



## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA-2023-1886; Project Identifier AD-2023-00429-T]

RIN 2120-AA64

#### Airworthiness Directives; The Boeing Company Airplanes

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to supersede Airworthiness Directive (AD) 2009-01-02, which applies to certain Boeing Model 737-600, -700, -700C, -800, and -900 series airplanes. AD 2009-01-02 requires an inspection of frames between body station (BS) 360 and BS 907 to determine if certain support brackets of the air conditioning (A/C) outlet extrusions are installed, inspections for cracking of the frames around the attachment holes of the subject brackets, and repair if necessary. AD 2009-01-02 also requires installing new, improved fittings for all support brackets of the A/C outlet extrusions between BS 360 and BS 907. Since the FAA issued AD 2009-01-02, the agency determined that certain repairs might develop fatigue cracks that could result in the inability of the frame to sustain limit load and therefore must be inspected. This proposed AD would continue to require the actions specified in AD 2009-01-02 and would also require repetitive inspections for cracking of certain repairs and repair if necessary. The FAA is proposing this AD to address the unsafe condition on these products.

**DATES:** The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to [regulations.gov](https://www.regulations.gov). Follow the instructions for submitting comments.

- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

*AD Docket:* You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-1886; 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 NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

*Material Incorporated by Reference:*

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

- You may view this service information at the FAA, Airworthiness Products Section, Operational Safety 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 at [regulations.gov](https://www.regulations.gov) by searching for and locating Docket No. FAA-2023-1886.

**FOR FURTHER INFORMATION CONTACT:** Owen F. Bley-Male, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; phone: 206-231-3992; email: Owen.F.Bley-Male@faa.gov.

**SUPPLEMENTARY INFORMATION:**

**Comments Invited**

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2023-1886; Project Identifier AD-2023-00429-T” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend the proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to regulations.gov, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this proposed AD.

**Confidential Business Information**

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public

docket of this NPRM. Submissions containing CBI should be sent to Owen F. Bley-Male, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; phone: 206-231-3992; email: Owen.F.Bley-Male@faa.gov. Any commentary that the FAA receives that is not specifically designated as CBI will be placed in the public docket for this rulemaking.

## **Background**

The FAA issued AD 2009-01-02, Amendment 39-15780 (74 FR 4117, January 23, 2009) (AD 2009-01-02), for certain Boeing Model 737-600, -700, -700C, -800, and -900 series airplanes. AD 2009-01-02 was prompted by numerous reports of multiple cracks in the frame around the attachment holes of the support bracket of the A/C outlet extrusion. AD 2009-01-02 requires a one-time general visual inspection of frames between BS 360 and BS 907 to determine if certain support brackets of the A/C outlet extrusions are installed, medium- and high-frequency eddy current inspections for cracking of the frames around the attachment holes of the subject brackets, and repair if necessary. AD 2009-01-02 also requires installing new, improved fittings for all support brackets of the A/C outlet extrusions between BS 360 and BS 907. AD 2009-01-02 refers to Boeing Special Attention Service Bulletin 737-25-1544, Revision 1, dated January 16, 2008, as the appropriate source of service information for accomplishing the required actions. The agency issued AD 2009-01-02 to prevent frame cracking, which, if not corrected, could lead to a severed frame that, combined with cracking of the skin lap splice above stringer 10, could result in rapid decompression of the airplane.

## **Actions Since AD 2009-01-02 Was Issued**

Since the FAA issued AD 2009-01-02, Boeing issued Special Attention Service Bulletin 737-25A1544, Revision 3, dated May 16, 2016, as an alternative method of compliance for AD 2009-01-02, which includes an alternative to making repairs using Boeing Special Attention Service Bulletin 737-25-1544, Revision 1, dated January 16,

2008. The FAA and Boeing determined that the repairs done using Boeing Special Attention Service Bulletin 737-25A1544, Revision 3, dated May 16, 2016, might develop fatigue cracks that could result in the inability of the frame to sustain limit load. Boeing subsequently issued Alert Service Bulletin 737-25A1544, Revision 4, dated February 15, 2022, which added damage tolerance inspections for certain BS 907 repairs done using Boeing Special Attention Service Bulletin 737-25A1544, Revision 3, dated May 16, 2016. The FAA determined that those post-repair inspections are necessary to address the unsafe condition.

