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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2002-NM-307-AD; Amendment 39-13025; AD 2003-03-01]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 737-600, -700, -700C, -800, and -900 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 all Boeing Model 737-600, -700, -700C, -800, and -900 series airplanes. This action requires reviewing the airplane maintenance records to determine whether an engine has been removed from the airplane since the airplane was manufactured. For airplanes on which an engine has been removed, this action requires an inspection of the aft engine mount to determine if the center link assembly is correctly installed, and follow-on actions if necessary. This action also prohibits installation of an engine unless the aft engine mount is inspected and the center link assembly is found to be installed correctly. This action is necessary to prevent increased structural loads on the aft engine mount, which could result in failure of the aft engine mount and consequent separation of the engine from the airplane. This action is intended to address the identified unsafe condition.

DATES: Effective February 13, 2003.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of February 13, 2003.

Comments for inclusion in the Rules Docket must be received on or before March 31, 2003.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 2002-NM-307-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056. Comments may be inspected at this location between 9 a.m. and 3 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. 2002-NM-307-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: Sue Lucier, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2186; fax (425) 227-1181.

SUPPLEMENTARY INFORMATION: The FAA has received reports indicating that operators found that the center link assembly for the aft engine mount was reversed on several Model 737-700 series airplanes and one Model 737-800 series airplane. Investigation revealed that the center link assembly had been reversed during re-assembly after overhaul of the airplane engine. Because of the nearly symmetrical design of this assembly, it is susceptible to being reversed during installation. Reversal of the center link assembly increases the structural load on the aft engine mount. This condition, if not corrected, could result in failure of the aft engine mount and consequent separation of the engine from the airplane.

The design of the center link assembly for the aft engine mount is common to all Model 737-600, -700, -700C, -800, and -900 series airplanes. Therefore, Model 737-600, -700C, and -900 series airplanes may be subject to the same unsafe condition revealed on the Model 737-700 and -800 series airplanes.

Explanation of Relevant Service Information

The FAA has reviewed and approved Boeing Alert Service Bulletin 737-71A1462, Revision 1, dated November 7, 2002. That service bulletin describes procedures for a one-time general visual inspection to determine if the center link assembly of the aft engine mount is correctly installed, and follow-on actions if necessary. If the center link assembly is incorrectly installed, follow-on actions include:

- Removing the assembly and installing it correctly;
- Performing a detailed inspection of the engine mounting lugs and engine turbine rear frame for cracking, yielding, buckling, or wear damage; and
- Performing a detailed inspection of the hardware for the aft engine mount (including the center link assembly, right link assembly, aft mount hanger assembly, and link pins) for cracking, yielding, buckling, or wear damage.

Accomplishment of the actions specified in the service bulletin is intended to adequately address the identified unsafe condition.

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 the same type design, this AD is being issued to prevent increased structural loads on the aft engine mount, which could result in failure of the aft engine mount and consequent separation of the engine from the airplane. This AD requires a one-time review of the airplane maintenance records to determine if an engine has been removed since the airplane's date of manufacture. For any engine that has been removed since the airplane's date of manufacture, this AD requires accomplishment of the actions specified in the service bulletin described previously, except as discussed under the heading, "Differences Between This AD and the Service Bulletin." This AD also prohibits installation of an engine unless the aft engine mount is inspected and the center link assembly is found to be installed correctly.

Differences Between This AD and the Service Bulletin

Operators should note that, while the service bulletin's effectivity is limited to certain airplane line numbers, this AD is applicable to all Boeing Model 737-600, -700, -700C, -800, and -900 series airplanes. The design of the center link assembly of the aft engine mount on all of these airplanes is the same. Therefore, all of these airplanes may be subject to the same unsafe condition. This issue has been coordinated with Boeing, and Boeing concurs with making this AD applicable to all Boeing Model 737-600, -700, -700C, -800, and -900 series airplanes.

Operators should note that the service bulletin specifies that the engine manufacturer may be contacted for instructions for repair of any cracking, yielding, buckling, or wear damage that is found. However, 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 FAA to make such findings. Alternatively, this AD allows replacement of the subject parts with new parts per the airplane maintenance manual.

