



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2025-3997; Project Identifier AD-2025-01471-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 adopt a new airworthiness directive (AD) for all The Boeing Company Model 777-200, -200LR, -300, -300ER, and 777F series airplanes. This proposed AD was prompted by a report of overheated alternating current motor pumps (ACMP) that caused a fire in the main landing gear (MLG) wheel well. This proposed AD would require a records check or inspection for any installed ACMP with a certain part number and applicable on-condition actions. This proposed AD would also prohibit the installation of affected parts. 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-2025-3997; 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 Boeing material identified in this proposed 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.

- 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](https://www.regulations.gov) under Docket No. FAA-2025-3997.

FOR FURTHER INFORMATION CONTACT: Michael Sheldon, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; phone: 651-955-7451; email: michael.e.sheldon@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 using a method listed under the ADDRESSES

section. Include “Docket No. FAA-2025-3997; Project Identifier AD-2025-01471-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 this 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 NPRM.

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 Michael Sheldon, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; phone: 651-955-7451; email: michael.e.sheldon@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 has received a report from an operator of a fire in the MLG wheel well on a Model 777 airplane. A subsequent investigation found that the cause of the fire was an overheated ACMP. Further investigation found that a lock washer and nut was missing from a moving contact in the related electrical load control unit (ELCU). The missing lock washer and nut left the main contact operator bar unrestrained and in a position which let two-phase power go to the ACMP which caused the ACMP to overheat, leak hydraulic fluid and subsequently start a fire in the MLG wheel well. As a result, the design of the ACMP has been modified to include fusible links as a new feature to prevent the ACMP overheat if one of the electrical phases fails. Additionally, the manufacturer has determined that part number 731966 on continuous two-phase power application may cause the pump to overheat and ignite a fire in the wheel well. Part number 731966 can be subjected to a single failure of the ELCU that results in continuous two-phase power application with no ability to remove power. This condition, if not addressed, could result in the ACMP overheating and igniting a fire in the wheel well and consequent damage to the airplane, loss of continued safe flight and landing and/or personnel injury.

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.

Material Incorporated by Reference Under 1 CFR Part 51

The FAA reviewed Boeing Alert Requirements Bulletin 777-29A0047 RB, dated September 11, 2025. This material specifies procedures for a records check or inspection for any installed ACMP with part number 731966, and applicable on-condition actions. On-condition actions include replacing any ACMP part number 731966 with ACMP part

number 3033115-100 or later approved ACMP part number at affected locations. This material 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 material already described, except for any differences identified as exceptions in the regulatory text of this proposed AD. This proposed AD would also prohibit the installation of affected parts. For information on the procedures and compliance times, see this material at regulations.gov under Docket No. FAA-2025-3997.

Differences Between this Proposed AD and the Referenced Material

The effectivity of Boeing Alert Requirements Bulletin 777-29A0047 RB, dated September 11, 2025, is limited to The Boeing Company Model 777-200, -200LR, -300, -300ER, and 777F series airplanes having line numbers 1 through 1566 inclusive, and 1568 through 1571 inclusive. However, the applicability of this proposed AD includes all Model 777-200, -200LR, -300, -300ER, and 777F series airplanes. Because the affected ACMP are rotatable parts, the FAA has determined that these parts could later be installed on airplanes that were initially delivered with acceptable ACMPs, thereby subjecting those airplanes to the unsafe condition. The FAA has confirmed that the Accomplishment Instructions in Boeing Alert Requirements Bulletin 777-29A0047 RB, dated September 11, 2025, are applicable to the expanded group of airplanes.

Boeing Alert Requirements Bulletin 777-29A0047 RB, dated September 11, 2025, refers to ACMP part number 3033115-100 as an acceptable part. However, the Boeing aircraft maintenance manual (AMM) identifies part numbers 66133-06 or 66068-08 as additional acceptable parts. Accordingly, the FAA has added paragraph (h)(2) to this proposed AD to allow those parts as alternative replacement parts.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 340 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection/Records review	2 work-hours X \$85 per hour = \$170	\$0	\$170	\$57,800

The FAA estimates the following costs to do any necessary replacements that would be required based on the results of the proposed inspection. The agency has no way of determining the number of aircraft that might need this replacement:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Replacement	5 work-hours X \$85 per hour = \$425	Up to \$76,674	Up to \$77,099

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some or all of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected operators.

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 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 this 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 adding the following new airworthiness directive:

The Boeing Company: Docket No. FAA-2025-3997; Project Identifier AD-2025-01471-

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(a) Comments Due Date

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

(b) Affected ADs

None.

(c) Applicability

This AD applies to all The Boeing Company Model 777-200, -200LR, -300, -300ER, and 777F series airplanes, certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 29, Hydraulic Power.

(e) Unsafe Condition

This AD was prompted by a report of an overheated alternating current motor pump (ACMP) that caused a fire in the main landing gear (MLG) wheel well. A subsequent investigation found that the cause of the fire was an overheated ACMP. Further investigation found that a lock washer and nut was missing from a moving contact in the related electrical load control unit (ELCU). The FAA is issuing this AD to address a single failure of the ELCU in the ACMP. The unsafe condition, if not addressed, could result in the ACMP overheating and igniting a fire in the wheel well and consequent damage to the airplane, loss of continued safe flight and landing and/or personnel injury.

(f) Compliance

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

(g) Required Actions

Except as specified by paragraph (h) of this AD: At the applicable times specified in the “Compliance” paragraph of Boeing Alert Requirements Bulletin 777-29A0047 RB, dated September 11, 2025, do all applicable actions identified in, and in accordance with, the Accomplishment Instructions of Boeing Alert Requirements Bulletin 777-29A0047 RB, dated September 11, 2025.

Note 1 to paragraph (g): Guidance for accomplishing the actions required by this AD can be found in Boeing Alert Service Bulletin 777-29A0047, dated September 11, 2025, which is referred to in Boeing Alert Requirements Bulletin 777-29A0047 RB, dated September 11, 2025.

(h) Exceptions to Requirements Bulletin Specifications

(1) Where the Compliance Time column of the table in the “Compliance” paragraph of Boeing Alert Requirements Bulletin 777-29A0047 RB, dated September 11, 2025, refers to the original issue date of Requirements Bulletin 777-29A0047 RB, this AD requires using the effective date of this AD.

(2) Where Boeing Alert Requirements Bulletin 777-29A0047 RB, dated September 11, 2025, refers to part number 3033115-100 as a replacement part, for this AD, part numbers 66133-06 or 66068-08 are also acceptable replacement parts.

(i) Parts Installation Prohibition

As of the effective date of this AD, no person may install any ACMP, having part number 731966, on any airplane.

(j) 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 Continued Operational Safety Branch, send it to the attention of the person identified in paragraph (k)(1) of this AD. Information may be emailed to: AMOC@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) 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.

(k) Additional Information

(1) For more information about this AD, contact Michael Sheldon, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; phone: 651-955-7451; email: michael.e.sheldon@faa.gov.

(2) Material identified in this AD that is not incorporated by reference is available at the address specified in paragraph (l)(3) this AD.

(l) Material Incorporated by Reference

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

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

(i) Boeing Alert Requirements Bulletin 777-29A0047 RB, dated September 11, 2025.

(ii) [Reserved]

(3) For Boeing material 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.

(4) 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.

(5) You may view this material at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, visit www.archives.gov/federal-register/cfr/ibr-locations or email fr.inspection@nara.gov.

Issued on November 5, 2025.

Peter A. White,
Deputy Director, Integrated Certificate Management Division,
Aircraft Certification Service.
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