



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2016-9056; Directorate Identifier 2016-NM-007-AD; Amendment 39-18743; AD 2016-25-17]

RIN 2120-AA64

Airworthiness Directives; Saab AB, Saab Aeronautics (Formerly known as Saab AB, Saab Aerosystems) Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain Saab AB, Saab Aeronautics Model SAAB 2000 airplanes. This AD was prompted by an occurrence that was reported of rudder pedal restriction on a SAAB Model 2000 airplane with the large potable water system (LPWS) installed, equipped with in-line heaters. This AD requires installation of shrinkable tubes on the water piping of the basic potable water system (BPWS). We are issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact Saab AB, Saab Aeronautics, SE-581 88, Linköping, Sweden; telephone +46 13 18 5591; fax +46 13 18 4874; email saab2000.techsupport@saabgroup.com; Internet <http://www.saabgroup.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9056.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9056; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (telephone 800-647-5527) is Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Shahram Daneshmandi, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1112 ; fax 425-227-1149.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Saab AB, Saab Aeronautics Model SAAB 2000 airplanes. The NPRM published in the Federal Register on September 8, 2016 (81 FR 62024) (“the NPRM”). The NPRM was prompted by an occurrence that was reported of rudder pedal restriction on a SAAB Model 2000 airplane with the LPWS installed, equipped with in-line heaters. The NPRM proposed to require installation of shrinkable tubes on the water piping of the BPWS. We are issuing this AD to prevent water spray in case of a failed pipe or coupling during water filling on the ground. This condition, if not corrected, could freeze parts of the flight control system, possibly resulting in reduced control of the airplane.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Airworthiness Directive 2016-0013, dated January 14, 2016 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Saab AB, Saab Aeronautics Model SAAB 2000 airplanes. The MCAI states:

An occurrence was reported of rudder pedal restriction on a SAAB 2000 aeroplane with the Large Potable Water System (LPWS) installed, equipped with in-line heaters (options 38:201 and 38:201-1). Subsequent investigation showed that this event was the result of a ruptured in-line heater attachment, causing water leakage at the inlet tubing for the in-line heater in the lower part of the forward fuselage (Zone 116). In flight, the water froze on the rudder control mechanism, causing the rudder pedal restriction. Analysis after the reported event indicates that the pitch control mechanism (including pitch disconnect/spring unit) may also be

frozen, which would prevent disconnection and normal pitch control.

This condition, if not corrected, could result in further occurrences of water spray, possibly resulting in reduced control of the aeroplane.

To address this potential unsafe condition, EASA issued Emergency AD 2013-0172-E, to require deactivation of the LPWS. Following that, EASA AD 2013-0172R1 [which corresponds to FAA AD 2014-15-04, Amendment 39-17906 (79 FR 45337, August 5, 2014)] introduced a temporary alternative procedure for filling, reactivation and operation of the LPWS.

Finally, EASA AD 2014-0255 [which corresponds to FAA AD 2016-12-05, Amendment 39-18554 (81 FR 38903, June 15, 2016)] was issued, superseding EASA AD 2013-0172R1, to require a modification allowing reactivating of the system and the use of regular filling procedures.

Although the Basic Potable Water System (BPWS) does not contain an in-line heater, which was the major risk contributor and the actual cause of the previous leakage events in the LPWS, a Zonal Safety Analysis performed by SAAB concluded that the implementation of spray shield (tube/hose) for the water piping is necessary for the BPWS as well, to protect the flight controls and electrical equipment from water spray in case of a failed pipe or coupling during water filling on ground.

Consequently SAAB developed a modification and issued Service Bulletin (SB) 2000-38-012 to provide modification instructions to install shrinkable tubes as spray shields.

For reasons described above, this [EASA] AD requires installation of shrinkable tubes on the water piping of the BPWS.

You may examine the MCAI in the AD docket on the Internet at

<http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9056.

Comments

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM or on the determination of the cost to the public.

Conclusion

We reviewed the relevant data and determined that air safety and the public interest require adopting this AD as proposed, except for minor editorial changes. We have determined that these minor changes:

- 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.

Related Service Information under 1 CFR part 51

Saab has issued Service Bulletin 2000-38-012, dated August 20, 2015. The service information describes how to install shrinkable tubes on the water piping of the BPWS. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Costs of Compliance

We estimate that this AD affects 7 airplanes of U.S. registry.

We also estimate that it takes about 6 work-hours per product to comply with the basic requirements of this AD. The average labor rate is \$85 per work-hour. Required

parts will cost about \$3,650 per product. Based on these figures, we estimate the cost of this AD on U.S. operators to be \$29,120 or \$4,160 per product.

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 the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);

3. Will not affect intrastate aviation in Alaska; and

4. 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.

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 amends 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 adding the following new airworthiness directive (AD):

2016-25-17 Saab AB, Saab Aeronautics (formerly known as Saab AB, Saab Aerosystems): Amendment 39-18743; Docket No. FAA-2016-9056; Directorate Identifier 2016-NM-007-AD.

(a) Effective Date

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to certain Saab AB, Saab Aeronautics (formerly known as Saab AB, Saab Aerosystems) Model SAAB 2000 airplanes, certificated in any category, serial numbers 017, 019 through 021 inclusive, 027 through 028 inclusive, 030, 034, 040, 050, and 052.

(d) Subject

Air Transport Association (ATA) of America Code 38, Water/waste.

(e) Reason

This AD was prompted by an occurrence that was reported of rudder pedal restriction on a SAAB Model 2000 airplane with the large potable water system installed, equipped with in-line heaters. We are issuing this AD to prevent water spray in case of a failed pipe or coupling during water filling on the ground. This condition, if not corrected, could freeze parts of the flight control system, possibly resulting in reduced control of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Repair of Basic Potable Water System (BPWS)

Within 24 months after the effective date of this AD, install shrinkable tubes on the water piping of the BPWS, in accordance with the Accomplishment Instructions of SAAB Service Bulletin 2000-38-012, dated August 20, 2015.

(h) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Shahram Daneshmandi, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1112 ; fax 425-227-1149. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(2) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA); or Saab AB, Saab Aeronautics' EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(i) Related Information

Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA Airworthiness Directive 2016-0013, dated January 14, 2016, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9056.

(j) Material Incorporated by Reference

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

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) SAAB Service Bulletin 2000-38-012, dated August 20, 2015.

(ii) Reserved.

(3) For service information identified in this AD, contact Saab AB, Saab Aeronautics, SE-581 88, Linköping, Sweden; telephone +46 13 18 5591; fax +46 13 18 4874; email saab2000.techsupport@saabgroup.com; Internet <http://www.saabgroup.com>.

(4) You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(5) You may view this service information that is incorporated by reference 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/cfr/ibr-locations.html>.

Issued in Renton, Washington, on December 1, 2016.

Michael Kaszycki,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

[FR Doc. 2016-29509 Filed: 12/20/2016 8:45 am; Publication Date: 12/21/2016]