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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2016-3702; Directorate Identifier 2015-NM-103-AD; Amendment 39-18634; AD 2016-18-04]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are superseding Airworthiness Directive (AD) 2013-24-12 for all The Boeing Company Model 747-8 and 747-8F airplanes. AD 2013-24-12 required repetitive ultrasonic or dye penetrant inspections for cracking of the barrel nuts and bolts on each forward engine mount, and related investigative and corrective actions if necessary. This new AD retains the requirements of AD 2013-24-12 and also requires installing new barrel nuts at the forward engine mounts; or identifying the part number of the barrel nuts, inspecting affected barrel nuts for gaps of the strut bulkhead and forward engine mount, and doing related investigative and corrective actions if necessary. This new AD also removes airplanes from the applicability. This new AD also requires revising the maintenance or inspection program, as applicable, to include a new structurally significant item. This AD was prompted by our determination that it is necessary to mandate the installation of new barrel nuts or new inspections to adequately address the unsafe condition. We are issuing this AD to detect and correct cracked barrel nuts on a forward engine mount, which could result in reduced load capacity of the forward engine mount, separation of an engine under power from the airplane, and consequent loss of control of the airplane.

DATES: This AD is effective October 6, 2016.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of October 6, 2016.

The Director of the Federal Register approved the incorporation by reference of a certain other publication listed in this AD as of December 17, 2013 (78 FR 71989, December 2, 2013).

ADDRESSES: For service information identified in this final rule, 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 view this referenced service information at the FAA,

Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-3702.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-3702; 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 address for the Docket Office (phone: 800-647-5527) is Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Nathan Weigand, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6428; fax: 425-917-6590; email: Nathan.P.Weigand@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2013-24-12, Amendment 39-17686 (78 FR 71989, December 2, 2013) ("AD 2013-24-12"). AD 2013-24-12 applied to all The Boeing Company Model 747-8 and 747-8F airplanes. The NPRM published in the Federal Register on February 25, 2016 (81 FR 9370) ("the NPRM"). The NPRM was prompted by our determination that it is necessary to mandate the installation of new barrel nuts or new inspections to adequately address the unsafe condition. The NPRM proposed to retain the requirements of AD 2013-24-12 and also require installing new barrel nuts at the forward engine mounts; or identifying the part number of the barrel nuts, inspecting affected barrel nuts for gaps of the strut bulkhead and forward engine mount, and doing related investigative and corrective actions if necessary. The NPRM also proposed to remove airplanes from the applicability. The NPRM also proposed to require revising the maintenance or inspection program, as applicable, to include a new structurally significant item. We are issuing this AD to detect and correct cracked barrel nuts on a forward engine mount, which could result in reduced load capacity of the forward engine mount, separation of an engine under power from the airplane, and consequent loss of control of the airplane.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the NPRM and the FAA's response to each comment.

Support for the NPRM

Boeing stated that it supports the NPRM.

Request To Revise Applicability

The Civil Aviation Administration of China (CAAC) requested that we revise the applicability of the proposed AD to ensure that all necessary actions are applied on all applicable airplanes. CAAC explained that it compared the effectivity between Boeing Service Bulletin 747-71A2329, Revision 1,

dated May 28, 2015, which is referred to in the applicability of the proposed AD, and Boeing Special Attention Service Bulletin 747-71-2332, Revision 1, dated May 28, 2015 (which is referred to as the appropriate source of service information for doing the actions specified in paragraph (k) of the proposed AD). CAAC explained that there are more airplanes in Boeing Special Attention Service Bulletin 747-71-2332, Revision 1, dated May 28, 2015, than in Boeing Service Bulletin 747-71A2329, Revision 1, dated May 28, 2015.

We agree to clarify and revise the applicability of this AD. The difference in effectivity between Boeing Service Bulletin 747-71A2329, Revision 1, dated May 28, 2015, and Boeing Special Attention Service Bulletin 747-71-2332, Revision 1, dated May 28, 2015, is that there are six additional airplanes in Boeing Special Attention Service Bulletin 747-71-2332, Revision 1, dated May 28, 2015—four of these airplanes are foreign-registered, and the other two airplanes have not been delivered yet. We have revised paragraph (c) of this AD to refer to Boeing Special Attention Service Bulletin 747-71-2332, Revision 1, dated May 28, 2015. We have also revised paragraph (g) of this AD to specify that only airplanes identified in Boeing Service Bulletin 747-71A2329, Revision 1, dated May 28, 2015, are affected by that paragraph.