### **FAA's Determination**

The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

### **Related Service Information under 1 CFR Part 51**

The FAA reviewed Boeing Alert Service Bulletin 737-25A1544, Revision 4, dated February 15, 2022. This service information specifies procedures for a one-time general visual inspection of frames between BS 360 and BS 907 to determine if certain support brackets of the A/C outlet extrusions are installed; low-, medium- and high-frequency eddy current inspections for cracking of the frames around the attachment holes of the subject brackets, and repair if necessary; and installation of new, improved fittings for all support brackets of the A/C outlet extrusions between BS 360 and BS 907. This service information also specifies procedures for repetitive detailed and high-frequency eddy current inspections for cracking of certain repairs at BS 907 and repair if necessary.

This AD also requires Boeing Special Attention Service Bulletin 737-25-1544, Revision 1, dated January 16, 2008, which the Director of the Federal Register approved for incorporation by reference as of February 27, 2009 (74 FR 4117, January 23, 2009).

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.

**Proposed AD Requirements in this NPRM**

This proposed AD would require accomplishing the actions specified in the service information described previously, except for any differences identified as exceptions in the regulatory text of this proposed AD. For information on the procedures and compliance times, see this service information at regulations.gov by searching for and locating Docket No. FAA-2023-1886.

**Costs of Compliance**

The FAA estimates that this AD, if adopted as proposed, would affect 738 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

**Estimated costs**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
General visual inspection (retained actions from AD 2009-01-02)	1 work-hour X \$85 per hour = \$85	\$0	\$85	\$62,730
Eddy current inspections (retained actions from AD 2009-01-02)	Up to 216 work-hours X 85 per hour = Up to 18,360	0	Up to 18,360	Up to 13,549,680

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Replace support fittings (retained actions from AD 2009-01-02)	Up to 346 work-hours X 85 per hour = Up to 29,410	Up to 28,789	Up to 57,889	Up to 42,722,082
Post-repair Inspections (new proposed action)	42 work-hours X 85 per hour = 3,570 per inspection cycle	0	3,570 per inspection cycle	2,634,660 per inspection cycle

The FAA has received no definitive data on which to base the cost estimates for the on-condition repairs that would be required based on the results of the inspections specified in this proposed 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.

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.

#### **Regulatory Findings**

The FAA has determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would 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 the proposed regulation:

(1) Is not a “significant regulatory action” under Executive Order 12866,

(2) Would not affect intrastate aviation in Alaska, and

(3) Would 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.

### **The Proposed 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:

a. Removing Airworthiness Directive (AD) 2009-01-02, Amendment 39-15780

(74 FR 4117, January 23, 2009), and

b. Adding the following new AD:

**The Boeing Company:** Docket No. FAA-2023-1886; Project Identifier AD-2023-00429-T.

**(a) Comments Due Date**

The FAA must receive comments on this airworthiness directive (AD) action by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

This AD replaces AD 2009-01-02, Amendment 39-15780 (74 FR 4117, January 23, 2009) (AD 2009-01-02).

**(c) Applicability**

This AD applies to Boeing Model 737-600, -700, -700C, -800, and -900 series airplanes, certificated in any category, as identified in Boeing Special Attention Service Bulletin 737-25A1544, Revision 4, dated February 15, 2022.

**(d) Subject**

Air Transport Association (ATA) of America Code 25, Equipment/Furnishing.

**(e) Unsafe Condition**

This AD was prompted by numerous reports of multiple cracks in the frame around the attachment holes of the support bracket of the air conditioning (A/C) outlet extrusion. Also, the FAA determined that certain repairs done to comply with AD 2009-01-02 might develop fatigue cracks that could result in the inability of the frame to sustain limit load and must be inspected. The FAA is issuing this AD to address frame cracking, which, if not corrected, could lead to a severed frame that, combined with cracking of the skin lap splice above stringer 10, could result in rapid decompression of the airplane.

