

[Federal Register: July 21, 2003 (Volume 68, Number 139)]
[Rules and Regulations]
[Page 42948-42950]
From the Federal Register Online via GPO Access [wais.access.gpo.gov]
[DOCID:fr21jy03-2]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2002-NM-55-AD; Amendment 39-13234; AD 2003-14-15]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 747-100, 747-100B, 747-100B SUD, 747-200B, 747-200F, 747-200C, 747-300, 747-400, 747-400D, 747-400F, and 747SR Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment supersedes an existing airworthiness directive (AD), applicable to certain Boeing Model 747 series airplanes, that currently requires inspections for cracking of the forward end clevis lugs of the flap track, and replacement of the flap track with a new flap track if necessary. That AD also currently provides for an optional modification of the forward end clevis lugs, which terminates the required inspections. This amendment expands the applicability of the existing AD, and requires new repetitive inspections for evidence of rotation or migration of the bushings or cracking of the lugs of the forward end clevis of the flap tracks that support the wing trailing edge flaps, corrective actions if necessary, and eventual accomplishment of a terminating action. These actions are necessary to prevent cracking and fracture of the forward end clevis of the flap track, which could result in reduced structural capability of the flap and reduced controllability of the airplane. This action is intended to address the identified unsafe condition.

DATES: Effective August 25, 2003.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of August 25, 2003.

ADDRESSES: The service information referenced in this AD may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Gary Oltman, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 917-6443; fax (425) 917-6590.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) by superseding AD 90-24-09, amendment 39-6815 (55 FR 48228, November 20, 1990), which is applicable to certain Boeing Model 747 series airplanes, was published in the Federal Register on December 2, 2002 (67 FR 71497). The action proposed to continue to require inspections for cracking of the forward end clevis lugs of the flap track, and replacement of the flap track with a new flap track if necessary. The action also provided for an optional modification of the forward end clevis lugs, which would terminate the required inspections. The action proposed to expand the applicability of the existing AD, require new repetitive inspections for evidence of rotation or migration of the bushings or cracking of the lugs of the forward end clevis of the flap tracks that support the wing trailing edge flaps, and require corrective actions if necessary. The action also proposed to require eventual accomplishment of a terminating action.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. The FAA has given due consideration to the single comment received.

Request To Clarify Corrective Action

One commenter notes that the procedures for the Terminating Action in part 2 of Boeing Service Bulletin 747-57-2307, Revision 1, dated January 17, 2002, include a magnetic particle inspection of the clevis bore of a machined flap track assembly. The commenter points out that no corrective action is specified if a crack is found, though the commenter assumes that the flap track must be replaced. The commenter states that both the service bulletin and proposed AD should specify a corrective action.

We partially agree with the commenter. We note that, where the service bulletin specifies a magnetic particle inspection, the service bulletin refers to Boeing Standard Overhaul Practices Manual 20-20-01, Class A, Critical, for information pertaining to the inspection. We note that the acceptance criteria in that document do not allow cracking. Thus, a cracked flap track may not be used and must be replaced with a new flap track.

However, we agree that we could clarify the need to replace the existing flap track with a new flap track if any cracking is found during the magnetic particle inspection that is included in the procedures for the terminating action required by this AD. Therefore, we have revised paragraph (h) of this final rule to specify that, if a crack is found during any inspection required by paragraph (d), (i), or (j) of this AD (or paragraph (e), (f), or (g)(2)(i) of this AD, as specified in paragraph (h) of the proposed AD), the cracked flap track must be replaced with a new flap track before further flight.

Explanation of Editorial Change

We have revised paragraph (f) of this AD to make it clear that accomplishment of the terminating modification in paragraph (d) or (i) of this AD ends the repetitive inspections required by paragraph (f) of this AD.

Conclusion

After careful review of the available data, including the comment noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the changes previously described. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Changes to 14 CFR Part 39/Effect on the Proposed AD

On July 10, 2002, the FAA issued a new version of 14 CFR part 39 (67 FR 47997, July 22, 2002), which governs the FAA's airworthiness directives system. The regulation now includes material that relates to altered products, special flight permits, and alternative methods of compliance. Because we have now included this material in part 39, we no longer need to include it in each individual AD. However, for clarity and consistency in this final rule, we have retained the language of the NPRM regarding that material.

Explanation of Change to Cost Impact

After the proposed AD was issued, we reviewed the figures we use to calculate the labor rate to do the required actions. To account for various inflationary costs in the airline industry, we find it appropriate to increase the labor rate used in these calculations from \$60 per work hour to \$65 per work hour. The economic impact information, below, has been revised to reflect this increase in the specified hourly labor rate.

Cost Impact

There are approximately 1,002 Model 747-100, 747-100B, 747-100B SUD, 747-200B, 747-200F, 747-200C, 747-300, 747-400, 747-400D, 747-400F, and 747SR series airplanes of the affected design in the worldwide fleet. The FAA estimates that 219 airplanes of U.S. registry will be affected by this AD.

