

SINGLE ENGINE GENERIC

FIXED LANDING GEAR

AIRCRAFT INNOVATION & REPAIR SERVICES, INC.**PERIODIC INSPECTION CHECKLIST**

Model: _____ Serial #: _____ Reg. #: _____ Tach: _____ T/T: _____

Registered Owner: _____ Start Date: _____ Due Date: _____

Revision Number: 5 Date: 08/14/08**DOCUMENTATION & EQUIPMENT**

	X	MECH
A1. Airworthiness Certificate in Aircraft? Y/N: Legible? Y/N:		
A2. Registration Certificate in Aircraft? Y/N: Current? Y/N: Legible? Y/N:		
A3. Record Registered owner's name on work sheets		
A3. Log Books in aircraft? Y/N:		
A4. Check for data plate. Record registration and serial number of aircraft on work sheets.		
A5. Aircraft Records file (337s, W&B, etc) in Aircraft? Y/N:		
A6. Weight & Balance traceable? Y/N: Date of last update:		
A7. AD compliance checklist available? Y/N: Date of last checklist:		
A8. Flight Manual contains appropriate STC's and FM Supplements for modifications? Y/N:		
A9. Personal effects in aircraft? Y/N: List:		

PRE INSPECTION RUNUP

	X	MECH
B1. Record aircraft Tach hours or hobbs hour reading on work sheets		
B2. Start up oil pressure @ 1500 RPM p.s.i indicated		
B3. Warm up engine: oil temp: _____ Deg. F.: Oil Press @ 700 RPM: _____ p.s.i		
B4. Magneto check - Left: _____ / Right: _____ / Smooth Y/N:		
B5. Propeller cycle check @ 1700: Minimum RPM:		
B6. Suction gauge @ 1700 RPM: _____ In Hg.		
B7. At max electrical load, minimum RPM for positive charge:		
B8. M/P @ 2200 RPM RPM @ 25" M/P Max Static RPM		
B9. Minimum Idle speed: _____ RPM: ICO RPM increase: _____ RPM		
B10 General Running Conditions, Throttle Response Etc, OK? Y/N:		
B11. Taxi check, Brake effectiveness & pedal adjustment		

ENGINE SECTION

	X	MECH
C1. Record model and serial number of engine on work sheets		
C2. Check engine compartment for visible evidence of leaks. Clean engine area with solvent.		
C3. Drain Engine oil. Oil sample taken? Y/N:		
C4. Remove Oil filter and/or screen. Contaminants? Y/N: Type:		
C5. Compression Check: #1 /80, #2 /80, #3 /80, #4 /80, #5 /80, #6 /80		
C6. Clean & Gap or Replace Spark plugs. DO NOT CLEAN FINE WIRE PLUGS		
C7. Check Ignition Harness for routing, security, chafing and burning		
C8. Magneto timing before change: R L Deg. BTC. Set to data plate specs.		
C9. Record model and serial number(s) of inags on work sheets		
C10. Check exhaust system for cracks, gaskets, studs and nuts. Check brackets if installed		
C11. Check Intake tubes for corrosion, seal leaks at sump, gasket leaks at cylinders		
C12. Check carburetor for signs of leaking, throttle shaft and other wear		
C13. Check alternator mounting bolts and bracket for looseness and safety wire		
C14. Check condition of alternator cooling duct & drive belt		
C15. Check security of Alt. RF capacitor, field wire, armature wire & ground wire; install standoff		
C16. Check condition of starter wire.		
C17. Check engine ground strap for condition and security.		
C18. Check condition of fixed and flexible engine cooling baffling		
C19. Check all valve covers for leaks and re-torque all valve cover screws		
C20. Check torque of engine mounting bolts and condition of "Engine Mounts"		
C21. Check engine mount for rust and distortion		
C22. Check security of oil filler cap and dipstick		
C23. Check condition of oil cooler hoses. Replace if more than 8 years old or of undetermined age		
C24. Check prop governor for leaks and security and condition of cable (end)		
C25. Check vacuum pump & coupling for signs of wear. Check security of fittings		
C26. Check condition of Hot & Cold air (scat) hoses		
C27. Fill engine with recommended qty of oil. Qty & Type oil used :		
C28. Install Oil filter and safety. Check drain fitting for leaks and safety		
C29. Inspect air box for cracks and screen. Install new filter element. Safety as required.		
C30. Check intake ducting and Alternate air door (Carburetor heat if applicable)		
C31. Check travel stops of throttle cable and security of cable end		
C32. Check travel stops of mixture cable and security of cable end		
C33. Check travel stops of prop control cable and security of cable end		
C34. Check travel stops of carb heat cable and security of cable end		
C35. Check crankcase breather line/hose for security and chaffing		
C36. Comply with AD 2008-14-07: Inspection & security of fuel injection lines & flow divider		

PROPELLER

	X	MECH
D1. Remove propeller Spinner. Check for cracks in spinner and bulkhead(s)		
D2. Dress blades and impact dents as required. Paint with propeller paint		
D3. Inspect for looseness of blades & clamps, oil & grease leaks. Grease if required		
D4. Check torque of mounting nuts and for proper safety wire		
D5. Record S/N of propeller and blades on work sheets		

