

## Part B

# Sled Pulling

*“Where Torque Is Measured 300 Feet at a Time”*

## .Classes

## .Procedures

### Section 1 CLASSES

#### **Work Stock**

The *Work Stock* class is designed for daily-driven, on-the-road pickup trucks (full-bodied diesel pickup trucks). Valid DOT registration and license plates are mandatory. The vehicle must be four-wheel drive.

Designations

**WS** followed by competition number

#### **REGULATIONS**

##### ***Ballast:***

Ballast is permitted. Hanging front weights are prohibited. Ballast may be added in the bed of the truck. If used, ballast must be securely fastened to the bed. Final decisions rest with the DHRA Technical Department.

##### ***Batteries:***

The batteries must be securely mounted. They may not be located in the driver compartment or forward of the radiator core support.

##### ***Body:***

The body must be the OEM truck body, including the full bed floor. The body must retain full sheet metal. The hood must be closed and securely latched while the vehicle is hooked to the sled.

##### ***Brakes:***

Four-wheel hydraulic brakes are mandatory.

##### ***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 the stock location and be of at least stock size.

##### ***Credentials:***

All drivers must have a valid state driver's license.

##### ***Driveline:***

An OEM transmission and transfer case 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 make-specific compression ignition engine. The engine must be governed to a maximum of 4500 RPM unless the OEM governed speed is higher.

***Fire Extinguisher System:***

A fire extinguisher system is permitted. When used, extinguisher must be a minimum of 2.5 lbs. dry powder type. It must be securely mounted within the driver's reach.

***Firewall:***

The complete OEM firewall is mandatory.

***Floor:***

The complete OEM floor pan is mandatory.

***Fuel:***

The fuel must be pump #1/#2 diesel only. Soy/Biodiesel fuel is permitted. Off-road diesel fuel is prohibited.

***Fuel Injection Pump:***

The fuel injection pump is limited to a stock-appearing, OEM engine model-specific pump only. The use of multiple high-pressure common-rail fuel pumps is prohibited. PowerStroke engines with a single factory turbo may utilize a second HPOP. Pumps from different years in the same engine model may be interchanged.

***Fuel System:***

The OEM fuel tank is mandatory and must be used. Racing fuel cells are prohibited and must be removed from the vehicle.

***Hitch:***

The hitch must be a "Reese"-style hitch; reinforcements are permitted. Trick hitches are prohibited. 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. Bumpers may be notched or removed. The hitch's height from the ground may not exceed 26 inches. The hooking point must have a minimum 3.50 inch inside diameter opening for the sled hook. The hooking point will be measured to the center of the clevis loop.

***Interior:***

A complete interior, including dashboard, door panels, headliner, etc., is mandatory. Two matching front seats are mandatory. Aftermarket seats are permitted; they must be fully upholstered. All factory controls (lights, signals, horn, windows, wipers, etc.) must be retained and be operative.

***Nitrous Oxide:***

Nitrous oxide is prohibited. No other oxygen extenders are allowed. All system components must be removed from the truck.

***Propane:***

Propane is prohibited. All system components must be removed from the truck.

***Rear End:***

Non-OEM rear-end housings are prohibited. It must have been an option on a one-ton or smaller pick up. Rear axle bolts must be covered by a cap or shield. For class MH/E, the rear end must be the model supplied with the vehicle as manufactured.

***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 taillight assemblies (all) are mandatory and must be operative. Complete OEM windshield and windows are mandatory. Windows must be operative per factory specifications; that is, they must open and close via OEM electrical or mechanical means.

***Suspension, Front:***

The upper mounting point for strut assemblies must be in the factory location. Adjustable caster/camber pillow ball mounts are permitted. The lower control arm may be strengthened provided factory-mounting points to chassis are maintained. The lower mounting point for the strut assembly may be modified for improved caster or 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 DHRA Technical Department.

