## **Limited Pro Semi**

- 1. The class is open to three axle truck tractors with commercially available tandem drive axles. Driving steer axle is not allowed. Vehicle license and inspection are not required.
- 2. The weight of the truck and the driver not to exceed 95 20,000 lbs. All ice, safety equipment etc. must be on the truck at weigh in.
- 3. The truck frame must be of the same style as factory available C channel frame normally found on class 8 trucks. No tube or custom chassis. The steer axle, along with the front and rear suspension must be commercially available for a class 8 truck application. No air bags permitted on the steering axle. The addition or removal of springs, airbags, torque rods and shocks on the rear tandem is permitted. No hydraulic cylinders. No suspension component can be more than 18" from center of drive axle except for factory equipped components.
- 4. Transmission must be a make and model commercially available in a class 8 truck. Internal modifications permitted.
- 5. Trucks with air suspension must be equipped with chains or some type of limiting device on both drive axles to prevent the height of the frame from changing during the pull. Limiting device must not have any 'give' built in. The limiting device, chain or cable must be secured to the axle or suspension at a point between the center of the axle and the air spring. Solid rear drive axle suspension permitted, however front drive must be chained or limited. Chains or limiting devices must be tight (no slack) by airing the suspension up completely when the hitch is measured. Four short chains or cables from the side of the frame down to the axle housing 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.
- 6. Maximum pressure in air system 130psi.
- 7. Tires must be DOT approved truck tires. Maximum tire size to be 11R24.5, 10x22 or 315/80R22.5. Maximum tread width 10". No bar type or agriculture type tread. No tire cutting or grinding allowed. No tire chains or cables are allowed.
- 8. Puller must supply their own hitching device. Hitches must pull from a standard fifth wheel. Center of fifth wheel must be located in a position between the center of the front 96 drive axle and the center point between the drive axles. Hitch cannot be longer than 45% of the measured wheelbase of the truck. Hitch length is measured from the center of the rear axle to the hook point. The wheelbase is defined as measurement from center of steering axle to the center point between the drive axles. Hitch percentage will be calculated by dividing the hitch length in inches by the wheelbase in inches. Example: 84" hitch ÷ 187" wheelbase = 44.9%. Maximum hitch length 7 feet. Hitch must have a height adjustment range from 20" down to 16" with suspension in the 'pull ready' (raised against the stops) position. Hook point must have a 3.5" hole. Hitch height will be measured with suspension inflated and chains or limiting devices tight. Suspension height cannot be raised after the hitch is measured.

- 9. Extra ballast weight is permitted. Weights or brackets cannot interfere with hooking the sled to the hitch. Weights or brackets cannot extend more than 51" rearward past the center of the rear drive axle. Weights on front of truck cannot extend more than 24" forward of the stock forward most point.
- 10. Engine must be a make and model that was commercially available in a class 8 truck. No multi engine setups are allowed. Internal modifications to increase the displacement are permitted. Cylinder block and cylinder heads must be OEM castings. No billet heads. A single turbocharger is permitted with a maximum intake wheel inducer size of 4.100". Turbo size will be checked using a 4.200" plug. Turbo cannot be bushed down from a larger size. No oval shaped inducer bores. Compressor wheel must extend into the inducer bore and cover the map groove. Factory style map width-enhancement groove is permitted; maximum width .280", no other means for air to get to the compressor wheel are permitted. No slots or grooves that face completely forward from the intake wheel out.
- 11. Turbocharger intake must be accessible for inspection by tech official. Competitors must be prepared to expose the inlet of the turbo at each pulling event during tech inspection.
- 12. Trucks with fiberglass hoods must have a turbocharger shield mounted under or inside of hood. Shield to consist of .125" steel or aluminum mounted to contain debris in the event of a turbo failure.
- 13. Water only injection is permitted, windshield washer fluid is not permitted. No ether, methanol, propane or any other flammables or combustion enhancers are allowed in any form. Commercially available diesel fuel is the only fuel allowed. Nitrous oxide is not allowed in any form.
- 14. Any ECM or control module must only be used only for engine control functions. No traction control either by wheel speed sensing, load sensing or any other method is allowed.
- 15.Truck must be equipped with a SFI approved clutch/ flywheel assembly. Engine bell housing must be shielded 360 degrees with any one of the following: a SFI approved shield; SFI approved scatter blanket(s) securely fastened and overlapped at least 6". Automatic transmissions must be completely covered by an approved scatter blanket.
- 16.One scatter shield must be on all universal joints beyond the rear of the transmission. Scatter shield must be of a solid construction, 5/16" thick steel minimum and be able to contain debris or direct debris toward the ground. Scatter shields not required on the inter-axle driveshaft provided the top of the frame between the rears is securely covered with minimum 1/8" aluminum or steel. One drive shaft loop must be installed on any drive shaft over 36 inches long including those with a carrier bearing. Driveshaft loop should be near the center of the shaft and be capable of keeping the shaft from coming out of the vehicle in the event of breakage.
- 17. A minimum of one 4" diameter clear light must be on the rear of the truck, must be activated by transmission when shifted into neutral. Truck must be equipped with a transmission activated neutral start switch so that the starter will not engage unless the transmission is in neutral.
- 18. Brakes must act on all rear wheels. Parking brake 98 chambers are required on at least one drive axle.

- 19. Turbocharger safety in General Rules.
- 20. An emergency engine air shut off is required. Shutoff must be capable of being operated from the driver's seat. A 2" diameter ring must be at the rear of the truck to operate the shutoff from the sled. Ring must be as close to center of the truck as possible and above the hook point of the hitch.
- 21. Engine driven cooling fans must have fiberglass blades, metal blades not allowed. Fan must be inside a shroud.
- 22. Engine must be in the original OEM location.
- 23. Truck must be equipped with a master electrical disconnect switch mounted near the driver's side doorsteps and easily accessible to someone on the ground.