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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2007-27709; Directorate Identifier 2007-CE-028-AD; Amendment 39-15020; AD 2007-08-03]

RIN 2120-AA64

Airworthiness Directives; Cessna Aircraft Company Models 172R, 172S, 182T, T182T, 206H, and T206H Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) to supersede AD 2006-17-04, which applies to certain Cessna Aircraft Company (Cessna) Models 172R, 172S, 182T, T182T, 206H, and T206H airplanes. AD 2006-17-04 currently requires you to inspect the two end fittings on each of the flexible fuel hoses located in the engine compartment for the correct torque values, and, if any incorrect torque values are found during the inspection, tighten the hose end fittings to the correct torque values. This AD results from four reports of loose fuel lines connected to the fuel servo or fuel flow transducer. Two reports were of in-flight engine failure on a Model T182T airplane. A third report was of in-flight engine failure on a Model 206H airplane. A fourth report was of a Model 172S airplane losing engine power on final approach. Consequently, this AD would require you to establish the correct torque values of the end fittings on fuel hoses for certain Cessna Models 172R, 172S, 182T, T182T, 206H, and T206H airplanes. This AD clarifies that the torque values need to be physically established and visual inspection only is not sufficient. We are issuing this AD to detect and correct potential loss of fuel flow, which may result in partial or complete loss of engine power and/or uncontrolled engine compartment fire due to fuel leakage forward of the firewall.

DATES: This AD becomes effective on May 2, 2007.

On May 2, 2007 the Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD.

We must receive any comments on this AD by June 11, 2007.

ADDRESSES: Use one of the following addresses to comment on this AD.

- DOT Docket Web site: Go to <http://dms.dot.gov> and follow the instructions for sending your comments electronically.

- Mail: Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC 20590-0001.
- Fax: (202) 493-2251.
- Hand Delivery: Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.
- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.

To get the service information identified in this AD, contact The Cessna Aircraft Company, Product Support, P.O. Box 7706, Wichita, Kansas 67277-7706; telephone: (316) 517-5800; facsimile: (316) 942-9006.

To view the comments to this AD, go to <http://dms.dot.gov>. The docket number is FAA-2007-27709; Directorate Identifier 2007-CE-028-AD.

FOR FURTHER INFORMATION CONTACT: Trenton Shepherd, Aerospace Engineer, Wichita ACO, 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone: (316) 946-4143; fax: (316) 946-4107.

SUPPLEMENTARY INFORMATION:

Discussion

One report of loose fuel hose connections to the fuel injector servo on a Cessna Model 172S airplane caused us to issue AD 2006-17-04, Amendment 39-14725 (71 FR 47711, August 18, 2006). AD 2006-17-04 on certain Cessna Models 172R, 172S, 182T, T182T, 206H, and T206H airplanes, currently requires you to:

- Inspect the two end fittings on each of the flexible fuel hoses located in the engine compartment for the correct torque values; and
- Tighten the hose end fittings to the correct torque values, if any incorrect torque values are found during the inspection.

Since issuing AD 2006-17-04, we have received four additional reports of loose fuel lines connected to the fuel servo or fuel flow transducer. Two reports were of in-flight engine failure on a Model T182T airplane. A third report was of in-flight engine failure on a Model 206H airplane. A fourth report was of a Model 172S airplane that lost engine power on final approach.

In issuing AD 2006-17-04, our intent was for the torque values provided in Table 4 of the AD to be verified. However, the actions we specified in AD 2006-17-04 resulted in visual-only inspections being accomplished in some cases. Visual inspection of torque paint or putty is not sufficient to address the unsafe condition. This AD clarifies that the torque values need to be physically established.

This condition, if not corrected, could result in loss of fuel flow resulting in partial or complete loss of engine power and/or uncontrolled engine compartment fire due to fuel leakage forward of the firewall.

Relevant Service Information

We reviewed Cessna Service Bulletin No. SB07-71-01, original issue dated March 2, 2007, Revision 1, dated March 16, 2007. The service information describes procedures for a physical inspection of the fuel hose connections on each of the hoses by loosening each connection and then reapplying the correct torque value to make sure that they are correctly torqued.

