

Condition Inspection

The following can be used as a guideline to start an inspection for your particular aircraft if you do not have the manufactures procedure.

Aircraft Make/Model: _____ S/N: _____ TT _____

Engine Make/Model: _____ S/N: _____ TT _____

Dates of Inspection _____

Inspector _____

Check all that apply

Owner Operator Pilot Certified Mechanic

100 hour or Annual (which ever is less) or Unknown aircraft

Last Inspection performed when date _____ Hours _____

Mark "P" for pass or "F" fail at each line _____

Ready the aircraft to be inspected

Remove or open all necessary inspection plates, access doors, fairing, and cowling

Remove seats if needed to inspect systems under

Thoroughly clean the aircraft and propulsion system.

Cockpit group:

General condition of cockpit for cleanliness and loose equipment that might foul the controls.

Seats and safety belts for good condition, operation, secure attachment, and acceptable wear.

Windows and windshields for deterioration, breakage and security.

Instruments for general condition, mounting, marking, and (where practicable) operation.

Flight controls for proper installation, full range smooth operation and security. Lubricate if appropriate.

Engine and mixture (choke/primer) for proper installation, smooth operation, locking and operation. Lubricate if appropriate.

Brakes for operation, travel, security and general condition. Lubricate if appropriate.

All cockpit controls and systems for proper installation, general condition, apparent and obvious defects, and security of attachment.

All certificates, documents, placards, nameplates and airworthiness certificates are current and in aircraft.

Landing gear:

Shock absorbing devices general condition, security and operation (proper fluid level, bungee security, and/or springs as required).

Suspension linkages, trusses, and members for wear, cracks, fatigue, and distortion.

Hydraulic lines to brakes for leakage.

Wheels for smooth operation, tightness, cracks, defects, condition of bearings and alignment.

Tires for pressure, wear, cuts and out of round.

Brakes for proper operation, adjustment, pad/drum/disk tolerances as appropriate.

Floats and skis for insecure attachment and obvious or apparent defects.

Floats and skis systems retracting and locking mechanisms for proper operation.

Wing

Center section assembly for general condition, tightness and wear

All structural wing attachments general condition and fastener security of struts, wires and cantilever systems.

Wing ribs, compression struts, and spars general condition, security, tightness.

Leading edge and air foil shape. Symmetry for right and left wings.

Skin deterioration, distortion, evidence of failure, and security of skin attachment for wing, ailerons, and flaps

Fabric general condition for wear, tears, excessive sun and security of attachment. Upper and lower surfaces for wing, ailerons, and flaps.

Fabric punch test by qualified mechanic for structural integrity if any wing, ailerons, or flaps fabric condition is in question.

- _____ Aileron travel is smooth, full travel, minimum play in hinges and control lines.
- _____ Flap operation is smooth, full travel, minimum play in hinges and control lines. Flaps lock in proper positions.

Propulsion system (nacelle or cowling if applicable)

- _____ Change oils and cooling fluids, replace fuel filter, replace or clean air filters, and replace spark plugs as required.
- _____ Inspect engine section for visual evidence of excessive oil, fuel, exhaust or hydraulic leaks.
- _____ Torque induction, exhaust, and cylinder heads to specifications as required.
- _____ Induction inlet boots for cracks and leaks
- _____ Cylinder compression check. Record values _____
- _____ Metal particles or foreign matter on screens and sump drain plugs where possible.
- _____ Engine mounts for cracks, and security. Torque to proper POH values.
- _____ Flexible vibration dampeners general condition and security. Look for large cracks in aged or dried out rubber
- _____ Engine controls general condition, travel, and safetied where required.
- _____ Lines, hoses, and clamps for leaks, condition and looseness.
- _____ Exhaust pipes for cracks, and proper attachment. Springs secured and safetied.
- _____ Nacelle or cowling for cracks, defects and security.
- _____ Propeller assembly for cracks and nicks. Torque propeller and gearbox to specifications.
- _____ Propeller balance and tracking.
- _____ Accessories and systems for proper installation, general condition, defects, and secure attachment.
- _____ Belts condition and tension as required.
- _____ Control cables lubrication where appropriate.
- _____ Follow 100 hour manufactures maintenance specifications

Control Cables and rods

- _____ Cables and rods general condition and smooth operation
- _____ Turn buckles safetied with wire, wire routing proper around pullies, and all attachments general condition
- _____ Tautness and play good over all complete systems

Fuselage and Tail:

- _____ Structural horizontal and vertical stabilizer attachments general condition and fastener security of struts, wires and cantilever systems.
- _____ Ribs, compression struts, and spars general condition, security, tightness.
- _____ Leading edge and air foil shape.
- _____ Skin deterioration, distortion, evidence of failure, and security of skin attachment for all of tail section
- _____ Fabric general condition for wear, tears, excessive sun and security of attachment.
- _____ Fabric punch test by qualified mechanic for structural integrity if any fabric condition is in questionable.
- _____ Rudder and aileron travel is smooth, full travel, minimum play in hinges and control lines.
- _____ Trim operation is smooth, full travel, minimum play in hinges and control lines.

Systems

- _____ Radio and electronic equipment for improper installation and insecure mounting.
- _____ Radio antenna position, security and operation.
- _____ Electric system wiring and conduits for proper routing, secure mounting, and obvious defects.
- _____ Batteries for proper installation, charge and general condition.
- _____ All other systems for proper attachment, security, and operation.

_____ **Other items not listed here for proper installation, condition, operation or safety of flight**

Notes and explanation of any problems, or items found that could progress to a safety of flight
(use additional sheets of necessary)

Inspector Name _____ Date completed and airworthy _____