**[4910-13-P]**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2020-0331; Product Identifier 2020-NM-019-AD]**

**RIN 2120-AA64**

**Airworthiness Directives;** The Boeing Company Airplanes

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to adopt a new airworthiness directive (AD) for certain The Boeing Company Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes. This proposed AD was prompted by a report that the necessary sealant was not applied to the side of body (SOB) slot as a result of a production drawing that provided unclear SOB slot sealant application instructions. This proposed AD would require a general visual inspection for insufficient sealant in the SOB slot, and related investigative and corrective actions. The FAA is proposing this AD to address the unsafe condition on these products.

**DATES:** The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

• Federal eRulemaking Portal: Go to https://www.regulations.gov. Follow the instructions for submitting comments.

• Fax: 202-493-2251.

• Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

• Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminster Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet https://www.myboeingfleet.com. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available on the Internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2020-0331.

**Examining the AD Docket**

You may examine the AD docket on the Internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2020-0331; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** James Laubaugh, Aerospace Engineer, Propulsion Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3622; email: james.laubaugh@faa.gov.

**SUPPLEMENTARY INFORMATION:**

**Comments Invited**

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2020-0331; Product Identifier 2020-NM-019-AD" at the beginning of your comments. The FAA specifically invites comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. The FAA will consider all comments received by the closing date and may amend this NPRM because of those comments.

The FAA will post all comments, without change, to https://www.regulations.gov, including any personal information you provide. The FAA will also post a report summarizing each substantive verbal contact received about this NPRM.

**Discussion**

The FAA has received a report indicating that the necessary sealant was not applied to the SOB slot as a result of a production drawing providing unclear SOB slot sealant application instructions on certain The Boeing Company Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes. In 2019, an operator of a Model 737-800 airplane reported a fuel smell in the cabin, and the airplane was diverted. During post-flight inspection, insulation blankets in the air distribution mix bay (ADMB) were

found to be soaked with fuel. The ADMB is located in the fuselage lower lobe immediately forward of the body station (BS) 540 front spar bulkhead. An investigation of this incident led to the finding that there was no sealant applied in the SOB slot. For any part of a fuel tank that is inside the pressurized boundary, a secondary fuel barrier is required. On The Boeing Company Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes, the areas requiring secondary barrier are the wing center section upper surface and the part of the wing center section front spar that is inside the pressure boundary. The secondary barrier is achieved by application of BMS 5-81 secondary fuel barrier sealant (commonly referred to as "vapor barrier"). On the reporting airplane, sealant inside the center fuel tank was repaired to correct the primary leak in the tank, and the SOB slot sealant was restored. The investigation concluded that the production drawing lacked clarity regarding the SOB slot sealant application. The drawing was revised beginning at line number (L/N) 937, but production planning did not reflect the drawing change until L/N 1935. The ADMB is not a flammable fluid leakage zone and therefore does not have ignition prevention and fire detection features, and is also immediately adjacent to the passenger compartment. Fuel leaking into the ADMB, if not addressed, could possibly lead to an ignition of flammable fluid vapors, fire, or explosion, or fuel vapor inhalation by passengers and crew.

**Related Service Information under 1 CFR part 51**

The FAA reviewed Boeing Multiple Operator Message MOM-MOM-20-0049-01B (R1), dated January 29, 2020. This service information describes procedures for a general visual inspection for insufficient sealant in the SOB slot. The service information also describes procedures for related investigative actions including a general visual

inspection of the ADMB for fuel contamination, a check for external leaks of the center fuel tank external surfaces inside the pressure boundary, and an internal leak check of the center fuel tank to identify the leakage path(s). The service information also describes procedures for corrective actions including removal of all insulation blankets below the crease beam left side to right side, clean-up of all fuel contamination, repair of any leak, preparation of the SOB slot for sealing, application of sealant, and repair of the secondary fuel barrier. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

**FAA's Determination**

The FAA is proposing this AD because the FAA evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

**Proposed AD Requirements**

This proposed AD would require accomplishing the actions specified in the service information described previously. For information on the procedures, see this service information at https://www.regulations.gov by searching for and locating Docket No. FAA-2020-0331.

**Costs of Compliance**

The FAA estimates that this proposed AD affects 731 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

**Estimated costs**

| Action | Labor cost | Parts cost | Cost per product | Cost on U.S. operators |
|---|---|---|---|---|
| Inspection for sealant | 30 work-hours X $85 per hour = $2,550 | $0 | $2,550 | $1,864,050 |

The FAA estimates the following costs to do any necessary repairs that would be required based on the results of the proposed inspection. The FAA has no way of determining the number of aircraft that might need these repairs:

**On-condition costs**

| Action | Labor cost | Parts cost | Cost per product |
|---|---|---|---|
| Repair of sealant | 2 work-hours X $85 per hour = $170 | $129 | $299 |
| Insulation blanket replacement | 24 work-hours X $85 per hour = $2,040 | $6,312 | $8,352 |
| Leak checks | 6 work-hours X $85 per hour = $510 | $0 | $510 |

**Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds

necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

**Regulatory Findings**

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would 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.

For the reasons discussed above, I certify this proposed regulation:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Will not affect intrastate aviation in Alaska, 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.

**List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

**The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**The Boeing Company**: Docket No. FAA-2020-0331; Product Identifier 2020-NM-019-AD.

**(a) Comments Due Date**

The FAA must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to The Boeing Company Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes, certificated in any category, line numbers 1 through 1934 inclusive.

**(d) Subject**

Air Transport Association (ATA) of America Code 28, Fuel.

**(e) Unsafe Condition**

This AD was prompted by a report that sealant was not applied to the side of body (SOB) slot inside of a pressurized boundary, which could lead to inconsistent application of the required secondary fuel barrier sealant (vapor barrier). The FAA is issuing this AD to address possible ignition of flammable fluid vapors, fire, or explosion, or fuel vapor inhalation by passengers and crew.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Inspection Definition**

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."

**(h) SOB Slot Inspection and Related Investigative and Corrective Actions**

Within 9 months after the effective date of this AD: Do a general visual inspection for insufficient sealant in the SOB slot, and do all applicable related investigative and corrective actions, in accordance with Boeing Multiple Operator Message MOM-MOM-20-0049-01B (R1), dated January 29, 2020. Do all related investigative and corrective actions before further flight.

**(i) Deferred Repair**

Repair of insufficient sealant as required by paragraph (h) may be deferred for 10 days provided there is no fuel present in the center tank as specified in the procedures in item 28-02A of the operator's existing minimum equipment list, and there is no fuel contamination in the ADMB.

**(j) Reporting Provisions**

Although the service information referenced in Boeing Multiple Operator Message MOM-MOM-20-0049-01B (R1), dated January 29, 2020, specifies to report inspection findings, this AD does not require any report.

**(k) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Seattle ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (l)(1) of this AD. Information may be emailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by The Boeing Company Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO Branch, FAA, to make those findings. To be approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

**(l) Related Information**

(1) For more information about this AD, contact James Laubaugh, Aerospace Engineer, Propulsion Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3622; email: james.laubaugh@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminster Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet https://www.myboeingfleet.com. You may view this referenced service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Issued on April 23, 2020.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.
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