***Suspension, Rear:***

An OEM-style suspension is mandatory. Lowering or raising the vehicle height with suspension modifications is permitted. Traction bars and devices are permitted; they must be bolt-on only; welds are permitted for attachment to frame or axle housing. All OEM suspension mounting points must be retained and used. Sway bars, limit straps, and camber kits are permitted. The rear suspension must maintain a minimum compression shock travel of one inch; compression stops must be adjustable. All rear suspensions must use at least one working shock absorber per wheel. Airbag spring assistance is permitted; airbag compressors must be disconnected.

***Tires:***

The tires must be DOT street tires. Cut tires are prohibited.

***Tow Vehicles:***

Tow vehicles are prohibited.

***Transfer Case:***

Non-OEM transfer cases are prohibited. The transfer case 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, Manual:***

Non-OEM transmissions are prohibited. Aftermarket internal components are permitted..

***Turbocharger:***

The turbocharger is limited to OEM make-specific charger(s) only. OEM compressor wheel is mandatory.

***Water Injection:***

Water injection is prohibited. All system components must be removed from the truck.

**Wheelbase:**

The vehicle must retain the original factory wheelbase and track width.

**Street Diesel**

The *Street Diesel* class is designed for streetable pickup trucks (full-bodied diesel pickup trucks). Valid DOT registration and license plates are mandatory. The vehicle must be four-wheel drive.

**Designations:**

**SD** followed by competition number.

**Weight breaks:**

8000 lbs. Weight is with driver.

**REGULATIONS****Ballast:**

Ballast is permitted. Hanging weights may not extend more than 60 inches from the centerline of the front axle.

**Batteries:**

The batteries must be securely mounted. They may not be located in the driver compartment or forward of the radiator core support.

**Body:**

The body must be the OEM truck body, including the full bed floor. The body must retain full sheet metal. The hood must be closed and securely latched while the vehicle is hooked to the sled.

**Brakes:**

Four-wheel hydraulic brakes are mandatory.

**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 the stock location and be of at least stock size.

**Credentials:**

All drivers must have a valid state driver's license and a valid DHRA membership.

**Driveline:**

An OEM transmission and transfer case 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.

**Driveshaft Loops:**

All trucks must have 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. Any front shaft u-joint that is visible from the side of the truck must be shielded to contain the u-joint and the end of the shaft.

**Engine:**

The engine block must have been available as a factory option on a one-ton or smaller pickup truck. Blocks must circulate coolant freely. The use of concrete or other block fillers is prohibited.

***Exhaust:***

All vehicles must be equipped to direct exhaust upward. Two 3/8 inch diameter bolts must be placed through the exhaust pipe in a cross pattern within one inch of each other as close to the turbo as is practical.

***Fire Extinguisher System:***

A fire extinguisher system is mandatory (minimum of 2.5 lbs. dry powder type) and must be fully charged. It must be securely mounted and within reach of driver.

***Firewall:***

The complete OEM firewall is mandatory.

***Floor:***

The complete OEM floor pan is mandatory.

***Fuel:***

The fuel must be pump #1/#2 diesel only. Soy/Biodiesel fuel is permitted. Off-road diesel fuel is prohibited.

***Fuel Injection Pump:***

The fuel injection pump is limited to a stock-appearing, OEM engine make-specific pump only. Dual high-pressure common-rail fuel pumps or HPOPs are permitted. The P7100 injection pump, if equipped, must utilize a stock-appearing governor.

***Hitch:***

The hitch must be a "Reese"-style hitch; reinforcements are permitted. Trick hitches are prohibited. 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. Bumpers may be notched or removed. The hitch's height from the ground may not exceed 26 inches. The hooking point must have a minimum 3.50 inch inside diameter opening for the sled hook. The hooking point will be measured to the center of the clevis loop.

***Intercoolers:***

Air to air intercoolers only; water to air is prohibited.

***Interior:***

A complete interior, including dashboard, door panels, headliner, etc., is mandatory. Two matching front seats are mandatory. Aftermarket seats are permitted; they must be fully upholstered. All factory controls (lights, signals, horn, windows, wipers, etc.) must be retained and be operative.

***Nitrous Oxide:***

Nitrous oxide is prohibited. No other oxygen extenders are allowed. All system components must be removed from the truck.

