

Tripoli MN

Mid Power Pre-Flight Inspection Requirements

1. Propulsion System
 - a. The motor should be actively retained (engine hook, motor retainer, etc.) or the motor must be friction fit so that it fits tightly (difficult to remove). Friction fit motors must also be taped around the outside of the motor mount and motor in order to facilitate motor retention.
 - b. Igniters should not be installed in motor before reaching launch pad.
2. Recovery System
 - a. All rockets should have a streamer or a parachute unless specifically designed for tumble recovery.
 - b. No Estes or paper wadding may be used only cellulose (available in black trailer box on launch trailer at launch site).
 - c. Mid power rockets (F motors or larger) must not use elastic or rubber shock cords.
 - d. Parachutes need to be folded so that lines will not tangle upon ejection.
3. Nose Cone
 - a. Should fit snugly but not tight. All the shroud lines and shock cord must be under the nose cone not pinched between the nose cone and the airframe.
 - b. The fully launch ready rocket (including motor) should be able to be suspended by the nose cone without it separating from the airframe (note: the nose cone should start to come out of the airframe but not completely – if it doesn't move it is too tight).
4. Launch Lugs
 - a. Launch lugs, rail buttons, or rail guides must be securely attached to the rocket airframe (glue, epoxy, not taped).
5. Fins
 - a. All fins must be securely attached to the airframe.
 - b. Fins must not be broken but may be repaired.
6. Center of Pressure/Center of Gravity
 - a. Center of pressure must be marked on the rocket (location usually included in rocket instructions).
 - b. Center of gravity should be at least one airframe body diameter in front of the center of pressure.
7. Flight Cards
 - a. Available at the Range Safety Officer (RSO) table.
 - b. Must be filled out prior to bringing your rocket to the RSO for inspection.
 - c. A new flight card is required each time a rocket is flown.
 - i. At a minimum the flight card should include the date, flyer name, rocket name, rocket color, and the motor size (e.g., F30-8FJ, G117-11A, ...).
 - ii. If you are a Tripoli Rocketry Association or National Association of Rocketry member you must also provide your membership number. Membership is required for all adults (18 or older) but is not required for individuals under 18 years of age.