

**DEPARTMENT OF TRANSPORTATION****Federal Aviation Administration****14 CFR Part 39**

[Docket No. 98-CE-125-AD; Amendment 39-11532; AD 2000-02-14]

RIN 2120-AA64

**Airworthiness Directives; Cessna Aircraft Company Model 182S Airplanes**

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Final rule.

**SUMMARY:** This amendment supersedes Airworthiness Directive (AD) 98-13-10, which currently requires repetitively inspecting all engine exhaust muffler end plates (four total) for cracks on all Cessna Aircraft Company (Cessna) Model 182S airplanes, and replacing any muffler where an end plate is found cracked. AD 98-13-10 also requires fabricating and installing a placard that specifies immediate inspection of all engine exhaust muffler end plates any time the engine backfires upon start-up. This AD is the result of Cessna developing an improved design exhaust system for the Model 182S airplanes. This AD retains the actions of AD 98-13-10 on all affected airplanes, and requires replacing the exhaust system with an improved design exhaust system within a certain period of time, as terminating action for those requirements retained from AD 98-13-10. This AD also limits the effectivity to exclude those airplanes manufactured with the improved design exhaust system. The actions specified by this AD are intended to detect and correct damage to the engine exhaust mufflers caused by cracking and the high stresses imposed on the attachment of the exhaust system at the area the firewall, which could result in exhaust gases entering the airplane cabin with consequent crew and passenger injury.

**DATES:** Effective March 17, 2000.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of March 17, 2000.

**ADDRESSES:** Service information that applies to this AD may be obtained from the Cessna Aircraft Company, Product Support, P.O. Box 7706, Wichita, Kansas 67277; telephone: (316) 517-5800; facsimile: (316) 942-9006. This information may also be examined at the Federal Aviation Administration (FAA), Central Region, Office of the Regional Counsel, Attention: Rules

Docket No. 98-CE-125-AD, 901 Locust, Room 506, Kansas City, Missouri 64106; or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

**FOR FURTHER INFORMATION CONTACT:** Mr. Paul Pendleton, Aerospace Engineer, Wichita Aircraft Certification Office, FAA, 1801 Airport Road, Mid-Continent Airport, Wichita, Kansas 67209; telephone: (316) 946-4143; facsimile: (316) 946-4407.

**SUPPLEMENTARY INFORMATION:****Events Leading to the Issuance of This AD**

A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that would apply to all Cessna Model 182S airplanes was published in the **Federal Register** as a notice of proposed rulemaking (NPRM) on April 26, 1999 (64 FR 20221). The NPRM proposed to supersede AD 98-13-10, Amendment 39-10598. AD 98-13-10 currently requires repetitively inspecting all engine exhaust muffler end plates (four total) for cracks; replacing any muffler where an end plate is found cracked; and fabricating and installing a placard that specifies an inspection of all engine exhaust muffler end plates any time the engine backfires upon start-up. The NPRM proposed to retain the actions of AD 98-13-10 on all affected airplanes, and would require replacing the exhaust system with an improved design exhaust system within a certain period of time, as terminating action for the actions retained from AD 98-13-10. The NPRM also proposed to limit the effectivity to exclude those airplanes manufactured with the improved design exhaust system. Accomplishment of the proposed replacement as specified in the NPRM would be required in accordance with Cessna Service Bulletin SB98-78-03, dated December 14, 1998.

The NPRM was the result of Cessna developing an improved design exhaust system for the Model 182S airplanes.

Interested persons have been afforded an opportunity to participate in the making of this amendment. No comments were received on the proposed rule or the FAA's determination of the cost to the public.

**The FAA's Determination**

After careful review of all available information related to the subject presented above, the FAA has determined that air safety and the public interest require the adoption of the rule as proposed except for minor editorial corrections. The FAA has determined that these minor corrections

will not change the meaning of the AD and will not add any additional burden upon the public than was already proposed.

**Cost Impact**

The FAA estimates that 150 airplanes in the U.S. registry will be affected by this AD, that it will take approximately 1 workhour per airplane to accomplish the inspection, and that the average labor rate is approximately \$60 an hour. Based on these figures, the total cost impact of the inspection on U.S. operators is estimated to be \$9,000, or \$60 per airplane. These figures only take into account the cost of the initial inspection and do not take into account the costs of any repetitive inspections or replacements needed if cracks were found.

The inspection cost of this AD is the same as that presented in AD 98-13-10. Therefore, this AD imposes no inspection cost impact on U.S. operators of the affected airplanes over that already required in AD 98-13-10.

The FAA estimates that it will take approximately 4 workhours per airplane to accomplish the replacement, and that the average labor rate is approximately \$60 an hour. Parts cost approximately \$463 per muffler assembly (2 required) per airplane. Based on these figures, the total cost impact of the replacement on U.S. operators is estimated to be \$174,900, or \$1,166 per airplane.

**Regulatory Impact**

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

A copy of the final evaluation prepared for this action is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption **ADDRESSES**.

