

SUPER MODIFIED TRUCKS (RWYB)

(Gas, Diesel, Alcohol)

General Rules for 2021 Season

ADOPTED: December 18, 2020

USA-EAST OFFICIALS RESERVE THE RIGHT TO ALTER THESE RULES BEFORE OR DURING THE SEASON IN ORDER TO DEAL WITH SAFETY RELATED ISSUES OR TO INSURE THE COMPETITIVE NATURE OF THE CLASS.

This is an open modified 4x4 truck class available to owners of trucks that have been specifically built for pulling. Trucks may be hauled to the pulling site.

The provision for 'bumping up' from other FWD CLASSES lies with the head official and may or may not be available at every event.

'Run What Ya Brung' Series for 2021

1. Vehicle maximum weight 7,500lbs.
2. 2WD Trucks short wheel base up to 150" 7000lbs maximum 14-71 blower.
3. Hitch height for all trucks will be 26". (with the following exceptions)
 - a. Naturally Aspirated trucks will be 28" hitch.
 - b. Naturally aspirated with nitrous will be 27".
 - c. 2WD trucks will be 30".
 - d. Hitch from point of hook to center line of rear axle shall be no less than 27% of wheel base (FWD only).
 - e. Twd hitch length must be a Minimum of 18" from the centerline of the rear axle.
4. Full Pull reserves the right to alter Hitch height and truck weight at any time during the year.
5. FWD Blower Trucks will be limited to 14.71 blowers.

Weights:

Added weights are permitted. Hanging weights may not extend more than 60 inches from the centerline of the front axle. Any loss of ballast while hooked to the sled is cause for disqualification. No fuel or water/ice may be added to the truck after it has crossed the scales.

Hitches:

The hitch must be constructed of solid material that is properly attached and braced. The hooking point must be at least. The length of the hitch measured from the center of the rear axle to the hitch point may be no shorter than 27% of the actual wheelbase of the truck. The hitch must be stationary in all directions. The hooking point must have a minimum 3.750 inch inside diameter opening for the sled hook. The hooking point



will be measured to the rear of the opening in the clevis/hook loop. The area where the hook point is at must be free and clear of any obstructions. No lever, pivot, axis or other types of 'trick' hitches are prohibited. No vertical hitches, all hitches must be 33 degrees or less parallel to the ground. A second hitch is not required in this class. Owners of trucks with a second hitch must assure that the second hitch is 'taped off' – this is the owner's responsibility.

Throttle:

Either the normal foot throttle or an approved spring-loaded hand throttle will be permitted in this class. (See General Rules)

Kill Switch:

All trucks must be equipped with a Kill Switch per USA-EAST General Rules.

Tires:

All forms of pulling tires are permitted including Bar tires, Cepeks, cut tires, etc. Tires may be no more than 36 inches tall.

Engines:

- **GASOLINE or ALCOHOL ENGINES** may utilize a single super charger or a single turbo charger. All NTPA necessary safety equipment and restraints on the super charger must be followed.
- Maximum supercharger size: 14-71, 19-inch rotor length, Note: For that utilizing 8-71 blower the following dimensions: 16-inch rotor case length.
- Screw type blowers are not permitted.
- Variable multi-speed supercharger devices prohibited.
- Pro Chargers are allowed as well maxim size of F-3R-130
- Fuel injection is permitted. A single turbo charger is also permitted in this configuration. Super charged or single-stage turbo charged engines are limited to 575 cubic inches.
- **DIESEL ENGINES** are restricted to 6 cylinder and 8 cylinder compression ignition engines. Class maximum of 450 cubic inches will be enforced. Diesel engines must have been available in a one ton or less truck from the factory. Sigma fuel pumps are permitted. Water injection is permitted. The fuel must be pump #1/#2 diesel only. Soy or Bio-diesel fuel is permitted. Diesel engines may use an unlimited size turbo(s) charger. A Diesel engine truck running without a muffler must have cross bolts installed in their exhaust system.
 - All turbocharged engines will have one cable totally surrounding the engine block and head between the first and second cylinder.
 - The cable will be 3/8 inch diameter and will be between the first and second cylinders.
 - Cable must pass through the exhaust manifold port area.
 - Cable must have a minimum of two clamps at all splices.
 - Cable will have 4" to 6" inches of slack.

Master Cutoff – Diesel Engines:

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

Fuel cutoff – Diesel Engines:

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 required.

Driveshaft Loops:

All trucks must have at least six inch wide u-joint shields around the rear u-joints 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.

Flywheel Shield:

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 may be used in place of the shield; it must be attached to the block and extend rearward to the transmission with a minimum six inch overlap where it is fastened.

Transmission, Manual:

Aftermarket transmissions and transfer cases are permitted. A clutch meeting minimum SFI Spec 1.1 or 1.2 is mandatory on all vehicles that are collecting points. All transmissions must be clutch assisted. Sequential shifters are prohibited.

Transmission, Automatic:

Aftermarket transmissions are permitted. 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, appropriately labeled as meeting SFI Spec 4.1 and extending from the rear of the block to front of tail housing with a minimum six inch overlap where it is fastened, is permitted. 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 and be covered by a flex plate shield meeting SFI Spec 30.1.

Nitrous Oxide

Nitrous Oxide is permitted for use on any naturally aspirated gasoline engine. This may not be used with alcohol or with any turbocharged or supercharged engine.

Other Fuels and additives:

Propane/ NOS, etc. is prohibited on any engine. System components used for these banned substances must be fully removed from the truck. Other oxygen extenders are prohibited such as propylene oxide additives. Racing fuel is permitted. Fuel checks may be taken at any time by the officials. All diesel powered competition vehicles will have a sampling valve on the return line from the fuel injection pump. The sampling valve needs to have a flexible hose. Diesel engines need to be running when the fuel sample is obtained.

Batteries:

Batteries must be securely mounted; cannot be located in the driver compartment.

Exhaust:

- ⇒ The exhaust on a GASOLINE or ALCOHOL vehicle may exit downward at the back of the truck or directly out the back of the truck or straight up through the hood of the truck or straight up at the back of the cab.
- ⇒ All DIESEL vehicles must be equipped so as to direct exhaust upward. Exhaust through the hood is permitted. Two 3/8 inch diameter bolts must be placed in a cross pattern within one inch of each other as close to the final turbo as is practical

Driveline: Aftermarket transmissions and transfer cases are permitted. Axle shields are required and will be .060" thickness in steel or aluminum. Shield shall not be mounted to axle ends or hub bolts. An access hole may be left open to allow locking in the hubs.

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 tread width is 102 inches. Extending rear wheels beyond the OEM position is permitted.

Floor:

Each vehicle in competition must be equipped with an OEM floor pan or a minimum 0.024 inch steel floor pan that extends the full length and width of the driver seating area. 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 fiber glass and/or magnesium is prohibited. The vehicle must be equipped with one seat for the driver; it must be properly installed.

Firewall:

Each vehicle must be equipped with an OEM or minimum 0.024 inch steel firewall, OR ¼” Lexan from side to side of the body and from the top of the engine compartments 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.

Helmet:

Driver must wear a helmet meeting Snell 85, 90, 95, 2000, K98 or SFI Spec 31.1

Firesuit:

Fire suits are required at a minimum of SFI 3.2. In flip top bodied vehicles without a firewall or working doors, the driver will be required to wear an SFI 3.2A-5 approved suit.

Driver Restraint System:

The OEM restraint system is mandatory and must be worn. A five point safety harness is highly recommended in the class.

