DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39


RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is superseding Airworthiness Directive (AD) 2017-12-07, which applied to certain The Boeing Company Model 737-800, -900, and -900ER series airplanes. AD 2017-12-07 required replacing the affected left temperature control valve and control cabin trim air modulating valve. This AD retains the requirements of AD 2017-12-07, expands the applicability to include additional airplanes, and adds a new requirement for certain airplanes to identify and replace the affected parts. This AD was prompted by reports of in-flight failure of the left temperature control valve and control cabin trim air modulating valve. The FAA is 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 July 20, 2017 (82 FR 27416, June 15, 2017).
ADDRESSES: For service information identified in this final rule, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminster Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet https://www.myboeingfleet.com. You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available on the Internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2019-0478.

Examining the AD Docket

You may examine the AD docket on the Internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2019-0478; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the regulatory evaluation, any comments received, and other information. The address for Docket Operations is 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: Julie Moon, Aerospace Engineer, Cabin Safety and Environmental Systems Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3571; email: julie.moon@faa.gov.
SUPPLEMENTARY INFORMATION:

Discussion

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2017-12-07, Amendment 39-18922 (82 FR 27416, June 15, 2017) (“AD 2017-12-07”), for certain The Boeing Company Model 737-800, -900, and -900ER series airplanes. The NPRM published in the Federal Register on July 8, 2019 (84 FR 32341). The NPRM was prompted by reports of in-flight failure of the left temperature control valve and control cabin trim air modulating valve, and a determination that the affected parts may be installed on airplanes outside the applicability of AD 2017-12-07. The NPRM proposed to retain the requirements of AD 2017-12-07, expand the applicability to include those other airplanes, and add a new requirement for certain airplanes to identify and replace the affected parts. The FAA is issuing this AD to address the possible occurrence of temperatures in excess of 100 degrees Fahrenheit in the flight deck or the passenger cabin during cruise, which could lead to the impairment of the flightcrew and prevent continued safe flight and landing.

Comments

The FAA gave the public the opportunity to participate in developing this AD. The following presents the comments received on the NPRM and the FAA’s response to each comment.

Support for the NPRM

United Airlines; The Air Line Pilots Association, International (ALPA); Boeing; Southwest Airlines; and Patrick Imperatrice expressed support for the NPRM.
**Effect of Winglets on Accomplishment of the Proposed Actions**

Aviation Partners Boeing stated that the installation of winglets per Supplemental Type Certificate (STC) ST00830SE does not affect the accomplishment of the manufacturer’s service instructions.

The FAA agrees with the commenter that STC ST00830SE does not affect the accomplishment of the manufacturer’s service instructions. Therefore, the installation of STC ST00830SE does not affect the ability to accomplish the actions required by this AD. This AD has not been changed regarding this issue.

**Request to Allow Future Part Numbers Without Alternate Method of Compliance (AMOC)**

Southwest Airlines requested that the FAA allow future valve part numbers to be installed without the need for an AMOC, because the unsafe condition only exists when a part number (P/N) 398908-4 valve is installed in the left temperature control or control cabin trim air modulating position.

The FAA disagrees with the commenter’s request because the only valve part numbers currently approved as replacements for P/N 398908-4 are P/Ns 398908-3 and 398908-5. These approved part numbers must be installed to address the identified unsafe condition. If additional part numbers are approved as design changes in the future, the design approval holder or operator may request approval of an AMOC using the procedures in paragraph (j) of this AD. This AD has not been changed regarding this issue.
Conclusion

The FAA reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD as proposed, except for minor editorial changes. The FAA has determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for addressing 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

This AD requires Boeing Alert Service Bulletin 737-21A1203, dated June 8, 2016, which the Director of the Federal Register approved for incorporation by reference as of July 20, 2017 (82 FR 27416, June 15, 2017). 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

The FAA estimates that this AD affects 2,027 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:
Estimated costs for required actions

<table>
<thead>
<tr>
<th>Action</th>
<th>Labor cost</th>
<th>Parts cost</th>
<th>Cost per product</th>
<th>Cost on U.S. operators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inspection/records check (new actions) (up to 1,708 airplanes)</td>
<td>1 work-hour X $85 per hour = $85</td>
<td>$0</td>
<td>$85</td>
<td>Up to $145,180</td>
</tr>
<tr>
<td>Replacement (retained actions from AD 2017-12-07) (up to 319 airplanes)</td>
<td>9 work-hours X $85 per hour = $765</td>
<td>$4,800</td>
<td>$5,565</td>
<td>Up to $1,775,235</td>
</tr>
</tbody>
</table>

The FAA estimates the following costs to do any necessary replacements that would be required based on the results of the inspection or records check. The FAA has no way of determining the number of aircraft that might need these replacements:

**On-condition costs**

<table>
<thead>
<tr>
<th>Action</th>
<th>Labor cost</th>
<th>Parts cost</th>
<th>Cost per product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Replacement</td>
<td>9 work-hours X $85 per hour = $765</td>
<td>$4,800</td>
<td>$5,565</td>
</tr>
</tbody>
</table>

**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.

The FAA is 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.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes and associated appliances to the Director of the System Oversight Division.

