside of opening. Exhaust must exit straight up, with (2) 3/8" grade 5 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. Any single turbo (3.0" and larger in diameter) must have a minimum of 1/8" cable wrapped around turbo. Cable must wrap two revolutions around turbo, clamped by a minimum of two clamps at splice, or metal collars around intake with attaching 1/8" cables to exhaust housing, or kevlar lined turbo blanket covering the intake housing.

• Intercooler: Intercoolers allowed. Dumping or draining intercoolers without a catch pan within 100 feet of competition track is prohibited.

• Water Injection: Water injection is prohibited. All components must be removed from the truck.

• Air shut off must have a cable that goes to the rear of truck operated by the sled operator and also one to the cab of the truck. Kill switch will be securely mounted to the back of the vehicle and have a two (2) inch diameter metallic ring to attach the sled.

- Fuel System: Maximum of one P7100 pump, limited to one plunger per cylinder. The use of multiple high pressure common rail fuel pumps is allowed. Ford Powerstroke engine may utilize a second HPOP. Electronic fuel injection is permitted. A 3-way dump valve mounted before the injection pump is mandatory which can be operated by the driver while strapped in the seat. No fuel lines or tanks permitted inside of truck cab unless securely mounted in marine box.
- Fuel: Fuel limited to diesel fuel. No alcohol, nitrous, propane or any oxygen enhancing agents allowed.
- Tires: Must run DOT approved tire. Maximum tire height 35", no studded tires or chains. No alteration to DOT tires allowed. Dual rear wheels are permitted on rear axle only. Maximum of 6 tires.<sup>44</sup>
- Weight Box: Front weights must be no more than 60" from the center line of the front axle to forward most point and be securely fastened. No weights are allowed in cab of the truck. If weights are located in the bed of truck they are to be securely fastened to the bed of the truck.
- Drivetrain: Drivetrain will consist of the following: Any front axle, any transfer case and any rear axle. No planetaries permitted.
- Shielding: All U-joints must be shielded 360o with 3/8" thick aluminum or 5/16" thick steel. Shield will be six (6) inches long minimum and centered on u-joint. Inside diameter of shield will be no more than two (2) inches larger than u-joint. If aluminum is used on u-joint shield, and 1/8" insert will be put inside of shield at u-joint area six (6) inches wide. Axle shields are required. Shield to be .060" thickness steel or aluminum. Shield not to be mounted to axle ends or hub bolts. A hole may be cut in one to allow locking in of hubs. Trucks will have three (3) loops per shaft, evenly spaced on driveline, 3/8" aluminum or 5/16" steel thickness, two (2) inch maximum away from driveline. All intermediate shafts between transmission and transfer case will be totally enclosed in 3/8 "aluminum or 5/16" steel, 1/4" of shaft may be visible.
- Transmission - Automatic: The use of torque converters, automatic shifts, etc. will be permitted. All vehicles using an automatic transmission must have an SFI Spec. 29.1 automatic transmission flex plate. No cast iron is permitted. All vehicles using an automatic transmission will use a positive gear lockout. All automatic transmissions must have an approved safety blanket over the torque converter area. A full length safety blanket is required. Automatic transmission shield or tractor blanket must meet SFI Spec. 4.1
- Transmission - Manual: No cast iron clutches or flywheels permitted must, be SFI approved. SFI bellhousing blankets and/or SFI blow proof bellhousing required.

- Fire Extinguisher: Fire extinguisher (2.5#) or fire suppression system, Helmets-Snell 90 or better, SFI fire suits, head sock, gloves, shoes, and seatbelts required.
- Kill Switch: All vehicles will be required to use an air shut off switch. Air shut off must be operated from driver' seat. Air shut off will consist of cap or guillotine that closes off air into the engine. The cap or guillotine will be spring loaded. Butterfly systems not permitted.

## **OUTLAW TRUCK**

- **2WD Trucks:**

- o Weight: 6,200 lbs.

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

- **4WD Trucks:**

- o Weight: 7,500 lbs.

- o Hitch: Point of hook to centerline of rear axle shall be no less than 30% of vehicles wheelbase. Hitch height not to exceed 26 inches. Drawbar must be mounted solid to frame and rigid in all directions. Pulling point can be no more than 1 1/2 inches from back of drawbar. No cable, chain or clevis allowed in hitching device. If bed is too long it may be cut to accommodate 30% drawbar. Hitch point must be clear and visible for hook and unhook of sled chain.

- **Safety:**

- o Kill Switches: All vehicles will be required to use a kill switch. Kill switch will be securely mounted to the back of the vehicle and have a two (2) inch diameter ring to attach the sled. A tie strap will be used during tech to show vehicles have been teched. A 1/4" hole will be used to securely hold tie strap just above the kill switch. Only if tie strap is broken, decided by head track official, will competitor be given opportunity to pull again. A white safety light is required to indicate that competition vehicle is in neutral during process of hooking or unhooking from sled. An additional reverse light, is highly recommended, amber in color will illuminate when vehicle is in reverse. Kill switches on diesel motors will have the following: Air shut off must be operated from driver' seat. Air shut off will consist of cap or guillotine that closes off air into the engine. The cap or guillotine will be spring loaded. Butterfly systems not permitted.

o Turbocharger: All turbochargers mounted outside normal engine shielding will be shielded in .060" steel. All intercoolers mounted outside of normal engine shielding will be .060 18 aluminum. All truck turbocharged engines should have; 2- 5/16 Grade 5 bolts, installed 90° to each other within one inch of each other and within 4 inches from exhaust housing flange. 4. Any single turbo (3.0" and larger in diameter) must have a minimum of 1/8" cable wrapped around turbo. Cable must wrap two revolutions around turbo, clamped by a minimum of two clamps at splice, or metal collars around intake with attaching 1/8" cables to exhaust housing, or Kevlar lined turbo blanket covering the intake housing. All turbocharger alcohol engines shield sparkplugs with minimum of .125 steel or aluminum within two inches any direction of centerline of sparkplug.

