



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2019-0719; Product Identifier 2019-NM-137-AD]**

**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 certain The Boeing Company Model 787-8 airplanes. This proposed AD was prompted by a report of failure of a wing strut leak test due to a missing bolt on the firewall. This proposed AD would require a one-time leak test of the strut upper spar areas for the left and right wing struts, and corrective action 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 <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.

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; 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

### **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-2019-0719; 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, the regulatory evaluation, any comments received, and other information. The street address for Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Tak Kobayashi, Aerospace Engineer, Propulsion Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3553; email: takahisa.kobayashi@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 the ADDRESSES section. Include “Docket No. FAA-2019-0719; Product Identifier 2019-NM-137-AD” at the beginning of your comments. The agency specifically invites comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. The FAA will consider all comments received by the closing date and may amend this NPRM because of those comments.

The FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

**Discussion**

The FAA received a report indicating failure of a wing strut leak test due to a missing bolt on the firewall. Failure during manufacture to install a bolt that plugs a strut firewall penetration would result in a hole in the firewall. This condition, if not addressed, could allow flammable fluid leakage in the strut area. This leakage could overwhelm the drainage provision, enter the engine compartment, and result in an uncontrollable engine fire and consequent structural failure of the wing.

### **FAA’s Determination**

The FAA is proposing this AD because the agency evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

### **Proposed AD Requirements**

This proposed AD would require a one-time leak test of the strut upper spar areas for the left and right wing struts, and corrective action if necessary.

### **Costs of Compliance**

The FAA estimates that this proposed AD would affect 2 airplanes of U.S. registry. The agency estimates the following costs to comply with this proposed AD:

#### **Estimated costs for required actions**

<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
3 work-hours X \$85 per hour = \$255	\$0	\$255	\$510

The FAA estimates the following costs to do any necessary on-condition action that would be required based on the results of any proposed actions. The FAA has no way of determining the number of aircraft that might need this on-condition action:

#### **Estimated costs of on-condition action**

<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>
1 work-hour X \$85 per hour = \$85	Minimal	\$85

### **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 proposed 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 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) 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 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 (AD):

**The Boeing Company:** Docket No. FAA-2019-0719; Product Identifier 2019-NM-137-AD.

**(a) Comments Due Date**

The FAA must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to The Boeing Company Model 787-8 airplanes, certificated in any category, line numbers 6, 11, 17, 19, 20, 21, 23, 25 through 30 inclusive, and 32 through 38 inclusive.

**(d) Subject**

Air Transport Association (ATA) of America Code 54, Nacelles/Pylons.

**(e) Unsafe Condition**

This AD was prompted by a report of failure of a wing strut leak test due to a missing bolt on the firewall. The FAA is issuing this AD to address a hole in the firewall, which could allow flammable fluid leakage in the strut area. This leakage could overwhelm the drainage provision, enter the engine compartment, and result in an uncontrollable engine fire and consequent structural failure of the wing.

**(f) Compliance**

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

**(g) Leak Test and Corrective Action**

Within 12 months after the effective date of this AD: Do a one-time leak (functional) test of the strut upper spar areas for the left and right wing struts, by doing the actions specified in paragraphs (g)(1) through (5) of this AD. A review of airplane maintenance records is acceptable in lieu of this test if it can be conclusively determined from that review that the leak test was previously accomplished and successfully completed.

(1) Put a plug in the strut forward drain outlet (this drain outlet is labeled as “pylon strut”). Put an empty container below the strut forward drain outlet to collect water drained through this outlet.

(2) Apply 381 to 387 fluid ounces (11.3 to 11.4 liters) of water in 2.5 to 3.5 minutes, to the strut upper spar (strut areas between the forward and mid-vapor barriers).

(3) Make sure that no leakage occurred after doing the action specified in paragraph (g)(2) of this AD.

(4) Remove the plug from the strut forward drain outlet and make sure that the water is drained through the strut forward drain outlet only.

(5) After 3 minutes from accomplishing the action specified in paragraph (g)(4) of this AD, measure the water collected in the container, and do the applicable actions specified in paragraphs (g)(5)(i) through (iii) of this AD.

(i) If leaks were found, do corrective action before further flight using a method approved in accordance with the procedures specified in paragraph (h) of this AD.

(ii) If no leaks were found and less than 354 fluid ounces (10.5 liters) of water is collected in the container, do corrective action before further flight using a method approved in accordance with the procedures specified in paragraph (h) of this AD.

(ii) Before further flight after accomplishing any corrective action required by paragraph (g)(5)(i) or (ii) of this AD, repeat the actions specified in paragraphs (g)(1) through (5) of this AD until successful completion of the test (i.e., no leaks are found and 354 fluid ounces (10.5 liters) of water or more is measured in the container).

Note 1 to paragraph (g): Additional guidance for performing the leak (functional) test can be found in Boeing Model 787 Aircraft Maintenance Manual (AMM), 54-65-01, Strut Spar – Upper – Functional Test.

**(h) 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 (i)(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 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.

**(i) Related Information**

(1) For more information about this AD, contact Tak Kobayashi, Aerospace Engineer, Propulsion Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3553; email: takahisa.kobayashi@faa.gov.

(2) 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; Internet <https://www.myboeingfleet.com>. For information on the availability of this material at the FAA, call 206-231-3195.

Issued in Des Moines, Washington, on October 24, 2019.

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

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