

[4910-13-U]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [66 FR 13424 3/6/2001]

[Docket No. 2001-NM-01-AD; Amendment 39-12141; AD 2001-05-05]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 747 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that is applicable to certain Boeing Model 747 series airplanes. This action requires repetitive detailed visual inspections to find discrepancies of the installation of the midspar fuse pins of the inboard and outboard struts, and follow-on actions, if necessary. This action also provides for an optional terminating modification for the repetitive inspections. This action is necessary to find and fix discrepancies of the installation of the midspar fuse pins, which could result in loss of the secondary retention capability of the fuse pins, migration of the fuse pins, and consequent loss of the strut and engine from the airplane. This action is intended to address the identified unsafe condition.

DATES: Effective March 21, 2001.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of March 21, 2001.

Comments for inclusion in the Rules Docket must be received on or before May 7, 2001.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 2001-NM-01-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056. Comments may be inspected at this location between 9:00 a.m. and 3:00 p.m., Monday through Friday, except Federal holidays. Comments may be submitted via fax to (425) 227-1232. Comments may also be sent via the Internet using the following address: 9-anm-iarcomment@faa.gov. Comments sent via fax or the Internet must contain "Docket No. 2001-NM-01-AD" in the subject line and need not be submitted in triplicate. Comments sent via the Internet as attached electronic files must be formatted in Microsoft Word 97 for Windows or ASCII text.

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 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.

FOR FURTHER INFORMATION CONTACT: Tamara Anderson, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2771; fax (425) 227-1181.

SUPPLEMENTARY INFORMATION: The FAA has received several reports indicating that, during routine maintenance, loose primary retention nuts of the midspar fuse pins of the inboard and outboard struts were found on certain Boeing Model 747 series airplanes. One report indicated that the primary retention nut migrated into the secondary retention washer. The cause of these discrepancies was determined to be inadequate run-on torque of the primary retention nut. Such conditions, if not fixed, could result in the loss of secondary retention capabilities of the fuse pins,

migration of the fuse pins, reduction of the joint capability of the midspar fittings to carry the design loads, and consequent loss of the strut and engine from the airplane.

Explanation of Relevant Service Information

The FAA has reviewed and approved Boeing Service Bulletin 747-54A2206, Revision 1, dated February 22, 2001, which describes procedures for repetitive detailed visual inspections to find discrepancies (incorrect thread protrusion, which is less than two threads protruding from the nut between the nut and the secondary retention washer; incorrect gap between the fuse pin primary nut and secondary retention washer; cracked or broken torque stripe) of the installation of the midspar fuse pins of the inboard and outboard struts, and follow-on actions, if necessary.

If the primary nut has backed off and is contacting the secondary retention washer, the follow-on actions include, but are not limited to:

- Inspection of the fuse pin threads for damage,
- Installation of a new primary nut,
- Replacement of damaged fuse pins with new pins, and
- Installation of a torque stripe.

If the primary nut has backed off and is not contacting the secondary retention washer, follow-on actions consist of repeating the inspection of the fuse pin installation at a reduced inspection interval.

The service bulletin also provides for an optional terminating modification which consists of replacement of the primary nut of the midspar fuse pin with a new nut and installation of the torque stripe, a detailed visual inspection of the fuse pin threads for damage, and replacement of the fuse pin, if necessary. Doing these actions ends the repetitive inspections.

Other Relevant Rulemaking

This AD is related to AD 95-10-16, amendment 39-9233 (60 FR 27008, May 22, 1995); AD 95-13-05, amendment 39-9285 (60 FR 33333, June 28, 1995); AD 95-13-06, amendment 39-9286 (60 FR 33338, June 28, 1995); AD 95-13-07, amendment 39-9287 (60 FR 33336, June 28, 1995), and AD 99-10-10, amendment 39-11163 (64 FR 25197, May 11, 1999). The replacement of fuse pins in the upper link, midspar fittings, and diagonal brace of the nacelle strut with new corrosion-resistant pins is required by those AD's as part of the modification of the nacelle strut/wing structure for earlier Model 747 series airplanes. The actions required by this AD are to be done if any of the AD's specified above, or the production equivalent, has been accomplished.

Explanation of the Requirements of the Rule

Since an unsafe condition has been identified that is likely to exist or develop on other products of this same type design, this AD requires accomplishment of the actions specified in the service bulletin described previously.

Interim Action

This is interim action. The FAA is currently considering requiring the optional terminating modification, which will constitute terminating action for the repetitive inspections required by this AD action. However, the planned compliance time for the installation of the modification is sufficiently long so that notice and opportunity for prior public comment will be practicable.

Determination of Rule's Effective Date

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and opportunity for prior public comment hereon are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

Comments Invited

Although this action is in the form of a final rule that involves requirements affecting flight safety and, thus, was not preceded by notice and an opportunity for public comment, comments are invited on this rule. Interested persons are invited to comment on this rule by submitting such written data, views, or arguments as they may desire. Communications shall identify the Rules Docket number and be submitted in triplicate to the address specified under the caption "ADDRESSES." All communications received on or before the closing date for comments will be considered, and this rule may be amended in light of the comments received. Factual information that supports the

commenter's ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether additional rulemaking action would be needed.

