



**適航指令發布單**  
**Airworthiness Directive Issuance Form**

民航局 AD 編號 AD number	CAA-2020-08-006	發布日期 Date issued	2020/8/14
適用之航空產品 Applied to (models, serial numbers or part numbers, as applicable)	Boeing Model 737-300, -400, -500, -600, -700, -700C, -800, -900, and -900ER series airplanes, certificated in any category.		
主旨摘要	This AD requires inspections of the engine bleed air 5th stage check valve on each engine, and replacement of the engine bleed air 5th stage check valve if any inspection is not passed.		
民航局 CAA <input type="checkbox"/> 本國產品 Native products  <input type="checkbox"/> 其他個案 Other	設計國民航主管機構 Original Authorities <input checked="" type="checkbox"/> FAA <input type="checkbox"/> EASA <input type="checkbox"/> Brazil <input type="checkbox"/> Transport Canada Civil Aviation <input type="checkbox"/> DGAC <input type="checkbox"/> Germany LBA <input type="checkbox"/> CAA-NL <input type="checkbox"/> UK CAA <input type="checkbox"/> Japan CAB <input type="checkbox"/> CAA of Israel <input type="checkbox"/> Other _____		
	設計國 AD 編號 Original AD number	2020-16-51	
	1. 直接採用原 AD 之內容?(Is the original AD directly adopted?) <input checked="" type="checkbox"/> 是(Yes) <input type="checkbox"/> 否(No) _ a. 生效日期另訂為(Re-specify the effective date as) : _____ b. 執行時限另訂為(Re-specify the compliance time or period as) : _____ 2. 使用人是否需要將 AD 執行結果向民航局提出報告?(Do Users need to report the status of compliance to the CAA?) <input type="checkbox"/> 是(Yes) <input checked="" type="checkbox"/> 否(No)		
備註 Note	None		

註： 1. AD 內容後附。  
 2. 航空器產品使用人得向民航局提出豁免、替代符合方法、執行時限之展延之申請。  
 3. 如有任何問題，請聯絡交通部民用航空局初始適航科。Tel：(02)2349-6331~3, Fax：(02)2545-8464, e-mail：  
[adcaa@mail.caa.gov.tw](mailto:adcaa@mail.caa.gov.tw)

Note： 1. The AD text is enclosed.  
 2. Exemption, an alternative method of compliance or adjustment of the compliance time may be proposed to the CAA for approval.  
 3. For further information, please contact Civil Aeronautics Administration on Tel:(02)2349-6331~3, Fax:(02)2545-8464, e-mail：  
[adcaa@mail.caa.gov.tw](mailto:adcaa@mail.caa.gov.tw)

[Federal Register Volume 85, Number 155 (Tuesday, August 11, 2020)]

[Rules and Regulations]

[Pages 48465-48467]

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[FR Doc No: 2020-17469]

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## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA-2020-0684; Project Identifier AD-2020-01032-T; Amendment 39-21204; AD 2020-16-51]

RIN 2120-AA64

#### Airworthiness Directives; The Boeing Company Airplanes

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

**ACTION:** Final rule; request for comments.

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**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for all The Boeing Company Model 737-300, -400, -500, -600, -700, -700C, -800, -900, and -900ER series airplanes. An emergency AD was sent to all known U.S. owners and operators of these airplanes. This AD requires inspections of the engine bleed air 5th stage check valve on each engine, and replacement of the engine bleed air 5th stage check valve if any inspection is not passed. This AD was prompted by four recent reports of single-engine shutdowns due to engine bleed air 5th stage check valves being stuck open. The FAA is issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective August 26, 2020 to all persons except those persons to whom it was made immediately effective by Emergency AD 2020-16-51, issued on July 23, 2020, which contained the requirements of this amendment.

The FAA must receive comments on this AD by September 25, 2020.

**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.

## **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-2020-0684; 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, 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:** For Boeing Model 737-300, -400, and -500 series airplanes, for further information about this AD, contact Serj Harutunian, Aerospace Engineer, Propulsion Section, FAA, Los Angeles ACO Branch, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5254; fax: 562-627-5210; email: [serj.harutunian@faa.gov](mailto:serj.harutunian@faa.gov).

