

PŘÍKAZ K ZACHOVÁNÍ LETOVÉ ZPŮSOBILOSTI

CAA-AD-T-088/2001

Datum vydání: 16. října 2001

LETOUN - ZADNÍ TLAKOVÁ PŘEPÁŽKA - KONTROLA/OPRAVA

Týká se: letadel Boeing 737-600, -700 a -800; pořadových čísel na výrobní lince 1 až 405 včetně a 466, 585, 590 a 793; certifikovaných v kterékoliv kategorii.

Datum účinnosti: ihned po obdržení

Provést v termínech: Jak je popsáno v FAA Emergency AD 2001-21-51, od data účinnosti tohoto PZZ.

Postup provedení prací: Dle FAA Emergency AD 2001-21-51 (příloha tohoto PZZ).

Poznámky: Provedení tohoto PZZ musí být zapsáno do letadlové knihy. Případné dotazy týkající se tohoto PZZ adresujte na ÚCL technický inspektorát - Ing. Toman. Pokud to vyžaduje povaha tohoto PZZ, musí být zapracován do příslušné části dokumentace pro obsluhu, údržbu a opravy letadla. Tento PZZ byl vypracován na základě FAA Emergency AD 2001-21-51.

Ing. Pavel MATOUŠEK
Ředitel sekce technické
Úřad pro civilní letectví

EMERGENCY AIRWORTHINESS DIRECTIVE

DATE: October 12, 2001

2001-21-51

Transmitted as follows is emergency airworthiness directive (AD) 2001-21-51, for the attention of all owners and operators of certain Boeing Model 737-600, -700, and -800 series airplanes.

Background

The FAA recently received a report indicating that an operator found damage to the web of the aft pressure bulkhead at body station (BS) 1016 on a Boeing Model 737-700 series airplane. One section of the web had two large dents that crossed a radial tearstrap and a crease common to one edge. During replacement of the damaged web sections of the bulkhead, additional damage to the vertical shear beam web and to the skin adjacent to the attachment fittings of the vertical fin at BS 1016 was found. The vertical shear beam webs are integral to the attachment fittings that attach the vertical fin to the fuselage. A shimmy event of the main landing gear (MLG) on that airplane also was reported, and was so severe that it damaged the MLG and resulted in replacement of the right MLG.

Subsequent to the first report, three other operators reported similar damage to the aft pressure bulkhead on other Boeing Model 737-700 series airplanes, following severe shimmy events which resulted in damage to the MLG. A 0.65-inch crack in the aft pressure bulkhead also was found on one of the damaged airplanes. Shimmy events are a possible cause of the aft pressure bulkhead damage; however, the actual cause is undetermined. Hard landings and tail strikes are other possible causes. Such damage, if not fixed, could result in structural failure of the aft pressure bulkhead and consequent uncontrolled decompression, or loss of structural integrity of the forward support of the vertical fin, loss of the vertical

fin, and consequent loss of control of the airplane.

Boeing Model 737-600 and -800 series airplanes have identical structure in the subject area and may also be subject to the same unsafe condition described above.

Explanation of Relevant Service Information

The FAA has reviewed and approved Boeing Telegraphic Service Bulletin, 737-53A1238, dated October 11, 2001, which describes procedures for a detailed visual inspection for damage of the aft pressure bulkhead at body station (BS) 1016 and the forward attachment of the vertical fin at body section 48. For airplanes on which damage is found, the service bulletin describes procedures for doing an additional detailed visual inspection of the vertical beam web installation. The service bulletin also specifies contacting Boeing for repair of any damage found, and reporting inspection results to Boeing.

Explanation of the Requirements of the Rule

Since an unsafe condition has been identified that is likely to exist or develop on other airplanes of this same type design, this airworthiness directive is issued to require a detailed visual inspection for damage of the aft pressure bulkhead at body station 1016 and the forward attachment of the vertical fin at body section 48, and corrective action, if necessary. This AD also requires submitting all inspection results to the FAA. The actions are required to be accomplished in accordance with the telegraphic service bulletin described previously.

Differences Between This AD and the Telegraphic Service Bulletin

Although the service bulletin specifies that the manufacturer may be contacted for disposition of certain repair conditions, this AD requires the repair of those conditions to be accomplished per a method approved by the FAA, or per data meeting the type certification basis of the airplane approved by a Boeing Company Designated Engineering Representative who has been authorized by the Manager, Seattle Aircraft Certification Office, to make such findings.

The service bulletin also specifies doing a detailed visual inspection of the aft pressure bulkhead at body station 1016 and the forward attachment of the vertical fin at body section 48 for damage, within a compliance time that ranges between 5 and 30 days, depending upon airplane grouping. However, this AD also requires doing the detailed visual inspection before further flight if a severe shimmy event that damaged the main landing gear, a hard landing, or a tail strike occurs after receipt of this AD.

