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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2024-2427; Project Identifier AD-2024-00484-T; Amendment 39-23032; AD 2025-09-11]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY:

Federal Aviation Administration (FAA), DOT.

ACTION:

Final rule.

SUMMARY:

The FAA is adopting a new airworthiness directive (AD) for all The Boeing Company Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC 9-87 (MD-87), and MD-88 airplanes, and Model DC-9-10, DC-9-20, DC-9-30, DC-9-40, and DC-9-50 series airplanes. This AD was prompted by the discovery of jammed elevators during takeoff. This AD requires revising the "Certificate Limitations" section of the existing airplane flight manual (AFM) to include a procedure to confirm elevator surfaces are not jammed in the trailing edge down (TED) position. The FAA is issuing this AD to address the unsafe condition on these products.

DATES:

This AD is effective June 12, 2025.

ADDRESSES:

AD Docket: You may examine the AD docket at *regulations.gov* under Docket No. FAA-2024-2427; 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, 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.

- You may view this material 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* under Docket No. FAA-2024-2427.

FOR FURTHER INFORMATION CONTACT:

Katherine Venegas, Aviation Safety Engineer, FAA, 3960 Paramount Boulevard, Lakewood, CA 90712; phone: 562-627-5353; email: *katherine.venegas@faa.gov*.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all The Boeing Company Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87), and MD-88 airplanes, and Model DC-9-10, DC-9-20, DC-9-30, DC-9-40, and DC-9-50 series airplanes. The NPRM published in the **Federal Register** on November 22, 2024 (89 FR 92610). The NPRM was prompted by the discovery of jammed elevators during takeoff. In the NPRM, the FAA proposed to require revising the "Certificate Limitations" section of the existing AFM to include a procedure to confirm elevator surfaces are not jammed in the TED position. The FAA is issuing this AD to address jammed elevators, which if not addressed, could result in the inability of the airplane to rotate at rotation speed VR, and lead to a rejected takeoff and high-speed runway excursion.

Discussion of Final Airworthiness Directive

Comments

The FAA received comments from The Boeing Company and an individual commenter. The following presents the comments received on the NPRM and the FAA's response to each comment.

Request for Revision of Unsafe Condition

Boeing requested that the FAA revise the Background paragraph and paragraph (e) of the proposed AD to state that unsafe condition could result in the inability of the aircraft to rotate at VR, and lead to a high-speed runway excursion during a rejected takeoff. Boeing requested this to clarify that the unsafe condition first affects aircraft pitch control which can then result in a rejected takeoff being executed beyond V1 (the speed beyond which takeoff should not be aborted), leading to high-speed runway overrun.

The FAA agrees with this request and has updated the Background paragraph and paragraph (e) of this AD to clarify that the unsafe condition could result in the inability of the airplane to rotate at rotation speed VR, and lead to a rejected takeoff and high-speed runway excursion.

Request for Expanded Preflight Protocols

The individual commenter stated that in addition to the AFM revision, the FAA should mandate enhanced preflight inspection procedures and that a checklist for ground crews and pilots should include not only confirmation of elevator functionality, but also additional safeguards to detect anomalies caused by external environmental factors, such as high winds during parking. The commenter stated this multi-layered approach will improve the likelihood of identifying potential issues before takeoff.

The FAA agrees that a multi-layered approach is helpful and offers the following clarification. Preflight protocols have already been expanded and include enhanced preflight inspection procedures. The Boeing Flight Crew Operation Manuals (FCOMs), Operations Bulletins (OBs), and Airplane Maintenance Manuals (AMMs), have already been updated to include requirements to confirm prior to every flight that elevator surfaces are not jammed in the trailing edge down position, as well as procedures for making that confirmation. These updates were communicated to operators via a Boeing Service Letter. Therefore, it is not necessary to require these actions in this AD. The FAA has not changed this AD as a result of this comment.

Request for Implementation of Immediate Training

The individual commenter stated pilots, ground crews, and maintenance personnel should receive mandatory training on the updated AFM procedures and the root cause of elevator jamming. The commenter stated clear communication of the risks and the steps to mitigate them will ensure consistent application across operators, and simulation-based training, which replicates scenarios involving elevator jamming, can prepare crews for real-world challenges.

Although the FAA agrees with the comment, no additional change to the AD is necessary. Section 91.9 prohibits any person from operating a civil aircraft without complying with the operating limitations specified in the AFM. FAA regulations also require operators to furnish pilots with any changes to the AFM (14 CFR 121.137) and pilots in command to be familiar with the AFM (14 CFR 91.505). Training is a secondary step that can be accomplished by the various operators through their maintenance and operational programs.

Request for Increased Oversight and Reporting

The individual commenter stated that the FAA should establish a robust monitoring system to evaluate compliance with the revised AFM procedures including requiring operators to submit regular reports on their implementation of the AD and any incidents involving elevator control anomalies. The commenter stated any incidents involving elevator control anomalies would provide valuable data to inform future safety measures.

