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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-1220; Directorate Identifier 2012-NM-208-AD; Amendment 39-17277; AD 2012-24-07]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain The Boeing Company Model 787-8 airplanes. This AD requires ensuring that lockwire is installed correctly on the engine fuel feed manifold couplings. This AD also requires inspecting the assembly of the engine fuel feed manifold rigid and full flexible couplings. This AD was prompted by reports of fuel leaks due to improperly assembled engine fuel feed manifold couplings. We are issuing this AD to detect and correct improperly assembled couplings, which could result in fuel leaks and consequent fuel exhaustion, engine power loss or shutdown, or leaks on hot engine parts that could lead to a fire.

DATES: This AD is effective December 5, 2012.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of December 5, 2012.

We must receive comments on this AD by January 22, 2013.

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 <http://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: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Sherry Vevea, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6514; fax: 425-917-6590; email: sherry.vevea@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We have received reports of fuel leaks on two different in-service airplanes, and the subsequent discovery of several improperly assembled engine fuel feed manifold couplings on in-service and production airplanes. The improper coupling installations, which occurred during production, have included couplings with missing or improperly installed lockwire, parts within the couplings installed in the wrong locations, incorrect parts installed in the couplings, and couplings that have extra parts installed. These conditions, if not corrected, could result in fuel leaks, which could lead to fuel exhaustion, engine power loss or shutdown, or leaks on hot engine parts that could lead to a fire.

Relevant Service Information

We reviewed Boeing Multi Operator Message MOM-MOM-12-0838-01B(R2), including Attachment A, dated November 25, 2012. For information on the procedures and compliance times, see this service information at <http://www.regulations.gov> by searching for Docket No. FAA-2012-1220.

FAA's Determination

We are issuing this AD because we 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.

AD Requirements

This AD requires accomplishing the actions specified in the service information described previously, except as discussed under "Differences Between the AD and the Service Information."

The phrase "related investigative actions" might be used in this AD. "Related investigative actions" are follow-on actions that (1) are related to the primary actions, and (2) further investigate the nature of any condition found. Related investigative actions in an AD could include, for example, inspections.

In addition, the phrase "corrective actions" might be used in this AD. "Corrective actions" are actions that correct or address any condition found. Corrective actions in an AD could include, for example, repairs.

Differences Between the AD and the Service Information

For engine fuel feed manifold couplings that have not been previously inspected, Boeing Multi Operator Message MOM-MOM-12-0838-01B(R2), including Attachment A, dated November 25, 2012, recommends accomplishment of all actions specified in Action 1) within 7 days. This AD, however, requires only that operators ensure the correct lockwire installation within 7 days; the compliance time for the remaining actions is 21 days. We have determined that the additional time for the remaining actions is warranted, based on the assurance that the lockwire is installed correctly.

In addition, for engine fuel feed manifold full flexible couplings that have been previously inspected, Boeing Multi Operator Message MOM-MOM-12-0838-01B(R2), including Attachment A, dated November 25, 2012, specifies that operators do not need to re-inspect these couplings if review of the airplane maintenance records conclusively demonstrates that the corresponding actions are equivalent to steps 1 through 6 of Action 1) of Boeing Multi Operator Message MOM-MOM-12-0838-01B(R2), including Attachment A, dated November 25, 2012. We have determined that the potential for not identifying incorrect parts during prior inspection of the full flexible coupling warrants re-inspecting these couplings; this AD therefore requires inspection of these full flexible couplings.

These differences have been coordinated with Boeing.

FAA's Justification and Determination of the Effective Date

An unsafe condition exists that requires the immediate adoption of this AD. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because improperly assembled engine fuel feed manifold couplings could result in fuel leaks and consequent fuel exhaustion, engine power loss or shutdown, or leaks on hot engine parts that could lead to a fire. Therefore, we find that notice and opportunity for prior public comment are impracticable and that good cause exists for making this amendment effective in less than 30 days.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety and was not preceded by notice and an opportunity for public comment. However, we invite you to send any written data, views, or arguments about this AD. Send your comments to an address listed under the ADDRESSES section. Include the docket number FAA-2012-1220 and Directorate Identifier 2012-NM-208-AD at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this AD.

Costs of Compliance

We estimate that this AD affects 3 airplanes of U.S. registry. We estimate the following costs to comply with this AD:

Estimated Costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Coupling inspection, o-ring replacement, retainer ring installation, blade seal inspection, and lockwire installation	10 work-hours X \$85 per hour = \$850	\$54	\$904	\$2,712

We have received no definitive data that would enable us to provide cost estimates for the on-condition actions 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.

We are 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) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) 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 adding the following new airworthiness directive (AD):



2012-24-07 The Boeing Company: Amendment 39-17277; Docket No. FAA-2012-1220; Directorate Identifier 2012-NM-208-AD.

(a) Effective Date

This AD is effective December 5, 2012.

(b) Affected ADs

None.

