

[Federal Register: August 16, 2002 (Volume 67, Number 159)]  
[Rules and Regulations]  
[Page 53480-53482]  
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[DOCID:fr16au02-9]

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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. 99-NE-32-AD; Amendment 39-12847; AD 2002-16-08]**

**RIN 2120-AA64**

### **Airworthiness Directives; Pratt & Whitney Models JT8D-209, -217, -217A, -217C and -219 Turbofan Engines**

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Final rule.

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**SUMMARY:** This amendment supersedes an existing airworthiness directive (AD), that is applicable to Pratt & Whitney (PW) JT8D models -209, -217, -217A, -217C and -219 turbofan engines. That AD currently requires initial and repetitive fluorescent magnetic particle inspections or fluorescent penetrant inspections of the combustion chamber outer case (CCOC) for cracks, and, if necessary, replacement with serviceable parts. Also that AD requires a one-time material verification of drain and Ps4 bosses, and, if necessary, replacement with serviceable parts. Finally, that AD requires replacement of CCOC's with welded-on bosses with improved, one-piece CCOC's. This amendment requires lower initial inspection thresholds for all CCOC's installed in any JT8D model -209, -217, -217A, -217C or -219 turbofan engine. This amendment is prompted by reports of cracked CCOC's that had accumulated fewer cycles in service than the initial inspection thresholds required by the current AD. Also, a CCOC part number was discovered with incorrect material not identified by serial number in JT8D Alert Service Bulletin (ASB) A6359, Revision 2, dated July 31, 2000. The actions specified by this AD are intended to prevent uncontained failure of the CCOC, which could cause release of debris, damage to the airplane, or fire.

**DATES:** Effective September 20, 2002. The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of September 20, 2002.

**ADDRESSES:** The service information referenced in this AD may be obtained from Pratt & Whitney, 400 Main St., East Hartford, CT 06108; telephone (860) 565-8770; fax (860) 565-4503. This information may be examined, by appointment, at the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

**FOR FURTHER INFORMATION CONTACT:** Christopher Spinney, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7175; fax (781) 238-7199.

**SUPPLEMENTARY INFORMATION:** A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) by superseding AD 99-26-06, Amendment 39-11465 (64 FR 71280, December 21, 1999), which is applicable to Pratt & Whitney JT8D models -209, -217, -217A, -217C and -219 turbofan engines was published in the Federal Register on February 14, 2002 (67 FR 6890). That action proposed to require lower initial inspection thresholds for CCOC's part numbers (P/N's) 500023801, 797707, 807684, and 815830 installed in any JT8D model -209, -217, -217A, -217C, or -219 turbofan engines in accordance with PW JT8D Alert Service Bulletin (ASB) No. A6359, Revision 2, dated July 31, 2000 or PW JT8D ASB A6359, Revision 3, dated August 31, 2001.

### **Comments**

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

### **Understated Financial Impact**

One commenter states the FAA understates the economic impact to the operators by not accounting for ancillary costs realized when an engine is disassembled to remove a part, and that there are concurrent service bulletin requirements when adopting the one-piece CCOC.

The FAA partially agrees. The indirect costs associated with this AD are not directly related to this rule, and, therefore, are not addressed in the economic analysis for this rule. A full cost analysis for each AD, including such indirect costs, is not necessary since the FAA has already performed a cost benefit analysis when adopting the airworthiness requirements to which these engines were originally certificated. A finding that an AD is warranted means that the original design no longer achieves the level of safety specified by those airworthiness requirements, and that other required actions are necessary, such as inspections of existing CCOC's and replacement with a one-piece CCOC. Because the original level of safety was already determined to be cost-beneficial, these additional requirements are needed to return the engine to that level of safety and do not add any additional regulatory burden. Therefore, a full cost analysis would be redundant and unnecessary. However, the incorporation of the one-piece case does require additional modifications that were not incorporated in the original proposal economic analysis. That is, 15 additional work hours are required to install the one-piece case which adds an additional \$1,152,000 to the cost of the AD making the estimated total \$61,388,800.

### **Tables 3 and 3A**

One commenter requests acknowledgement or exclusion of Tables 3 and 3A of PW JT8D ASB No. A6359 as containing all of the serial numbered CCOC's with part number 797707. This would avoid possible confusion regarding the use of the tables.

The FAA agrees and since the tables are not inclusive of all part numbers, a Note 2 is added to the final rule to exclude Tables 3 and 3A.

