

LANCAIR 320

ANNUAL CONDITION INSPECTION

Serial Number 449 Registration Number N320WH

Tachometer time _____ Total Time _____ Date _____

ENGINE GROUP A	By	Comment
1. Check documentation: AD's. SB's. ARROW, etc.		
2. Fuel Pressure (boost pump) psi		
3. Start-up oil pressure psi		
4. Run engine at 1200 RPM until oil temperature reaches 140° F		
5. Idle oil pressure psi		
6. Magneto check DROP L/H R/H @1800 RPM		
7. Suction Inches of Hg (4-6) normal		
8. Alternator output Volts Amps		
9. Full power manifold pressure Inches @ RPM		
10. Check operation of prop governor		
11. Check all engine gauges for proper operation		
12. Check for general running conditions and vibrations		
13. Check idle speed and mixture rise @ RPM		
14. Magneto ground check		
15. Compression check #1 /80; #2 /80; #3 /80; #4 /80;		

ENGINE GROUP B	By	Comment
1. Drain engine oil		
2. Remove oil filter and screen, check for contaminants		
3. Check oil breather, inlet and outlet tubes		
4. Install new oil filter, replace screen gasket.		
5. Fill crankcase with qts, oil		
6. Clean and gap spark plugs, Rotate plugs top to bottom		
7. Check ignition harness for chaffing and general condition		
8. Check condition of magneto points, replace as necessary		
9. Check magneto timing in accordance with engine data plate		
10. Check exhaust system for cracks, security, and condition of gaskets		
11. Check intake pipes for condition and leaks		
12. Check condition of air box, clean or replace air filter as necessary		
13. Check condition of alternate air system and flapper valve		
14. Check engine baffles and cowling for general condition		
15. Inspect fuel hoses for general condition		
16. Inspect oil cooler and hoses for general condition		
17. Replace or clean fuel filter and screens as necessary		
18. Check engine vibration isolators for poor condition or deterioration		
19. Check engine mount for cracks and security to firewall		

20. Check engine for oil leaks		
21. Check prop governor for leaks, security, and condition of cable end		
22. Check starter for security and condition		
23. Check alternator and mount for security, condition of wiring and belt for condition and tension		
24. Check battery for electrolyte level and SG and charge		
25. Check battery vent for security and obstructions		
26. Clean battery cable terminals if required and reinstall battery		
27. Check vacuum pump for security and condition		
28. Check tach cable or wiring for security and condition		
29. Wash engine as needed. <u>DO NOT CONTAMINATE VACUUM PUMP OR INDUCTION SYSTEM WITH FLUID.</u>		
30. Lubricate engine controls and check connections and travel		

PROPELLER GROUP C	By	Comment
1. Inspect propeller for cracks, nicks, binds, and oil or grease leaks		
2. Remove minor nicks and dress blades as necessary		
3. Check mounting bolt torque and safety wiring		
4. Check blades for looseness in hub		
5. Inspect spinner, screws, and bulkhead for cracks and condition		
6. Lubricate propeller per manufacturer's recommendation		

CABIN GROUP D	By	Comment
1. Check seat belts for general condition and defects		
2. Check hydraulic power pack and lines for leaks, security, and fluid level		
3. Check elevator idler arm and bob weight for security and lubricate rod ends		
4. Inspect flap motor compartment, rods and motor for proper operation, running current, and lubricate. Remove attach pin from aft end of flap actuator rod and lubricate.		
5. Check aileron, elevator push tubes and trim systems and lubricate rod ends		
6. Check for loose equipment that might foul the controls		
7. Inspect rudder system, cables, attachments, etc.		
8. Inspect brake master cylinders for leakage, free and full extension, and proper operation. Check fluid level at the master cylinders.		
9. Check condition of instrument panel wires, hoses, and vacuum filters.		
10. Inspect pitot static lines		
11. Check mag compass for security and correction card		
12. Check instrument lights		
13. Check instruments for proper markings, general condition, and security		
14. Clean inside of cabin and ensure that drain holes are clear		
15. Inspect fuel lines and tanks for security and leaks		