***Propane:***

Propane is prohibited. All system components must be removed from the truck.

***Rear End:***

Non-OEM rear-end housings are prohibited. The rear end must have been an option on a one-ton or smaller pick up. 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 taillight assemblies (all) are mandatory and must be operative. Complete OEM windshield and windows are mandatory. Windows must be operative per factory specifications; that is, they must open and close via OEM electrical or mechanical means.

***Suspension, Front:***

The upper mounting point for strut assemblies must be in the factory location. Adjustable caster/camber pillow ball mounts are permitted. The lower control arm may be strengthened provided factory-mounting points to chassis are maintained. The lower mounting point for the strut assembly may be modified for improved caster or camber. Strut tower braces, lower tie bars, sway bars, and limit straps are permitted. Traction bars and devices are permitted. The final decision rests with the DHRA Technical Department.

***Suspension, Rear:***

An OEM-style suspension is mandatory. Traction bars and devices are permitted; they must be bolt on only; welds are permitted for attachment to frame or axle housing. Control arms may be strengthened or replaced, provided all original mounting points are retained. Strut tower braces, lower tie bars, sway bars, limit straps, and camber kits are permitted. The rear suspension must maintain a minimum compression travel of one inch. All rear suspensions must use at least one working shock absorber per wheel.

***Tires:***

The tires must be DOT street tires. Cut tires are prohibited.

***Tow Vehicles:***

Tow vehicles are prohibited.

***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 transmission shifter must be equipped with a spring-loaded positive reverse lockout device to prevent the shifter from accidentally being put into reverse gear. A functional neutral safety switch is mandatory. 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 block to the front of tail housing with a minimum six inch overlap where it is fastened. All non-blanket-type shields must incorporate two (or one, per manufacturer's instructions) 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 or 29.3 and be covered by a flex plate shield meeting SFI Spec 30.1.

***Transmission, Manual:***

Non-OEM transmissions are prohibited. Aftermarket internal components are permitted. A clutch meeting minimum SFI Spec 1.1 or 1.2 is mandatory on all vehicles with 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 blanket that completely covers the bell housing; it must be attached to the block and extend rearward to the transmission with a minimum six inch overlap where it is fastened.

***Turbocharger:***

The vehicle is limited to a single turbocharger; the inducer bore on the compressor housing may be no larger than 2.65 inches measured at the smallest diameter area of the compressor wheel. No bushings allowed. A stock map width enhancement (MWE) groove is allowed. No MWE groove will be allowed that has a width greater than 1/4 inch. All provisions allowing air to the wheel other than via the bore and the MWE groove are prohibited.

***Water Injection:***

Water injection is prohibited.

***Wheelbase:***

The vehicle must retain the original unaltered factory wheelbase and track width. Front dual-wheel spacers may be used only with accompanying positive-offset dually-style wheels.

## **Super Street**

The *Super Street* class is designed for streetable pickup trucks (full-bodied diesel pickup trucks). The vehicle must be four-wheel drive.

**Designations:**

**SS** followed by competition number.

**Weight breaks:**

8000 lbs. Weight is with driver.

## **REGULATIONS**

***Ballast:***

Ballast is permitted. Hanging weights may not extend more than 60 inches from the centerline of the front axle.

***Batteries:***

The batteries must be securely mounted. They may not be located in the driver compartment or forward of the radiator core support.

***Body:***

The body must be the OEM truck body, including the full bed floor. The body must retain full sheet metal. The hood must be closed and securely latched while the vehicle is hooked to the sled.

***Brakes:***

Four-wheel hydraulic brakes are mandatory.

**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 the stock location and be of at least stock size.

**Credentials:**

All drivers must have a valid state driver's license and a current DHRA membership.

**Driveline:**

An OEM transmission and transfer case 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.

**Driveshaft Loops:**

All trucks must have 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. Any front shaft u-joint that is visible from the side of the truck must be shielded to contain the u-joint and the end of the shaft.

**Engine:**

The engine block must have been available as a factory option on a one-ton or smaller pickup truck. The use of concrete or other block fillers is prohibited.

