

Aircraft: _____
 Serial Number: _____ Registration Number: _____

Aircraft Owner: _____
 Date of Inspection: _____ Location of Inspection: _____

Total Airframe Hours:	
Total Engine Hours:	
Total Propeller Hours:	

Inspection Performed By: _____ Certificate: _____

Preparation — Inspection Consumables

Oil	
Oil filter	
Oil sample kit	
Spark plugs	
ELT batteries	
ELT remote battery	
Air filter recharge kit	
Brakes	
Tires/tubes	
Wheel bearing grease	
Gasket lube	
Light lubricant	

Time-limited items

<i>Item</i>	<i>Last inst. date</i>	<i>Last inst. HOBBS</i>
ELT batteries (replace every 2 years)		
ELT remote battery (replace every 2 years)		
Altitude encoder & transponder certification		

Empennage & Fuselage Group

- _____ 1) Remove empennage fairing, fuselage inspection covers, wing root fairings, seats, baggage panels f/r, front floorboard
- _____ 2) Inspect vertical stabilizer and horizontal stabilizer spar attach points
- _____ 3) Inspect elevator horns and attachments, and rear fuse bulkheads area, lubricate rod end bearings
- _____ 4) Inspect rudder and vertical stabilizer for corrosion and condition
- _____ 5) Inspect rudder attach bearings for condition/security, lubricate
- _____ 6) Inspect rudder control stops and cable attachments for security and cotter pin
- _____ 7) Inspect rudder light wire for chafing
- _____ 8) Inspect horizontal stabilizer and elevators for corrosion and condition
- _____ 9) Inspect elevator attach bearings for condition/security, lubricate
- _____ 10) Inspect elevator counterbalance weights for security
- _____ 11) Inspect elevator trim tab, arm, and actuator rod
- _____ 12) Inspect static ports are clear
- _____ 13) Inspect rear fuselage interior: check skin/bulkheads for cracking, damage, or corrosion, inspect all wiring & plumbing
- _____ 14) Inspect elevator bellcrank assembly, lubricate rod end bearings

- _____ 15) Re-install rear baggage panels
- _____ 16) Reinstall empennage fairing and rear inspection plates

Landing Gear Group

- _____ 17) Remove wheel pants, upper intersection fairings, gear attach covers
- _____ 18) Inspect wheel pants and fairings for cracks, wear, loose or missing fasteners
- _____ 19) Jack plane at tiedown points
- _____ 20) Remove brake assemblies and wheels
- _____ 21) Inspect tires for wear and cracks, rotate if indicated, replace if necessary
- _____ 22) Check brake cylinders for condition and leaks
- _____ 23) Check brake lines for security and chafing
- _____ 24) Inspect brake linings for wear and condition, re-line if necessary
- _____ 25) Re-pack wheel bearings (hi-temp disc brake grease)
- _____ 26) Clean axle/brake area
- _____ 27) Clean and re-mount wheels and brake assemblies including cotter pin
- _____ 28) Check/set tire air pressure: 26-33 psi
- _____ 29) Clean wheel pants and re-install
- _____ 30) Inspect gear attach bolts for proper torque
- _____ 31) Inspect fuel vent ports for security and condition
- _____ 32) Re-install gear attach covers, upper intersection fairings, wheel pants

Wing Group

- _____ 33) Remove wing inspection plates
- _____ 34) Inspect entire wing structure internally for cracks and corrosion including fuel tank attach bolts
- _____ 35) Inspect aileron control mechanism (push tubes, rod end bearings, bellcrank) for condition/security, lubricate rod end bearings
- _____ 36) Inspect wing root area including electrical connections and plumbing
- _____ 37) Inspect entire wing structure externally for cracks and condition
- _____ 38) Inspect fuel cap and O ring condition
- _____ 39) Inspect aileron attach bolts/brackets for security, lubricate rod end bearings
- _____ 40) Inspect aileron control stops for security
- _____ 41) Inspect pitot tube and plumbing for security and blockage
- _____ 42) Extend flaps, inspect flap actuator rods and attachment hinge for operation and security, lubricate rod end bearings
- _____ 43) Inspect strobe/nav lights for security and operation
- _____ 44) Inspect landing lights for security and operation
- _____ 45) Reinstall inspection plates and wing root fairings

