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[Rules and Regulations] [Page 55245-55248]

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2005-21174; Directorate Identifier 2005-CE-23-AD; Amendment 39-14285; AD 2005-19-20]

RIN 2120-AA64

Airworthiness Directives; The New Piper Aircraft, Inc., Models PA-28-160, PA-28-161, PA-28-180, and PA-28-181 Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA adopts a new airworthiness directive (AD) for certain The New Piper Aircraft, Inc. (Piper) Models PA-28-160, PA-28-161, PA-28-180, and PA-28-181 airplanes that incorporate Petersen Aviation, Inc. Supplemental Type Certificate (STC) SA2660CE installed between April 20, 1998, and April 1, 2005, and incorporate Petersen Aviation, Inc. Service Bulletin SB98-1. This AD requires you to replace the AN894-6-4 bushing screw thread expanders on the gascolator and bushing attached to the inlet of the top fuel pump with NAS1564-6-4J reducers and AN818-6 nuts. This AD results from reports of fuel leaks during the post STC installation tests. We are issuing this AD to prevent fuel fittings used in STC SA2660CE from leaking fuel in the engine compartment, which could result in an engine fire. This condition could lead to loss of control of the airplane.

DATES: This AD becomes effective on November 4, 2005.

As of November 4, 2005, the Director of the Federal Register approved the incorporation by reference of certain publications listed in the regulation.

ADDRESSES: To get the service information identified in this AD, contact Petersen Aviation, Inc., 984 K Road, Minden, Nebraska 68959; telephone: (308) 832-2050; facsimile: (308) 832-2311.

To view the AD docket, go to the Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC 20590-001 or on the Internet at *http://dms.dot.gov*. The docket number is FAA-2005-21174; Directorate Identifier 2005-CE-23-AD.

FOR FURTHER INFORMATION CONTACT: James P. Galstad, Aerospace Engineer, FAA, Wichita ACO, 1801 Airport Road, Mid-Continent Airport, Wichita, Kansas 67209; telephone: (316) 946-4135; facsimile: (316) 946-4107.

SUPPLEMENTARY INFORMATION:

Discussion

What events have caused this AD? We have received reports of fuel leaks found during post fuel pump checks on Piper Models PA-28-160, PA-28-161, PA-28-180, and PA-28-181 airplanes after STC SA2660CE was incorporated.

STC SA2660CE enables the referenced airplanes to run on leaded and unleaded automotive gasoline, 91 minimum antiknock index (RON+MON).

The STC replaces the Piper electric boost pump with two different electric boost pumps. Subsequently, Petersen Aviation, Inc. Service Bulletin 98-1 provides for installation of a fuel flow bypass that incorporates an o-ring seal fuel fitting (AN894-6-4 bushing screw thread expander) on the flared tube fitting (AN826-6 tee). The internal shape of the AN894-6-4 bushing screw thread expander is intended to use an o-ring seal, but there is no corresponding o-ring seal location on the AN826-6 tee.

The AN894-6-4 bushing screw thread expander has clearance machining cut for the mating screw threads but does not provide a seal against the cone surface of the AN826-6 tee.

What is the potential impact if FAA took no action? If not prevented, fuel fittings used in STC SA2660CE could leak fuel in the engine compartment. Failure of these fittings could result in an engine fire. This condition could lead to loss of control of the airplane.

Has FAA taken any action to this point? We issued a proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that would apply to certain Piper Models PA-28-160, PA-28-161, PA-28-180, and PA-28-181 airplanes that incorporate Petersen Aviation, Inc. STC SA2660CE installed between April 20, 1998, and April 1, 2005, and incorporate Petersen Aviation, Inc. Service Bulletin SB98-1. This proposal was published in the Federal Register as a notice of proposed rulemaking (NPRM) on June 2, 2005 (70 FR 32273). The NPRM proposed to require you to replace the two AN894-6-4 bushing screw thread expanders on the two AN826-6 tees with AN818-6 nuts and NAS1564-6-4J reducers.

Comments

Was the public invited to comment? We provided the public the opportunity to participate in developing this AD. The following presents the comments received on the proposal and FAA's response to each comment:

Comment Issue No. 1: These Airplanes Should Not be Flying

What is the commenter's concern? The commenter states that it is their opinion that this kind of problem aircraft should not be flying.

What is FAA's response to the concern? We do not agree with the commenter. We identified an unsafe condition and the purpose of an AD

is to address that unsafe condition and maintain the continued safe operation of an existing airplane model. The solution to the defined unsafe condition is to replace certain parts with improved design parts. We determined that the unsafe condition is addressed through the actions of this AD.

We are not changing the final rule AD based on this comment.

Comment Issue No. 2: AD Is Not Necessary

What is the commenter's concern? Peterson Aviation states that parts have been distributed to owners of the affected airplanes with reimbursement for installation; therefore, offering an incentive for the owners/operators of the affected airplanes to install the new parts.

The commenter also states that the only leaks that have been found were during recent post installation checks. Airplanes that had the modification done previously and have been using it for several years do not appear to have the fuel leaks.

The commenter requests us to issue a Special Alert Information Bulletin (SAIB) to address this condition rather than issue an AD.

What is FAA's response to the concern? We do not agree with the commenter. As mentioned above, we have identified an unsafe condition and an AD is the regulatory action that we use to ensure that the unsafe condition is addressed on all affected airplanes.

SAIBs are for information only and are not mandatory. Therefore, an SAIB would not ensure that the unsafe condition is addressed on all affected airplanes.