**Exhaust:**

All vehicles must be equipped to direct exhaust upward. Two 3/8 inch diameter bolts must be placed through the exhaust pipe in a cross pattern within one inch of each other as close to the turbo as is practical.

**Fire Extinguisher System:**

A fire extinguisher system is mandatory (minimum of 2.5 lbs. dry powder type) and must be fully charged. It must be securely mounted and within reach of driver.

**Firewall:**

The complete OEM firewall is mandatory.

**Floor:**

The complete OEM floor pan is mandatory.

**Fuel:**

The fuel must be pump #1/#2 diesel only. Soy/Biodiesel fuel is permitted. Off-road diesel fuel is prohibited.

**Fuel Injection Pump:**

The fuel injection pump is limited to a stock-appearing, OEM engine make-specific pump only. Dual high-pressure common-rail fuel pumps or HPOPs are permitted. The P7100 injection pump, if equipped, must utilize a stock-appearing governor.

**Hitch:**

The hitch must be a "Reese"-style category five (5) hitch; reinforcements are permitted and must be within the confines of the hitch structure. 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. Bumpers may be notched or removed. The hitch's height from the ground may not exceed 26 inches. The hooking point must have a minimum 3.50 inch inside diameter opening for the sled hook. The hooking point will be measured to the center of the clevis loop.

***Intercoolers:***

Air to air intercoolers only; water to air is prohibited.

***Interior:***

A complete interior, including dashboard, door panels, headliner, etc., is mandatory. Two matching front seats are mandatory. Aftermarket seats are permitted; they must be fully upholstered. All factory controls (lights, signals, horn, windows, wipers, etc.) must be retained and be operative.

***Nitrous Oxide:***

Nitrous oxide is prohibited. No other oxygen extenders are allowed. All system components must be removed from the truck.

***Propane:***

Propane is prohibited. All system components must be removed from the truck.

***Rear End:***

Non-OEM rear-end housings are prohibited. The rear end must have been an option on a one-ton or smaller pick up. 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 taillight assemblies (all) are mandatory and must be operative. Complete OEM windshield and windows are mandatory. Windows must be operative per factory specifications; that is, they must open and close via OEM electrical or mechanical means.

***Suspension, Front:***

The upper mounting point for strut assemblies must be in the factory location. Adjustable caster/camber pillow ball mounts are permitted. The lower control arm may be strengthened provided factory-mounting points to chassis are maintained. The lower mounting point for the strut assembly may be modified for improved caster or camber. Strut tower braces, lower tie bars, sway bars, and limit straps are permitted. Traction bars and devices are permitted. The final decision rests with the DHRA Technical Department.

***Suspension, Rear:***

An OEM-style suspension is mandatory. Traction bars and devices are permitted; they must be bolt on only; welds are permitted for attachment to frame or axle housing. Control arms may be strengthened or replaced, provided all original mounting points are retained. Strut tower braces, lower tie bars, sway bars, limit straps, and camber kits are permitted. The rear suspension must maintain a minimum compression travel of one inch. All rear suspensions must use at least one working shock absorber per wheel.

***Tires:***

The tires must be DOT street tires. Cut tires are prohibited.

***Tow Vehicles:***

Tow vehicles are prohibited.

***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 transmission shifter must be equipped with a spring-loaded positive reverse lockout device to prevent the shifter from accidentally being put into reverse gear. A functional neutral safety switch is mandatory. 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 block to the front of tail housing with a minimum six inch overlap where it is fastened. All non-blanket-type shields must incorporate two (or one, per manufacturer's instructions) 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 or 29.3 and be covered by a flex plate shield meeting SFI Spec 30.1.

***Transmission, Manual:***

Non-OEM transmissions are prohibited. Aftermarket internal components are permitted. A clutch meeting minimum SFI Spec 1.1 or 1.2 is mandatory on all vehicles with 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 blanket that completely covers the bell housing; it must be attached to the block and extend rearward to the transmission with a minimum six inch overlap where it is fastened.