Cabin Group

- _____ 46) Check/change ELT batteries, verify operation, armed
- _____ 47) Inspect ELT antenna
- _____ 48) Inspect flap motor mechanism & wiring for damage and proper operation, lubricate rod end bearing
- _____ 49) Inspect condition of seat harnesses and attachments
- _____ 50) Inspect rear flight controls, lubricate rod end bearings
- _____ 51) Inspect rear pax footwell area including spar bolts, antennas, wing wiring connections
- _____ 52) Inspect fuel selector valve, fittings, fuel lines
- _____ 53) Inspect fwd flight control mechanism, lubricate rod end bearings
- _____ 54) Inspect landing gear mounts and mounting hardware
- _____ 55) Check general condition under panel for loose wires, chafing, etc.
- _____ 56) Check all avionics and instruments for mounting security
- _____ 57) Check cabin heater and controls
- _____ 58) Check rudder pedals and brake cylinders for operation and leaks
- _____ 59) Check battery well area: battery cables and all wires
- _____ 60) Inspect left fwd footwell area: aux fuel pump, firewall penetrations, wire bundles, fuel lines, vent tubes
- _____ 61) Inspect canopy structure and mechanism for security and wear
- _____ 62) Inspect canopy and windshield for cracks
- _____ 63) Check fire extinguisher condition
- _____ 64) Verify spare fuses available in pilot storage bin
- _____ 65) Re-install interior floor panels, seats, flap covers, and seat cushions

Propeller Group

- _____ 66) Remove spinner noting orientation
- _____ 67) Inspect spinner and backplate for cracks or damaged
- _____ 68) Inspect prop hub for cracks or leaks
- _____ 69) Inspect crankcase nose seal for oil leaks
- _____ 70) Inspect blades for nicks, cracks and/or surface erosion, repair as necessary
- _____ 71) Re-install spinner

Engine Group

Service items:

- _____ 72) Remove engine cowl
- _____ 73) Clean cowling interior and inspect for cracks, distortion, loose or missing fasteners, heat damage
- _____ 74) Drain engine oil
- _____ 75) Remove spin-on oil filter, replace and safety wire
- _____ 76) Cut open oil filter, inspect for particles
- _____ 77) Refill engine with oil per lubrication chart
- _____ 78) Remove plugs noting current installed location
- _____ 79) Inspect spark plug condition, clean, re-gap to .018"
- _____ 80) Perform leakdown compression test:
#1 _____ #2 _____ #3 _____ #4 _____
- _____ 81) Rotate spark plug position/polarity, apply anti-seize, reinstall, torque to 35 ft. lbs.
- _____ 82) Remove carburetor air box and carburetor heat attachments
- _____ 83) Service K&N air filter element
- _____ 84) Reinstall air box and all attachments

- _____ 85) Remove and clean carburetor inlet strainer
- _____ 86) Inspect carburetor mounting nuts for security
- _____ 87) Check engine controls for proper movement and security
- _____ 88) Check exhaust system and mounting brackets for cracks
- _____ 89) Retorque exhaust mounting nuts

Inspection items:

- _____ 90) Inspect accessories on rear engine case for security and leaks including: oil temp sender, oil pressure sender, magnetos, vacuum pump pad, oil lines & fittings, crankcase breather
- _____ 91) Inspect oil cooler condition including fins for damage or blocking, lines for leaks and/or chafing
- _____ 92) Inspect ignition harness, springs and insulators for condition
- _____ 93) Inspect starter: pinion & ring gears, mounts, connections, lubricate w/grease
- _____ 94) Inspect alternator: mounts, lead connections, belt condition and tension
- _____ 95) Inspect plenum/baffle for damage and air leaks
- _____ 96) Inspect engine mount system for damage and attachment security
- _____ 97) Inspect all firewall penetration seals
- _____ 98) Inspect fuel lines for condition, chafing, and signs of leaks
- _____ 99) Inspect all wire bundles for security and chafing
- _____ 100) Inspect all lines, hoses, and clamps for leaks, improper condition, looseness, and chafing

Operational Inspection

- _____ 101) Verify all inspection panels and fairings secure
- _____ 102) Brake system check

Test run engine:

- _____ 103) Check oil pressure/temperature within limits
- _____ 104) Check aux fuel pump for proper fuel pressure
- _____ 105) Check ignition switch, both magnetos grounded check
- _____ 106) Check alternator shut off operation
- _____ 107) Check fuel gauges for operation
- _____ 108) Magneto check
- _____ 109) Check static run up
- _____ 110) Check for proper idle RPM
- _____ 111) Check RPM rise upon leaning mixture
- _____ 112) Check fuel selector for engine shutoff

After shutdown:

- _____ 113) Inspect fwf area for fuel, oil, and hydraulic systems for leaks
- _____ 114) Re-install cowling