FUEL SYSTEM GROUP E	By	Comment
1. Check fuel tank sump drains for security		
2. Check sump drains for contaminants		
3. Check all fuel vents for security and obstructions		
4. Check fuel lines for security, chaffing, and leakage		
5. Check fuel tanks and caps for leakage, security, and placards		

6. Check fuel boost pump for operation, leaks, and security		
7. Check fuel shutoff valve for operation and leakage		

LANDING GEAR GROUP F	By	Comment
1. Place aircraft on jacks		
2. Clean excess grease off gear legs, struts, and wheels		
3. Check brake discs and linings for wear or cracks. Make sure calipers slide freely.		
4. Check wheels for general condition and cracks		
5. Check tires for wear, condition, and proper inflation		
6. Check wheel bearings for corrosion and wear, re-pack with grease		
7. Check main gear trailing beams and bolts for wear		
8. Check main gear weldment for fore and aft end play		
9. Check shock absorbers for inflation and leaks		
10. Check nose gear drag link at the knee for wear or hole elongation (disassembly required)		
11. Check nose gear gas spring for 100# minimum to compress		
12. Retract the gear checking for wear and freedom of movement of all bearings of gear and drag strut assembly. Lubricate all moving parts. Check pressure within limits.		
13. Check gear doors for fit and security. Lubricate pivot points and rods.		
14. Free fall the gear using dump valve. Check for freedom of movement and overcentering of links. Check gear using power pack and check pressure down within limits.		
15. Check nose oleo shimmy damper for proper resistance to movement		
16. Check nose gear oleo for condition and leakage. Inflate nose gear oleo to specified pressure unloaded, or strut extension loaded.		
17. Check nose gear operation when wheel is at slight turning radius and tire or tang do not hang up when gear is retracted		
18. Check operation of gear position lights and switches		
19. Check all gear actuators for proper operation and leakage		
20. Check gear switch is down and dump valve closed. Remove aircraft from jacks.		

EMPENAGE GROUP G	By	Comment
1. Remove exterior inspection covers. Inspect for security and wear and lubricate torque tubes, cables and bell cranks. Reinstall inspection covers.		
2. Inspect rudder hinges and rudder attachment pin safetied		
3. Inspect trim tabs, elevator hinges, and lubricate		

WING GROUP H	By	Comment
1. Remove inspection covers		
2. Inspect and lubricate all bell cranks, push rods, and rod ends		
3. Check all wing attach bolts for security and condition		
4. Check flaps for general condition and operation		
5. Check flap actuating rods, bell cranks, hinges, and bearings for condition and lubricate		
6. Check pitot mast and lines for security and obstruction		
7. Check ailerons for condition and hinges for wear, lubricate		
8. Reinstall inspection covers		

ELECTRICAL GROUP I	By	Comment
1. Check navigation lights		
2. Check landing and taxi lights		
3. Check strobes for proper operation and security		

4. Check cockpit and instrument lights		
5. Check pitot heat		
6. Check ELT for operation: Battery due date is		
7. Transponder check due:		

RADIO GROUP J	By	Comment
1. Check radio and electronic equipment for proper installation and secure mounting		
2. Check wiring and conduits for proper mounting and obvious defects		
3. Check bonding and shielding for proper installation and condition		
4. Check antennas for condition, secure mounting, and proper operation		

GENERAL GROUP K	By	Comment
1. Check fire extinguisher for security and "in the green"		
2. Check all placards		
3. Check canopy and hardware for general condition and lubricate		
4. Check composites for signs of delamination, distortion, cracks, damage and lost paint or other evidence of failure		
5. Clean interior and wash exterior		
6. All paper work properly signed and Ads and Sbs compliance checked		
7. Inspect each installed miscellaneous item that is not otherwise covered by this listing for proper operation and installation. See FAR Part 43 Appendix D		
8. Periodically use the dump valve to extend the gear in flight checking for full down and locked condition		

NOTES