***Turbocharger:***

The vehicle is limited to a single turbocharger; the inducer bore on the compressor housing may be no larger than 2.8 inches measured at the smallest diameter area of the compressor housing. A bushing may be used to downsize the compressor housing ahead of the wheel. If a bushing is used, it must be round, at least 3/4 inch long. A stock map width enhancement (MWE) groove is allowed. No MWE groove will be allowed that has a width greater than 1/4 inch. All provisions allowing air to the wheel other than via the bore and the MWE groove are prohibited.

***Water Injection:***

Water injection is prohibited.

***Wheelbase:***

The minimum allowed wheelbase is 90 inches; the maximum allowed is 180 inches. The maximum wheelbase variation from left to right is one inch; the measurement will be

made using an X pattern (LF-RR and RF-LR). The maximum allowed tread width is 102 inches.

## **Modified Category**

### **PRO MOD**

The *Pro Mod* class is designed for full-bodied pulling trucks. The vehicle must be four wheel drive.

#### **Designations:**

**PM** followed by the competition number.

#### **Weight breaks:**

8000 lbs. Weight is with driver.

### **REGULATIONS**

#### ***Ballast:***

Ballast is permitted. Hanging weights may not extend more than 60 inches from the centerline of the front axle.

#### ***Batteries:***

Batteries must be securely mounted. They may not be located in the driver compartment.

#### ***Body:***

The body may be any 3/4- or 1-ton full-sized pickup truck body. The body must retain full sheet metal. The full bed floor must remain intact. Alternatively, two one-hundred pound weights may be placed directly over the centerline of the rear axle in lieu of the bed floor. Metal after-market hoods are permitted. Fiberglass is prohibited. Tilt-bodies are prohibited. The hood must be closed and securely latched while the vehicle is hooked to the sled.

#### ***Brakes:***

Front disk brakes are mandatory.

#### ***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.

#### ***Credentials:***

All drivers must have a valid state driver's license, a valid DHRA membership and a competition endorsement.

#### ***Driver Restraint System:***

The OEM restraint system is mandatory and must be worn snugly. Alternatively, a three-inch-wide driver restraint system labeled as meeting SFI Spec 16.1 is permitted; this system includes a crotch strap and must be updated at two-year intervals from date of manufacture.

#### ***Driveshaft Loops:***

All trucks must have 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 ends of each shaft. In addition there will be at least one shaft loop in the middle of the drive shaft. All shields must be securely mounted to the vehicle. Any front

shaft u-joint that is visible from the side of the truck must be shielded to contain the u-joint and the end of the shaft.

**Engine:**

The engine block must have been available as a factory option on one-ton or smaller pickup trucks. A harmonic balancer meeting SFI Spec 18.1 is mandatory.

**Exhaust:**

All vehicles must be equipped to direct exhaust upward. Two 3/8 inch diameter bolts must be placed in the exhaust pipe in a cross pattern within one inch of each other as close to the turbo as is practical.

**Fire Extinguisher System:**

A fire extinguisher system is mandatory (minimum of 2.5 lbs. dry powder type) and must be fully charged. It must be securely mounted and within reach of driver.

**Firewall:**

The complete OEM firewall is mandatory.

**Floor:**

The complete OEM floor pan is mandatory.

**Fuel:**

The fuel must be pump #1/#2 diesel only. Soy/Biodiesel fuel is permitted.

**Fuel Injection Pump:**

Sigma-type and/or 12-cylinder injection pumps are prohibited.

**Fuel Shutoff:**

All trucks must be equipped with a driver operated fuel shutoff capable of blocking fuel flow to the injection pump. A three way dump valve is recommended.

**Helmet:**

Drivers must wear a helmet meeting SA2000, SA2005 or SFI Spec 31.1 standards. The retention strap must be securely and snugly fastened. The helmet must have the appropriate certification sticker affixed inside it.

**Hitch:**

The hitch must be constructed of solid material that is properly attached and braced. The hooking point must be at least 44 inches rearward from the centerline of the rear axle. The hitch must be horizontal to the ground and stationary in all directions. The hitch's height from the ground may not exceed 26 inches. The hooking point must have a minimum 3.50 inch inside diameter opening for the sled hook. The hooking point will be measured to the center of the clevis loop. The final decision rests with the DHRA Technical Department. For class RW/E, the hitch height is increased to 30 inches.