Request for Explanation of Change in Applicability From AD 2013-24-12

The CAAC requested that we explain the change in the applicability paragraph of the proposed AD from that of AD 2013-24-12. The CAAC explained that the applicability paragraph of AD 2013-24-12 applies to all The Boeing Company Model 747-8 and 747-8F series airplanes. The CAAC stated that the NPRM would retain the requirements of AD 2013-24-12, but the applicability paragraph of the proposed AD only applies to The Boeing Company Model 747-8 and 747-8F airplanes identified in Boeing Service Bulletin 747-71A2329, Revision 1, dated May 28, 2015.

We agree to clarify. AD 2013-24-12 was issued as an interim action. Boeing developed Boeing Special Attention Service Bulletin 747-71-2332, dated September 27, 2013 (currently at Revision 1, dated May 28, 2015), which contains a newly designed barrel nut. The effectivity in Boeing Service Bulletin 747-71A2329, Revision 1, dated May 28, 2015, identifies the airplanes that did not have the newly designed barrel nuts installed upon delivery. Because this AD does not include airplanes that have the newly designed barrel nuts installed during production, the applicability of AD 2013-24-12 was reduced. No changes have been made to this AD in this regard.

Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD with the changes described previously and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this AD.

Related Service Information Under 1 CFR Part 51

We reviewed the following service information:

- Boeing Service Bulletin 747-71A2329, Revision 1, dated May 28, 2015. The service information describes procedures for inspecting for cracked bolts and barrel nuts on the forward engine mounts, replacing cracked bolts and barrel nuts, and sending the inspection results and cracked parts to Boeing.

- Boeing Special Attention Service Bulletin 747-71-2332, Revision 1, dated May 28, 2015. The service information describes procedures for installing new barrel nuts, inspecting the barrel nuts at the forward engine mount to determine the part number, inspecting for gaps of the strut bulkhead and forward engine mount, and doing applicable related investigative and corrective actions.
- Boeing 747-8/-8F Airworthiness Limitations (AWLs), Document Number D011U721-02-01, dated September 2015, which includes a limitation for Structurally Significant Item (SSI) 54-50-003c. The service information describes procedures for structural inspections.

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.

Costs of Compliance

We estimate that this AD affects 7 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
Inspections (retained actions from AD 2013-24-12)	Up to 24 work-hours × \$85 per hour = \$2,040 per inspection cycle	\$0	Up to \$2,040 per inspection cycle	Up to \$14,280 per inspection cycle.
Installation (new action)	17 work-hours × \$85 per hour = \$1,445	6,384	7,829	Up to \$54,803.
Inspections (new alternative actions)	4 work-hours × \$85 per hour = \$340	0	340	Up to \$2,380.
Maintenance program revision (new requirement)	1 work-hour × \$85 per hour = \$85	0	85	595.

We have received no definitive data that would enable us to provide cost estimates for the bootstrap installation specified in this AD. We estimate the following costs to do other necessary related investigative and corrective actions that would be required based on the results of the inspection. We have no way of determining the number of aircraft that might need these actions:

On-Condition Costs

Action	Labor cost	Parts cost	Cost per product
Ultrasonic inspection	5 work-hours × \$85 per hour = \$425	\$0	\$425

According to the manufacturer, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

Paperwork Reduction Act

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB control number. The control number for the collection of information required by this AD is 2120-0056. The paperwork cost associated with this AD has been detailed in the Costs of Compliance section of this document and includes time for reviewing instructions, as well as completing and reviewing the collection of information. Therefore, all reporting associated with this AD is mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at 800 Independence Ave. SW., Washington, DC 20591, ATTN: Information Collection Clearance Officer, AES-200.

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

We have determined that 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 removing Airworthiness Directive (AD) 2013-24-12, Amendment 39-17686 (78 FR 71989, December 2, 2013), and adding the following new AD:



2016-18-04 The Boeing Company: Amendment 39-18634; Docket No. FAA-2016-3702; Directorate Identifier 2015-NM-103-AD.

(a) Effective Date

This AD is effective October 6, 2016.

(b) Affected ADs

This AD replaces AD 2013-24-12, Amendment 39-17686 (78 FR 71989, December 2, 2013) ("AD 2013-24-12").

(c) Applicability

This AD applies to The Boeing Company Model 747-8 and 747-8F airplanes, certificated in any category, as identified in Boeing Special Attention Service Bulletin 747-71-2332, Revision 1, dated May 28, 2015.

(d) Subject

Air Transport Association (ATA) of America Code 71, Powerplant.

(e) Unsafe Condition

This AD was prompted by a report of cracked barrel nuts found on a forward engine mount, and by the determination that additional actions are necessary to address the unsafe condition. We are issuing this AD to detect and correct cracked barrel nuts on a forward engine mount, which could result in reduced load capacity of the forward engine mount, separation of an engine under power from the airplane, and consequent loss of control of the airplane.