Interim Action

This is considered to be interim action. The inspection reports that are required by this AD will enable the FAA to complete its evaluation of the need for final action. Once final action is developed, approved, and made available, the FAA may consider further rulemaking.

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 AD effective in less than 30 days.

This rule is issued under 49 U.S.C. Section 44701 (formerly section 601 of the Federal Aviation Act of 1958) pursuant to the authority delegated to me by the Administrator, and is effective immediately upon receipt of this AD.

2001-21-51 BOEING: Docket No. 2001-NM-310-AD.

Applicability: Model 737-600, -700, and -800 series airplanes; line numbers 1 through 405 inclusive, and line numbers 466, 585, 590, and 793; 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 (f) 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 damage of the aft pressure bulkhead at body station 1016 and the forward attachment of the vertical fin at body section 48, which could result in structural failure of the aft pressure bulkhead and consequent uncontrolled decompression, or loss of structural integrity of the forward support of the vertical fin, loss of the vertical fin, and consequent loss of control of the airplane; accomplish the following:

Inspection

(a) Do a detailed visual inspection for damage of the aft pressure bulkhead at body station 1016 and the forward attachment of the vertical fin at body section 48, according to Boeing Telegraphic Service Bulletin, 737-53A1238, dated October 11, 2001. Except as provided by paragraph (b) of this AD, do the inspections at the time specified in paragraph (a)(1), (a)(2), or (a)(3) of this AD, as applicable.

(1) For Group 1 airplanes as identified in paragraph 1.A., "Effectivity," of the service bulletin: Within 5 days after receipt of this AD.

(2) For Group 2 airplanes as identified in paragraph 1.A., "Effectivity," of the service bulletin: Within 10 days after receipt of this AD.

(3) For Group 3 airplanes as identified in paragraph 1.A., "Effectivity," of the service bulletin: Within 30 days after receipt of this AD.

Note 2: 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."

(b) For airplanes identified in paragraphs (b)(1) and (b)(2) of this AD: Do the inspection at the time specified in those paragraphs, as applicable.

(1) For Group 2 or Group 3 airplanes on which a severe shimmy event that damaged the main landing gear before receipt of this AD, or on which a hard landing or a tail strike occurred before receipt of this AD: Do the inspection required by paragraph (a) of this AD at the time specified in paragraph (a)(1) of this AD.

(2) For Group 3 airplanes on which a shimmy event that damaged the aircraft interior or the flaps occurred before receipt of this AD: Do the inspection required by paragraph (a) of this AD at the time specified in paragraph (a)(2) of this AD.

(c) Do the inspection required by paragraph (a) of this AD before further flight after any of the following events occurring after receipt of this AD: A severe shimmy event that damaged the main landing gear, a hard landing, or a tail strike.

Corrective Action

(d) If any damage is found during the inspection required by this AD, before further flight, do a detailed visual inspection of the vertical beam web installation for damage, according to Boeing Telegraphic Service Bulletin, 737-53A1238, dated October 11, 2001. If any damage is found, before further flight, repair all damage per a method approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA; or per data meeting the type certification basis of the airplane approved by a Boeing Company Designated Engineering Representative who has been authorized by the Manager, Seattle ACO, to make such findings. For a repair method to be approved by the Manager, Seattle ACO, as required by this paragraph, the approval letter must specifically reference this AD.

Reporting Requirement

(e) Submit a report of inspection findings (both positive and negative) to the Manager, Seattle ACO, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; fax (425) 227-1181; at the applicable time specified in paragraph (e)(1) or (e)(2) of this AD. The report must include the following: The approximate date of inspection; whether the shimmy dampers were installed subsequent to aircraft delivery; a description of any structural damage found and its location, as well as the extent and depth of the damage, or whether structural damage was NOT found; whether any shimmy event, hard landing, engine-out, or tail strike has occurred; the airplane serial number; and

the number of landings and flight hours on the airplane. Information collection requirements contained in this regulation have been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.) and have been assigned OMB Control Number 2120-0056.

(1) For airplanes on which the inspection is accomplished after receipt of this AD: Submit the report within 5 days after performing the inspection required by paragraph (a) of this AD.

(2) For airplanes on which the inspection has been accomplished prior to receipt of this AD: Submit the report within 5 days after receipt of this AD.

Alternative Methods of Compliance

(f) 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 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 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

(g) 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.

(h) **AD 2001-21-51, issued on October 12, 2001, becomes effective upon receipt.**

FOR FURTHER INFORMATION CONTACT: Scott Fung, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington; telephone (425) 227-1221; fax (425) 227-1181.

Issued in Renton, Washington, on October 12, 2001.

Original signed by:

Ali Bahrami, Acting Manager,

Transport Airplane Directorate,

Aircraft Certification Service.