For Boeing Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes, for further information about this AD, contact Rajendran Mohanraj, Aerospace Engineer, Propulsion Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3621; email: [rajendran.mohanraj@faa.gov](mailto:rajendran.mohanraj@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

On July 23, 2020, the FAA issued Emergency AD 2020-16-51, which applies to all The Boeing Company Model 737-300, -400, -500, -600, -700, -700C, -800, -900, and -900ER series airplanes, AD 2020-16-51 requires inspections of the engine bleed air 5th stage check valve on each engine, and replacement of the engine bleed air 5th stage check valve if any inspection is not passed. This emergency AD was sent to all known U.S. owners and operators of these airplanes. This action was prompted by four recent reports of single-engine shutdowns caused by engine bleed air 5th stage check valves stuck in the open position. This condition, if not addressed, could result in compressor stalls and dual-engine power loss without the ability to restart, which could result in a forced off-airport landing.

### **FAA's Determination**

The FAA is issuing 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.

### **AD Requirements**

This AD requires inspections of the engine bleed air 5th stage check valve on each engine, and replacement of the engine bleed air 5th stage check valve if any inspection is not passed.

### **FAA's Justification and Determination of the Effective Date**

An unsafe condition exists that requires the immediate adoption of Emergency AD 2020-16-51, issued on July 23, 2020, to all known U.S. owners and operators of these airplanes. The FAA found that the risk to the flying public justified waiving notice and comment prior to adoption of this rule because corrosion of the engine bleed air 5th stage check valves on both engines could result in a dual-engine power loss without the ability to restart, which could result in a forced off-airport landing. These conditions still exist, and the AD is hereby published in the Federal Register as an amendment to section 39.13 of the Federal Aviation Regulations (14 CFR 39.13) to make it effective to all persons. In addition, the compliance time for the required action is shorter than the time

necessary for the public to comment and for publication of the final rule. Therefore, the FAA finds good cause that notice and opportunity for prior public comment are impracticable. In addition, for the reasons stated above, the FAA finds 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 was not preceded by notice and an opportunity for public comment. However, the FAA invites you to send any written data, views, or arguments about this final rule. Send your comments to an address listed under the ADDRESSES section. Include the docket number FAA-2020-0684 and Project Identifier AD-2020-01032-T at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should submit only one copy of the 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 final rule.

**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 AD 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 AD, 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 AD. Submissions containing CBI should be sent to either person identified in the FOR FURTHER INFORMATION CONTACT section. Any commentary that the FAA receives that is not specifically designated as CBI will be placed in the public docket for this rulemaking.

**Regulatory Flexibility Act (RFA)**

The requirements of the RFA do not apply when an agency finds good cause pursuant to 5 U.S.C. 553 to adopt a rule without prior notice and comment. Because the FAA has determined that it has good cause to adopt this rule without notice and comment, RFA analysis is not required.

**Costs of Compliance**

The FAA estimates that this AD affects 2,161 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

**Estimated Costs**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Inspections	6 work-hours × \$85 per hour = \$510	\$0	\$510	\$1,102,110

The FAA has received no definitive data that would enable providing cost estimates for the on-condition actions specified in this AD.

### **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**

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

### **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):



**FAA**  
**Aviation Safety**

## **AIRWORTHINESS DIRECTIVE**

[www.faa.gov/aircraft/safety/alerts/](http://www.faa.gov/aircraft/safety/alerts/)  
[www.gpoaccess.gov/fr/advanced.html](http://www.gpoaccess.gov/fr/advanced.html)

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**2020-16-51 The Boeing Company:** Amendment 39-21204; Docket No. FAA-2020-0684; Project Identifier AD-2020-01032-T.

### **(a) Effective Date**

This AD is effective August 26, 2020 to all persons except those persons to whom it was made immediately effective by Emergency AD 2020-16-51, issued on July 23, 2020, which contained the requirements of this amendment.

### **(b) Affected ADs**

None.

### **(c) Applicability**

This AD applies to all The Boeing Company Model 737-300, -400, -500, -600, -700, -700C, -800, -900, and -900ER series airplanes, certificated in any category.

### **(d) Subject**

Air Transport Association (ATA) of America Code 36, Pneumatic.

### **(e) Unsafe Condition**

This AD was prompted by four recent reports of single-engine shutdowns caused by engine bleed air 5th stage check valves stuck in the open position. The FAA is issuing this AD to address corrosion of the engine bleed air 5th stage check valves for both engines, which could result in compressor stalls and dual-engine power loss without the ability to restart, which could result in a forced off-airport landing.

### **(f) Compliance**

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

### **(g) Definition**

Any airplane that, for 7 or more consecutive days, has not been operated in flight is considered to be in "storage."

