

# Highland Lakes Flyers

## Safety Inspection Checklist for New-to-Owner or Repaired Models

A safety inspection must be conducted by one or preferably, more Safety Committee member(s) before any model that is new or newly-acquired or crash-damage-repaired may be flown at Hank Nilsen Field or at Club events.

The following are minimum requirements for member-operated models. All possible circumstances are not described – inspector discretion in applying these guidelines will be exercised. A test pilot or flight instructor may impose reasonable, additional requirements before testing the plane or allowing a student to control it.

### Internal Checks – before mounting wing:

- Channels on RX , TX, scanner and pin match. For 2.4ghz systems, binding process has been completed
- For electric models, propeller has been removed or two or more ESC to motor wires have been disconnected
- TX controls the appropriate servos and in the proper directions. Attach wing servo wires in order to test, if appropriate. Control throws, including throttle arm, are smooth and do not bind, including at end points
- AMA # or name and address is attached to the model (both are recommended)
- RX battery (where fitted) and TX battery have been adequately charged. If tested, use load meter, if available
- Servos are securely attached to fuselage and wing mounting surfaces
- Servo arms screws are present and tight
- Pushrods are securely attached to servo arms with appropriate connectors
- Receiver and battery are securely attached to fuselage; properly padded for glow or gas planes
- Fuel tank is secure. For electrics, battery is securely connected to the fuselage
- Electrical connections are securely made (where reasonably available to inspect)
- Electric model's soldered connections are sound (test by pulling wires) and covered with heat shrink
- Antenna wire is not crossed, shortened or run in close proximity with metal, carbon fiber or wires for long distances. Strain relief is attached. Antenna routing will not interfere with servo arms or pushrods

### External Checks – after wing mounting:

- Model balances properly within the manufacturer's specification(s). Inspector judgment shall be used (e.g., 25-30% of chord) where balance point is not known
- Control throw deflections are set to manufacturer's specifications where known or are "reasonable for the type of model" (inspector judgment) where not known. Dual rate and exponential, if used, are set as intended by pilot
- Appropriate connectors are used between the pushrods and control horns and all are safely secured (fuel tubing or other mechanical means to secure clevises is recommended)
- Control surfaces, control horns, linkages and connectors are firmly attached (pull on each surface)
- Control surfaces have minimal play, remain solid (no slippage), do not bind and pushrods do not bend – test by inspection and gently holding the control surface while moving it using the TX

### Pre-flight Checks:

- Wings, tail surfaces and fuselage, and their covering, are securely attached
- Model does not have excessive warps. Wings, fuselage and tail surfaces are aligned, as appropriate
- Incidence angles appear appropriate
- Wheels are firmly attached and ground steering controls work properly
- Engine/motor is firmly attached
- Engine/motor thrust angle is between neutral and moderate right / moderate down thrust or per the manual
- Fuel tank (where fitted) fills properly; clunk "clunks"; tank and fuel lines do not leak
- Propeller is not damaged or reversed, firmly attached (at end of inspection for electrics), and proper for the model and type of power. AMA-approved prop nut or spinner is attached for glow / gasoline models
- Range check yields acceptable results
- Engine or motor runs acceptably well
- Ground handling is acceptable