INTERIOR & CABIN

	X	MECH
E1. Remove seats, all carpet in floor and baggage area		
E2. Inspect seat belts and shoulder harnesses, attachments and ends		
E3. Inspect control cables and bellcranks. Inspect & lubricate all rod ends		
E4. Inspect control rod bellcranks for wear and cracks. Lubricate pivot points		
E5. Clean oil from fuselage bottom and vacuum debris from inside.		
E6. Inspect brake master cylinders & refill with fluid. Check function of parking brake		
E7. Check for broken/cracked vacuum and pitot static lines under panel		
E8. Check control wheel U-Joint, shaft and wheel for cracks and security. Lube as required		
E9. Check door latches and lubricate lock cylinder		
E10. Check condition of seat rollers and seat tracks		
E11. Check operation and friction lock on Throttle, prop and mixture control		
E12. Check that all required interior placards are in place		
E13. Check condition of floor and attaching hardware. Replace interior		

FUEL SYSTEM

	X	MECH
F1. Check all fuel drains, especially main drain, for flow, leaks and proper operation		
F2. Check Main tank cap gaskets. Replace if required		
F3. Check for Main fuel tank Octane and Qty placard		
F4. Blow out & check Main fuel vent line		
F5. Check for free travel of fuel transmitter float and accuracy of fuel gauge		
F6. Inspect interior of aircraft for evidence of fuel leaks		
F7. Inspect all flexible fuel lines for wear, corrosion and aging ; replace if required		
F8. Operate fuel shutoff and check for proper operation		

LANDING GEAR

	X	MECH
G1. Place Aircraft on jacks		
G2. Remove main wheels. Inspect bearings, axles, tires and brakes. Replace as required		
G3. Grease and/or lubricate wheels & ALL landing gear grease points		
G4. Inspect hydraulic brake lines for wear, corrosion and aging		
G5. Check nose gear strut for wear, corrosion and straightness		
G6. Check nose gear scissor assy for looseness		
G7. Check shimmy damper for function and leaks. Refill if required		
G8. Inspect nose gear assy for excessive looseness and wear		
G9. Remove from jacks.		
G10. Inflate ALL tires to proper pressure		

EMPENNAGE

	X	MECH
H1. Check elevator hinges for looseness and security. Lubricate as required		
H2. Check trim tabs for travel and looseness of clevis ends.		
H3. Check and lubricate trim wheel, chain and trim actuator		
H4. Check rudder hinges, bellcranks, rod ends and actuation brackets for wear & security		
H5. Lubricate rudder hinges, rod ends, pivots, & bellcranks as required		
H6. Check rudder counterweight for security if applicable		
H7. Check condition and attachment hardware of plastic stabilizer and vert fin tips		
H8. Check security of VOR antenna, tail light lenses, anticollision lights		
H9. Check for corrosion around, and security (cracking) of horizontal stabilizer attach fittings		
H10. Check for corrosion around, and security (cracking) of vertical fin attach fittings		
H11. Check tie down ring for damage and security		
H12. Check bottom area aft of main gear for damage to skins and frames		

WINGS, FLAPS, AILERONS

	X	MPCH
I1. Remove inspection covers and plugs. Inspect and lubricate all rod ends and bellcranks		
I2. Check rear wing attach bolts for looseness and condition of rear spars		
I3. Check main wing attach bolts for security and condition. Check attach area for corrosion		
I4. Check wing skins & ribs for L/E damage, security and improper repairs etc.		
I5. Check aileron rod ends for corrosion, thread length and adjustment		
I6. Check aileron hinges for wear. Lubricate hinges.		
I7. Check aileron counterweights for security		
I8. Check wing tips for loose hardware. Check security of nav light fixtures		
I9. Check flap brackets for corrosion. Check flap bearings & attach bolts for corrosion and wear		
I10. Check & lube bearings, rollers and flap actuating screw(s)		
I11. Check security & condition of pitot and static lines at pitot tube		

ELECTRICAL & LIGHTING

	X	MPCH
J1. Check fluid level of battery if applicable		
J2. Check battery cable ends, cable ends at solenoids, starter & ground for corrosion & fatigue		
J3. Check nav lights for operation		
J4. Check anti collision lights for operation		
J5. Check Landing and Taxi lights for operation		
J6. Check pitot heat for operation		
J7. Check stall warning horn for operation		
J8. Check instrument lights and cockpit lights for dimming and proper operation		
J9. Check external power receptacle for operation		
J10. Check ELT for functionality & battery date		

INSTRUMENTS AND AVIONICS

	X	MECH
L1. Check power to all avionics equipment		
L2. Check mounting of all avionics equipment for security improper installation		
L3. Check antennae for security and corrosion under mounting surface		
L4. Check condition security of autopilot servos and servo actuators		
L5. Check function of PTT switch(es) if installed		
L6. Check function & security of all headset & mic jacks		
L7. Check compass for fluid level and correction card. Recalibrate if required		
L8. Record date of last Altimeter/Static check;		
L9. Record date of last transponder certification check;		

GENERAL & SUPPLEMENTARY

	X	MECH
M1. Check log book entries for AD compliance		
M2. Check log books for correspondence of Total hours with hobbs or Tach hours		
M3. Check log book entries for FAR 91,411, 413 Altimeter, pitot static, & transponder check		
M4. Check log book entries for ELT battery date		
M5. Powerplant work items & inspection signed off in engine log book		
M6. Prop work items & inspection signed off in propeller log book		
M7. Aircraft work items entered in Aircraft log books & Inspection signed off		
M8. Aircraft vacuumed and exterior washed.		
M9. Windshields cleaned		
M10. Aircraft run up and checked for leaks, fueled & preflighted for test flight		
M11. Aircraft test flown and released for service.		
M12. Aircraft secured and/or tied down		

01/06/03 Revision 3: Changed Title to "SINGLE ENGINE GENERIC". Added Items C12 & C23. Renumbered subsequent items. Added "install standoff" to item C15

08/25/04 Revision 4: Added Item C36 to include fuel injected aircraft.

08/14/08 Revision 5: Changed Item C36. Updated AD with latest revision.