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

<p>| | |</p>
<table>
<thead>
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<tbody>
<tr>
<td>Oil</td>
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<tr>
<td>Oil filter</td>
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<tr>
<td>Oil sample kit</td>
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<tr>
<td>Spark plugs</td>
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<tr>
<td>ELT batteries</td>
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<tr>
<td>ELT remote battery</td>
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<tr>
<td>Air filter recharge kit</td>
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<tr>
<td>Brakes</td>
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<tr>
<td>Tires/tubes</td>
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<tr>
<td>Wheel bearing grease</td>
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<tr>
<td>Gasket lube</td>
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<td>Light lubricant</td>
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Time-limited items

<table>
<thead>
<tr>
<th>Item</th>
<th>Last inst. date</th>
<th>Last inst. HOBBS</th>
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<tbody>
<tr>
<td>ELT batteries (replace every 2 years)</td>
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<td></td>
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<tr>
<td>ELT remote battery (replace every 2 years)</td>
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<tr>
<td>Altitude encoder &amp; transponder certification</td>
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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
Condition Inspection Checklist

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

_____ 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:

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#1    #2    #3    #4
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_____ 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
Condition Inspection Checklist

_____ 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
Documentation

- 115) Verify Registration, Airworthiness Certificate, and Operating Limitations in aircraft
- 116) Verify external data plate secure and installed
- 117) Verify EXPERIMENTAL placard installed in cockpit
- 118) Verify PASSENGER WARNING placard installed in cockpit
- 119) Verify pre-flight checklist and Pilot’s Operating Handbook in aircraft
- 120) Verify equipment list up to date
- 121) Review Airworthiness Directives for applicability and compliance
- 122) Review Service Bulletins/Letters for compliance
- 123) Check altitude encoder & transponder certification (every 24 months)
- 124) Document Condition Inspection and record maintenance performed in airframe and engine logs

NOTES: