

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

[Docket No. 98-NM-362-AD; Amendment 39-11022; AD 99-03-08]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 737-600, -700, -700IGW, and -800 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 737-600, -700, -700IGW, and -800 series airplanes. This action requires repetitive inspections to detect discrepancies of the quick-disconnect coupling on the fuel hose, located at the fan case firewall; corrective action, if necessary; and installation of a clamp shell on the coupling to prevent separation of the coupling halves. This amendment is prompted by a report that a quick-disconnect coupling on the fuel hose on an in-service airplane was found loose and leaking fuel. The actions specified in this AD are intended to detect and correct excessive wear of the quick-disconnect coupling on the fuel hose, which could result in major fuel leakage, fire in the engine nacelle, and consequent loss of thrust from the affected engine.

DATES: Effective February 19, 1999.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of February 19, 1999.

Comments for inclusion in the Rules Docket must be received on or before April 5, 1999.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 98-NM-362-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056.

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: Bernie Gonzalez, Aerospace Engineer,

Propulsion Branch, ANM-140S, FAA, Transport Airplane Directorate, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2682; fax (425) 227-1181.

SUPPLEMENTARY INFORMATION: The FAA has received a report indicating that the quick-disconnect coupling on the fuel hose was found loose and leaking fuel on an in-service Boeing Model 737-700 series airplane. As a result of this report, Boeing requested that all operators perform inspections to detect wear of the quick-disconnect coupling on the fuel hose on both engines of all Boeing Model 737-600, -700, -700IGW, and -800 series airplanes. During these inspections, an excessively worn coupling was found on numerous airplanes, and several of these discrepant couplings were leaking fuel. Wear of the coupling, which is located at the fan case firewall of the engines, has been attributed to resonance vibration from the engine-driven hydraulic pump.

Excessive wear of the quick-disconnect coupling on the fuel hose, if not corrected, could initially cause leakage of a small amount of fuel into the fan case fire zone of the engines. If such initial leakage is not detected and corrected, the coupling could become disconnected. Such disconnection could result in major fuel leakage, fire in the engine nacelle, and consequent loss of thrust from the affected engine.

Explanation of Relevant Service Information

The FAA has reviewed and approved Boeing Alert Service Bulletin 737-73A1011, dated November 25, 1998, which describes procedures for repetitive visual inspections to detect discrepancies (i.e., fuel leakage, wear of the lock teeth, and missing lock pins on the coupling nut) of the quick-disconnect coupling on the fuel hose; and corrective action, if necessary. If the coupling is found to be leaking, corrective actions include tightening the coupling nut; or if the coupling nut is tight, the lock teeth on the coupling are excessively worn, or one or more lock pins are missing, corrective actions include replacing the O-ring packing on the engine strut fuel fitting and replacing the fuel hose assembly. The alert service bulletin also describes procedures for installation of a clamp shell on the quick-disconnect coupling to prevent separation of the coupling halves. Accomplishment of the actions specified in the alert 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 detect and correct excessive wear of the quick-disconnect coupling on the fuel hose, located at the fan case firewall of the engines; which could result in major fuel leakage, fire in the engine nacelle, and consequent loss of thrust from the affected engine. This AD requires accomplishment of the actions specified in the alert service bulletin described previously, except as discussed below.

Differences Between This Rule and the Alert Service Bulletin

Operators should note that this AD requires, within 30 days, the installation of the clamp shell described in the alert service bulletin. Installation of the clamp shell is identified in the alert service bulletin as an option that would allow the repetitive inspection interval to be increased from 500 to 1,000 flight hours.

The FAA has determined that long-term continued operational safety will be better assured by installation of a device to prevent separation of the coupling halves and repetitive inspections at an interval not to exceed 1,000 flight hours, rather than by accomplishment of more frequent repetitive inspections (at intervals not to exceed 500 flight hours). Inspections alone (i.e., without the installation of the clamp shell) may not provide the degree of safety assurance necessary for the transport airplane fleet.

In developing an appropriate compliance time for this AD, the FAA considered not only the manufacturer's recommendation, but the degree of urgency associated with addressing the subject unsafe condition, the availability of required parts, and the time necessary to perform the installation (2 work hours). In light of all of these factors, the FAA finds a compliance time of 30 days for accomplishing the installation to be warranted, in that it represents an appropriate interval of time allowable for affected airplanes to continue to operate without compromising safety.

Interim Action

This is considered to be interim action. The manufacturer has advised that it currently is developing a modification that will positively address the unsafe condition addressed by this AD. Once this modification is developed, approved, and available, the FAA may consider additional 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 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.

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 98-NM-362-AD." The postcard will be date stamped and returned to the commenter.

Regulatory Impact

The regulations adopted herein will not have substantial direct effects 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, in accordance with Executive Order 12612, it is determined that this final rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

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:

99-03-08 Boeing: Amendment 39-11022. Docket 98-NM-362-AD.

