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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2015-4208; Directorate Identifier 2015-NM-152-AD; Amendment 39-18303; AD 2015-21-10]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: We are superseding Airworthiness Directive (AD) 2015-19-03 for all The Boeing Company Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes. AD 2015-19-03 required revising the maintenance or inspection program to include new airworthiness limitations. This AD continues to require a maintenance or inspection program revision, but with revised language. This AD was prompted by a determination that certain language in the airworthiness limitation was not accurate in AD 2015-19-03. We are issuing this AD to detect and correct latent failures of the fuel shutoff valve to the engine, which could result in the inability to shut off fuel to the engine and, in case of certain engine fires, an uncontrollable fire that could lead to wing failure.

DATES: This AD is effective October 28, 2015.

We must receive any comments on this AD by December 10, 2015.

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 http://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: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2015-4208; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Rebel Nichols, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6509; fax: 425-917-6590; email: rebel.nichols@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

On September 7, 2015, we issued AD 2015-19-03, Amendment 39-18266 (80 FR 55527, September 16, 2015), for all The Boeing Company Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes. AD 2015-19-03 required revising the maintenance or inspection program to include new airworthiness limitations. AD 2015-19-03 resulted from reports of latently failed fuel shutoff valves discovered during fuel filter replacement. We issued AD 2015-19-03 to detect and correct latent failures of the fuel shutoff valve to the engine, which could result in the inability to shut off fuel to the engine and, in case of certain engine fires, an uncontrollable fire that could lead to wing failure.

Actions Since AD 2015-19-03, Amendment 39-18266 (80 FR 55527, September 16, 2015), Was Issued

Since we issued AD 2015-19-03, Amendment 39-18266 (80 FR 55527, September 16, 2015), we have determined that certain language in the airworthiness limitation was not accurate. In paragraph D. of the "Description" column of figure 1 to paragraph (g) of AD 2015-19-03, the "START LEVER" is identified as a "FUEL CONTROL switch" in four locations. In addition, in two locations in paragraph D. of the "Description" column of figure 1 to paragraph (g) of AD 2015-19-03, it specifies that fuel spar valve actuators are located in the "rear spar," but the correct location is the "front spar." Also, in two locations in paragraph D. of the "Description" column of figure 1 to paragraph (g) of AD 2015-19-03, the term "quadrant" is used to describe the control stand, but the correct terminology is "CONTROL STAND." We have determined that the language must be corrected to avoid any confusion in the paragraphs of the airworthiness limitation. We are issuing this AD to detect and correct latent failures of the fuel shutoff valve to the engine, which could result in the inability to shut off fuel to the engine and, in case of certain engine fires, an uncontrollable fire that could lead to wing failure.

FAA's Determination

We are issuing this AD because we 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.

AD Requirements

This AD requires revising the maintenance or inspection program to include new airworthiness limitations.

Interim Action

We consider this AD interim action. The manufacturer is currently developing a modification that will address the unsafe condition identified in this AD. Once this modification is developed, approved, and available, we might consider additional rulemaking.

FAA's Justification and Determination of the Effective Date

We are superseding AD 2015-19-03, Amendment 39-18266 (80 FR 55527, September 16, 2015), to correct inaccurate terminology in paragraph D. of the "Description" column of figure 1 to paragraph (g) of AD 2015-19-03. We have made no other changes to the requirements published in AD 2015-19-03. We have determined that the changes impose no additional burden on any operator. Therefore, we find that notice and opportunity for prior public comment are unnecessary and that good cause exists for making this amendment effective in less than 30 days.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety, and we did not provide you with notice and an opportunity to provide your comments before it becomes effective. However, we invite you to send any written data, views, or arguments about this AD. Send your comments to an address listed under the ADDRESSES section. Include the Docket Number FAA-2015-4208 and Directorate Identifier 2015-NM-152-AD at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this AD because of those comments.

We will post all comments we receive, without change, to http://www.regulations.gov, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this AD.

Costs of Compliance

We estimate that this AD affects 1,244 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

Estimated Costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Incorporating Airworthiness Limitation	1 work-hour × $85 per hour = $85	$0	$85	$105,740

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.