(f) Compliance

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

(g) Retained Repetitive Inspections and Corrective Actions, With Revised Service Information

This paragraph restates the actions required by paragraph (g) of AD 2013-24-12, with revised service information. For airplanes identified in Boeing Service Bulletin 747-71A2329, Revision 1, dated May 28, 2015: Except as required by paragraph (h)(1) of this AD, at the time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-71A2329, dated September 27, 2013, do the inspection specified in paragraph (g)(1) or (g)(2) of this AD, and do all applicable related investigative and corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-71A2329, dated September 27, 2013; or Boeing Service Bulletin 747-71A2329, Revision 1, dated May 28, 2015. Do all applicable related investigative and corrective actions before further flight. Repeat the inspection thereafter at the times specified in paragraph 1.E.,

"Compliance," of Boeing Alert Service Bulletin 747-71A2329, dated September 27, 2013. As of the effective date of this AD, use only Boeing Service Bulletin 747-71A2329, Revision 1, dated May 28, 2015.

(1) Ultrasonic inspection for cracking of the barrel nuts on each forward engine mount, except as required by paragraph (h)(2) of this AD.

(2) Dye penetrant inspection for cracking of the bolts and barrel nuts. Whenever a dye penetrant inspection is done, all the bolts and barrel nuts on that engine mount must be removed and replaced with new or serviceable parts.

(h) Retained Exceptions to Service Information Specifications, With Revised Service Information References

(1) Where Boeing Alert Service Bulletin 747-71A2329, dated September 27, 2013; or Boeing Service Bulletin 747-71A2329, Revision 1, dated May 28, 2015; specify a compliance time "after the original issue date of this service bulletin," this AD requires compliance within the specified compliance time after December 17, 2013 (the effective date of AD 2013-24-12).

(2) Where Appendix B of Boeing Alert Service Bulletin 747-71A2329, dated September 27, 2013, and Appendix B of Boeing Service Bulletin 747-71A2329, Revision 1, dated May 28, 2015, state that alternate instruments and transducers can be used, this AD requires that only equivalent instruments and transducers can be used.

(3) Where Appendix A of Boeing Alert Service Bulletin 747-71A2329, dated September 27, 2013, and Appendix A of Boeing Service Bulletin 747-71A2329, Revision 1, dated May 28, 2015, state to record flight hours and flight cycles, record the flight hours and flight cycles on the airplane and the flight hours and flight cycles for each engine since change or removal.

(i) Retained Reporting and Sending Parts, With Revised Service Information

After any inspection required by paragraph (g) of this AD: Submit a report of the inspection results (both positive and negative), and return all cracked bolts and barrel nuts, at the applicable time specified in paragraph (i)(1) or (i)(2) of this AD. The report must include the information requested in Appendix A of Boeing Alert Service Bulletin 747-71A2329, dated September 27, 2013, or Appendix A of Boeing Service Bulletin 747-71A2329, Revision 1, dated May 28, 2015, except as required by paragraph (h)(3) of this AD. Both the report and all cracked bolts and barrel nuts must be sent to the address specified in Appendix A of Boeing Alert Service Bulletin 747-71A2329, dated September 27, 2013, or Appendix A of Boeing Service Bulletin 747-71A2329, Revision 1, dated May 28, 2015.

(1) For airplanes on which an ultrasonic inspection was done and no cracking was found, do the required actions at the time specified in paragraph (i)(1)(i) or (i)(1)(ii) of this AD, as applicable.

(i) If the inspection was done on or after December 17, 2013 (the effective date of AD 2013-24-12): Submit the report within 10 days after the inspection.

(ii) If the inspection was done before December 17, 2013 (the effective date of AD 2013-24-12): Submit the report within 10 days after December 17, 2013 (the effective date of AD 2013-24-12).

(2) For airplanes on which a dye penetrant inspection was done, do the required actions at the time specified in paragraph (i)(2)(i) or (i)(2)(ii) of this AD, as applicable.

(i) If the inspection was done on or after December 17, 2013 (the effective date of AD 2013-24-12): Submit the report and return all cracked bolts and barrel nuts within 10 days after replacing the bolts and barrel nuts with new or serviceable bolts and barrel nuts in accordance with Part 2 of the Accomplishment Instructions of Boeing Alert Service Bulletin 747-71A2329, dated September 27, 2013; or Boeing Service Bulletin 747-71A2329, Revision 1, dated May 28, 2015.

(ii) If the inspection was done before December 17, 2013 (the effective date of AD 2013-24-12): Submit the report and return all cracked bolts and barrel nuts within 10 days after December 17, 2013 (the effective date of AD 2013-24-12).

