[Federal Register: May 11, 2004 (Volume 69, Number 91)]
[Rules and Regulations]
[Page 26015-26017]
From the Federal Register Online via GPO Access [wais.access.gpo.gov]
[DOCID:fr11my04-12]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2002-NM-273-AD; Amendment 39-13627; AD 2004-09-36]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 727 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to all Boeing Model 727 series airplanes, that requires an inspection of the bolts used to attach the forward cone bolt to the engine flange to determine if the attachment bolts are either H-11 steel bolts or cadmium-plated bolts. This action also requires replacement of either H-11 steel bolts or cadmium-plated bolts with new corrosion-resistant steel bolts. This action is necessary to prevent undetected cracking of the H-11 bolts or excessive wear of the cadmium-plated bolts, which would compromise the primary load path of the engine support and could result in separation of the engine from the airplane. This action is intended to address the identified unsafe condition.

DATES: Effective June 15, 2004.

The incorporation by reference of a certain publication listed in the regulations is approved by the Director of the Federal Register as of June 15, 2004.

ADDRESSES: The service information referenced in this AD may be obtained from Boeing Commercial Airplanes, 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 National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: *http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html*.

FOR FURTHER INFORMATION CONTACT: Daniel F. Kutz, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 917-6456; 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 all Boeing Model 727 airplanes was published in the Federal Register on November 4, 2003 (68 FR 62408). That action proposed to require an inspection of the bolts used to attach the forward cone bolt to the engine flange to determine if the attachment bolts are either H-11 steel bolts or cadmium-plated bolts. That action also proposed to require replacement of either H-11 steel bolts or cadmium-plated bolts with new corrosion-resistant steel bolts.

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.

Request To Allow Use of Alternative Part

One commenter requests that the FAA revise the proposed AD to allow operators to use an alternative attachment bolt, part number (P/N) B27-53-031-111. The commenter states that, in accordance with Supplemental Type Certificates (STC) SA5839NM and ST00350AT, some airplane engines are modified with a heavyweight hush kit, which uses bolts made with corrosion resistant Inconel 718. The commenter considers these bolts to satisfy the intent of the proposed AD.

The FAA agrees. The AD does not specify what action should be taken if corrosion resistant bolts, P/N B27-53-031-111, are used to attach the forward cone bolt to the engine flange. Although these attachment bolts are not part of the original type design, allowing use of these attachment bolts in accordance with STC SA5839NM and ST00350AT will eliminate the need for an alternative method of compliance to the benefit of operators and the FAA. We have revised paragraph (a) of this AD accordingly.

Request To Extend Compliance Time

The same commenter also requests that the we revise the proposed AD to extend the proposed compliance time for the inspection from "18 months or 3,000 cycles, whichever is earlier," to 24 months to allow affected operators sufficient time to perform the inspection and parts replacement during a regularly scheduled maintenance interval. The commenter states that the compliance time of the proposed AD presents an operational hardship in ensuring adequate time for the parts replacement, if necessary, during a regularly scheduled maintenance check. The commenter considers that the adoption of the proposed compliance time of 18 months would require operators to schedule special times to do the inspection, at additional expense and downtime.

We do not agree with the commenter's request to extend the compliance time. In developing an appropriate compliance time for this action, we considered the safety implications and normal maintenance schedules for the timely accomplishment of the inspection and parts replacement. In consideration of these items, as well as the unpredictable nature of stress corrosion, we have determined that an 18-month interval will ensure an acceptable level of safety and allow the inspection and parts replacement to be done during scheduled maintenance intervals for most affected operators.

Request To Withdraw the Proposed AD

One commenter, on behalf of its members, requests that we withdraw the proposed AD. The commenter states that there are no reported failures of H-11 bolts, and that Stage 3 hushkits and the retirement of some Boeing Model 727 airplanes have significantly reduced the number of affected H-11 bolts. The commenter asserts that a maintenance program for inspection of the affected bolts would be sufficient for detecting cracking.

