

**68-05-01 PIPER:** Amdt. 39-726. Applies to Piper J3, J4, J5, PA-11, PA-12, PA-14, PA-15, PA-16, PA-17, PA-18, PA-19, PA-20, PA-22, and PA-24 type airplanes, except PA-24-400 and PA-24-260 aircraft serial numbers 24-4783, 24-4804 and subsequent.

Compliance required as indicated.

(a) For all airplanes except Models J3, J4, J5, PA-11 and those referenced in paragraphs (i) and (j), which have exhaust mufflers with 950 or more hours time in service on the effective date of this AD, comply with paragraph (e) within the next 50 hours time in service and thereafter at intervals not to exceed 50 hours time in service from the last inspection.

(b) For all airplanes except Models J3, J4, J5, PA-11 and those referenced in paragraphs (i) and (j), which have exhaust mufflers with less than 950 hours time in service on the effective date of this AD, comply with paragraph (e) within the next 50 hours time in service, and thereafter at intervals not to exceed 100 hours time in service from the last inspection. After the exhaust muffler has accumulated 950 hours time in service, comply with the inspection requirements of paragraph (a).

(c) For all Models J3, J4, J5, and PA-11 airplanes which have exhaust mufflers with 950 or more hours' time in service on the effective date of this AD, comply with paragraph (e) within the next 50 hours' time in service and thereafter at intervals not to exceed 50 hours time in service from the last inspection.

(d) For all Models J3, J4, J5, and PA-11 airplanes which have exhaust mufflers with less than 950 hours' time in service on the effective date of this AD, comply with paragraph (e) prior to the accumulation of 1000 hours' time in service and thereafter at intervals not to exceed 50 hours' time in service.

(e) Inspect in accordance with paragraph (f), and paragraph (g) if applicable, the engine exhaust muffler and shroud assembly (including the internal baffle tube and tail pipe), carburetor heat shroud and air duct, support braces, clamps and brackets, exhaust stacks and manifolds. Do not alter those mufflers incorporating an internal baffle tube to remove the tube without prior FAA approval.

(Piper Service Letter No. 324B describes the critical areas.)

(f) Remove muffler assembly, disconnect air ducts, stacks, and shrouds as necessary, and visually inspect exterior and interior surfaces with a probe light and mirror for signs of cracks, corrosion, burn-throughs, heat damage, collapsed stack, or weld separations. For carburetor type engines, special attention should be given to the exhaust stack under the carburetor heat shroud. Except during the initial inspection, the muffler need not be removed from the airplane, provided visual inspection with probe light and mirror is made through the muffler tail pipe outlet and one end of the muffler at the stack connection.

(g) If the inspection specified in paragraph (f) shows that the exhaust stacks and internal baffle tube are in good condition, but there are areas inside the muffler which cannot be adequately inspected with a probe light and mirror, accomplish one of the following:

(1) Accomplish a submerged pressure check of the muffler and exhaust stack at 10 psi air

pressure.

(2) Conduct a ground test using a carbon monoxide indicator by heading the airplane into the wind, warming the engine on the ground, advancing the throttle to full static r.p.m. with cabin heat valves open, and taking readings of the heated airstream inside the 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 .005 percent or if a dangerous reading is obtained on an indicator not calibrated in percentages, inspect in accordance with (f), and perform a submerged pressure check of the muffler and exhaust stack at 10 psi air pressure before further flight.

(3) Close and secure cabin heat valves at the firewall until a complete muffler inspection in accordance with paragraph (f) is accomplished.

(h) Replace or repair parts found to have the defects listed in paragraph (f) before further flight, and thereafter comply with the inspection requirements of paragraph (b) or (d), whichever is applicable. Make welding repairs in accordance with Advisory Circular AC 43.13-1 or an FAA-approved equivalent. Pressure-check mufflers and stacks that are repair-welded before reinstallation. (Care should be exercised when reinstalling the exhaust system components to prevent distortion or preloading of parts.)

(i) The repetitive inspection of paragraph (a) and (b) may be discontinued when hollow muffler P/N 24506 or P/N 26385 is installed on Model PA-24 aircraft; and on Model PA-24-250 aircraft when installed in combination with muffler support Kit. No. 756775 (Service Letter No. 412A) or Kit No. 757058 (Service Letter No. 481) as applicable, or an equivalent modification approved by the Chief, Engineering and Manufacturing Branch, FAA, Eastern Region.

(j) For applicable PA-24-260 airplanes, the repetitive inspections of paragraph (b) must be accomplished at 50 hour intervals in lieu of 100 hour intervals until a barrier device is installed in each muffler in accordance with Piper Service Letter No. 518 or an equivalent modification approved by the Chief, Engineering and Manufacturing Branch, FAA, Eastern Region. Upon installation of the barrier devices, the repetitive inspections of paragraph (a) and (b) may be discontinued. (Piper Service Letters Nos. 324B, 324C, 412A, 481 and 518 cover this same subject.)

Effective March 31, 1968.

Revised March 5, 1969.