We are 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

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) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),

(3) Will not affect intrastate aviation in Alaska, and

(4) 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 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. The FAA amends § 39.13 by removing Airworthiness Directive (AD) 2015-19-03, Amendment 39-18266 (80 FR 55527, September 16, 2015), and adding the following new AD:

2015-21-10 The Boeing Company: Amendment 39-18303; Docket No. FAA-2015-4208; Directorate Identifier 2015-NM-152-AD.

(a) Effective Date

This AD is effective October 28, 2015.

(b) Affected ADs

This AD replaces AD 2015-19-03, Amendment 39-18266 (80 FR 55527, September 16, 2015).

(c) Applicability

This AD applies to all The Boeing Company Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes, certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 2823, Fuel Selector/Shutoff Valve.

(e) Unsafe Condition

This AD was prompted by reports of latently failed fuel shutoff valves discovered during fuel filter replacement. We are issuing this AD to detect and correct latent failures of the fuel shutoff valve to the engine, which could result in the inability to shut off fuel to the engine and, in case of certain engine fires, an uncontrollable fire that could lead to wing failure.

(f) Compliance

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

(g) Revision of Maintenance or Inspection Program

Within 30 days after the effective date of this AD, revise the maintenance or inspection program, as applicable, to add airworthiness limitation number 28-AWL-MOV, "Engine Fuel Shutoff Valve (Fuel Spar Valve) Position Indication Operational Check," by incorporating the information specified in figure 1 to paragraph (g) of this AD into the Airworthiness Limitations Section of the Instructions for Continued Airworthiness. The initial compliance time for accomplishing the actions specified in 28-AWL-MOV is within 10 days after accomplishing the maintenance or inspection program revision required by this paragraph.

Figure 1 to Paragraph (g) of This AD–Engine Fuel Shutoff Valve (Fuel Spar Valve) Position Indication Operational Check

AWL No.	Task	Interval	Applicability	Description
28-AWL-MOV	ALI	DAILY INTERVAL NOTE: The operational check is not required on days when the airplane is not used in revenue service The check must be done before further flight once the airplane is returned to revenue service	737-600, -700, -700C, -800, -900, and -900ER series airplanes APPLICABILITY NOTE: Only applies to airplanes with a fuel spar valve actuator having part number MA20A2027 (S343T003-56) or MA30A1001 (S343T003-66) installed at the engine fuel spar valve positions	Engine Fuel Shutoff Valve (Fuel Spar Valve) Position Indication Operational Check. Concern: The fuel spar valve actuator design can result in airplanes operating with a failed fuel spar valve actuator that is not reported. A latently failed fuel spar valve actuator could prevent fuel shutoff to an engine. In the event of certain engine fires, the potential exists for an engine fire to be uncontrollable. Perform one of the following checks of the engine fuel spar valve position (unless checked by the flightcrew in a manner approved by the principal operations inspector): A. Operational Check during engine shutdown. 1. Do an operational check of the left engine fuel spar valve actuator. a. As the ENG 1 START LEVER on the CONTROL STAND is moved to the CUTOFF position, verify the SPAR VALVE CLOSED indication light on the OVERHEAD PANEL for No.1 Engine changes from OFF to BRIGHT then DIM. b. If the test fails (bright light fails to illuminate), before further flight, repair faults as required (refer to Boeing Aircraft Maintenance Manual (AMM) 28-22-11). 2. Do an operational check of the right engine fuel spar valve actuator. a. As the ENG 2 START LEVER on the CONTROL STAND is moved to the CUTOFF position, verify the SPAR VALVE CLOSED indication light on the OVERHEAD PANEL for No. 2 Engine changes from OFF to BRIGHT then DIM. b. If the test fails (bright light fails to illuminate), before further flight, repair faults as required (refer to Boeing AMM 28-22-11). B. Operational check during engine start. 1. Do an operational check of the left engine fuel spar valve actuator.

