

PIPER AIRCRAFT CORPORATION
PA-28-236, DAKOTA
AIRPLANE MAINTENANCE MANUAL

5. Scheduled Maintenance (continued)

NATURE OF INSPECTION	Inspection Interval (Hrs)	
	50	100
B. ENGINE GROUP (CONT.)		
11. Inspect condition of spark plugs. (Clean and adjust gap as required, adjust per latest revision of Lycoming Service Instruction No. 1042.)		O
NOTE: If fouling of spark plugs has been apparent, rotate bottom plugs and upper plugs.		
12. Inspect spark plug cable leads and ceramics for corrosion and deposits		O
13. Test cylinder compression. (Ref: Latest revision of AC 43.13-1.)		O
14. Inspect cylinders for cracked or broken fins		O
15. Inspect rocker box covers for evidence of oil leaks. If found, replace gasket; tighten cover screws to a torque of 50 inch-pounds. (See Note "11" on page 052013.)	O	O
16. Inspect ignition harness and insulators for high tension leakage and continuity .		O
17. Inspect magnetos for oil leakage		O
18. Inspect magnetos to engine timing. (See Note "7" on page 052013.)		O
19. Remove air filter and tap gently to remove dirt particles. (Replace as required.)	O	O
20. Drain carburetor and clean inlet line fuel strainer	O	O
21. Drain and flush the carburetor bowl completely		O
22. Remove drain and clean the fuel strainer (i.e., gascolator) per latest revision of Piper Service Letter No. 1141	O	O
23. Inspect condition of carburetor heat air-door and box. (See Note "12" on page 052013.)	O	O
24. Inspect vent lines for evidence of fuel or oil seepage	O	O
25. Inspect intake seals for leaks and clamps for tightness	O	O
26. Inspect all air inlet duct hoses. (Replace as required.)	O	O
27. Inspect condition of flexible fuel lines		O
28. Inspect fuel system for leaks	O	O
29. Clean screens in electric fuel pump	O	O
30. Inspect engine-driven and electric fuel pumps for condition and operation. Replace as required		O
31. Remove and clean fuel filter bowl and screen.	O	O
32. Inspect vacuum pump and lines. (See Notes "16" & "17" on page 052013.) . .		O
33. Inspect throttle, carburetor heat, mixture and propeller governor controls for security, travel, and operating conditions		O
34. Inspect exhaust stacks, connections, and gaskets. (Refer to Chapter 78.) (Replace gaskets as required.)		O
35. Inspect muffler, heat exchange and baffles. (Refer to Chapter 78.)		O
36. Check recommended time for replacement of muffler per Chapter 78		O
37. Inspect breather tube for obstructions and security		O
38. Inspect crankcase for cracks, leaks, and security of seam bolts.		O
39. Inspect engine mounts for cracks and loose mountings		O
40. Inspect all engine baffles		O

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CHAPTER 78- EXHAUST

TABLE OF CONTENTS/EFFECTIVITY

CHAPTER SECTION SUBJECT	SUBJECT	GRID NO.	EFFECTIVITY
78-00-00	GENERAL	2K12	
78-01-00	Inspection of Exhaust System	2K12	

