

MODELS AA-5, AA-5A & AA-5B		
PRE-INSPECTION ENGINE RUN UP Prior to beginning the Annual or 100 hour inspection, an engine run up is to be made to facilitate oil drainage and to observe the following, noting any discrepancies:	MECH	INSP
1.Fuel Pressure (0. 5 to 8 PSI) Electric Pump only prior to engine start up. <b>Pressure:</b>		
Engine Pump only after engine start up <b>Pressure:                   Both:</b>		
2.Oil Pressure (60 to 90 PSI) (Approx. 25 PSI idling) <b>Actual:                   Actual:</b>		
3.Magneto RPM Drop (175 RPM maximum drop on either magneto; no more than 50 RPM difference between magnetos. ) Actual Drop <b>Mag:                   EIS:</b>		
4.Static RPM: AA-5 & AA-5A AA-5B (2150-2275) <b>Actual RPM:</b>		
5.Idling Speed: AA-5 & AA-5A AA-5B (500 to 650 RPM) <b>Actual RPM:</b>		
6.Ammeter (no steady discharge in normal operating range)		
8.Fuel Selector (check operation in all positions)		
9.Carburetor Heat Control		
10.Engine Response to change in power		
11.Idle cut-off		

MODELS AA-5, AA-5A & AA-5B ANNUAL OR 100 - HOUR INSPECTION PROCEDURE		
<b>PROPELLER GROUP</b>	MECH .	INSP.
Remove spinner and check for cracks, scratches, scoring, dents, nicks and distortions.		
Inspect blades for erosion, scratches, nicks and cracks. Dress out nicks as required.		
Inspect spinner back plate, bulkheads and doubler for cracks and secure mounting.		
Check front crankshaft seal for oil leaks.		
Check propeller mounting bolt torque: <b>Foot pounds:</b>		
Resafety propeller, mounting bolts		
Reinstall spinner. Check spinner run out _____ inch maximum.		

MODELS AA-5, AA-5A & AA-5B ANNUAL OR 100 - HOUR INSPECTION PROCEDURE	MECH.	INSP.
<b>ENGINE GROUP</b>		
Remove engine cowl. Clean and check for cracks, wear, distortion, loose or missing fasteners and landing light attachment		
Drain oil sump. Remove oil screens, clean and inspect for metal particles. Reinstall and resafety. Replace oil filter. Cut apart and inspect old filter for metal particles.		
Check oil temperature sending unit, oil lines, cooler, and fit-tings for leaks, chafing, dents, cracks, and secure mounting.		
Fill engine with oil per lubrication chart.		
Clean engine		
Check engine cylinder compression #1. #2. #3. #4.		
Clean and regap or replace spark plugs as required.		
Check ignition harnesses. Clean and inspect insulators		
Check magnetos to engine timing, oil seal leakage, and distributor block for cracks, burned areas and corrosion.		
Remove and service air filter (see Chapter 73 for details). Inspect carburetor heat control valve plate, shaft, valve plate to shaft screws and bearings for signs of wear and security. Replace filter and/or gasket if damaged or defective. Reinstall carburetor air filter		
Check induction air intake seals for leaks, deterioration and hardness. Check flex ducts for broken or loose strings, loose or displaced supporting wire and general overall condition for signs of wear or perforation.		
Drain carburetor bowl. Reinstall drain plug. Remove and clean carburetor fuel inlet screen with acetone. Reinstall screen.		
Remove and clean electric fuel pump filter. Reinstall and resafety.		
Check fuel pump for proper operation and secure mounting. Pressurize fuel system with electric pump and inspect fuel system and lines for leaks. Check fuel primer for operation and line leaks.		
Check starter for secure mounting		
Check security of throttle arm on carburetor. Check throttle, carburetor heat, and carburetor mixture controls for proper travel, security, operating condition and control cushion.		
Remove exhaust shroud and check muffler tailpipe, risers, clamps, gaskets and exhaust system for cracks, leaks and secure mounting. Reinstall shroud		

Check breather tube for obstructions and secure mounting.		
Inspect cylinders for evidence of excessive heat indicated by burned paint on the cylinder. Check for cracks, loose bolts, oil leaks and general condition.		
Inspect engine mount for cracks, secure mounting and proper safety wiring. Check rubber vibration dampeners for signs of deterioration. Replace as required.		
Check all baffles for cracks, loose or missing screws and deteriorated seal material		
Check alternator for secure mounting and lugs and brackets for cracks. Check condition and tension of alternator drive belt. Replace if required. (Adjust belt tension to yield a 5/16 in. deflection at the center of the belt when applying a pressure equivalent to 14 pounds for new belts and 10 pounds for used belts.		
Check battery electrolyte level and specific gravity. Clean and tighten battery terminals. Check battery box drains and vents for condition and drainage clear of aircraft structure.		
Check ground straps for condition and secure attachment		
Check electrical wiring for condition and secure connections, including shielded cable ground connections		
Check voltage regulator, starter relay and master switch relay for secure mounting and proper operation.		
Install cowl, checking for proper engagement of air intake duct and cowl latches.		