(j) Retained Paperwork Reduction Act Burden Statement, With No Changes

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid Office of Management and Budget (OMB) Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 5 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave. SW., Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

(k) New Installation or Inspections

At the applicable time specified in paragraph 1.E., "Compliance," of Boeing Special Attention Service Bulletin 747-71-2332, Revision 1, dated May 28, 2015, except as required by paragraph (o)(1) of this AD: Do the actions specified in paragraph (k)(1) or (k)(2) of this AD, in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-71-2332, Revision 1, dated May 28, 2015, except as required by paragraph (o)(2) of this AD.

(1) Install new barrel nuts using the bootstrap installation method identified in Part 1 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-71-2332, Revision 1, dated May 28, 2015.

(2) Do a general visual inspection to determine the part number (P/N) of the barrel nuts at the forward engine mount. If any barrel nut P/N SL4081C14SP1 is installed, before further flight, do a general visual inspection for gaps of the strut bulkhead and forward engine mount to determine if the nut-by-nut method identified in Part 4 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-71-2332, Revision 1, dated May 28, 2015, can be used, and do all applicable related investigative and corrective actions. Do all applicable related investigative and corrective actions before further flight, including the nut-by-nut replacement identified in Part 4 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-71-2332, Revision 1, dated May 28, 2015. If the nut-by-nut replacement identified in Part 4 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-71-2332, Revision 1, dated May 28, 2015, cannot be accomplished, install new nuts, in accordance with paragraph (k)(1) of this AD.

(l) Maintenance or Inspection Program Revision

Within 30 days after accomplishment of the actions required by paragraph (k) of this AD, or within 30 days after the effective date of this AD, whichever occurs later: Revise the maintenance or inspection program, as applicable, to incorporate Structurally Significant Item (SSI) 54-50-003c specified in Boeing 747-8/-8F Airworthiness Limitations (AWLs), Document Number D011U721-02-01, dated September 2015.

(m) Terminating Action

Accomplishment of the actions required by paragraphs (k) and (l) of this AD terminate the requirements of paragraphs (g) and (i) of this AD.

(n) Parts Installation Prohibition

As of the effective date of this AD, no person may install or reinstall any barrel nut P/N SL4081C14SP1 at the forward engine mount assembly on any airplane; and only P/N SL4750NA may be installed.

(o) New Exceptions to Service Information Specifications

(1) Where Boeing Special Attention Service Bulletin 747-71-2332, Revision 1, dated May 28, 2015, specifies a compliance time "after the original issue date of this service bulletin," this AD requires compliance within the specified compliance time after the effective date of this AD.

(2) Where Boeing Special Attention Service Bulletin 747-71-2332, Revision 1, dated May 28, 2015, specifies to contact Boeing for appropriate action: Before further flight, repair using a method approved in accordance with the procedures specified in paragraph (r) of this AD.

(p) No Alternative Actions or Intervals

After the maintenance or inspection program has been revised as required by paragraph (l) of this AD, no alternative actions (e.g., inspections) or intervals may be used unless the actions or intervals are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (r) of this AD.

(q) Credit for Previous Actions

This paragraph provides credit for the actions specified in paragraph (k) of this AD, if those actions were performed before the effective date of this AD using Boeing Special Attention Service Bulletin 747-71-2332, dated May 30, 2014, which is not incorporated by reference in this AD.

(r) 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 paragraph (s)(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 Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO, 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 2013-24-12 are approved as AMOCs for the corresponding provisions of this AD.

(5) Except as required by paragraph (o)(2) of this AD: For service information that contains steps that are labeled as Required for Compliance (RC), the provisions of paragraphs (r)(5)(i) and (r)(5)(ii) of this AD apply.

(i) The steps labeled as RC, including substeps under an RC step and any figures identified in an RC step, must be done to comply with the AD. An AMOC is required for any deviations to RC steps, including substeps and identified figures.

(ii) Steps not labeled as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the RC steps, including substeps and identified figures, can still be done as specified, and the airplane can be put back in an airworthy condition.

(s) Related Information

(1) For more information about this AD, contact Nathan Weigand, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle ACO, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6428; fax: 425-917-6590; email: Nathan.P.Weigand@faa.gov.

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

(t) 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.

(3) The following service information was approved for IBR on October 6, 2016.

(i) Boeing Service Bulletin 747-71A2329, Revision 1, dated May 28, 2015.

(ii) Boeing Special Attention Service Bulletin 747-71-2332, Revision 1, dated May 28, 2015.

(iii) Boeing 747-8/-8F Airworthiness Limitation (AWL), Document Number D011U721-02-01, dated September 2015.

(4) The following service information was approved for IBR on December 17, 2013 (78 FR 71989, December 2, 2013).

(i) Boeing Alert Service Bulletin 747-71A2329, dated September 27, 2013.

(ii) Reserved.

(5) 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>.

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

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

Issued in Renton, Washington, on August 19, 2016.

Dorr M. Anderson,
Acting Manager, Transport Airplane Directorate,
Aircraft Certification Service.