FAA's Determination and Requirements of This AD

We are issuing this AD because we evaluated all the information and determined the unsafe condition described previously is likely to exist or develop on other products of the same type design. This AD requires you to establish the correct torque values of the end fittings on fuel hoses for certain Cessna Models 172R, 172S, 182T, T182T, 206H, and T206H airplanes. This AD clarifies that the torque values need to be physically established and visual inspection only is not sufficient.

In preparing this rule, we contacted type clubs and aircraft operators to get technical information and information on operational and economic impacts. We did not receive any information through these contacts. If received, we would have included a discussion of any information that may have influenced this action in the rulemaking docket.

FAA's Determination of the Effective Date

Since an unsafe condition exists that requires the immediate adoption of this AD, we determined that notice and opportunity for public comment before issuing this AD are impracticable, and that good cause exists for making this amendment effective in fewer than 30 days.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety, and we did not precede it by notice and an opportunity for public comment. We invite you to send any written relevant data, views, or arguments regarding this AD. Send your comments to an address listed under the ADDRESSES section. Include the docket number "Docket No. FAA-2007-27709; Directorate Identifier 2007-CE-028-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the AD. We will consider all comments received by the closing date and may amend the AD in light of those comments.

We will post all comments we receive, without change, to <http://dms.dot.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive concerning this AD.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this AD will not have federalism implications under Executive Order 13132. This AD 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.

For the reasons discussed above, I certify that this AD:

- (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.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

Examining the AD Docket

You may examine the AD docket that contains the AD, the regulatory evaluation, any comments received, and other information on the Internet at <http://dms.dot.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Office (telephone (800) 647-5227) is located at the street address stated in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

List of Subjects in 14 CFR Part 39

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

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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. The FAA amends § 39.13 by removing Airworthiness Directive (AD) 2006-17-04, Amendment 39-14725 (71 FR 47711, August 18, 2006), and by adding a new AD to read as follows:



2007-08-03 Cessna Aircraft Company: Amendment 39-15020; Docket No. FAA-2007-27709; Directorate Identifier 2007-CE-028-AD.

Effective Date

(a) This AD becomes effective on May 2, 2007.

Affected ADs

(b) This AD supersedes AD 2006-17-04; Amendment 39-14725.

Applicability

(c) This AD applies to the following airplane models and serial numbers that are certificated in any category:

Table 1.—Applicability

Model	Serial Numbers
(i) 172R	17281244 through 17281364, 17281366 through 17281372, 17281374 through 17281376, and 17281379
(ii) 172S	172S9809 through 172S10349, 172S10351 through 172S10374, 172S10376 through 172S10423, 172S10425 through 172S10426, 172S10428 through 172S10430, 172S10432 through 172S10444, 172S10446 through 172S10450, and 172S10452 through 172S10454
(iii) 182T	18281527 through 18281889, 18281892, 18281895, 18281897, 18281899, 18281901, and 18281904
(iv) T182T	T18208381 through T18208659, T18208661, T18208663 through T18208678, T18208680 through T18208686, T18208689, and T18208690
(v) 206H	20608231 through 20608285
(vi) T206H	T20608515 through T20608662, T20608664 through T20608697, T20608699 through T20608714, and T20608717

Unsafe Condition

(d) This AD is the result of four reports of loose fuel lines connected to the fuel servo or fuel flow transducer. Two reports were of in-flight engine failure on a Model T182T airplane. A third report was of in flight-engine failure on a Model 206H airplane. A fourth report was of a Model 172S airplane that lost engine power on final approach. We are issuing this AD to detect and correct potential loss of fuel flow, which may result in partial or complete loss of engine power and/or uncontrolled engine compartment fire due to fuel leakage forward of the firewall.

Compliance

(e) To address this problem, you must do the following, unless already done:

