DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2020-0333; Product Identifier 2020-NM-015-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 all The Boeing Company Model 737-8 and 737-9 airplanes. This proposed AD was prompted by a report that, after the removal of a spring door opening system (SDOS) actuator with a certain part number, the actuator came apart, injuring one of the maintenance personnel. A design that obscures the SDOS actuator safety marker when the fan cowls are opened contributed to this incident. This proposed AD would require replacing each affected SDOS actuator with a new SDOS actuator and verifying that new safety markers are installed in the proper locations. 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 referenced service information at the FAA, Transport Standards 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-2020-0333.

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-2020-0333; 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, the regulatory evaluation, 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: Christopher Baker, Aerospace Engineer, Propulsion Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3552; email: christopher.r.baker@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-2020-0333; Product Identifier 2020-NM-015-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.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, 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 proposed AD.

Confidential Business Information

Confidential Business Information (CBI) is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or
responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Christopher Baker, Aerospace Engineer, Propulsion Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198, phone and fax: 206-231-3552, email: christopher.r.baker@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Discussion

The SDOS actuator is a telescopic, spring-loaded actuator that assists the mechanic in raising the engine fan cowl. Even when the actuator is extended (uncompressed), it retains energy in the spring (preload).

The FAA received a report indicating that, after the removal of an SDOS actuator with part number BOE-2001-901F, a part separation occurred at the joint between the actuator’s inner tube and its related “back end” bracket, and the actuator came apart with spring-propelled force, injuring one of the maintenance personnel. The SDOS actuator uses two roll pins and epoxy at this joint. The FAA has determined that this design, together with spring preload, caused these parts to break. In addition, the current design of the actuator obscures the safety marker when the fan cowls are opened. The design of the SDOS actuator, along with obscured safety markers, if not addressed, could, during maintenance, result in injury to maintenance personnel or damage to the airplane.
The manufacturer of the SDOS actuator, General Aerospace, changed the design to have a stronger inner tube to “back end” bracket joint that uses blind rivets rather than pins, together with an improved shape of the “catching” bracket. With this design change, the SDOS actuator became part number BOE-2001-901H. General Aerospace has since modified part number BOE-2001-901H to include more detailed safety markers in new locations that display the warnings more clearly to maintenance personnel. As part of this modification, the SDOS actuator part number was changed from BOE-2001-901H to BOE-2001-901J.

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

The FAA reviewed Boeing Special Attention Requirements Bulletin 737-71-1911 RB, dated November 26, 2019. This service information describes procedures for replacing each affected SDOS actuator with a new SDOS actuator and verifying that safety markers are installed. 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 agency 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 accomplishment of the actions identified in Boeing Special Attention Requirements Bulletin 737-71-1911 RB, dated November 26, 2019, described previously, except as discussed under “Differences Between this
Proposed AD and the Service Information,” and except for any differences identified as exceptions in the regulatory text of this proposed AD.

For information on the procedures and compliance times, see this service information at https://www.regulations.gov by searching for and locating Docket No. FAA-2020-0333.

Explanation of Requirements Bulletin

The FAA worked in conjunction with industry, under the Airworthiness Directive Implementation Aviation Rulemaking Committee (AD ARC), to enhance the AD system. One enhancement is a process for annotating which steps in the service information are “required for compliance” (RC) with an AD. Boeing has implemented this RC concept into Boeing service bulletins.

In an effort to further improve the quality of ADs and AD-related Boeing service information, a joint process improvement initiative was worked between the FAA and Boeing. The initiative resulted in the development of a new process in which the service information more clearly identifies the actions needed to address the unsafe condition in the “Accomplishment Instructions.” The new process results in a Boeing Requirements Bulletin, which contains only the actions needed to address the unsafe condition (i.e., only the RC actions).

Differences Between this Proposed AD and the Service Information

The effectivity of Boeing Special Attention Requirements Bulletin 737-71-1911 RB, dated November 26, 2019, is limited to certain Boeing Model 737-8 and 737-9 airplanes. However, the applicability of this proposed AD includes all Boeing Model 737-8 and 737-9 airplanes. Because the affected parts are rotable parts, the FAA
has determined that these parts could later be installed on airplanes that were initially delivered with acceptable parts, thereby subjecting those airplanes to the unsafe condition.

Costs of Compliance

The FAA estimates that this proposed AD affects 160 airplanes of U.S. registry.

The FAA estimates the following costs to comply with this proposed AD:

<table>
<thead>
<tr>
<th>Action</th>
<th>Labor cost</th>
<th>Parts cost</th>
<th>Cost per product</th>
<th>Cost on U.S. operators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Replace SDOS actuator</td>
<td>5 work-hours X $85 per hour = $13,600</td>
<td>$\ast$</td>
<td>$13,600\ast$</td>
<td>$2,176,000\ast$</td>
</tr>
</tbody>
</table>

The FAA has received no definitive data that would enable the agency to provide parts cost estimates for the actions specified in this proposed AD.

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some or all of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected persons.

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 has 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-2020-0333; Product Identifier 2020-NM-015-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 all The Boeing Company Model 737-8 and 737-9 airplanes, certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 71, Powerplant.

(e) Unsafe Condition

This AD was prompted by a report that, after the removal of a spring door opening system (SDOS) actuator with a certain part number, a part separation occurred at a certain location, which caused an injury to one of the maintenance personnel. A design that obscures the SDOS actuator safety marker when the fan cowls are opened contributed to this incident. The FAA is issuing this AD to address possible separation of the SDOS actuator at the joint between the inner tube and the “back end” bracket, and
visual obstruction of the SDOS actuator safety marker, which, during maintenance, can cause injury to maintenance personnel or damage to the airplane.

(f) **Compliance**

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

(g) **Required Actions**

For airplanes identified in Boeing Special Attention Requirements Bulletin 737-71-1911 RB, dated November 26, 2019, except as specified by paragraph (h) of this AD: At the applicable times specified in the “Compliance” paragraph of Boeing Special Attention Requirements Bulletin 737-71-1911 RB, dated November 26, 2019, do all applicable actions identified in, and in accordance with, the Accomplishment Instructions of Boeing Special Attention Requirements Bulletin 737-71-1911 RB, dated November 26, 2019.

Note 1 to paragraph (g): Guidance for accomplishing the actions required by this AD can be found in Boeing Special Attention Service Bulletin 737-71-1911, dated November 26, 2019, which is referred to in Boeing Special Attention Requirements Bulletin 737-71-1911 RB, dated November 26, 2019.

(h) **Exception to Service Information Specifications**

Where Boeing Special Attention Requirements Bulletin 737-71-1911 RB, dated November 26, 2019, uses the phrase “the original issue date of Requirements Bulletin 737-71-1911 RB,” this AD requires using “the effective date of this AD.”

(i) **Parts Installation Prohibition**

As of the effective date of this AD, no person may install an SDOS actuator, having part numbers BOE-2001-901F or BOE-2001-901H, on any airplane.
(j) 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 (k)(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.

(k) Related Information

(1) For more information about this AD, contact Christopher Baker, Aerospace Engineer, Propulsion Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3552; email: christopher.r.baker@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, Transport Standards 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 10, 2020.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.
[FR Doc. 2020-08406 Filed: 4/16/2020 2:00 pm; Publication Date: 4/20/2020]