**o Shielding:**

- Shielding on v or y type engines must be from the base of the head to two (2) inches below the crankshaft throw. Frame may be used as all or part of the shield provided it is solid and covers the required area.
- Shielding on in-line engines will run from hood to two (2) inches below crankshaft throw. Shield must be complete, no holes accepted. Shielding must extend complete length of block and be securely fastened.
- All engines will have a deflection shield, running the complete length of the block casting. Shield must be securely fastened and must be .060 inch thick. Starters, exhausts, fuel pumps, etc., will not be considered as part of the shield.
- All side shields must be solid. Shielding will be made of a total of .125" aluminum or .090 steel minimum of inch thick. 5. Engine fans must be completely shrouded with steel 1/16" or thicker. Electric fans excluded.
- All automotive engines equipped with a harmonic balancer must have balancer that is SFI Spec 18.1 and carry SFI identification.
- All supercharger drive components will be shielded on top and sides with .060" steel or 1/8" aluminum. Side is defined as to the centerline of bottom pulley. Shield should be wider than drive components.
- All vehicles using an automotive type supercharger will use aluminum blower studs, SEMA specs 6061 T-6 to secure blower to intake manifold. Blower straps meeting SFI Spec 14.1 or high quality nylon braided straps are required at all events.
- Loops on all driveline must be round. All U-joints must be shielded 360o with 3/8" thick aluminum or 5/16" thick steel. Shield will be six (6) inches long minimum and centered on

u-joint. Inside diameter of shield will be no more than two (2) inches larger than u-joint. If aluminum is used on u-joint shield, and 1/8" insert will be put inside of shield at u-joint area six (6) inches wide.

- All vehicles with planetary rear ends will have the drive line totally enclosed with 5/16" steel or 3/8" aluminum. The inside diameter will not be larger than two (2) inches larger than the largest universal joint. No more than 1/4" of driveline will be visible. Bolts holding shield together will be 3/8" grade or better, bolted every two (2) inches or closer.

- All other vehicles not using planetary rear ends will have loops 360o around driveline two (2) inches away from driveline, made of 3/8" aluminum or 5/16" steel, and spaced every 36 inches.

5. Maximum length of driveline on a modified tractor is 48 inches.

- 4X4 trucks will have three (3) loops per shaft, evenly spaced on driveline, 3/8" aluminum or 5/16" steel thickness, two (2) inch maximum away from driveline. All intermediate shafts between transmission and transfer case will be totally enclosed in 3/8 "aluminum or 5/16" steel, 1/4" of shaft may be visible.

Fire Suppression: All pulling vehicles are required to have a minimum of 2.5 lb. fire extinguishers which are fully charged. Extinguishers must be within reach of driver.

Seatbelts: Seatbelts must require 16.1 SFI Spec on all driver restraint assemblies and be worn during competition.

Batteries: No batteries are allowed inside cab of the vehicle unless they are in a marine battery box and secured to the vehicle frame. Shielding is required for battery posts that are exposed.  
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Throttle: All vehicles will have a dead man throttle that will automatically return to the closed position. Throttles will work in a reverse to forward motion, reverse being closed. All vehicles using a foot throttle must use a toe strap.

Starter: All vehicles must have a starter interrupter switch that will allow starter engagement only in neutral or park position on a transmission gear selector for mechanical reasons during the season.

Automatic Transmission: The use of torque converters, automatic shifts, etc. will be permitted. All vehicles using an automatic transmission must have an SFI Spec. 29.1 automatic

transmission flex plate. No cast iron is permitted. All vehicles using an automatic transmission will use a positive gear lockout. All automatic transmissions must have an approved safety blanket over the torque converter area. A full length safety blanket is required. Automatic transmission shield or tractor blanket must meet SFI Spec. 4.1. All vehicles using an automatic transmission must have a positive gear lockout.

Neutral Safety Light: All pulling vehicles must have a neutral safety light. A) A white light automotive quality, a minimum of 2 inches in 22-inch diameter, must be mounted within 30 inches of hooking point. And within 6 inches of center line. B) A light in the driver's compartment must be operated off the same system. C) Both lights and the starter interrupter switch will be operated off of the shifter lever. D) A neutral light should illuminate when vehicle is in the neutral position. Lens color should be clear.

Clutch: All engines using a clutch flywheel assembly will run a full block saver plate. Material being 1/4 aluminum or 3/16 steel minimum. All automotive type engines using a clutch will use a 1/4" inch, one piece SFI 6.1, 6.2, 6.3 containment bell housing. One cooling hole will be allowed in the bell housing, one (1) inch maximum diameter. Hole must not be in explosion area of bell housing. No welding will be allowed in the explosion area of the bell housing. No chemical milling permitted. There will be five (5) 3/8" bolts or four (4) 1/2" bolts to secure bell housing to transmission. All inspection maintenance holes must be no wider than 8 1/2" inches and the ends of the holes shall be smoothly and fully radiused to produce an oval shape. Four (4) 3/8 grade 5 or better bolts are required, in the top half of bell housing to block. Six (6) evenly spaced grade 5 or better bolts are required on bottom half of bell housing. No cast iron clutch components or flywheels will be permitted. Billet steel, aluminum, SFI 1.1 or SFI 1.2 flywheels will be accepted. Clutches, flywheels and related components must be mounted to engine on vehicles using automotive type engines.