

DEPARTMENT OF TRANSPORTATION**Federal Aviation Administration****14 CFR Part 39**

[Docket No. 2000–NM–377–AD; Amendment 39–13151; AD 2003–10–06]

RIN 2120–AA64

Airworthiness Directives; Boeing Model 747 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to certain Boeing Model 747 series airplanes, that requires repetitive inspections for cracking of the skin, bear strap, and sill chord of the lower lobe cargo door cutout, and repair, if necessary. For certain airplanes, the AD also provides an optional modification of the lower lobe cargo door cutout, which ends the pre-modification repetitive inspections, but necessitates new post-modification repetitive inspections after a certain time. The actions specified by this AD are intended to find and fix cracking of the skin, bear strap, and sill chord of the lower lobe cargo door cutout, which could lead to reduced structural integrity of the lower lobe cargo door cutout, and result in rapid depressurization of the airplane. This action is intended to address the identified unsafe condition.

DATES: Effective July 1, 2003.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of July 1, 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: Rick Kawaguchi, Aerospace Engineer, Airframe Branch, ANM–120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055–4056; telephone (425) 917–6434; fax (425) 917–6590.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD)

that is applicable to certain Boeing Model 747 series airplanes was published as a supplemental notice of proposed rulemaking (NPRM) in the **Federal Register** on June 21, 2002 (67 FR 42207). That action proposed to require repetitive inspections for cracking of the skin, bear strap, and sill chord of the lower lobe cargo door cutout, and repair, if necessary. For certain airplanes, the action also proposed to provide an optional modification of the lower lobe cargo door cutout, which would end the pre-modification repetitive inspections, but would necessitate new post-modification repetitive inspections after a certain time. The action also proposed to expand the optional modification of the lower lobe cargo door cutout specified in the NPRM and reduce the compliance threshold for the existing post-modification inspections.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

One commenter concurs with the proposed rule.

Request To Allow Modification/Repair Per Structural Repair Manual (SRM)

Two commenters ask that accomplishment of the modification/repair required by the proposed AD per SRM Chapter 53–30–03, Figure 62, or Chapter 53–60–01, Figure 204, be allowed as terminating action for the repetitive inspections. The first commenter states that, according to information received from the manufacturer, repair per SRM Chapter 53–30–03, Figure 62, terminates the repetitive inspections specified in Boeing Service Bulletin 747–53A2448, Revision 1, dated April 4, 2002 (referenced in the proposed rule as the appropriate source of service information for accomplishment of the inspections). The commenter adds that post-modification inspections are done per the Repair Assessment Program required by section 121.370 (“Repair assessment for pressurized fuselages”) of the Federal Aviation Regulations (14 CFR 121.370). The second commenter states that, according to information received from the manufacturer, the repair doubler installation is terminating action for the repetitive inspections, and post-repair inspections should be done per the inspection program defined in the SRM.

The FAA partially agrees with the commenters. We agree that repairs done per Revision 1 of the referenced service

bulletin, and the post-repair inspections defined in the applicable SRMs and listed in the service bulletin, terminate the repetitive inspections required by paragraph (a) of the proposed AD for the repaired area only. We have changed paragraph (c) of the final rule (paragraph (b) of the proposed rule) to specify such terminating action. However, we have determined that compliance with section 121.370 of the Federal Aviation Regulations (14 CFR 121.370) does not meet the post-repair inspection requirements specified in this AD. This is because the repair assessment guidelines approved for Model 747 series airplanes are applicable only for normal skin surface structure, not for underlying stringers, frames, supporting structure and fuselage cutouts. Therefore, the Repair Assessment Program is not acceptable for doing the post-repair inspections required by this AD. No change to the final rule is necessary in this regard.

Request To Change Paragraph (b) or (d)

One commenter states that it has frequently found cracking in the area specified in the proposed AD, and has installed many repairs that were approved by a Boeing Company Designated Engineering Representative (DER) who will presumably be granted alternative method of compliance (AMOC) approval authority by the Manager of the Seattle Aircraft Certification Office (ACO). Since so many repairs have been installed, the commenter asks that paragraph (b) or (d) of the proposed AD be changed, or that a new repair paragraph be added. This would allow a repair previously approved per data meeting the type certification basis of the airplane approved by a Boeing DER who has been authorized by the Manager, Seattle ACO, to make such findings, as an acceptable repair method that meets the requirements of the proposed AD. The commenter adds that making this change would prevent operators with previously issued forms for approved repairs from resubmitting the forms with the AD number included.

We do not agree with the commenter. Repairs previously approved by a Boeing DER do require new approval as an AMOC. AMOC delegation to a DER requires findings of compliance that include all the design considerations, practices, and load cases used during the certification process, even if those defined in part 25 (“Airworthiness Standards: Transport Category Airplanes”) of the Federal Aviation Regulations (14 CFR part 25) are exceeded. A non-AMOC repair approval may or may not include all of these