**(f) Compliance**

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

**(g) Retained Inspection, with New Service Information**

This paragraph restates the requirements of paragraph (f) of AD 2009-01-02, with new service information. Before the accumulation of 36,000 total flight cycles, or within

72 months after February 27, 2009 (the effective date of AD 2009-01-02), whichever occurs later, except as required by paragraph (i) of this AD: Do a general visual inspection to determine if the support brackets of the A/C outlet extrusions between body station (BS) 360 and BS 907 have two-rivet attachment fittings in accordance with Part 2 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-25-1544, Revision 1, dated January 16, 2008, or Boeing Alert Service Bulletin 737-25A1544, Revision 4, dated February 15, 2022; except at the locations identified in the notes of Step 3.B.1 of Part 1 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-25-1544, Revision 1, dated January 16, 2008, or Boeing Alert Service Bulletin 737-25A1544, Revision 4, dated February 15, 2022. As of the effective date of this AD, only use Boeing Alert Service Bulletin 737-25A1544, Revision 4, dated February 15, 2022, for the actions required by paragraph (g) of this AD.

(1) For any support bracket attached with three or more rivets: No further action is required by paragraph (g) of this AD.

(2) For any subject support bracket having a two-rivet attachment fitting: Before the accumulation of 36,000 total flight cycles, or within 72 months after February 27, 2009 (the effective date of AD 2009-01-02), whichever occurs later, except as required by paragraph (i) of this AD, do medium- and high-frequency eddy current inspections for cracking of the frame around the attachment holes of the support bracket, in accordance with Part 2 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-25-1544, Revision 1, dated January 16, 2008, or do low-, medium- and high-frequency eddy current inspections for cracking of the frame around the attachment holes of the support bracket, in accordance with Part 2 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-25A1544, Revision 4, dated February 15, 2022. If any cracking is discovered, before further flight, repair the cracking

in accordance with Part 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-25-1544, Revision 1, dated January 16, 2008, or Boeing Alert Service Bulletin 737-25A1544, Revision 4, dated February 15, 2022, except as required by paragraph (k)(2) of this AD. As of the effective date of this AD, only use Boeing Alert Service Bulletin 737-25A1544, Revision 4, dated February 15, 2022, for the actions required by paragraph (g)(2) of this AD.

**(h) Retained Modification with New Service Information**

This paragraph restates the requirements of paragraph (g) of AD 2009-01-02, with new service information. Except as required by paragraph (i) of this AD: Before the accumulation of 36,000 total flight cycles, or within 72 months after February 27, 2009 (the effective date of AD 2009-01-02), whichever occurs later, replace the support fittings of all A/C outlet extrusions between BS 360 and BS 907 with new, improved support fittings, in accordance with Part 4 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-25-1544, Revision 1, dated January 16, 2008, or Boeing Alert Service Bulletin 737-25A1544, Revision 4, dated February 15, 2022. As of the effective date of this AD, only use Boeing Alert Service Bulletin 737-25A1544, Revision 4, dated February 15, 2022, for the actions required by paragraph (h) of this AD.

**(i) Retained Compliance Time for Certain Airplanes with No Changes**

This paragraph restates the compliance time specified in paragraph (h) of AD 2009-01-02, with no changes. For airplanes on which Boeing Business Jet (BBJ) lower cabin altitude modification is incorporated in accordance with Supplemental Type Certificate ST01697SE: Before the accumulation of 18,000 total flight cycles, or within 72 months after February 27, 2009 (the effective date of AD 2009-01-02), whichever occurs later, do the actions specified in paragraphs (g) and (h) of this AD.

**(j) New Requirements of this AD**

For Groups 1 through 4 and Group 6 as identified in Boeing Alert Service Bulletin 737-25A1544, Revision 4, dated February 15, 2022: Except as specified in paragraph (k) of this AD: At the applicable time specified in Table 2 of the “Compliance” paragraph of Boeing Alert Service Bulletin 737-25A1544, Revision 4, dated February 15, 2022, do a detailed inspection and a high-frequency eddy current inspection for cracking of the repaired area at frame BS 907, and do all applicable repairs before further flight, in accordance with the Accomplishment Instructions of in Boeing Alert Service Bulletin 737-25A1544, Revision 4, dated February 15, 2022. Repeat the inspections thereafter at the applicable time specified in Table 2 of the “Compliance” paragraph of Boeing Alert Service Bulletin 737-25A1544, Revision 4, dated February 15, 2022.