Operators also should note that, although the Accomplishment Instructions of the referenced service bulletin describe procedures for reporting certain findings to the airplane manufacturer, this AD does not include such a requirement.

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 2002-NM-307-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 "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).

2003-03-01 Boeing: Amendment 39-13025. Docket 2002-NM-307-AD.

Applicability: All Model 737-600, -700, -700C, -800, and -900 series airplanes; 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 (g) 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 increased structural loads on the aft engine mount, which could result in failure of the aft engine mount and consequent separation of the engine from the airplane, accomplish the following:

Review of Maintenance Records

(a) Within 90 days after the effective date of this AD, review the airplane maintenance records to determine whether either engine has been removed since the airplane's date of manufacture. If neither engine has been removed since the airplane's date of manufacture, no further action is required by this paragraph.

Inspection To Determine if Center Link Assembly is Installed Correctly

(b) For any installed engine that is found to have been removed from the airplane since the airplane's date of manufacture: Within 90 days after the effective date of this AD, do a one-time general visual inspection to determine if the center link assembly of the aft engine mount is installed correctly, per the Accomplishment Instructions of Boeing Alert Service Bulletin 737-71A1462, Revision 1, dated November 7, 2002. If the center link assembly is installed correctly, as specified in the service bulletin, no further action is required by paragraphs (b), (c), or (d) of this AD for that engine. However, paragraph (f) of this AD continues to apply.

Note 2: For the purposes of this AD, a general visual inspection is defined as: "A visual examination of an interior or exterior area, installation, or assembly to detect obvious damage, failure, or irregularity. This level of inspection is made from within touching distance unless

otherwise specified. A mirror may be necessary to enhance visual access to all exposed surfaces in the inspection area. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight, or droplight and may require removal or opening of access panels or doors. Stands, ladders, or platforms may be required to gain proximity to the area being checked."

Follow-on and Corrective Actions

(c) For any center link assembly that is found installed incorrectly during the inspection required by paragraph (b) of this AD: Before further flight, do the actions in paragraphs (c)(1), (c)(2), and (c)(3) of this AD, per the Accomplishment Instructions of Boeing Alert Service Bulletin 737-71A1462, Revision 1, dated November 7, 2002, except that it is not necessary to submit a report of findings to the airplane manufacturer.

(1) Remove the center link assembly and install it correctly.

(2) Perform a detailed inspection of the engine mounting lugs and engine turbine rear frame for cracking, yielding, buckling, or wear damage.

(3) Perform a detailed inspection of the hardware for the aft engine mount; including the center link assembly, right link assembly, aft mount hanger assembly, and link pins; for cracking, yielding, buckling, or wear damage.

Note 3: 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."

Repair

(d) If any cracking, yielding, buckling, or wear damage is found during the inspections required by paragraphs (c)(2) and (c)(3) of this AD: Before further flight, replace the discrepant part with a new or serviceable part per the applicable section of the airplane maintenance manual, or repair 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, the approval must specifically reference this AD.

Credit for Actions Accomplished Previously

(e) Inspections and correction of the installation of the center link assembly accomplished before the effective date of this AD per the Accomplishment Instructions of Boeing Alert Service Bulletin 737-71A1462, dated August 29, 2002, are acceptable for compliance with the requirements of paragraphs (b) and (c) of this AD.

Parts Installation

(f) As of the effective date of this AD, no person may install an engine on any airplane unless the inspection specified by paragraph (b) of this AD is accomplished and the center link assembly of the aft engine mount is found to be installed correctly.

Alternative Methods of Compliance

(g) 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. 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 4: 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

(h) 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

(i) Unless otherwise specified in this AD, the actions shall be done in accordance with Boeing Alert Service Bulletin 737-71A1462, Revision 1, dated November 7, 2002. 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

(j) This amendment becomes effective on February 13, 2003.

Issued in Renton, Washington, on January 21, 2003.

Vi L. Lipski,
Manager, Transport Airplane Directorate, Aircraft Certification Service.
[FR Doc. 03-1815 Filed 1-28-03; 8:45 am]
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