DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39


RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain The Boeing Company Model 737-800 series airplanes. This AD was prompted by reports of inadequate clearance between a certain fuel quantity indicating system (FQIS) tank unit and a certain reinforcement angle added as a part of a certain split winglet modification. This AD requires a detailed inspection to measure the clearance between the FQIS tank unit and a certain reinforcement angle installed as a part of the split winglet modification, and repair if necessary. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].
ADDRESSES: For service information identified in this final rule, contact Aviation Partners Boeing, 2811 S. 102nd Street, Suite 200, Seattle, WA 98168; telephone 206-830-7699; Internet https://www.aviationpartnersboeing.com. You may view this 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-2019-0323.

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-2019-0323; 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 final rule, the regulatory evaluation, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

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:

Discussion

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain The Boeing Company Model 737-800 series airplanes. The NPRM published in the Federal Register on May 14, 2019 (84 FR
21279). The NPRM was prompted by reports of inadequate clearance between a FQIS tank unit at rib 21 and the stringer U-14 reinforcement angle added as a part of a split winglet modification per supplemental type certificate (STC) ST00830SE. The NPRM proposed to require a detailed inspection to measure the clearance between the FQIS tank unit and a certain reinforcement angle installed as a part of the split winglet modification, and repair if necessary.

The FAA is issuing this AD to address inadequate clearance between a certain FQIS tank unit and a certain reinforcement angle upon accomplishment of a certain split winglet modification, which could result in a potential source of ignition in a fuel tank and consequent fire, overpressure, and structural failure of the wing and possible loss of the airplane.

Comments

The FAA gave the public the opportunity to participate in developing this final rule. The following presents the comments received on the NPRM and the FAA’s response to each comment.

Support for the NPRM

United Airlines stated that it concurrs with the proposed actions with no additional comments.

Request to Clarify Paragraph (c) Applicability of the Proposed AD

Boeing and Aviation Partners Boeing (APB) requested that we revise paragraph (c) of the proposed AD to include more detail as to which airplanes are affected. Boeing explained that STC ST00830SE has multiple configurations, and the proposed AD is applicable to only one configuration; airplanes in that configuration are identified in
Aviation Partners Boeing Service Bulletin AP737-57-020, dated April 5, 2018. APB clarified further that STC ST00830SE includes both blended and split scimitar winglet configurations, but operators with aircraft modified to receive the blended winglets do not install the reinforcement that may interfere with the tank unit, and are not subject to the unsafe condition and requirements of the proposed AD.

The FAA agrees with the commenters’ request for the reasons provided. The FAA has revised paragraph (c) of this AD to state that this AD applies to The Boeing Company Model 737-800 series airplanes, certificated in any category, line numbers 4919 through 5063 inclusive, modified with split winglets per STC ST00830SE and listed in Aviation Partners Boeing Service Bulletin AP737-57-020, dated April 5, 2018.

**Request to Delete ODA Provisions**

Boeing and APB requested that the FAA delete paragraph (h)(3) of the proposed AD because The Boeing Company Organization Designation Authorization (ODA) does not have AMOC authority for the referenced split scimitar winglet STC ST00830SE.

The FAA agrees with the request for the reasons provided. The FAA has removed paragraph (h)(3) of this AD.

**Request to Clarify the Cost of Compliance Section of the NPRM**

Boeing requested that the FAA revise the Cost of Compliance section of the NPRM to clarify that APB is responsible for warranty coverage. Boeing reasoned that the NPRM’s language of “according to the manufacturer…” did not specify which manufacturer, Boeing or APB, would be responsible for warranty coverage.
The FAA agrees with the request for the reasons provided. The FAA has revised the Costs of Compliance section of this final rule to clarify that APB is the manufacturer responsible for warranty coverage.

**Request to Revise the Summary of the NPRM**

Boeing requested that the FAA revise the SUMMARY section of the NPRM to further clarify which airplanes are affected by the proposed AD. Boeing suggested that the FAA add “modified with split winglets and listed in Aviation Partners Boeing Service Bulletin AP737-57-020, dated April 5, 2018,” as a qualifier for the airplanes affected. In addition, Boeing requested that the FAA clarify what prompted the AD and the requirements of the AD by adding language that makes clear the reinforcement angle was added as a part of the referenced split scimitar winglet STC ST00830SE.