(c) Applicability

This AD applies to The Boeing Company Model 787-8 airplanes, certificated in any category, serial numbers 34485, 34486, 34488, 34490, 34493, 34494, 34497, 34502, 34506 through 34508 inclusive, 34514, 34515, 34521, 34744 through 34747 inclusive, 34822, 34824, 34829, 34832, 34834 through 34838 inclusive, 35938, 36276 through 36278 inclusive, 38319, 38320, 38330, 38466, 38471, 40748, and 40899.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 28, Fuel.

(e) Unsafe Condition

This AD was prompted by reports of fuel leaks due to improperly assembled engine fuel feed manifold couplings. We are issuing this AD to detect and correct improperly assembled couplings, which could result in fuel leaks and consequent fuel exhaustion, engine power loss or shutdown, or leaks on hot engine parts that could lead to a fire.

(f) Compliance

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

(g) Inspection

Except as provided by paragraph (h) of this AD: Do the actions specified in paragraphs (g)(1) and (g)(2) of this AD, in accordance with Action 1) of Boeing Multi Operator Message MOM-MOM-12-0838-01B(R2), including Attachment A, dated November 25, 2012.

(1) Within 7 days after the effective date of this AD, ensure that the lockwire installation on the rigid and full flexible couplings is correct.

(2) Within 21 days after the effective date of this AD, inspect the rigid and full flexible couplings for correct assembly, including replacement of the o-rings with new o-rings, confirmation that the proper retainer rings are installed in the full flexible coupling, a general visual inspection for damage

of the blade seals, and all applicable corrective actions. Do all applicable corrective actions before further flight.

(h) Requirements Based on Previous Accomplishment

(1) For airplanes on which the fuel couplings have been inspected before the effective date of this AD as specified in "Method 1: AMM Method" of Boeing Multi Operator Message MOM-MOM-12-0838-01B, dated November 11, 2012, which is not incorporated by reference in this AD; or Boeing Multi Operator Message MOM-MOM-12-0838-01B(R1), dated November 14, 2012, which is not incorporated by reference in this AD: A review of the airplane maintenance records is acceptable for compliance with the requirements of paragraph (g)(1) of this AD, if the records conclusively demonstrate that lockwire was installed correctly using a method equivalent to step 6.a. of Action 1) of Boeing Multi Operator Message MOM-MOM-12-0838-01B(R2), including Attachment A, dated November 25, 2012.

(2) For airplanes on which the fuel couplings have been inspected before the effective date of this AD as specified in "Method 2: Non-Invasive Method" of Boeing Multi Operator Message MOM-MOM-12-0838-01B, dated November 11, 2012, which is not incorporated by reference in this AD; or Boeing Multi Operator Message MOM-MOM-12-0838-01B(R1), dated November 14, 2012, which is not incorporated by reference in this AD: The actions specified in paragraph (g)(1) of this AD are not required.

(3) For airplanes on which the rigid fuel couplings have been inspected before the effective date of this AD as specified in "Method 1: AMM Method" or "Method 2: Non-Invasive Method" of Boeing Multi Operator Message MOM-MOM-12-0838-01B, dated November 11, 2012, which is not incorporated by reference in this AD; or Boeing Multi Operator Message MOM-MOM-12-0838-01B(R1), dated November 14, 2012, which is not incorporated by reference in this AD: The actions specified in paragraph (g)(2) of this AD are not required for the rigid fuel couplings only. However, the actions specified in paragraph (g)(2) of this AD are required for the full flexible couplings, even if inspected prior to the effective date of this AD as specified in Boeing Multi Operator Message MOM-MOM-12-0838-01B, dated November 11, 2012, which is not incorporated by reference in this AD; or Boeing Multi Operator Message MOM-MOM-12-0838-01B(R1), dated November 14, 2012, which is not incorporated by reference in this AD.

(i) No Reporting Requirement

Boeing Multi Operator Message MOM-MOM-12-0838-01B(R2), including Attachment A, dated November 25, 2012, specifies reporting to Boeing any anomalies found during inspection of the assembly of the rigid and full flexible couplings, including anomalies of the lockwire installation. This AD does not require any report.

(j) Special Flight Permit

Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the airplane can be modified, provided the lockwire is correctly installed on the engine fuel feed manifold rigid and full flexible couplings in accordance with paragraph (g)(1) of this AD.

(k) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle Aircraft Certification Office (ACO), 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 ACO, send it to the attention of the

person identified in the Related Information section 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 required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO, to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(l) Related Information

(1) For more information about this AD, contact Sherry Vevea, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6514; fax: 425-917-6590; email: sherry.vevea@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

(m) 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.

(i) Boeing Multi Operator Message MOM-MOM-12-0838-01B(R2), including Attachment A, dated November 25, 2012. The document number and issue date are identified on page 1 of Boeing Multi Operator Message MOM-MOM-12-0838-01B(R2), including Attachment A, dated November 25, 2012, and on each page of Attachment A; no other page of this document contains this information.

(ii) Reserved.

(3) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>.

(4) You may view this service information at FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

(5) 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, call 202-741-6030, or go to <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on November 28, 2012.

Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.