Submit comments using the following format:

- Organize comments issue-by-issue. For example, discuss a request to change the compliance time and a request to change the service bulletin reference as two separate issues.
- For each issue, state what specific change to the AD is being requested.
- Include justification (e.g., reasons or data) for each request.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact concerned with the substance of this AD will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this rule must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 2001-NM-01-AD." The postcard will be date stamped and returned to the commenter.

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.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and that it is not a "significant regulatory action" under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket. A copy of it, if filed, 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 adding the following new airworthiness directive:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

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

We post ADs on the internet at "av-info.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).

2001-05-05 BOEING: Amendment 39-12141. Docket 2001-NM-01-AD.

Applicability: Model 747 series airplanes, as listed in Boeing Service Bulletin 747-54A2206, Revision 1, dated February 22, 2001, 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 per paragraph (c) 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 find and fix discrepancies of the installation of the midspar fuse pins of the inboard and outboard strut, which could result in loss of the secondary retention capability of the fuse pins, migration of the fuse pins, and consequent loss of the strut and engine from the airplane; accomplish the following:

Inspections/Follow-On Actions

(a) At the latest of the times specified in paragraphs (a)(1) and (a)(2) of this AD, as applicable: Do a detailed visual inspection to find discrepancies (incorrect thread protrusion, which is less than two threads protruding from the nut between the nut and the secondary retention washer; incorrect gap between the fuse pin primary nut and secondary retention washer; cracked or broken torque stripe) of the installation of the midspar fuse pins of the inboard and outboard struts, per Figure 2 of Boeing Service Bulletin 747-54A2206, Revision 1, dated February 22, 2001.

(1) For airplanes not modified per one of the AD's listed in Table 1 of this AD: Do the inspection at the later of the times specified in paragraphs (a)(1)(i) and (a)(1)(ii) of this AD:

(i) Before the accumulation of 8,000 total flight hours, or within 24 months since manufacture of the airplane, whichever occurs first.

(ii) Within 90 days after the effective date of this AD.

(2) For airplanes modified per one of the AD's listed in Table 1 of this AD: Do the inspection at the later of the times specified in paragraphs (a)(2)(i) and (a)(2)(ii) of this AD. Table 1 follows:

Table 1

| AD Number | Amendment Number |
|------------------|-------------------------|
| AD 95-10-16 | 39-9233 |
| AD 95-13-05 | 39-9285 |
| AD 95-13-06 | 39-9286 |
| AD 95-13-07 | 39-9287 |
| AD 99-10-10 | 39-11163 |

(i) Within 8,000 flight hours, or within 24 months since doing the modification, whichever occurs first.

(ii) Within 90 days after the effective date of this AD.

Note 2: Where there are differences between the AD and the service bulletin, the AD prevails.

Note 3: For the purposes of this AD, a detailed visual 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.”

(A) If no discrepancy is found: Repeat the inspection at intervals not to exceed 8,000 flight hours or 24 months, whichever is first, until you do the terminating modification specified in paragraph (b) of this AD.

(B) If any discrepancy is found, and the primary nut has backed off and contacts the secondary retention washer: Before further flight, do the terminating modification specified in paragraph (b) of this AD.

(C) If any discrepancy is found, and the primary nut does not contact the secondary retention washer: Repeat the inspection at intervals not to exceed 90 days. Within 18 months after the initial finding, or the effective date of this AD, whichever occurs later, do the terminating modification specified in paragraph (b) of this AD.

Note 4: Inspections accomplished prior to the effective date of this AD per Boeing Alert Service Bulletin 747-54A2206, dated October 19, 2000, are acceptable for compliance with the inspections required by paragraph (a) of this AD.

Optional Terminating Action

(b) Doing the terminating modification (replacement of the primary nut of the midspar fuse pin with a new nut, installation of torque stripe, a detailed visual inspection of the fuse pin threads for damage, and replacement, if necessary) per Figure 3 of Boeing Service Bulletin 747-54A2206, Revision 1, dated February 22, 2001, ends the repetitive inspections required by this AD.

Note 5: Accomplishment of the terminating action specified in Boeing Alert Service Bulletin 747-54A2206, dated October 19, 2000, is acceptable for compliance with the terminating action specified in paragraph (b) of this AD.

Alternative Methods of Compliance

(c) 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.

Note 6: 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

(d) Special flight permits may be issued per 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

(e) The actions shall be done per Boeing Service Bulletin 747-54A2206, Revision 1, dated February 22, 2001. This incorporation by reference was approved by the Director of the Federal Register per 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

(f) This amendment becomes effective on March 21, 2001.

FOR FURTHER INFORMATION CONTACT: Tamara Anderson, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2771; fax (425) 227-1181.

Issued in Renton, Washington, on February 26, 2001.

Donald L. Rigglin, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.