We are not changing the final rule AD based on this comment.

Conclusion

What is FAA's final determination on this issue? We have carefully reviewed the available data and determined that air safety and the public interest require adopting the AD as proposed except for minor editorial corrections. We have determined that these minor corrections:

- -Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- -Do not add any additional burden upon the public than was already proposed in the NPRM.

Changes to 14 CFR Part 39–Effect on the AD

How does the revision to 14 CFR part 39 affect this AD? On July 10, 2002, the FAA published a new version of 14 CFR part 39 (67 FR 47997, July 22, 2002), which governs the FAA's AD system. This regulation now includes material that relates to altered products, special flight permits, and alternative methods of compliance. This material previously was included in each individual AD. Since this material is included in 14 CFR part 39, we will not include it in future AD actions.

Costs of Compliance

How many airplanes does this AD impact? We estimate that this AD affects 50 airplanes in the U.S. registry.

What is the cost impact of this AD on owners/operators of the affected airplanes? We estimate the following costs to do the modification:

Labor cost	Parts cost	Total cost per airplane	Total cost on U.S. operators
1 work hour \times \$65	Petersen Aviation will	Petersen Aviation will	Petersen Aviation will cover
per hour $=$ \$65	provide parts at no cost.	cover the cost for labor.	the cost for parts and labor.

Authority for This Rulemaking

What authority does FAA have for issuing this rulemaking action? 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 AD.

Regulatory Findings

Will this AD impact various entities? We have 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.

Will this AD involve a significant rule or regulatory action? 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 the 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 summary of the costs to comply with this AD (and other information as included in the Regulatory Evaluation) and placed it in the AD Docket. You may get a copy of this summary by sending a request to us at the address listed under ADDRESSES. Include "Docket No. FAA-2005-21174; Directorate Identifier 2005-CE-23-AD" in your request.

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 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. FAA amends § 39.13 by adding a new AD to read as follows:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service Washington, DC

U.S. Department of Transportation Federal Aviation Administration

We post ADs on the internet at www.faa.gov/aircraft/safety/alerts/

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2005-19-20 The New Piper Aircraft, Inc.: Amendment 39-14285; Docket No. FAA-2005-21174; Directorate Identifier 2005-CE-23-AD.

When Does This AD Become Effective?

(a) This AD becomes effective on November 4, 2005.

What Other ADs Are Affected by This Action?

(b) None.

What Airplanes Are Affected by This AD?

- (c) This AD affects Models PA-28-160, PA-28-161, PA-28-180, and PA-28-181 airplanes, serial numbers 28-671 through 28-5859, 28-7105001 through 28-7505261,28-7690001 through 28-8590001, and all serial numbers thereafter, that:
 - (1) Are certificated in any category;
- (2) Incorporate Peterson Aviation, Inc. Supplemental Type Certificate (STC) SA2660CE installed between April 20, 1998 and April 1, 2005; and
 - (3) Incorporate Peterson Aviation, Inc. Service Bulletin SB98-1.

What Is the Unsafe Condition Presented in This AD?

(d) This AD is the result of reports of fuel leaks during the post STC installation tests. The actions specified in this AD are intended to prevent fuel fittings used in STC SA2660CE from leaking fuel in the engine compartment, which could result in an engine fire. This condition could lead to loss of control of the airplane.

What Must I Do To Address This Problem?

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

Actions	Compliance	Procedures
Replace the two AN894–6–4 bushing screw	At the next 100-hour or	Follow Petersen
thread expanders on the two AN826-6 tees	annual inspection that	Aviation, Inc. Service
(one on the gascolator and the other one	occurs following 30 days	Bulletion PA-28-160,
attached to a bushing (AN912–2J) attached to	after November 4, 2005 (the	-161, -180, -181
the inlet on the top of the top fuel pump) with	effective date of this AD),	Bulletion No. SB 05–2,
NAS1564–6–4J reducers and AN818–6 nuts.	whichever occurs first.	dated April 12, 2005.

May I Request an Alternative Method of Compliance?

(f) You may request a different method of compliance or a different compliance time for this AD by following the procedures in 14 CFR 39.19. Unless FAA authorizes otherwise, send your request to your principal inspector. The principal inspector may add comments and will send your request to the Manager, Wichita Aircraft Certification Office (ACO), FAA. For information on any already approved alternative methods of compliance, contact James P. Galstad, Aerospace Engineer, FAA Wichita ACO, 1801 Airport Road, Mid-Continent Airport, Wichita, Kansas 67209; telephone:(316) 946-4135; facsimile: (316) 946-4107.

Does This AD Incorporate Any Material by Reference?

(g) You must do the actions required by this AD following the instructions in Petersen Aviation, Inc. Service Bulletin PA-28-160, -161, -180, -181 Bulletin No. SB 05-2, dated April 12, 2005. The Director of the Federal Register approved the incorporation by reference of this service bulletin in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. To get a copy of this service information, contact Petersen Aviation, Inc., 984 K Road, Minden, Nebraska 68959; telephone: (308) 832-2050; facsimile: (308) 832-2311. To review copies of this service information, go to the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html or call (202) 741-6030. To view the AD docket, go to the Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC 20590-001 or on the Internet at http://dms.dot.gov. The docket number is FAA-2005-21174; Directorate Identifier 2005-CE-23-AD.

Issued in Kansas City, Missouri, on September 13, 2005.

James E. Jackson,

Acting Manager, Small Airplane Directorate, Aircraft Certification Service.

[FR Doc. 05-18525 Filed 9-20-05; 8:45 am]

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