			a. As the ENG 1 START LEVER on the CONTROL STAND is moved to the IDLE position, verify the SPAR VALVE CLOSED indication light on the OVERHEAD PANEL for No. 1 Engine changes from DIM to BRIGHT then OFF. b. If the test fails (bright light fails to illuminate), before further flight, repair faults as required (refer to Boeing AMM 28-22-11). 2. Do an operational check of the right engine fuel spar valve actuator. a. As the ENG 2 START LEVER on the CONTROL STAND is moved to the IDLE position, verify the SPAR VALVE CLOSED indication light on the OVERHEAD PANEL for No. 2 Engine changes from DIM to BRIGHT then OFF. b. If the test fails (bright light fails to illuminate), before further flight, repair faults as required (refer to Boeing AMM 28-22-11). C. Operational check without engine operation. 1. Supply electrical power to airplane using standard practices. 2. Make sure No. 1 and No. 2 Engine FIRE switches on the Aft Electronic Panel are in the NORMAL (IN) position. 3. Make sure No. 1 and No. 2 Engine Start Switches on the Forward Overhead Panel are in the OFF or AUTO position. 4. Do an operational check to the left engine fuel spar valve actuator. a. Move ENG 1 START LEVER on the CONTROL STAND to the IDLE position and wait approximately 10 seconds. NOTE: It is normal under this test condition for the ENG VALVE CLOSED indication light on the OVERHEAD PANEL to transition from DIM to BRIGHT and stay BRIGHT. b. Move ENG 1 START LEVER on the CONTROL STAND to the CUTOFF position. c. Verify the SPAR VALVE CLOSED indication light on the OVERHEAD PANEL for No. 1 Engine changes from OFF to BRIGHT then DIM. d. If the test fails (bright light fails to illuminate), before further flight, repair faults as required (refer to Boeing AMM 28-22-11).

			5. Do an operational check of the right engine fuel spar valve actuator. a. Move ENG 2 START LEVER on the CONTROL STAND to the IDLE position and wait approximately 10 seconds. NOTE: It is normal under this test condition for the ENG VALVE CLOSED indication light on the OVERHEAD PANEL to transition from DIM to BRIGHT and stay BRIGHT. b. Move ENG 2 START LEVER on the CONTROL STAND to the CUTOFF position. c. Verify the SPAR VALVE CLOSED indication light on the OVERHEAD PANEL for No.2 Engine changes from OFF to BRIGHT then DIM. d. If the test fails (bright light fails to illuminate), before further flight, repair faults as required (refer to Boeing AMM 28-22-11). D. Perform an inspection of the engine fuel spar valve actuator position. NOTE: This inspection may be used whenever the SPAR VALVE light does not function properly. 1. Make sure the ENG 1 START LEVER on the CONTROL STAND is in the CUTOFF position. NOTE: It is not necessary to cycle the START LEVER to do this inspection. 2. Inspect the left engine fuel spar valve actuator located in the left front spar. NOTE: The left engine fuel spar valve actuator is on the left wing front spar outboard of the engine strut. Access is through access panel 521BB on the left wing leading edge. a. Verify the manual override handle on the engine fuel spar valve actuator is in the CLOSED position. b. Repair or replace any engine fuel spar valve actuator that is not in the CLOSED position (refer to Boeing AMM 28-22-11). 3. Make sure the ENG 2 START LEVER on the CONTROL STAND is in the CUTOFF position. NOTE: It is not necessary to cycle the START LEVER to do this inspection. 4. Inspect the right engine fuel spar valve actuator located in the right front spar. NOTE: The right engine fuel spar valve actuator is on the right wing front spar outboard of the engine strut. Access is through access panel 621BB on the right wing leading edge.

				a. Verify the manual override handle on the engine fuel spar valve actuator is in the CLOSED position. b. Repair or replace any engine fuel spar valve actuator that is not in the CLOSED position (refer to Boeing AMM 28-22-11).

(h) No Alternative Actions or Intervals

After accomplishment of the maintenance or inspection program revision required by paragraph (g) of this AD, no alternative actions (e.g., inspections) or intervals may be used unless the actions or intervals are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (i)(1) of this AD.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle Aircraft Certification Office (ACO), 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 ACO, send it to the attention of the person identified in paragraph (j) 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.

(j) Related Information

For more information about this AD, contact Rebel Nichols, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6509; fax: 425-917-6590; email: rebel.nichols@faa.gov.

(k) Material Incorporated by Reference

None.

Issued in Renton, Washington, on October 16, 2015.
Jeffrey E. Duven,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.