

LANCE II SERVICE MANUAL

TABLE III-I. INSPECTION REPORT

— NOTE —

Perform all inspections or operations at each interval as indicated by a circle (O).

Nature of Inspection	Inspection Time (hrs)			
	50	100	500	1000
A. PROPELLER GROUP				
1. Inspect spinner and back plate	O	O	O	O
2. Inspect blades for nicks and cracks	O	O	O	O
3. Inspect for grease and oil leaks	O	O	O	O
4. Lubricate propeller per lubrication chart (section II)	O	O	O	O
5. Check spinner mounting brackets		O	O	O
6. Check propeller mounting bolts and safety (check torque if safety is broken)		O	O	O
7. Inspect hub parts for cracks and corrosion		O	O	O
8. Rotate blades and check for tightness in hub pilot tube		O	O	O
9. Remove propeller; remove sludge from propeller and crankshaft			O	O
10. Inspect complete propeller and spinner assembly for security, chafing, cracks, deterioration, wear, and correct installation		O	O	O
11. Overhaul propeller (see note 22)				O
B. ENGINE GROUP				
WARNING Ground magneto primary circuit before working on engine.				
NOTE: Read notes 5, 24 and 25 prior to completing this inspection group.				
1. Remove engine cowl and inspect for damage	O	O	O	O
2. Clean and check cowling for cracks, distortion, and loose or missing fasteners		O	O	O
3. Drain oil sump (see note 6)	O	O	O	O
4. Clean suction oil strainer at oil change (check strainer for foreign particles)	O	O	O	O

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	50	100	500	1000
B. ENGINE GROUP (cont.)				
5. Change full flow (cartridge type) oil filter element (Check element for foreign particles)	O	O	O	O
6. Check oil temperature sender unit for leaks and security		O	O	O
7. Check oil lines and fitting for leaks, security, chafing, dents and cracks (See Note 8)	O	O	O	O
8. Clean and check oil radiator cooling fins		O	O	O
9. Remove and flush oil radiator (See Note 17)			O	O
10. Fill engine with oil per information in lubrication chart	O	O	O	O
11. Clean engine		O	O	O
CAUTION: Do not contaminate the vacuum pump with cleaning fluid. (Ref: Latest Revision of Lycoming Service Letter No. 1221.)				
12. Check condition of spark plugs (Clean and adjust gap as required, adjust per latest revision of Lycoming Service Instruction No. 1042)		O	O	O
NOTE: If fouling of spark plugs has been apparent, rotate bottom plugs to upper plugs.				
13. Inspect spark plug cable leads and ceramics for corrosion and deposits	O	O	O	O
14. Check cylinder compression (Ref: AC 43.13-1A)		O	O	O
15. Check cylinders for cracked or broken fins		O	O	O
16. Check rocker box covers for evidence of oil leaks. If found, replace gasket; torque cover screws 50 inch-pounds (See Note 12)	O	O	O	O
NOTE: Lycoming requires a Valve Inspection be made after every 400 hours of operation. (See Note 11)				
17. Check ignition harness and insulators (high tension leakage and continuity)		O	O	O
18. Check magneto points for proper clearance (Maintain clearance at 0.016)		O	O	O
19. Check magneto for oil leakage		O	O	O
20. Check breaker felts for proper lubrication		O	O	O
21. Check distributor block for cracks, burned areas or corrosion and height of contact springs			O	O
22. Check magnetos to engine timing		O	O	O
23. Overhaul or replace magnetos (See Note 7)				
24. Remove air filter and clean per Section VIII or VIIIA (Replace as required)	O	O	O	O