### **(h) Inspections and Corrective Actions**

(1) For any airplane that is in storage on or after the effective date of this AD, and any airplane that, as of the effective date of this AD, has been operated for 10 or fewer flight cycles since returning to service from the most recent period of storage: Before further flight, do the inspections

specified in paragraphs (h)(1)(i) and (ii) of this AD on the engine bleed air 5th stage check valve on each engine. If any engine bleed air 5th stage check valve fails any inspection, replace that engine bleed air 5th stage check valve before further flight. For each engine bleed air 5th stage check valve that passes both inspections specified in paragraphs (h)(1)(i) and (ii) of this AD, do the actions specified in paragraph (h)(2) of this AD on that engine bleed air 5th stage check valve before further flight.

(i) Rotate the flapper plates by hand at least 3 times. If the flapper plate moves smoothly, without signs of binding or sticking, from the fully closed position to the stop tube using gravity force alone, the engine bleed air 5th stage check valve has passed this inspection.

(ii) Measure the clearance between the flapper bushings at both locations on each engine bleed air 5th stage check valve. If the clearance between the flapper bushings is a minimum of 0.004 inch (0.102 mm) at both locations, the engine bleed air 5th stage check valve at that location has passed this inspection.

(2) For each engine bleed air 5th stage check valve that passes the inspections specified in paragraphs (h)(1)(i) and (ii) of this AD, do the inspections specified in paragraphs (h)(2)(i) through (iii) of this AD before further flight on the engine bleed air 5th stage check valve on each engine. If any engine bleed air 5th stage check valve fails any of the inspections specified in paragraphs (h)(2)(i) through (iii) of this AD, replace that engine bleed air 5th stage check valve before further flight.

(i) Do a general visual inspection of the flapper bushings for signs of cracks, fractures, and missing bushing heads. If the flapper bushings do not show any signs of cracks, fractures, or missing bushing heads, the engine bleed air 5th stage check valve has passed this inspection. Signs of corrosion are not a cause for replacing the engine bleed air 5th stage check valve if the engine bleed air 5th stage check valve did not fail any of the inspections specified in paragraph (h)(1) of this AD.

(ii) Using only hand pressure, try to rotate the flapper bushings in the flapper plates. If the bushings do not rotate in the flapper plate, the engine bleed air 5th stage check valve has passed this inspection.

(iii) Do a general visual inspection of the check valve for signs of the flappers rubbing against the valve body. If the flappers do not show any signs of rubbing against the valve body, the engine bleed air 5th stage check valve has passed this inspection.

#### **(i) Minimum Equipment List Relief for Certain Airplanes**

For airplanes that have operated 10 or fewer flight cycles since the most recent period of storage prior to the effective date of this AD, as an alternative to compliance with paragraph (h): If allowed by the operator's FAA-approved Minimum Equipment List, the airplane may be dispatched with one engine's engine bleed air high stage valve locked closed. Thereafter, within 5 additional flight cycles, inspect the engine bleed air 5th stage check valve on both engines as required by paragraph (h) of this AD.

#### **(j) Special Flight Permit**

Special flight permits may be issued in accordance with 14 CFR 21.197 and 21.199 to operate the airplane to a location where the airplane can be inspected, provided one engine's engine bleed air high stage valve has been locked closed. This option is only available if the operator's FAA-approved Minimum Equipment List allows dispatching the airplane with one engine's engine bleed air high stage valve locked closed.

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

(1) For Boeing Model 737-300, -400, and -500 series airplanes, the Manager, Los Angeles 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-LAACO-AMOC-Requests@faa.gov.

(2) For Boeing Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes, 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)(2) of this AD. Information may be emailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(3) 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.

(4) 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 Boeing Model 737-300, -400, and -500 series airplanes, for further information about this AD, contact Serj Harutunian, Aerospace Engineer, Propulsion Section, FAA, Los Angeles ACO Branch, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5254; fax: 562-627-5210; email: serj.harutunian@faa.gov.

(2) For Boeing Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes, for further information about this AD, contact Rajendran Mohanraj, Aerospace Engineer, Propulsion Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3621; email: rajendran.mohanraj@faa.gov.

#### **(m) Material Incorporated by Reference**

None.

Issued on July 30, 2020.

Lance T. Gant,  
Director, Compliance & Airworthiness Division, Aircraft Certification Service.  
[FR Doc. 2020-17469 Filed 8-10-20; 8:45 am]