## List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

## PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

**Authority:** 49 U.S.C. 106(g), 40113, 44701.

### § 39.13 [Amended]

2. Section 39.13 is amended by removing Airworthiness Directive (AD) 98–13–10, Amendment 39–10598, and by adding a new AD to read as follows:

#### 2000–02–14 Cessna Aircraft Company:

Amendment 39–11532; Docket No. 98–CE–125–AD; Supersedes AD 98–13–10, Amendment 39–10598.

**Applicability:** Model 182S airplanes, serial numbers 18280001 through 18280286, certificated in any category.

**Note 1:** This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (g) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

**Compliance:** Required as indicated in the body of this AD, unless already accomplished.

To detect and correct damage to the engine exhaust mufflers caused by cracking and the high stresses imposed on the attachment of the exhaust system at the area the firewall, which could result in exhaust gases entering the airplane cabin with consequent crew and passenger injury, accomplish the following:

(a) Within 5 days after the effective date of this AD, unless already accomplished (compliance with AD 98–13–10), accomplish the following:

(1) Fabricate a placard that specifies immediately inspecting all engine exhaust muffler end plates when the engine backfires upon start-up, and install this placard on the

instrument panel within the pilot's clear view. The placard should utilize letters of at least 0.10-inch in height and contain the following words:

“If the engine backfires upon start-up, prior to further flight, inspect and replace (as necessary) all engine exhaust muffler end plates.”

(2) Insert a copy of this AD into the Limitations Section of the airplane flight manual (AFM).

(b) Within 25 hours time-in-service (TIS) after the effective date of this AD, unless already accomplished (compliance with AD 98–13–10), and thereafter at intervals not to exceed 25 hours TIS after each inspection (including any inspection accomplished after an engine backfire) until the replacements required by paragraphs (b)(1) and (d) of this AD are accomplished, inspect all engine exhaust muffler end plates (four total) for cracks on the forward (upstream) or aft (downstream) end of each muffler can.

(1) Prior to further flight, replace any engine exhaust muffler where an end plate is found cracked with one of improved design, part number (P/N) 1254017–19 or P/N 9954200–9 (or FAA-approved equivalent part number). Accomplish these replacements in accordance with Cessna Service Bulletin SB98–78–03, dated December 14, 1998.

(2) This replacement terminates the repetitive inspection required by this AD for that particular engine exhaust muffler. The repetitive inspections would still be required for any other engine exhaust muffler not replaced with the improved design parts.

(3) The placard requirements of this AD are still required until all engine exhaust system mufflers are replaced with the improved design parts.

**Note 2:** Cessna Service Bulletin SB98–78–02, Issued: June 6, 1998, depicts the area to be inspected. The actions of this service bulletin are different from those required by this AD. This AD takes precedence over the actions specified in this service bulletin. Accomplishment of Cessna Service Bulletin SB98–78–02, Issued: June 6, 1998, is not considered an alternative method of compliance to the actions of this AD.

(c) Fabricating and installing the placard and inserting this AD into the Limitations Section of the AFM, as required by paragraph (a) of this AD, may be performed by the owner/operator holding at least a private pilot certificate as authorized by section 43.7 of the Federal Aviation Regulations (14 CFR 43.7), and must be entered into the aircraft records showing compliance with this AD in accordance with section 43.9 of the Federal Aviation Regulations (14 CFR 43.9).

(d) Within 12 calendar months after the effective date of this AD, replace the engine exhaust mufflers with ones of improved design, part number (P/N) 1254017–19 or P/N 9954200–9 (or FAA-approved equivalent part number). Accomplish these replacements in accordance with Cessna Service Bulletin SB98–78–03, dated December 14, 1998.

(1) These replacements terminate the repetitive inspection and placard requirements of this AD, as specified in paragraphs (a) and (b), including all subparagraphs, of this AD.

(2) The replacements may be accomplished prior to 12 calendar months after the effective date of this AD, as terminating action for the repetitive inspection and placard requirements of this AD.

(e) As of the effective date of this AD, no person may install, on any affected airplane, an engine exhaust muffler that is not of improved design, P/N 1254017–19 or P/N 9954200–9 (or FAA-approved equivalent part number).

(f) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

(g) An alternative method of compliance or adjustment of the initial or repetitive compliance times that provides an equivalent level of safety may be approved by the Manager, Wichita Aircraft Certification Office (ACO), 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209.

(1) The request shall be forwarded through an appropriate FAA Maintenance Inspector, who may add comments and then send it to the Manager, Wichita ACO.

(2) Alternative methods of compliance approved in accordance with AD 98–13–10 are not considered approved as alternative methods of compliance for this AD.

**Note 3:** Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Wichita ACO.

(h) The replacements required by this AD shall be done in accordance with Cessna Service Bulletin SB98–78–03, dated December 14, 1998. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from the Cessna Aircraft Company, Product Support, P.O. Box 7706, Wichita, Kansas 67277. Copies may be inspected at the FAA, Central Region, Office of the Regional Counsel, 901 Locust, Room 506, Kansas City, Missouri, or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

(i) This amendment supersedes AD 98–13–10, Amendment 39–10598.

(j) This amendment becomes effective on March 17, 2000.

Issued in Kansas City, Missouri, on January 18, 2000.

**Michael Gallagher,**

Manager, Small Airplane Directorate, Aircraft Certification Service.

[FR Doc. 00–1771 Filed 1–26–00; 8:45 am]

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