The FAA partially agrees with the request. The FAA disagrees with the request to add the qualifying statement of “modified with split winglets and listed in Aviation Partners Boeing Service Bulletin AP737-57-020, dated April 5, 2018,” because the SUMMARY section serves only as a brief introduction to the NPRM, and the level of detail requested by Boeing is reserved for the Regulatory Section of the proposed AD. As discussed earlier, the FAA has revised paragraph (c) of this AD to clarify that this AD applies only to The Boeing Company Model 737-800 series airplanes modified with split winglets per STC ST00830SE and listed in Aviation Partners Boeing Service Bulletin AP737-57-020, dated April 5, 2018. However, the FAA has revised the SUMMARY section of the final rule to clarify that a certain reinforcement angle was added as a part of a certain split winglet modification.
The FAA agrees with Boeing’s request to clarify what prompted the NPRM and the requirements of the NPRM, for the reasons provided. The SUMMARY section of this AD has been revised accordingly.

**Conclusion**

The FAA reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this final rule with the changes described previously and minor editorial changes. The FAA has determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for addressing the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

The FAA also determined that these changes will not increase the economic burden on any operator or increase the scope of this final rule.

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

The FAA reviewed Aviation Partners Boeing Service Bulletin AP737-57-020, dated April 5, 2018. This service information describes procedures for a detailed inspection to measure the clearance between the FQIS tank unit at rib 21 (WSTA 617) and stringer U-14 reinforcement angle on the left-hand wing, and repair including trimming the stringer U-14 reinforcement angle to obtain minimum clearance. 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.
Costs of Compliance

The FAA estimates that this AD affects 16 airplanes of U.S. registry. The FAA estimates the following costs to comply with this 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>Detailed Inspection</td>
<td>7 work-hours X $85 per hour = $595</td>
<td>$0</td>
<td>$595</td>
<td>$9,520</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Action</th>
<th>Labor cost</th>
<th>Parts cost</th>
<th>Cost per product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repair</td>
<td>4 work-hours X $85 per hour = $340</td>
<td>$0</td>
<td>$340</td>
</tr>
</tbody>
</table>

According to Aviation Partners Boeing, some or all of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. The FAA does not control warranty coverage for affected individuals. As a result, the FAA has included all known costs in the agency’s cost estimate.

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.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes and associated appliances to the Director of the System Oversight Division.

**Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD 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.

For the reasons discussed above, I certify that this AD:

(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.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 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):


(a) Effective Date

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to The Boeing Company Model 737-800 series airplanes, certificated in any category, line numbers 4919 through 5063 inclusive, modified with split winglets per supplemental type certificate (STC) ST00830SE and listed in Aviation Partners Boeing Service Bulletin AP737-57-020, dated April 5, 2018.
(d) Subject

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

(e) Unsafe Condition

This AD was prompted by reports of inadequate clearance between a certain fuel quantity indicating system (FQIS) tank unit and a certain reinforcement angle added as a part of a certain split winglet modification. The FAA is issuing this AD to address this condition, which could result in a potential source of ignition in a fuel tank and consequent fire, overpressure, and structural failure of the wing and possible loss of the airplane.

(f) Compliance

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

(g) Inspection and Repair

Within 18 months after the effective date of this AD: Perform a detailed inspection to determine the clearance between the FQIS tank unit at rib 21 (WSTA 617) and stringer U-14 reinforcement angle in accordance with the Accomplishment Instructions of Aviation Partners Boeing Service Bulletin AP737-57-020, dated April 5, 2018. If the measured clearance is less than 0.10 inch: Before further flight, perform the repair action in accordance with the Accomplishment Instructions of Aviation Partners Boeing Service Bulletin AP737-57-020, dated April 5, 2018.

(h) 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 (i) 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.

(i) Related Information

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.

(j) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference
(IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR
part 51.

(2) You must use this service information as applicable to do the actions required
by this AD, unless the AD specifies otherwise.


(ii) [Reserved]

(3) For service information identified in this AD, contact Aviation Partners
Boeing, 2811 S. 102nd Street, Suite 200, Seattle, WA 98168; telephone 206-830-7699;
(4) You may view this 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.

(5) You may view this service information that is incorporated by reference 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: https://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued in Des Moines, Washington, on November 7, 2019.

Michael Kaszycki,
Acting Director,
System Oversight Division,
Aircraft Certification Service.

[FR Doc. 2019-25474 Filed: 11/22/2019 8:45 am; Publication Date: 11/25/2019]