**Interior:**

The vehicle must be equipped with one seat for the driver; it must be properly installed.

**Intermediate Shafts:**

On vehicles so equipped, all intermediate drive shafts must be fully enclosed with a 5/16 inch steel or 3/8 inch aluminum shield. The shield must cover the entire length of the shaft and the universal joints and yokes at each end.

**Master Cutoff:**

A sled and driver-operated spring-loaded emergency air shut off is mandatory. The cable must terminate into a two inch diameter steel ring.

**Nitrous Oxide:**

Nitrous oxide is prohibited. All other oxygen extenders are prohibited. All system components must be removed from the truck.

***Propane:***

Propane is prohibited. All system components must be removed from the truck.

***Protective Clothing:***

Drivers must wear a jacket meeting SFI specification 3.2A/5 or 3.2A/15. Protective clothing exceeding this specification is permitted. The protective clothing must be labeled with the proper SFI specification. The DHRA patch must be located in the upper-most position on the left sleeve of the fire suit or jacket. The DHRA Patch must be the upper-most patch or logo on the uniform.

***Rear End:***

Rear axle bolts must be covered by a cap or shield.

***Suspension, Front:***

The upper mounting point for strut assemblies must be in the factory location. Adjustable caster/camber pillow ball mounts are permitted. The lower control arm may be strengthened provided factory-mounting points to chassis are maintained. The lower mounting point for the strut assembly may be modified for improved caster or camber. Strut tower braces, lower tie bars, sway bars, and limit straps are permitted. Traction bars and devices are permitted. The final decision rests with the DHRA Technical Department.

***Suspension, Rear:***

Rigid or 4-link suspensions are permitted. Air suspension is permitted; the compressor must be disconnected.

***Tires:***

Tires must be four (4) DOT street tires or two (2) DOT street tires and two (2) cut tires.

***Tow Vehicles:***

Tow vehicles are permitted.

***Transmission, Automatic:***

Aftermarket torque converters, valve bodies and internal components are permitted. Transmission brakes are prohibited. Any non-OEM floor-mounted automatic transmission shifter must be equipped with a spring-loaded positive reverse lockout device to prevent the shifter from accidentally being put into reverse gear. A functional neutral safety switch is mandatory. 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 block to the front of tail housing with a minimum six inch overlap where it is fastened. All non-blanket type shields must incorporate two (or one, per manufacturer's instructions) 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 or 29.3 and be covered by a flex plate shield meeting SFI Spec 30.1.

***Transmission, Manual:***

A clutch meeting minimum SFI Spec 1.1 or 1.2 is mandatory on all vehicles. All transmissions must be clutch assisted. Sequential shifters are prohibited. All vehicles 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 blanket that completely covers the bell housing; it must be attached to the block and extend rearward to the transmission with a minimum six inch overlap where it is fastened.

***Turbocharger:***

Vehicles are limited to two turbochargers only. Single turbos are unlimited in size. On dual turbos the inducer bore on the atmosphere compressor may be no larger than 3.2 inches measured at the smallest diameter of the compressor wheel. No bushings allowed. A stock map width enhancement (MWE) groove is allowed. No MWE groove will be allowed that has a width greater than 1/4 inch. All provisions allowing air to the wheel other than via the bore and the MWE groove are prohibited.

***Water Injection:***

Water injection is permitted. Alcohol, methanol, and all other flammables are prohibited. Commercially available pump lube is allowed.

***Wheelbase:***

The minimum allowed wheelbase is 90 inches; the maximum allowed is 180 inches. The maximum wheelbase variation from left to right is one inch; the measurement will be made using an X pattern (LF-RR and RF-LR). The maximum allowed treadwidth is 102 inches.

## **Super Modified Diesel**

The *Modified Diesel* class is designed for off-road, full-bodied, severely modified pickup trucks built for pulling.

