

### **2017 2.5/2.6 Diesel Smoke Out**

This Diesel class is designed for pickup trucks with a wide variety of performance upgrades. The truck must be 4-wheel drive.

**Weight** : 7800 lb Maximum, with driver

#### **Regulations:**

#### **Ballast**

Weight boxes are permitted and must not extend more than 60 inches from the centerline of the axle. Final decisions rest with the 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 complete OEM firewall and complete OEM floor pan is mandatory. A factory installed pickup bed or commercial style aftermarket bed must be installed. No flat beds are permitted.

#### **Brakes**

Front wheel hydraulic functional brakes are mandatory.

#### **Chassis**

The OEM chassis is mandatory. The engine must be in the OEM location. 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. Block and head must circulate coolant freely.

## **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 or SFI 5 point harness is mandatory and must be worn.

## **Driveshaft Loops**

All driveshafts must have safety loops. All trucks must have at least six (6) inch wide u-joint shields around all u-joints on rear drive shaft constructed of at least 1/4" steel or 3/8" aluminum that will safely contain the u-joints and the ends of drive shafts. Any u-joint on the front axle that can be seen from front or side of truck must be shielded the same as all other u-joints. All shields must be securely mounted to the vehicle.

## **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 444CI. Block must circulate coolant freely. No hard filled blocks. Water pumps may be factory or electric powered. Electric cooling fans are permitted. No individual runner intake manifolds. (Example: ZZ-customs). Belt driven alternator. No deck plates. No aftermarket heads.

## **Exhaust**

All vehicles must be equipped to direct exhaust upward. The exhaust must exit rearward of the driver's compartment. Stacks exiting through the fender well and hood are prohibited. 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 possible. **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 must have at least a 2 ½ lb extinguisher with working gauge mounted within driver's reach.

### **Fuel Injection Pump**

The fuel injection pump is limited to cylinder number specific (i.e. 6 cylinder pump on a 6 cylinder motor). The use of multiple high-pressure common rail fuel pumps or HPOPs are permitted. 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 can be a REECE receiver-style hitch or a custom drawbar type. Reinforcements are permitted. Reinforcements must not extend forward of the center line of the rear axle and must remain inside the frame rails. The hooking point must be the rear vehicle and must be rearward of the stock location of the tailgate. The hitch must be stationary in all directions. Reinforcements are permitted. Reinforcements must not extend forward of the centerline of the rear axle and must remain inside the frame rails. 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 inch by 3 ¾ inch 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 end of the hole where the hook touches metal to be pulled from, this is the hooking point. Must be horizontal.

### **Intercoolers**

Factory or aftermarket replacement single core air-to-air intercoolers only. Must be in front of radiator. Water to air coolers is prohibited. **\*\*NO USE OF ICE OR WATER\*\***

### **Interior**

OEM dashboard and one securely fastened seat are mandatory. The use of hand throttles is permitted.

### **Kill Switches**

All trucks are required to have kill switch located on the back of the truck, located near the hooking point. Must be located in the rear center of the vehicle within 6 inches of the center of hitch.

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. Kill switch failure will result in disqualification.

**\*\*\*Kill switch and hooking point must be illuminated at all times\*\*\***

### **Nitrous Oxide/Propane**

Nitrous Oxide is prohibited. No other oxygen extenders are allowed. Propane is prohibited. All system components must be removed from the truck. No pressurized bottles.

### **Rear End**

The rear end housings must OEM and have been for a one-ton. Rear axle bolts must be covered with 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. More specifics posted in general rules.

### **Street Equipment**

Complete headlight and taillights assemblies are mandatory and must be operative, except the right front headlight may be removed for air inlet to engine. Complete OEM windshield and all other windows are mandatory. Driver window must be able to operate per factory specifications. They must open and close via electrical or mechanical means.

### **Suspension - Front**

The factory suspension configuration must be retained. Modifications to the front suspension that would alter the original location (i.e. moving it forward or backward) is not

permitted. Strut tower braces, lower tie bars, sway bars, and limit straps are permitted. Traction bars and devices are permitted. Air shocks are prohibited.

### **Suspension – Rear**

Solid Suspension

### **Tires**

The tires must be DOT street tires – 35x12.50. Single tires only.

**No Duals.**

### **Transfer Case**

Non - OEM transfer cases are prohibited. It must have been an option on a one ton or smaller pick up truck.

### **Transmission – Automatic**

Must be OEM style in one ton or smaller truck. All automatic transmissions must be equipped with a transmission shield meeting SFI Spec 4.1 and must be labeled accordingly. All vehicles using an automatic transmission must be equipped with a flex plate meeting SFI Spec 29.1. A blanket type shield must be used and appropriately labeled as meeting SFI Spec 4.1 and it must extend from the rear of the engine block to the rear of the tail housing with a minimum of six (6) inch overlap where it is fastened.

### **Transmission - Manual**

Must be OEM style in one ton or smaller truck. The transmission must have been an option on a one ton or smaller truck. Aftermarket internal components are permitted. A clutch

meeting minimum SFI Spec 1.1 or 2.1 is mandatory on all engines. All manual transmissions must be clutch assisted. Sequential shifters are prohibited. All transmissions 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 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**

### **2.6 smooth bore**

Smooth faced intake housing, limited to a 2.6" inlet – no map ring – with all air entering through the 2.6" opening. Intake wheel must protrude 1/8th inch inside of opening.

S-400 and GT 42 and turbo of this type is the largest turbo allowed. T-4 mounting flange is the largest allowed. T-4 mounting flange on turbo and exhaust manifold. Billet compressor wheels are allowed. Wheel must protrude minimum of 1/8" into the inducer bore.

Covers will be plugged from the back side to verify where the wheel protrudes is a maximum of 2.6". Turbo checked with a 2.605" plug.

6.4 Powerstrokes will be permitted to run modified turbos, as long as the atmosphere turbo does not exceed the OEM straight bore dimension. (2.59") No tapered or egg shaped inducer bores allowed.

### **OR 2.5**

S-4, GT 42, HX 50 and turbo of this type is the largest turbo allowed. T-4 mounting flange is the largest allowed. No clipped wheels or step down covers. Billet compressor wheels are allowed. A single .200 inch MWE groove maximum allowed. Inducer bore must be non-removable. All air must go through the 2.5 inducer bore and MWE groove. The wheel must protrude into the 2.5 bore 1/8 inch. Turbo checked with a 2.550 plug.

**Water Injection:**

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

**Wheelbase:**

OEM Wheelbase

**\*\*\*\*\*No Whining\*\*\*\*\***