We do not agree. Although we have not yet received any report of cracked H-11 bolts found on Boeing Model 727 airplanes, we have received a report that an operator found one cracked and two fractured H-11 bolts in the side load underwing fittings of a Model 767-200 series airplane, as stated in AD 2002-10-51. We also point out that the nature of stress corrosion is unpredictable. Furthermore, we have determined that continued service for an unsafe condition for an unknown period of time conflicts with the intent of this AD. Thus we have not changed the final rule regarding this issue.

Request To Allow Repetitive Inspections Instead of Parts Replacement

Another commenter requests that we revise the proposed AD to allow operators to perform repetitive inspections for cracking of H-11 bolts, instead of replacement of the H-11 bolts. The commenter states that, according to the proposed AD and the referenced service bulletin, there are no reported failures of H-11 bolts. The commenter also states that Stage 3 noise requirements and the retirement of some Boeing Model 727 airplanes have significantly reduced the number of affected H-11 bolts. The commenter asserts that the replacement of H-11 bolts should not be a mandatory replacement, and that a revision to the maintenance program for inspection of the affected bolts would be sufficient for detecting cracking.

We do not agree for the same reasons as stated above.

Conclusion

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the changes previously described. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Cost Impact

There are approximately 1,148 Model 727 airplanes of the affected design in the worldwide fleet. The FAA estimates that 715 Model 727 airplanes of U.S. registry will be affected by this AD, that it will take approximately 3 work hours per airplane to accomplish the required inspection, and that the average labor rate is $65 per work hour. Based on these figures, the cost impact of the AD on U.S. operators is estimated to be $139,425, or $195 per airplane.

The cost impact figure discussed above is based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

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.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the

Regulatory Flexibility Act. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it 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"

2004-09-36 Boeing: Amendment 39-13627. Docket 2002-NM-273-AD.

Applicability: All Model 727, 727C, 727-100, 727-100C, 727-200, and 727-200F series airplanes, certificated in any category.

Compliance: Required as indicated, unless accomplished previously.

To prevent undetected cracking of the H-11 bolts or excessive wear of the cadmium-plated bolts, which would compromise the primary load path of the engine support and could result in separation of the engine from the airplane, accomplish the following:

Inspection and Replacement

(a) Within 18 months or 3,000 flight cycles from the effective date of this AD, whichever is earlier, inspect the bolts that are used to attach the forward cone bolt to the engine flange to determine if they are H-11 steel bolts (part number (P/N) BACB30GU12-64), cadmium-plated bolts (P/N BACB30LM12-64), or corrosion-resistant bolts (P/N NAS6712E64 or P/N B27-53-031-111, not listed in the service bulletin), per the Accomplishment Instructions of Boeing Alert Service Bulletin 727-71A0402, dated January 18, 2001.

(1) If corrosion-resistant bolts (P/N NAS6712E64 or P/N B27-53-031-111) are installed, no further action is required by this paragraph.

(2) If any H-11 steel bolt or cadmium-plated bolt is found, before further flight, replace the bolt with a new corrosion-resistant bolt (P/N NAS6712E64), according to the Accomplishment Instructions in the service bulletin.

Parts Installation

(b) As of the effective date of this AD, no person may install an H-11 steel bolt (P/N BACB30GU12-64) or a cadmium-plated bolt (P/N BACB30LM12-64) to attach the forward cone bolt to the engine flange on any airplane.

Alternative Methods of Compliance

(c) In accordance with 14 CFR 39.19, the Manager, Seattle Aircraft Certification Office, FAA, is authorized to approve alternative methods of compliance (AMOCs) for this AD.

Incorporation by Reference

(d) The actions shall be done in accordance with Boeing Alert Service Bulletin 727-71A0402, dated January 18, 2001. 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 Airplanes, 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 National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: *http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html*.

Effective Date

(e) This amendment becomes effective on June 15, 2004.

Issued in Renton, Washington, on April 28, 2004.
Kevin M. Mullin,
Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.
[FR Doc. 04-10374 Filed 5-10-04; 8:45 am]
BILLING CODE 4910-13-P