### **Super Modified Rear Wheel Drive**

The 2wd rules are the same with the exception that the trucks must be rear-wheel drive only, weight with driver can be no more than 6200 lbs. and the hitch height limit is increased to 30 inches.

***Designations:***

**S/MD** followed by competition number

***Weight breaks:***

**S/MD:** 7500 lbs. Weight is with driver

**RWD:** 6200 lbs. Weight is with driver

## **REGULATIONS**

***Ballast:***

Ballast is permitted. Hanging weights may not extend more than 60 inches from the centerline of the front axle.

***Batteries:***

Batteries must be securely mounted. They may not be located in the driver compartment.

***Body:***

Any full-size truck body style is permitted. It must be painted and reasonably free from rust.

Customizing, chopping, channeling, etc., are permitted, but the body must retain the full-bodied appearance. The vehicle must have at least two functional doors. The doors must open and close from inside and outside. Glass may be replaced with Lexan or other shatterproof material of 1/8 inch minimum thickness. The side windows need not be operational. The hood must be closed and securely latched while the vehicle is hooked to the sled.

**Brakes:**

Front disc-brakes are mandatory.

**Cooling System:**

Any sealed system is permitted.

**Credentials:**

All drivers must have a valid state driver's license and a valid DHRA membership.

**Driver Restraint System:**

A three-inch-wide driver restraint system labeled as meeting SFI Spec 16.1 is mandatory and must be worn snugly. The system includes a crotch strap and must be updated at two-year intervals from date of manufacture.

**Driveshaft Loops:**

All trucks must have 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 ends of each shaft. In addition there will be at least one shaft loop in the middle of the drive shaft. All shields must be securely mounted to the vehicle. Any front shaft u-joint that is visible from the side of the truck must be shielded to contain the u-joint and the end of the shaft.

**Engine:**

The engine block must have been available as a factory option or as a replica on a one-ton or smaller pickup truck. The following criteria must be met when a replica block is being used. Replicas must retain OEM bolt pattern for cylinder heads, stock cam and crank positions must be maintained. Blocks may not exceed OEM external dimensions. A harmonic balancer meeting SFI Spec 18.1 is mandatory.

**Engine Shielding:**

A shield across the frame under the front of the motor shielding the damper and engine fan area is required.

**Exhaust:**

Exhaust must be directed away from the fuel tank and driver and exit upward. Two 3/8 inch diameter bolts must be placed through the exhaust pipe in a cross pattern within one inch of each other as close to the final turbo as is practical.

**Fire Extinguisher System:**

A fire extinguisher system is mandatory (minimum of 2.5 lbs. dry powder type) and must be fully charged. It must be securely mounted and within reach of driver.

**Firewall:**

Each vehicle must be equipped with an OEM or minimum 0.024 inch steel firewall, extending from side to side of the body and from the top of the engine compartment's upper seal (hood, cowl, or deck) to the bottom of the floor and/or belly pan. The firewall must provide a bulkhead between the engine and/or fuel tank and driver compartment.

All openings must be sealed with metal-excluding grommets. The use of magnesium is prohibited.

**Floor:**

Each vehicle in competition must be equipped with an OEM or minimum 0.024 inch steel floor pan that extends the full length and width of the driver compartment. Non-OEM floor pans must have cross members (minimum two inch by two inch, 0.083 inch wall thickness square tubing) installed between the frame rails for proper seat and driver restraint system installation and support. All openings must be sealed with metal-excluding grommets. The use of fiberglass and/or magnesium is prohibited.

**Fuel:**

The fuel must be pump #1/#2 diesel only. Soy/Biodiesel fuel is permitted.

**Fuel Shutoff:**

All trucks must be equipped with a driver-operated fuel shutoff capable of blocking fuel flow to the injection pump. A three way dump valve is recommended.

**Fuel System:**

**Location:** All fuel tanks, lines, pumps, valves, etc. must be located outside of the driver compartment and within the confines of the frame and/or steel body. Fuel pressure gauge isolators, with steel-braided line, may be mounted on the firewall.

