# "3.6 PRO STREET" SEMI TRUCKS

Adopted: March 1, 2024

This class is for STREET LEGAL, LICENSED semi-trucks. Any truck that <u>dominates</u> in the class *may* be handicapped. This is truly an OPEN class for all semi-trucks, but it is NOT a PURE STOCK class.

## LEGALITY OF ENTRY

All entries must be a Street Licensed Semi Truck. The owner must furnish a current registration card for the vehicle at the time of registration and the driver must have a valid CDL license. Truck must be capable of pulling a trailer on the highway. These rules may be altered or changed at any time throughout the season for anything that becomes a safety issue.

# SAFETY CONSIDERATIONS

No riders are permitted in trucks during pull attempts. Driver may not leave the driver's seat while the vehicle is on the pulling track. Driver will take <u>all directions</u> from the flagman on the track. Drivers must use a seatbelt and/or shoulder harness when hooked to the sled. All trucks must have a fire extinguisher per USA-EAST general rules.

## AIR BAGS/AXLES

- 1. Only tandem drive axle semi-trucks will be permitted to compete, trucks with triple rear axles or lift axles are not permitted. Tandem axle spacing must be between 60" and 52". No front wheel drive will be permitted. No single axle trucks. No dump trucks. No specialty trucks (well-drilling, wreckers, boom trucks, etc.) will be permitted to compete.
- 2. There must be 66" from the center of the tandems to the first obstruction forward such as the back of the truck cab, toolbox, wet line box, etc.
- 3. The use of air bags is permitted. However, no air may be added to or removed from the air bags while the truck is hooked to the weight transfer machine.
- 4. The height of the hitch must remain the same from start to finish. Any change in the hitch height will be cause for disqualification.
- 5. Trucks with air ride suspension must be equipped with chains or some type of limiting device on both rear drive axles to prevent the height of the frame from changing during the pull. Limiting devices must not have any 'give' built in. Solid rear drive axle suspension permitted, however all drives must be chained or limited. Chains or limiting devices must be tight (no slack) when the hitch is measured. Short chains or cables from the side of the frame down to the axle housings is recommended. No chains and binders going up and over the frame rails allowed. Breakage or failure of a chain or limiting device while hooked to the sled will be cause for disqualification.

## **ENGINE AND TRANSMISSION**

- 1. Water injection in any form is not permitted. Air to air intercooler only. No ice or water permitted on the truck during competition. An OEM equipped; liquid cooled after cooler is permitted.
- 2. No ether, alcohol, nitrous or other combustible (propellant) liquid or combustible material may be injected into the turbocharger or any part of the air intake system.
- 3. Turbos are limited to single O.E.M. Turbocharger with an O.E.M 3.6-inch (92 mm) maximum inducer bore on the atmosphere turbo with O.E.M factory exhaust wheels. Map width enhancement of .180" maximum is permitted which must be in the O.E.M. location. The bore will be measured using a 3.65-inch slug. Compressor wheel must protrude 1/8 inch into the 3.6 bore., (no forward facing MWE groove). Any cut, notched, or etc. turbo wheels/blades will result in a disqualification. Turbo housing must be unaltered OEM/ Factory with no provision made for extra air flow and/or machining to allow larger turbo wheels in the housing. No bushing of the inducer is permitted. It is the responsibility of the driver to make the turbo accessible for inspection, a USA-EAST seal will be placed on the compressor housing for future reference. Failure to allow for turbo inspection will result in immediate disqualification. Any truck disqualified for this reason will be required to undergo a complete super tech prior to any further competition. Absolutely no refunds for any illegal turbo found after the class has pulled. Exceptions;
  - a) A factory 2005-2009 & 2011 CAT twin turbo engine is permitted with the factory-installed non-altered turbos.
  - b) Detroit Diesel two-cycle engines may utilize one turbocharger per bank, single-staged only. Must be Air

## \*\*FOR THE 2024 SEASON ON A TRIAL BASIS:

Turbos no larger than 4.1 that have a USA-East Approved Bushing/Reducer and a Turbo Wheel Measuring a maximum of 3.6" in diameter with no alterations such as Cuts, Notches etc. will be permitted compete *BUT* will have their Hitch Height Reduced by Two (2) Inches. The .180" map groove rule will apply as well. NOTE: This rule may be altered to ensure competitiveness.