**Regulatory Findings**

The FAA has 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. Will not affect intrastate aviation in Alaska, 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.

**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 removing Airworthiness Directive (AD) 2017-12-07, Amendment 39-18922 (82 FR 27416, June 15, 2017), and adding the following new AD:


(a) Effective Date

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

(b) Affected ADs

This AD replaces AD 2017-12-07, Amendment 39-18922 (82 FR 27416, June 15, 2017).

(c) Applicability

This AD applies to all The Boeing Company Model 737-800, -900, and -900ER series airplanes, certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 21, Air conditioning.

(e) Unsafe Condition

This AD was prompted by reports of in-flight failure of the left temperature control valve and control cabin trim air modulating valve. The FAA is issuing this AD to
address the possible occurrence of temperatures in excess of 100 degrees Fahrenheit in the flight deck or the passenger cabin during cruise, which could lead to the impairment of the flightcrew and prevent continued safe flight and landing.

(f) Compliance

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

(g) Retained Valve Replacement, With Revised Compliance Language

This paragraph restates the requirements of paragraph (g) of AD 2017-12-07 with revised compliance language. For airplanes identified in Boeing Alert Service Bulletin 737-21A1203, dated June 8, 2016: Within 60 months after July 20, 2017 (the effective date of AD 2017-12-07), replace the left temperature control valve and control cabin trim air modulating valve, as applicable, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-21A1203, dated June 8, 2016.

(h) New Valve Identification and Replacement

For airplanes not identified in paragraph (g) of this AD with an original certificate of airworthiness or an original export certificate of airworthiness dated on or before the effective date of this AD, do the actions specified in paragraphs (h)(1) and (2) of this AD.

(1) Within 60 months after the effective date of this AD, perform a general visual inspection of the left temperature control valve and control cabin trim air modulating valve to determine the valve part numbers. A review of airplane maintenance records is acceptable in lieu of this inspection if the part numbers of the valves can be conclusively determined from that review.

(2) If the left temperature control valve or control cabin trim air modulating valve has part number 398908-4: Within 60 months after the effective date of this AD, replace
the left temperature control valve or control cabin trim air modulating valve in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-21A1203, dated June 8, 2016.

(i) Parts Installation Prohibition

As of the effective date of this AD, no person may install a valve having part number 398908-4, in either the left temperature control valve location or the control cabin trim air modulating valve location on any airplane.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle ACO Branch, 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 manager of the certification office, send it to the attention of the person identified in paragraph (k) of this AD. Information may be emailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) 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.

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by The Boeing Company Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO Branch, FAA, to make those findings. To be approved, the repair
method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(4) For service information that contains steps that are labeled as Required for Compliance (RC), the provisions of paragraphs (j)(4)(i) and (ii) of this AD apply.

(i) The steps labeled as RC, including substeps under an RC step and any figures identified in an RC step, must be done to comply with the AD. If a step or substep is labeled “RC Exempt,” then the RC requirement is removed from that step or substep. An AMOC is required for any deviations to RC steps, including substeps and identified figures.

(ii) Steps not labeled as RC may be deviated from using accepted methods in accordance with the operator’s maintenance or inspection program without obtaining approval of an AMOC, provided the RC steps, including substeps and identified figures, can still be done as specified, and the airplane can be put back in an airworthy condition.

(k) Related Information

For more information about this AD, contact Julie Moon, Aerospace Engineer, Cabin Safety and Environmental Systems Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3571; email: julie.moon@faa.gov.

(l) 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 the AD specifies otherwise.

(3) The following service information was approved for IBR on July 20, 2017 (82 FR 27417, June 15, 2017).


(ii) [Reserved]

(4) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminster Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet https://www.myboeingfleet.com.

(5) You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(6) 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, email fedreg.legal@nara.gov, or go to: https://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on January 10, 2020.

Dionne Palermo,
Acting Director,
System Oversight Division,
Aircraft Certification Service.

[FR Doc. 2020-00700 Filed: 1/16/2020 8:45 am; Publication Date: 1/17/2020]