**Lines:** All non-OEM fuel lines (including gauge and/or data-recorder lines) must be metallic, steel braided or DHRA-accepted "woven or woven-push lock." Fuel lines (except steel-braided lines) in the flywheel/bell housing area must be enclosed in a 16 inch length of steel tubing of 1/8 inch minimum wall thickness and be securely mounted as a protection against fuel-line rupture.

**Helmet:**

Drivers must wear a helmet meeting SA2000, SA2005 or SFI Spec 31.1 standards. The retention strap must be securely and snugly fastened. The helmet must have the appropriate certification sticker affixed inside it.

**Hitch:**

The hitch must be constructed of solid material that is properly attached and braced. The hooking point must be at least 44 inches rearward from the centerline of the rear axle. The hitch must be horizontal to the ground and stationary in all directions. The hitch's height from the ground may not exceed 26 inches. The hooking point must have a minimum 3.50 inch inside diameter opening for the sled hook. The hooking point will be measured to the center of the clevis loop. The final decision rests with the DHRA Technical Department. For class RW/E, the hitch height is increased to 30 inches.

**Interior:**

The vehicle must be equipped with one seat for the driver; it must be properly installed.

**Intermediate Shafts:**

On vehicles so equipped, all intermediate drive shafts must be fully enclosed with a 5/16 inch steel or 3/8 inch aluminum shield. The shield must cover the entire length of the shaft and the universal joints and yokes at each end.

**Master Cutoff:**

A sled- and driver-operated spring-loaded emergency air shut off is mandatory. The cable must terminate into a two inch diameter steel ring.

**Nitrous Oxide:**

Nitrous oxide is prohibited. All other oxygen extenders are prohibited. All system components must be removed from truck.

***Propane:***

Propane is prohibited. All system components must be removed from the truck.

***Protective Clothing:***

Drivers must wear a jacket and pants meeting SFI specification 3.2A/5 or 3.2A/15, gloves meeting SFI specification 3.3/15, and shoes or boots meeting SFI specification 3.3/5. Protective clothing exceeding these specifications is permitted. The protective clothing must be labeled with the proper SFI specification. The DHRA patch must be located in the upper-most position on the left sleeve of the fire suit or jacket. The DHRA Patch must be the upper-most patch or logo on the uniform.

***Rear Axle:***

Rear axle bolts must be covered by a cap or shield.

***Suspension:***

Rigid or 4-link suspensions are permitted.

***Tires:***

Tires may be no more than 36 inches tall.

***Tow Vehicles:***

Tow vehicles are permitted.

***Transmission, Automatic:***

Transmission brakes are prohibited. Any non-OEM floor-mounted automatic transmission shifter must be equipped with a spring-loaded positive reverse lockout device to prevent the shifter from accidentally being put into reverse gear. A functional neutral safety switch is mandatory. All transmission lines must be metallic or high-pressure-type hose. All vehicles 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 block to the front of tail housing with a minimum six inch overlap where it is fastened. All non-blanket-type shields must incorporate two (or one, per manufacturer's instructions) 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 must be equipped with a flex plate meeting SFI Spec 29.1 or 29.3 and be covered by a flex plate shield meeting SFI Spec 30.1.

***Transmission, Manual:***

A clutch meeting SFI Spec 1.2 or 1.3 is mandatory. All transmissions must be clutch assisted. All vehicles 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 blanket that completely covers the bell housing; it must be attached to the block and extend rearward to the transmission with a minimum six inch overlap where it is fastened.

***Turbocharger, Supercharger:***

Turbochargers are limited to triple-stage configuration. Turbocharger(s) must be enclosed in the engine compartment; they may not be visible from outside the truck.

***Water Injection:***

Water injection is permitted. Alcohol, methanol, and all other flammables are prohibited. Commercially available pump lube is permitted.

***Wheelbase:***

The minimum allowed wheelbase is 90 inches; the maximum allowed is 180 inches. The maximum wheelbase variation from left to right is one inch; the measurement will be made using an X pattern (LF-RR and RF-LR). The maximum allowed tread width is 102 inches.