6000 & 7400 MODIFIED TRACTOR CLASS

All Vehicles Must Conform to
"General Vehicle Rules"

1. Weight Classes are:
   a. 6000 lb. class with weight:
      1. 6500 lbs. – single, naturally aspirated
      2. 6000 lbs. – twin, naturally aspirated and single forced induction
      3. 5900 lbs. – single aircraft or single industrial engine, or triple naturally aspirated.
   b. 7400 lb. class with weight:
      1. 7900 lbs. – single, naturally aspirated
      2. 7600 lbs. – twin, naturally aspirated and single forced induction
      3. 7400 lbs – single aircraft or single industrial engine, twin forced induction or four (4) naturally aspirated, three (3) blown wedge style heads not over 43% maximum of 870 blower,
      4. 8000 lbs. – Diesel Superstock Tractors

2. No portion of the tractor will exceed 14 feet forward of the centerline of the rear wheels.

3. Tractors will be equipped with a "dead man" throttle. Foot throttles will have a toe strap.

4. Tractors will have side shields of .060-inch metal extending four (4) inches above and four (4) inches below the crankshaft.

5. Exhaust will be pointed upward.

6. Tractors using an automatic transmission will be equipped with a reverse gear lockout.

7. Automotive type engines using clutches will be equipped with SFI approved clutch housing, pressure plate, flywheel, and clutch disc. (Engines used by manufacturers in both automobiles and trucks are classed as "automotive")

8. Automotive transmissions will be covered with a current SFI-approved scatter blanket and secured as specified by SFI.

9. The remaining drive train to the original tractor transmission, together with any multiple engine couplers, will be shielded 360 degrees with 5/16-inch minimum steel or 3/8-inch aluminum to be fastened every six (6) inches or less with 3/8-inch bolts, grade five (5) or better to be butt-seam welded. Any additional manual transmission or gearboxes will be shielded in the same manner or be covered with an SFI-approved scatter blanket and secured as specified by SFI.

10. The following rules for Turbine Engines apply:
    a. Any turbine engine that exceeds 8000 rpm on the output shaft will not be allowed to use a clutch/flywheel assembly, or an automatic transmission.
    b. Exhaust pipes on turbines must extend a minimum of 6 inches above the top of the exhaust opening.
    c. Exhaust stack diameter to be no smaller than 1 inch of the engine outlet.
    d. No turbine engine will be operated beyond military temperature and rpm limits.

e. Turbine air intakes must be screened with metal screen that has openings no larger than 3/16 inch.
f. Steel turbine engine containment shroud:
    i. Engines under 1500 hp must have 3/8-inch steel shroud that surrounds the engine.
    ii. Engines over 1500 hp must have a ½ inch steel shroud that surrounds the engine.
    iii. The steel shroud must extend a minimum of 5 inches forward and 10 inches aft of the turbine section.
    iv. The steel shroud must incorporate a minimum of 3/8 inch thick flanges that extend radially inward from the shroud on both ends of the shroud within a maximum of 1 inch of the engine casting.
    v. A ½ inch gap between the engine and the ID of the flange must be maintained for air circulation inside the shroud.
    vi. The flanges may be scalloped out to clear tubing, accessories, brackets, etc., and may be either rolled edges of the shroud or steel rings attached by welding or riveting to the shroud.
g. Composite containment shroud system:
    i. Because the T55 has multiple steel engine casings, the inner portion of the sandwich may be a minimum of .032-inch aluminum for the T55 only.
    ii. If the sandwich containment is used the following specs will apply:
        1. T-53, T-58, and T-55 are required to have 25 layers of Kevlar 29, 328, or 713 weave or current replacement number.
        2. T-64 and JFTD-12 are required to have 40 layers of Kevlar 29, 328, or 713 weave or current replacement number.
    iii. Numerous bolts inserted through three segments (the two metal sheets and the Kevlar) of the sandwich are required.
    iv. An air gap of ½ inch must be maintained for air circulation between the engine outer casing and the sandwich.
    v. End flanges that are required for the steel containment shroud are not required when using the Kevlar sandwich.
h. Two independent overspeed protection devices are required for power turbine wheel(s).
i. The governor setting must not exceed manufacturer's maximum specifications.
j. Overspeed shutdown – consists of speed monitor that activates a normally closed solenoid valve located between fuel control and fuel manifold. Trip setting to be low enough to prevent overspeed in event of driveline failure.
k. No homemade turbine engines allowed as competition engines.
l. No Lycoming T-55-L-11 or TF-35 engines allowed as competition engines.
m. Tech inspection at pull to include a function test of the shutdown solenoid without starting the engine.
n. Turbine engines may start in gear only while hooked to the sled.
o. Turbine vehicles allowed starter motor onboard, or auxiliary power unit to be carried onboard and running during a competition attempt but must not be hooked into the drive train during competition attempt.