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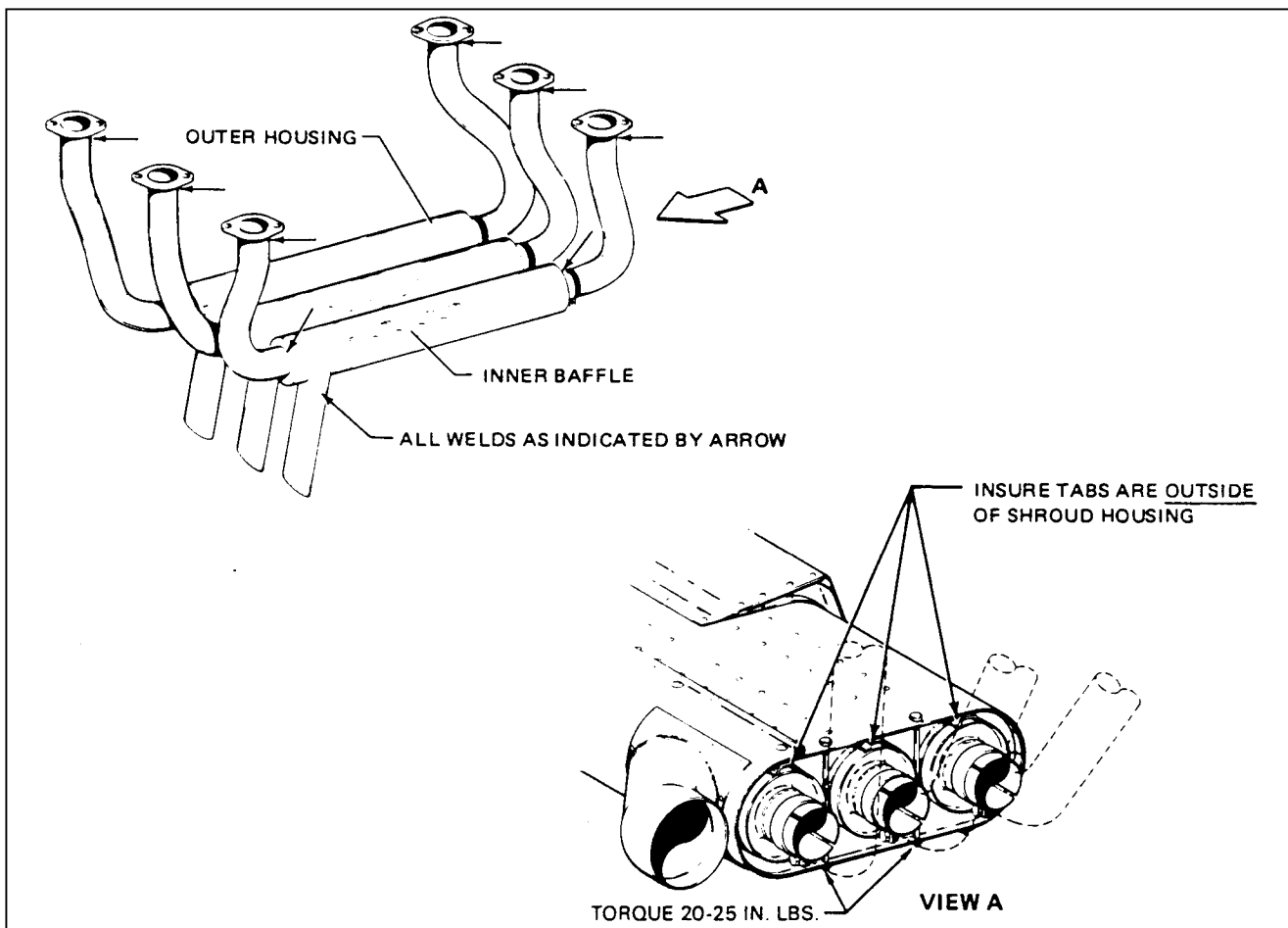


Figure 78-1. Exhaust System Inspection Points

GENERAL

INSPECTION OF EXHAUST SYSTEM (figure 78-1)

—CAUTION—

All airplanes should be fitted with a new muffler at or near 1000 hours of muffler use.

The entire exhaust system, including heat exchange shroud, muffler, muffler baffles, stacks, and all exhaust connections must be rigidly inspected at each annual or 100 hour inspection. The possibility of exhaust system failure increases with use. The system must be checked more carefully as the number of hours increases. The system must also be checked carefully before winter operation when the cabin heat will be in use.

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Removal of tail pipe and stacks is required for inspection of the muffler baffle. Remove or loosen all exhaust shields, carburetor, and cabin heat muffers, shrouds, heat blankets, etc., as required to permit inspection of the system. Clean and inspect all external surfaces for dents, cracks, and missing parts.

—CAUTION—

Apply Fel-Pro Type C5-A anti-seize lubricant to entire slip joint surface on both sides of muffler to prevent slip joint binding.

Pay particular attention to welds, clamps, supports, and support attachment lugs, slip joints, stack flanges, and gaskets. Inspect internal baffle or diffusers. Any cracks, warpage, or severe oxidation are cause for replacement.

If any component is inaccessible for a visual inspection, conduct one of the following:

1. Conduct a submerged pressure check of muffler and exhaust stack at 2 psi air pressure.
2. Conduct a ground test using a carbon monoxide indicator. Head airplane into the wind. Warm engine on the ground. Advance throttle to full static RPM with cabin heat valves open, and take readings of heated airstream inside cabin at each outlet (including rear seat heat outlet, if installed). Appropriate sampling procedures applicable to the particular indicator must be followed. If carbon monoxide concentration exceeds 0.005 percent or if a dangerous reading is obtained on an indicator not calibrated in percentages, the muffler must be replaced.

—END—