MODELS AA-5, AA-5A & AA-5B ANNUAL OR 100 - HOUR INSPECTION PROCEDURE		
<b>C. CABIN GROUP</b>	MECH.	INSP.
Remove front seats, fold rear seat forward, remove cover rear seat support & remove console side panels.		
Check windshield, windows and canopy for cracks and secure mounting. Clean and lubricate canopy rails. Check canopy operation and locking devices		
Check seat belts and shoulder harnesses for condition and secure mounting		
Check elevator trim control for condition, secure mounting, proper operation and indication.		
Check rudder pedal and brake system for proper operation and condition. Check brake fluid level. Replace rudder pedal springs at 1000 hours		
Check control "T" for secure mounting and adequate clearance from other equipment.		
Check chains, cables, pulleys, turnbuckles and cable ends for condition, secure attachment and safeties. Specifically check cables at pulleys for fraying while actuating controls through full travel. (Max. of four broken wires acceptable)		
Check cable tension at the average temperature for aircraft operation.		
Check all controls for clearance and proper operation.		
Check all interior bond lines for any indications of damage, peeling or cracking		
Check nose gear torque tubes and mounting brackets and bond joints for cracks and secure mounting. Check torque on mounting bolts - center bearing bracket bolts 185-195 in. lb and end plate bolts 300-350 in. lb		
Check flap actuator, push rods, limit switches and indicator for proper operation and secure mounting		
Lubricate per lubrication chart (Chapter 12)		
Check all plumbing in cabin for leaks and condition		
Disassemble, clean, lubricate and reassemble fuel selector valve every 500 hours.		
Check gyro system filters (if installed), replace if necessary. .		
Check instruments for condition, secure mounting and legible markings		
Check electrical wiring switches, lights and electronic equipment for condition and security		
Inspect baggage compartment, baggage door and cargo tie-downs		
Inspect all placards in cabin for condition and legibility		
Reinstall cover over rear seat support, console side panels and front seats.		

Check fresh air vents for proper operation		
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MODELS AA-5, AA-5A & AA-5B ANNUAL OR 100 - HOUR INSPECTION PROCEDURE		
<b>D. FUSELAGE AND EMPENNAGE GROUP</b>	MECH.	INSP.
Remove tailcone and empennage cover.		
Inspect emergency locator transmitter for security, operation and battery expiration date.		
Inspect exterior surfaces for condition and damage. Check all drain holes in the fuselage bottom for obstructions.		
Inspect bond lines for any indication of damage, peeling or cracks.		
Check ventral fin (Model AA-5), horizontal and vertical stabilizers for damage and secure mounting. Insure that horizontal stabilizer and elevator drain holes are open.		
Check elevator, elevator bearings and stops, rudder, rudder bearings and stops, tab hinges and bellcranks for damage, travel and proper operation. Maximum allowable torque tube wear limit at bearing supports is 0.030 in. reduction in wall thickness.		
Check elevator trim mechanism for damage, secure mounting and proper operation.		
Check rudder and elevator cables and pulleys for damage, proper operation and safeties. Check bellcrank attaching bolts for wear.		
Lubricate per lubrication chart. (Chapter 12). Lubricating the trim jackscrew after cleaning, apply a special lubricant - Lubriplate No 630		
Inspect antenna mountings, wiring and electronic installations.		
Check position and anti-collision light (s) for secure mounting.		
Check static system lines and the alternate air source valve (if so equipped). Drain any accumulated moisture from system drain.		
Reinstall inspection covers		

MODELS AA-5, AA-5A & AA-5B ANNUAL OR 100 - HOUR INSPECTION PROCEDURE			
<b>E. WING GROUP</b>		MECH .	INSP.
Remove wing tips and access panels. <b>DO NOT REMOVE 4 FUEL ACCESS PANELS!!!</b> Inspect surfaces, skins, ribs and tips for damage. Check position and anti-collision lights for secure mounting. Insure that all wing drain holes are open.			
Visually inspect interior and exterior bond lines for any indication of damage, peeling or cracks.			
Check ailerons, aileron bearings and stops, flaps, and flap bearings for secure mounting, damage, proper travel and wear. Maximum allowable aileron torque tube wear limit at bearing supports is 0.030 in. reduction in wall thickness. Check that aileron flap and drain holes are open. Check that aileron balance weight tube arm I. D. is open, corrosion free and zinc coated (early aircraft only)			
Check fuel vents and connecting lines for damage and restrictions			
Check fuel tanks, sump tanks and lines for evidence of leakage. Check sump tanks and lines for secure mounting.			
Check fuel cap gaskets for air tight seal			
Check wing and outboard wing section attaching bolts. Torque to 60-85 in. lb.			
Inspect fuel tank placard.			
Check pitot heating element for proper operation (if installed) . .			
Check pitot tube opening and lines. Drain accumulated moisture.			
Check for interior corrosion of skin indicated by a white flaking ash.			