**(k) Exceptions to Service Information Specifications**

(1) Where the Compliance Time column of Table 2 in the “Compliance” paragraph of Boeing Alert Service Bulletin 737-25A1544, Revision 4, dated February 15, 2022, uses the phrase “the Revision 4 date of this Service Bulletin,” this AD requires using “the effective date of this AD.”

(2) Where Boeing Alert Service Bulletin 737-25A1544, Revision 4, dated February 15, 2022, specifies contacting Boeing, this AD requires repair before further flight using a method approved in accordance with the procedures specified in paragraph (m) of this AD.

(3) For airplanes on which Boeing Business Jet Lower Cabin Altitude Supplemental Type Certificate (STC) ST01697SE ([drs.faa.gov/browse/excelExternalWindow/0812969A86AF879B8625766400600105.000](https://www.drs.faa.gov/browse/excelExternalWindow/0812969A86AF879B8625766400600105.000)) (6,500 feet maximum cabin altitude in lieu of 8,000 feet) has been incorporated, the flight-cycle related compliance times for the inspections required by paragraph (j) of this AD are different from those specified in Table 2 of the “Compliance” paragraph in

Boeing Alert Service Bulletin 737-25A1544, Revision 4, dated February 15, 2022. All initial compliance times specified in total flight cycles or flight cycles must be reduced to half of those specified in Table 2 of the “Compliance” paragraph in Boeing Alert Service Bulletin 737-25A1544, Revision 4, dated February 15, 2022. All repetitive interval compliance times specified in flight cycles must be reduced to one-quarter of those specified in Table 2 of the “Compliance” paragraph in Boeing Alert Service Bulletin 737-25A1544, Revision 4, dated February 15, 2022.

**(l) Credit for Previous Actions**

(1) This paragraph provides credit for the actions specified in paragraphs (g) and (h) of this AD, if those actions were performed before February 27, 2009 (the effective date of AD 2009-01-02) using Boeing Alert Service Bulletin 737-25-1544, dated October 4, 2006.

(2) This paragraph provides credit for the actions specified in paragraphs (g) and (h) of this AD, if those actions were performed before the effective date of this AD using Boeing Special Attention Service Bulletin 737-25-1544, Revision 2, dated March 23, 2011, or Boeing Special Attention Service Bulletin 737-25-1544, Revision 3, dated May 16, 2016.

**(m) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, AIR-520, Continued Operational Safety 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 responsible Flight Standards Office, as appropriate. If sending information directly to the manager of AIR-520, Continued Operational Safety Branch, send it to the attention of the person identified in paragraph (n)(1) 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 responsible Flight Standards 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, AIR-520, Continued Operational Safety 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) AMOCs approved for AD 2009-01-02 are approved as AMOCs for the corresponding provisions of paragraphs (g) through (i) of this AD.

**(n) Related Information**

(1) For more information about this AD, contact Owen F. Bley-Male, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; phone: 206-231-3992; email: Owen.F.Bley-Male@faa.gov.

(2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (o)(5) and (6) of this AD.

**(o) 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.

(3) The following service information was approved for IBR on [DATE 35 DAYS AFTER PUBLICATION OF THE FINAL RULE].

(i) Boeing Alert Service Bulletin 737-25A1544, Revision 4, dated February 15, 2022.

(ii) [Reserved]

(4) The following service information was approved for IBR on February 27, 2009 (74 FR 4117, January 23, 2009).

(i) Boeing Special Attention Service Bulletin 737-25-1544, Revision 1, dated January 16, 2008.

(ii) [Reserved]

(5) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; website [myboeingfleet.com](http://myboeingfleet.com).

(6) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(7) 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 [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov), or go to: [www.archives.gov/federal-register/cfr/ibr-locations.html](http://www.archives.gov/federal-register/cfr/ibr-locations.html).

Issued on September 18, 2023.

Victor Wicklund, Deputy Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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