The FAA agrees to clarify. The FAA has determined that reporting implementation of the AD is not required because the actions required by this AD adequately address the identified unsafe condition. Operators are already required to report incidents involving the flight control system to the National Transportation Safety Board (NTSB) as specified in 49 CFR 830.5 and the FAA Aeronautical Information Manual, dated February 20, 2025. Additionally, 14 CFR 39.7 specifies that once an AD is issued, no person may operate a product to which the AD applies except in accordance with the requirements of that AD.

Request for Monitoring and Periodic Updates of Design Changes

The individual commenter stated that Boeing's ongoing efforts to develop a design change to address elevator jamming must be closely monitored and that periodic updates should be shared publicly. The commenter stated that transparency will build confidence among passengers, operators, and other stakeholders while ensuring accountability for delivering a permanent solution.

The FAA agrees to clarify. As part of continued operational safety, the FAA is monitoring Boeing's developing design change. The design is proprietary to Boeing and cannot be shared to the public by the FAA. The FAA has not changed this AD as a result of this comment.

Request for Expedited Research and Deployment

The individual commenter supported the NPRM, but added that the FAA should work with Boeing to fast-track the development and certification of a design change. The commenter stated that while necessary, interim measures like the proposed AFM revision should not substitute for long-term corrective action and that a permanent fix will eliminate the risk of human error during preflight checks and enhance overall safety.

The FAA agrees to clarify. As part of continued operational safety, the FAA is monitoring Boeing's developing design change, including receiving periodic updates in a timely manner. As stated in the proposed rule, the FAA is issuing this AD to address the unsafe condition and considers this AD interim action, and if final action is later identified, the FAA might consider further rulemaking. However, in the interim, the FAA has determined that the AFM revision required by this AD adequately addresses the unsafe condition. Therefore, fast-tracking the development and certification of a design change is not needed.

Conclusion

The FAA reviewed the relevant data, considered any comments received, and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products. Except for minor editorial changes, and any other changes described previously, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

Interim Action

The FAA considers this AD to be an interim action. Boeing is developing a design change to address the unsafe condition. If final action is later identified, the FAA might consider further rulemaking.

Costs of Compliance

The FAA estimates that this AD affects 104 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

Estimated Costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
AFM revision	1 work-hour × $85 per hour = $85	$0	$85	$8,840

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

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

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:

2025-09-11 The Boeing Company: Amendment 39-23032; Docket No. FAA-2024-2427; Project Identifier AD-2024-00484-T.

(a) Effective Date

This airworthiness directive (AD) is effective June 12, 2025.

(b) Affected ADs

None.

(c) Applicability

This AD applies to all The Boeing Company airplanes identified in paragraphs (c)(1) through (7) of this AD, certificated in any category.

(1) Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), and DC-9-87 (MD-87) airplanes.

(2) Model MD-88 airplanes.

(3) Model DC-9-11, DC-9-12, DC-9-13, DC-9-14, DC-9-15, and DC-9-15F airplanes.

(4) Model DC-9-21 airplanes.

(5) Model DC-9-31, DC-9-32, DC-9-32 (VC-9C), DC-9-32F, DC-9-33F, DC-9-34, DC-9-34F, and DC-9-32F (C-9A, C-9B) airplanes.

(6) Model DC-9-41 airplanes.

(7) Model DC-9-51 airplanes.

(d) Subject

Air Transport Association (ATA) of America Code 27, Flight controls.

(e) Unsafe Condition

This AD was prompted by the discovery of jammed elevators during takeoff. The FAA is issuing this AD to address the unsafe condition, which if not addressed, could result in the inability of the aircraft to rotate at rotation speed VR, and lead to a rejected takeoff and high-speed runway excursion.

(f) Compliance

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

(g) Revision of Existing AFM

Within 3 months after the effective date of this AD, revise the "Certificate Limitations" section of the existing airplane flight manual (AFM) to include the information specified in figure 1 to paragraph (g) of this AD. This may be done by inserting a copy of figure 1 to paragraph (g) of this AD into the AFM.

Figure 1 to Paragraph (g)—Elevator Surfaces Procedure

(As required by AD 2025-09-11)

Prior to every flight, elevator surfaces must be confirmed as not jammed in the Trailing Edge Down (TED) position. Both elevators must be faired with or above the stabilizer surface, or maintenance action is required to verify elevator freedom of movement.

(h) 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 the certification office, send it to the attention of the person identified in paragraph (i) of this AD. Information may be emailed to: *AMOC@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.

(i) Related Information

For more information about this AD, contact Katherine Venegas, Aviation Safety Engineer, FAA, 3960 Paramount Boulevard, Lakewood, CA 90712; phone: 562-627-5353; email: *katherine.venegas@faa.gov*.

(j) Material Incorporated by Reference

None.

Issued on April 30, 2025.

Victor Wicklund,

Deputy Director, Integrated Certificate Management Division, Aircraft Certification Service.

[FR Doc. 2025-07968 Filed 5-7-25; 8:45 am]

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