MODELS AA-5, AA-5A & AA-5B ANNUAL OR 100 - HOUR INSPECTION PROCEDURE		
<b>F. MAIN LANDING GEAR GROUP</b>	MECH.	INSP.
Remove wheels and check for cracks. Check condition of brake linings, wheel cylinders, torque plates and mounting pins. Pack wheel bearings, reinstall wheels and key axle nuts at first 100 hours and each 500 hours thereafter. Inspect wheel bearing grease for contamination and solidification at each annual or 100 hour inspection.		
Check tires for approved type, wear and proper inflation.		
Check brake lines for leaks and secure attachment		
Check struts for secure mounting. Inspect for cracks, delamination and nicks.		
Inspect the upper main mounting brackets and spar attaching supports (center spar to fuselage) for wear, cracks and loose bolts.		
Inspect wheel and strut fairings for damage and secure mounting.		
<b>G. NOSE GEAR GROUP</b>	MECH.	INSP.
Check nose gear strut for secure mounting, deformation, damage and cracks.		
Remove nose gear strut from torque yoke and inspect for corrosion of the faying surfaces every 12 calendar months. Remove corrosion if present, paint surfaces with zinc-chromate and reassemble wet. Seal strut to yoke connection with RTV-102 by DOW CORNING.		
Remove and check nose gear fork for deformation, wear and cracks. Maximum fork to strut bearing clearance is 0.035 in.		
Grease fork and friction dampener, assemble to strut and tighten to 10-22 lb. drag at axle.		
Remove nose wheel, check for cracks, clean, inspect and repack bearings, reinstall wheel and safety axle at each 500 hours. Inspect wheel bearing grease for contamination and solidification at each annual or 100 hour inspection.		
Inspect nose wheel for cracks, corrosion and loose or broken bolts.		
Check tire for approved type, wear and proper inflation.		
Check wheel fairing for damage and secure mounting.		

MODELS AA-R, AA-5A & AA-5B ANNUAL OR 100 - HOUR INSPECTION PROCEDURE			
<b>H. OPERATIONAL INSPECTION</b>		MECH.	INSP.
Check brake operation (including parking brake)			
Check fuel primer operation and lines for leaks			
Check booster pump operation			
Check fuel pressure			
Check starter for proper operation			
Check oil pressure and temperature			
Check engine controls for proper operation. Check throttle control for proper cushion.			
Check magneto operation; both ON, left OFF; both ON, right OFF; both ON. (Maximum magneto drop 175 RPM with 50 RPM maximum difference between magnetos). With engine at idle, turn switch to OFF position momentarily to check magneto grounding			
Check engine static RPM: 2150-2275, Model AA-5B			
Check carburetor heater for proper operation.			
Check alternator output			
Check fuel selector valve operation and indexing			
Check heating, defrosting and ventilating system for proper operation.			
Check radio for proper operation			
Check engine mixture setting and idle speed: 500-650 RPM, Model AA-5B			
Check idle cut off on carburetor for proper operation			
Check ailerons for proper operation			
Check elevators and trim tabs for proper operation			
Check flaps for proper operation			
Check fuel quantity gauges for condition and proper operation			
Check interior lights for proper operation and adjustment. . . .			
Check navigation and anti-collision lights for proper operation and landing lights for proper operation and adjustment			
Check pitot heat for proper operation			
Check stall warning device for operation			
Inspect engine after ground run-up. Flight test and inspect for oil leaks and secure mounting of all components.			

MODELS AA-5, AA-5A & AA-5B		
ANNUAL OR 100 - HOUR INSPECTION PROCEDURE		
<b>GENERAL</b>	MECH.	INSP.
Aircraft cleaned and serviced		
Aircraft conforms to FAA Specifications		
All FAA Airworthiness Directives complied with		
All manufacturer's Service Letters and Bulletins complied with		
Checked for proper Owners Manuals or Pilots Operating Handbook.		
Aircraft papers in proper order. Make log book entry		
*****END OF INSPECTION*****		