Applicability: Model 737-600, -700, -700IGW, and -800 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 (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 detect and correct excessive wear of the quick-disconnect coupling on the fuel hose,

which could result in major fuel leakage, fire in the engine nacelle, and consequent loss of thrust from the affected engine, accomplish the following:

(a) Within 7 days after the effective date of this AD, perform a visual inspection to detect discrepancies (i.e., fuel leakage, wear of the lock teeth, or missing lock pins on the coupling nut) of the quick-disconnect coupling on the fuel hose, located at the fan case firewall, in accordance with Boeing Alert Service Bulletin 737-73A1011, dated November 25, 1998.

(1) If no discrepancy is detected, repeat the inspection thereafter at intervals not to exceed 500 flight hours, until the installation required by paragraph (b) of this AD is accomplished.

(2) If any discrepancy is detected, prior to further flight, perform follow-on corrective actions, as applicable, in accordance with TABLE 1. of the Accomplishment Instructions of the alert service bulletin, and repeat the inspection thereafter at the time specified in TABLE 1. of the Accomplishment Instructions of the alert service bulletin.

(b) Within 30 days after the effective date of this AD, install an Aeroquip Clamp Shell, having part number (P/N) AE20074-165, on the quick-disconnect coupling on the fuel hose, which is located at the fan case firewall, in accordance with Boeing Alert Service Bulletin 737-73A1011, dated November 25, 1998. Accomplishment of such installation terminates the repetitive inspection requirements of paragraph (a)(1) and (a)(2) of this AD. Within 1,000 flight hours after installation of the clamp shell, repeat the inspection specified in paragraph (a) of this AD.

(1) If no discrepancy is detected, repeat the inspection thereafter at intervals not to exceed 1,000 flight hours.

(2) If any discrepancy is detected, prior to further flight, perform follow-on corrective actions, as applicable, in accordance with TABLE 1. of the Accomplishment Instructions of the alert service bulletin, and repeat the inspection thereafter at the time specified in TABLE 1. of the Accomplishment Instructions of the alert service bulletin.

(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, Transport Airplane Directorate. 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 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

(d) 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.

(e) The actions shall be done in accordance with Boeing Alert Service Bulletin 737-73A1011, dated November 25, 1998. 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.

(f) This amendment becomes effective on February 19, 1999.

Issued in Renton, Washington, on January 28, 1999.

Dorenda D. Baker,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 99-2495 Filed 2-3-99; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 98-ANE-83-AD; Amendment 39-11023; AD 99-03-09]

RIN 2120-AA64

Airworthiness Directives; Allison Engine Company, Inc. AE 2100A, AE 2100C, and AE 2100D3 Series Turboprop Engines

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that is applicable to Allison Engine Company, Inc. AE 2100A, AE 2100C, and AE 2100D3 series turboprop engines. This action requires removing from service affected turbine wheels prior to exceeding new, reduced cyclic life limits. This amendment is prompted by the results of a refined life analysis. The actions specified in this AD are intended to prevent an uncontained turbine wheel failure, which could result in damage to the aircraft.

DATES: Effective February 19, 1999.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of February 19, 1999.

Comments for inclusion in the Rules Docket must be received on or before April 5, 1999.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 98-ANE-

83-AD, 12 New England Executive Park, Burlington, MA 01803-5299. Comments may also be sent via the Internet using the following address: "9-ad-engineprop@faa.gov." Comments sent via the Internet must contain the docket number in the subject line.

The service information referenced in this AD may be obtained from Allison Engine Company, Inc., P.O. Box 420, Speed Code U-15, Indianapolis, IN 46206-0420, telephone (317) 230-6674. This information may be examined at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: John Tallarovic, Aerospace Engineer, Chicago Aircraft Certification Office, FAA, Small Airplane Directorate, Office Address; telephone (847) 294-8180, fax (847) 294-7834.

SUPPLEMENTARY INFORMATION: Allison Engine Company, Inc., the manufacturer of AE 2100A, AE 2100C, and AE 2100D3 series turboprop engines, suspects that certain serial number turbine wheels may have Tungsten contamination. Additionally, the manufacturer reevaluated the effect on the service life of a wheel surface treatment, which is part of the current manufacturing process. A refined life analysis, which took both the possibility of Tungsten contamination and the surface treatment into account, revealed new maximum service lives significantly lower than those previously published. This condition, if not corrected, could result in an uncontained turbine wheel failure, which could result in damage to the aircraft.

The FAA has reviewed and approved the technical contents of Rolls-Royce Alert Service Bulletin (ASB) AE 2100A-A-72-191, AE 2100C-A-72-141, and AE 2100D3-A-72-130, all dated December 17, 1998, that list new, reduced cyclic life limits for affected turbine wheels.

Since an unsafe condition has been identified that is likely to exist or develop on other engines of the same type design, this AD is being issued to prevent uncontained turbine wheel failure. This AD requires removing from service affected turbine wheels prior to exceeding new, reduced cyclic life limits. The actions shall be accomplished in accordance with the ASB's described previously.

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 should 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.

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 notice must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 98-ANE-83-AD." The postcard will be date stamped and returned to the commenter.

The regulations adopted herein will not have substantial direct effects 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, in accordance with Executive Order 12612, it is determined that this final rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and is not a "significant regulatory action" under Executive Order 12866. It has been determined further that this