The actions that are currently required by AD 90-24-09 take approximately 2 work hours per airplane, at an average labor rate of \$65 per work hour. Based on these figures, the cost impact of the currently required actions is estimated to be \$130 per airplane, per inspection cycle.

The new inspections that are required by this AD take approximately 2 work hours per airplane, at an average labor rate of \$65 per work hour. Based on these figures, the cost impact of the new inspections on U.S. operators is estimated to be \$28,470, or \$130 per airplane, per inspection cycle.

The cost impact figures discussed above are based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

Regulatory Impact

The regulations adopted herein 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. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this action (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); 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. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (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. Section 39.13 is amended by removing amendment 39-6815 (55 FR 48228, November 20, 1990), and by adding a new airworthiness directive (AD), amendment 39-13234, to read as follows:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2003-14-15 Boeing: Amendment 39-13234. Docket 2002-NM-55-AD. Supersedes AD 90-24-09, Amendment 39-6815.

Applicability: Model 747-100, 747-100B, 747-100B SUD, 747-200B, 747-200F, 747-200C, 747-300, 747-400, 747-400D, 747-400F, and 747SR series airplanes; as listed in Boeing Service Bulletin 747-57-2307, Revision 1, dated January 17, 2002; certificated in any category.

Note 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (k)(1) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent cracking and fracture of the forward end clevis of the flap track, which could result in reduced structural capability of the flap and reduced controllability of the airplane, accomplish the following:

Restatement of Requirements of AD 90-24-09

Initial Inspection

(a) For airplanes listed in Boeing Service Bulletin 747-57-2231, Revision 2, dated September 27, 1990: Perform a detailed inspection of the forward end clevis lugs of the flap tracks for evidence of cracking, according to Boeing Service Bulletin 747-57-2231, Revision 2, dated September 27, 1990, and according to the following schedule:

(1) For airplanes listed in Group 1 in the service bulletin: Perform the inspection at flap track positions 1 through 8 within the next 30 days after December 5, 1990 (the effective date of AD 90-24-09, amendment 39-6815).

(2) For airplanes listed in Group 2 in the service bulletin: Perform the inspection at flap track positions 1, 2, 7, and 8 prior to the later of the following:

(i) Prior to the accumulation of 30,000 flight hours or 8 years after airplane delivery, whichever occurs first; or

(ii) Within 120 days after December 5, 1990.

(3) For airplanes listed in Group 3 in the service bulletin: Perform the inspection at flap track positions 1 through 8 prior to the later of the following:

(i) Prior to the accumulation of 30,000 flight hours or 8 years after airplane delivery, whichever occurs first; or

(ii) Within 120 days after December 5, 1990.

Flap Track Replacement

(b) If cracking is found during any inspection required by paragraph (a) of this AD, replace the flap track prior to further flight, according to Boeing Service Bulletin 747-57-2231, Revision 2, dated September 27, 1990.

Repetitive Inspections

(c) If no cracking is found during any inspection required by paragraph (a) of this AD, repeat the inspection required by paragraph (a) of this AD at intervals not to exceed 300 flight cycles for Group 1 airplanes, and 1,200 flight cycles for Group 2 and Group 3 airplanes, until paragraph (d), (e), or (i) of this AD has been done.

Optional Terminating Action

(d) For airplanes listed in Boeing Service Bulletin 747-57-2231, Revision 2, dated September 27, 1990: Accomplishment of the modification of the forward end clevis lugs of the flap tracks as specified in Boeing Service Bulletin 747-57-2231, Revision 2, dated September 27, 1990, constitutes terminating action for the requirements of paragraphs (a), (c), (e), and (i) of this AD.

New Requirements of this AD

Note 2: For the purposes of this AD, a detailed inspection is defined as: "An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids such as mirror, magnifying lenses, etc., may be used. Surface cleaning and elaborate access procedures may be required."

Detailed Inspections

(e) At the applicable compliance time specified in paragraph (e)(1) or (e)(2) of this AD, perform detailed inspections for evidence of rotation or migration of the bushings (including cracked or missing sealant around the bushing flange, or a gap between the bushing flange and the lug face) or cracking of the lugs of the forward end clevis of the flap tracks that support the wing trailing edge flaps, according to Part 1 of the Work Instructions in Boeing Service Bulletin 747-57-2307, Revision 1, dated January 17, 2002.

(1) For airplanes inspected before the effective date of this AD according to paragraph (a) of this AD: Do the inspection in paragraph (e) of this AD at the time specified in paragraph (e)(1)(i) or (e)(1)(ii) of this AD, as applicable. Doing this inspection terminates the requirements of paragraph (c) of this AD.

(i) For airplanes listed in Group 1 of Boeing Service Bulletin 747-57-2231, Revision 2: Inspect within 300 flight cycles after the most recent inspection per paragraph (a) or (c) of this AD.