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	50	100	500	1000
B. ENGINE GROUP (cont.)				
25. Clean fuel injector inlet line screen (Clean injector nozzles, as required with acetone only)	O	O	O	O
26. Check condition of alternate air valve and housing (Refer to Note 13)	O	O	O	O
27. Check intake seals for leaks and Clamps for tightness (Torque Clamps 40-50 in. lbs.)	O	O	O	O
28. Inspect all air inlet duct hoses (Replace as required)	O	O	O	O
29. Inspect condition of flexible fuel lines		O	O	O
30. Replace flexible fuel lines (See Note 7)				
31. Check fuel system for leaks		O	O	O
32. Check fuel pumps for operation (engine driven and electric)		O	O	O
33. Overhaul or replace fuel pumps (engine driven and electric) (See Notes 7 and 21)				
34. Check vacuum pump and lines		O	O	O
35. Overhaul or replace vacuum pump (See Note 7)				
36. Check throttle, alternate air, mixture and propeller governor and (cowl flaps PA-32RT-300T) controls for security, travel and operating condition		O	O	O
37. Inspect exhaust stacks, connections, clamps and gaskets (Refer to Section III) (Replace gaskets as required)		O	O	O
38. Inspect muffler, heat exchange and baffles (Refer to Section III)		O	O	O
39. Check breather tube for obstructions and security		O	O	O
40. Check crackcase for cracks, leaks, and security of seam bolts		O	O	O
41. Check engine mounts for cracks and loose mounting		O	O	O
42. Check all engine baffles (also check engine baffle seals on PA-32RT-300T)		O	O	O
43. Check rubber engine mount bushings for deterioration (Replace as required)		O	O	O
44. Check fire wall seals		O	O	O
45. Check condition and tension of alternator drive belt (Refer to Section XI or Section XIV if air conditioning is installed)		O	O	O
46. Lubricate alternator idler pulley (if installed); remove front grease seal and add grease (Refer to lubrication chart in Service Manual, Section II)		O	O	O

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B. ENGINE GROUP (cont)				
47. Check condition of alternator and starter		O	O	O
48. Check security of alternator mounting		O	O	O
49. Check air conditioning compressor oil level (See Note 9).....				
50. Check condition of compressor belt and tension (See Section XIV).....		O	O	O
51. Check compressor clutch security and wiring (See Note 10)		O	O	O
52. Check security of compressor mounting		O	O	O
53. Check fluid in brake reservoir (Fill as required).....	O	O	O	O
54. Inspect and lubricate all controls (Refer to Section II)		O	O	O
55. Overhaul or replace propeller governor (Refer to latest Hartzell Service Letter No. 61)				
56. Complete overhaul of engine or replace with factory rebuilt (See Note 7)				
57. Reinstall engine cowl.....	O	O	O	O
C. TURBOCHARGER GROUP (PA-32RT-300T)				
1. Visually inspect system for oil leaks, exhaust system leaks and general condition	O	O	O	O
2. Inspect the compressor wheel for nicks, cracks or broken blades		O	O	O
3. Check for excess bearing drag or wheel rubbing against housing		O	O	O
4. Check turbine wheel for broken blades or signs of rubbing		O	O	O
5. Inspect turbocharger to tailpipe coupling clamp for proper seating and nut torque of 40-50 inch pounds and bypass coupling clamp for proper seating and nut torque to 80-90 inch pounds. Safety the clamp nuts. Refer to Maintenance Manual "Installation of Turbocharger.".....	O	O	O	O
6. Check operation of alternate air control		O	O	O
7. Check oil inlet and outlet ports in center housing to include the inlet check valve for leaks		O	O	O
8. Check turbine heat blanket for condition and security		O	O	O
9. Inspect interconnect linkage between wastegate valve and throttle (Refer to latest revision of Piper S/B 675)		O	O	O
10. Inspect induction and exhaust components for worn or damaged areas, loose clamps, cracks and leaks		O	O	O
11. Inspect fuel injection nozzle reference manifold for deteriorated hose, loose connections, leaks or obstructions		O	O	O
12. Check operation of compressor bypass door		O	O	O
13. Reinstall engine cowl.....	O	O	O	O