Table 2.—Actions, Compliance, and Procedures

Actions	Compliance	Procedures
<p>(1) <i>For all airplanes not equipped with the Garmin G1000 System:</i> Establish the correct torque values of the end fittings on each of the following hoses in the engine compartment:</p> <ul style="list-style-type: none">(i) Fuel strainer to engine fuel pump.(ii) Engine fuel pump to fuel injector servo (except T206H).(iii) T206H only: Engine fuel pump to the union at the aft vertical cooling baffle.(iv) T206H only: Union at the aft vertical cooling baffle to the fuel injector servo.(v) Fuel injector servo to fuel manifold valve (except turbo models).(vi) Turbo models only: Fuel injector servo to fuel flow transducer.(vii) Turbo models only: Fuel flow transducer to fuel manifold valve.(viii) Fuel injector servo fuel return to firewall fitting.	Within the next 5 hours time-in-service (TIS) after May 2, 2007 (the effective date of this AD).	Follow Cessna Service Bulletin No. SB07-71-01, Revision 1, dated March 16, 2007; the procedures of the appendix to this AD; and the torque values from the table <i>Torque Values for Hose End Fittings</i> in the appendix to this AD.
<p>(2) <i>For all airplanes equipped with the Garmin G1000 System:</i> Establish the correct torque values of the end fittings on each of the following hoses in the engine compartment:</p> <ul style="list-style-type: none">(i) Fuel strainer to engine fuel pump.(ii) Engine fuel pump to fuel injector servo (except T206H).(iii) T206H only: Engine fuel pump to the union at the aft vertical cooling baffle.(iv) T206H only: Union at the aft vertical cooling baffle to the fuel injector servo.(v) Fuel injector servo to fuel flow transducer.(vi) Fuel flow transducer to fuel manifold valve.(vii) Fuel injector servo fuel return to firewall fitting.	Within the next 5 hours TIS after May 2, 2007 (the effective date of this AD).	Follow Cessna Service Bulletin No. SB07-71-01, Revision 1, dated March 16, 2007; the procedures of the appendix to this AD; and the torque values from the table <i>Torque Values for Hose End Fittings</i> in the appendix to this AD.

Special Flight Permit

(f) Under 14 CFR 39.23, we are allowing special flight permits for the purpose of compliance with this AD under the following conditions: Only operate under day visual flight rules (VFR).

Alternative Methods of Compliance (AMOCs)

(g) The Manager, Wichita Aircraft Certification Office (ACO), FAA, ATTN: Trenton Shepherd, Aerospace Engineer, Wichita ACO, 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone: (316) 946-4143; fax: (316) 946-4107, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(h) AMOCs approved for AD 2006-17-04 are not approved for this AD.

Material Incorporated by Reference

(i) You must use Cessna Service Bulletin No. SB07-71-01, Revision 1, dated March 16, 2007, to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of this service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) For service information identified in this AD, contact The Cessna Aircraft Company, Product Support, P.O. Box 7706, Wichita, Kansas 67277-7706; telephone: (316) 517-5800; facsimile: (316) 942-9006.

(3) You may review copies at the FAA, Central Region, Office of the Regional Counsel, 901 Locust, Kansas City, Missouri 64106; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Appendix to AD 2007-08-03—Inspection Instructions—Cessna Aircraft Company Models 172R, 172S, 182T, T182T, 206H, and T206H Airplanes

1. Remove upper and side cowlings to perform torque procedure.
2. Remove all signs of old torque putty or paint.
3. Using a suitable tool loosen the hose end fitting of each joint, while using a suitable tool to restrain the other end fitting of the joint to preclude rotation.
4. Using the applicable fitting torque from the table Torque Values for Hose End Fittings of this appendix to AD 2007-08-03, torque the hose end fitting to the proper torque, while using a suitable tool to restrain the other end fitting of the joint to preclude rotation.
5. After proper torque has been applied to the hose end fitting, apply the applicable torque paint or putty to the hose end fitting joint.
6. If during any torque procedure any of the non-hose end fittings rotate, stop the torque procedure. Totally disconnect the hose end joint and remove any fitting that has rotated. After the cleaning, visual examination, and/or replacement of the fitting and/or any seals or sealant, reinstall the fitting and torque it to the applicable requirement. Then reconnect the hose end fitting and repeat Step 4. of this appendix to AD 2007-08-03.
7. Use the table below Torque Values for Hose End Fittings for the correct torque values to tighten the hose end fittings as required in paragraphs (e)(1) and (e)(2) of this AD:

Torque Values for Hose End Fittings

Flare Hex Sizes in Fractions of an Inch	Hose Size	Correct Torque in Inch-pounds	
		Minimum	Maximum
9/16	-4	135	150
11/16	-6	270	300
7/8	-8	450	500

Issued in Kansas City, Missouri, on April 5, 2007.

Kim Smith,
Manager, Small Airplane Directorate, Aircraft Certification Service.
[FR Doc. E7-6826 Filed 4-11-07; 8:45 am]