>>It is the intent that the only permitted turbo for 2025 will be the 3.6 Turbo<<

4. Turbos must have "Turbo Cage" Exhaust Wheel Cage is a containment device bolted to exhaust housing by turbo manufacturer. Billet steel cage made from 304 stainless bolted and fastened to exhaust housing as supplied by the turbo manufacturer.

A. Exhaust wheel cage must be fastened using bolts, a minimum qty. 8 (eight) – 5/16-inch diameter, grade 8 or greater Exhaust wheel cage must be installed as modifications allowed.





NOTE- Exception for 2024 Season will allow Cross Bolts on a Turbo Charged Engines must meet the following rules in regards to cross bolts in the exhaust pipe.

One set of two (2) 3/8" minimum Grade 5 bolts in the horizontal portion of the exhaust pipe(s) as close to the turbo as possible. Bolts are to be installed at 90 degrees to each other and within one inch of each other. A second set of two 3/8" minimum grade 5 bolts in the horizontal portion of the exhaust pipe(s) with in two (2) inches of the first set of bolts. Bolts are to be installed at 90 degrees to each other and are to be indexed 45 degrees from the first set of bolts.

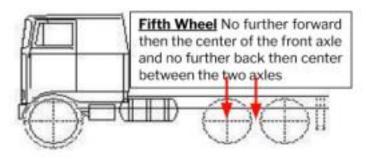
- 5. All exhaust must exit behind the driver's compartment (no hood stacks permitted) and must exit vertically. (Turnout, bull hauler, aussie, etc. stack tips are permitted).
- 6. Transmissions and rear ends must be commercial semi-truck factory components. All Transmissions must have a SFI approved blanket surrounding the bell housing and clutch components.
- 7. Only mechanically activated clutches are permitted. (Hydraulic assists are permitted)

## ELECTRONIC FUEL INJECTION SYSTEMS/FUEL INJECTION PUMPS

Normal pump diesel is the only fuel permitted in this class. Bio Diesel is permitted. Dielectric testing of 150 will apply.

# **HITCHES**

1. All trucks competing in the "3.6 Pro Street Semi" class are required to have their own hitching device that is subject to approval by the head tech official at each event. This hitch must work from the 5<sup>th</sup> wheel with the 5<sup>th</sup> wheel centered between the two rear axles. The hitch must be adjustable so that the height from the ground to the point of hook is between 20" and 16" + or – 1". The hitch will be measured



with air bags fully inflated when the truck weighs in AND immediately before the semi hooks to the sled.

2. Centerline of the rear axle to hook point on the semi hitch must be no greater than 7 feet. 3. <u>Fifth Wheel Position-Kingpin/Fifth</u> wheel plate position no further forward then the center of the front axle and no further back then center between the two axles.

# **TIRES**

- 1. All tires must be road use approved tires and available to the public. Dual wheels and dual tires must be used on the rear axles. No chains or cables permitted. No cutting of tires is permitted. Maximum tire size limited to; 11x24.5 x 8.25 (or) 10 x 22 x 8.25 (or) 315/85R x 22.5. Tread width of 10" per each drive tire.
- 2. No split rim or wedge lug type wheel allowed. No spoke type wheels. Wheels must be bud type.

## WEIGHT OF TRUCK

1. Maximum weight for any truck will be 22,000 lbs. All trucks will be weighed in at all points collecting events, if the wheelbase is too long to fit all three axles on the scales, the truck may be "spilt" weighed. A variance of one percent (220 lbs.) will be given *ONLY* if the truck must be "spilt" weighed. All trucks shall appear 'road ready'.

# KILL SWITCH

- 1. All vehicles must have an operable kill switch on the right side of the hitch and located directly in line with the point of hook. A minimum of a two-inch solid ring is required for connection with a minimum of 1/8-inch cross sectional thickness. The sled cable will be attached to this ring.
- 2. On all diesels, the kill switch must activate the air shut-off. Shut-off must be placed ahead of any turbochargers. A cable may be used for this purpose, but must have positive-type enclosed cable for the shut off. This cable must be 100% free of any obstructions. The Guillotine must have a spring loaded closing mechanism. System to be deemed acceptable must at least prevent any building of boost. It is recommended that a gasket/seal arrangement be used to shut off all air flow more effectively. Control for the driver will not be the same as for the sled.
- 3. Kill switch ring must be secured with a single nylon tie wrap (1/8"). The tie wrap must be broken in order for a re-pull to be approved.