(ii) For airplanes listed in Group 2 or 3 of Boeing Service Bulletin 747-57-2231, Revision 2: Inspect within 1,200 flight cycles after the most recent inspection per paragraph (a) or (c) of this AD.

(2) For airplanes not inspected before the effective date of this AD according to paragraph (a) of this AD: Do the inspection in paragraph (e) of this AD at the time specified in paragraph (e)(2)(i) or (e)(2)(ii) of this AD, whichever occurs later. This terminates the requirement to do paragraph (a) of this AD.

(i) Within 8 years after the earlier of the date of issuance of the original Airworthiness Certificate or the date of issuance of the Export Certificate of Airworthiness, or before the accumulation of 30,000 total flight hours, whichever occurs first.

(ii) Within 300 flight cycles or 120 days after the effective date of this AD, whichever occurs first.

Repetitive Inspections

(f) If no evidence of migration or rotation of the bushings or cracking of the lugs is found during the inspection required by paragraph (e) of this AD: Repeat the inspections at the applicable repetitive interval specified in Figure 1 of Boeing Service Bulletin 747-57-2307, Revision 1, dated January 17, 2002, until the terminating modification of paragraph (d) or (i) of this AD has been done.

Corrective Actions and Repetitive Inspections

(g) If evidence of migration or rotation of the bushings is found during any inspection required by paragraph (e) or (f) of this AD, but no cracking is found: Do paragraph (g)(1) or (g)(2) of this AD, as applicable, according to Boeing Service Bulletin 747-57-2307, Revision 1, dated January 17, 2002.

(1) For airplanes listed in Group 1 in the service bulletin and flap track numbers 3 and 6 on airplanes listed in Group 2 of the service bulletin: Before further flight, do the terminating modification in paragraph (i) of this AD, as specified in paragraph (i)(2) of this AD.

(2) For airplanes other than those identified in paragraph (g)(1) of this AD: Before further flight, apply corrosion-inhibiting compound according to the service bulletin, and do paragraphs (g)(2)(i) and (g)(2)(ii) of this AD at the intervals specified in those paragraphs, until paragraph (d) or (i) of this AD is done. Do paragraph (i) of this AD at the applicable time specified in paragraph (i)(2) of this AD.

(i) Repeat the inspections in paragraph (e) of this AD at the intervals specified in Figure 1 of the service bulletin.

(ii) Apply corrosion-inhibiting compound according to the service bulletin at intervals not to exceed 200 flight cycles.

Replacement of Flap Track

(h) If any cracking is found during any inspection required by paragraph (d), (e), (f), (g)(2)(i), (i), or (j) of this AD: Before further flight, replace the cracked flap track with a new flap track, according to Boeing Service Bulletin 747-57-2307, Revision 1, dated January 17, 2002. Replacement with a new flap track having a part number listed in the "New Part Number" column of the table under paragraph 2.E. of the service bulletin constitutes terminating action for the requirements of this AD for the replaced track.

Terminating Modification

(i) At the applicable time specified in paragraph (i)(1) or (i)(2) of this AD: Do all actions (including but not limited to machining, performing magnetic particle inspections, and applying cadmium plating to the clevis bore and bushing) associated with replacing the bushings of the forward end clevis with new bushings with a higher interference fit on flap tracks 1, 2, 3, 4, 5, 6, 7, and 8; as applicable; according to Boeing Service Bulletin 747-57-2307, Revision 1, dated January 17, 2002. This replacement terminates the requirements of this AD.

(1) If no evidence of migration or rotation of the bushings or cracking of the lugs is found during any inspection required by paragraph (e) or (f) of this AD: Do the replacement within 8 years after the effective date of this AD.

(2) If any evidence of bushing migration or rotation is found during any inspection required by paragraph (e) or (f) of this AD: Do the replacement at the applicable time specified in Figure 1 of the service bulletin.

Credit for Actions According to Previous Revision of Service Bulletin

(j) Inspections, corrective actions, and terminating action done before the effective date of this AD according to Boeing Service Bulletin 747-57-2307, dated July 29, 1999, are considered acceptable for compliance with the corresponding action specified in this AD.

Alternative Methods of Compliance

(k)(1) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

(2) Alternative methods of compliance, approved previously according to AD 90-24-09, amendment 39-6815, are approved as alternative methods of compliance with paragraphs (a), (b), (c), and (d) of this AD.

Note 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

Special Flight Permits

(l) 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 requirements of this AD can be accomplished.

Incorporation by Reference

(m) Unless otherwise specified in this AD, the actions shall be done in accordance with Boeing Service Bulletin 747-57-2231, Revision 2, dated September 27, 1990; and Boeing Service Bulletin 747-57-2307, Revision 1, dated January 17, 2002; as applicable. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

Effective Date

(n) This amendment becomes effective on August 25, 2003.

Issued in Renton, Washington, on July 8, 2003.

Ali Bahrami,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 03-17772 Filed 7-18-03; 8:45 am]

BILLING CODE 4910-13-P