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the changes described previously. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

## **New Revision to Service Bulletin (SB)**

Since publication of the proposal, PW has issued PW JT8D SB No. 6291, Revision 4, dated May 30, 2002. The only change in PW JT8D SB No. 6291, Revision 4, is an address revision for PW receipt of the JT8D combustion chamber outer case (CCOC).

## **Economic Analysis**

There are approximately 2,624 Pratt & Whitney JT8D models -209, -217, -217A, -217C and -219 turbofan engines of the affected design in the worldwide fleet. The FAA estimates that 1,280 engines installed on airplanes of U.S. registry will be affected by this AD, that it will take approximately 2.5 work hours per engine to perform the required inspections, and 15 additional work hours to install the one-piece case, and that the average labor rate is \$60 per work hour. Required parts will cost approximately \$46, 910 per engine. The 15 additional work hours do change the estimated total cost of the AD to the US operators. Based on these figures, the total cost of the AD on U.S. operators is estimated to be \$61,388,800.

## **Regulatory Analysis**

This final rule does not have federalism implications, as defined in Executive Order 13132, because it 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. Accordingly, the FAA has not consulted with state authorities prior to publication of this final rule.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); 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. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption ADDRESSES.

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

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

## **Adoption of the Amendment**

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration 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.

#### **Sec. 39.13 [Amended]**

2. Section 39.13 is amended by removing Amendment 39-11465 (64 FR 71280, December 21, 1999) and by adding a new airworthiness directive, Amendment 39-12847, to read as follows:

# AIRWORTHINESS DIRECTIVE



Aircraft Certification Service  
Washington, DC

U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

*We post ADs on the internet at "[www.airweb.faa.gov/rg1](http://www.airweb.faa.gov/rg1)"*

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

**2002-16-08 Pratt & Whitney:** Amendment 39-12847. Docket No. 99-NE-32-AD. Supersedes AD 99-26-06, Amendment 39-11465.

**Applicability.** This airworthiness directive (AD) is applicable to Pratt & Whitney JT8D models - 209, -217, -217A, -217C and -219 turbofan engines with combustion chamber outer case (CCOC), part numbers (P/N's) 500023801, 797707, 807684, and 815830 installed. These engines are installed on, but not limited to, McDonnell Douglas MD-80 series airplanes.

**Note 1:** This AD applies to each engine identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For engines that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (f) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

**Compliance.** Compliance with this AD is required as indicated, unless already done. To prevent uncontained failure of the CCOC, which could cause release of debris, damage to the airplane, or fire, do the following:

## Inspections

(a) Perform initial and repetitive fluorescent magnetic particle inspections (FMPI) or fluorescent penetrant inspections (FPI) of drain bosses and Ps4 bosses of the CCOC's for cracks, and, if necessary, replace with serviceable parts before further flight, in accordance with the procedures and intervals specified in paragraph 1.A. of the Accomplishment Instructions of PW JT8D Alert Service Bulletin (ASB) A6359, Revision 3, dated August 31, 2001.

(b) For all CCOC's P/N 797707 inspect for proper Ps4 and drain boss material, and, if necessary, replace with serviceable parts before further flight, in accordance with the procedures and intervals specified in paragraph 1.B. of the Accomplishment Instructions of PW JT8D ASB A6359, Revision 3, dated August 31, 2001.

**Note 2:** Tables 3 and 3A of PW JT8D ASB No. A6359 list associated serial numbers (S/N's) of part number (P/N) 797707, however, these tables should only be used as a reference as they are not a complete list of all parts. Operators, therefore, should verify the part numbers of their CCOC's in determining compliance with this AD.

## **Effective Date for Computing Compliance Intervals**

(c) Use the effective date of this AD for computing compliance intervals whenever PW JT8D ASB A6359, Revision 3, dated August 31, 2001, refers to the publication date of the ASB.

## **Terminating Action**

(d) At the next part accessibility after the effective date of this AD when the CCOC has accumulated cycles-in-service greater than the initial inspection threshold specified in Table 1 of PW JT8D ASB A6359, Revision 3, dated August 31, 2001, replace the CCOC with a one-piece machined CCOC assembly, P/N 815556, in accordance with PW JT8D Service Bulletin (SB) 6291, dated May 20, 1997; or Revision 1 dated July 9, 1997; or Revision 2, dated August 27, 1999; or Revision 3, dated August 31, 2001; or Revision 4, dated May 30, 2002. Installation of an improved, one-piece CCOC, P/N 815556, constitutes terminating action to the inspections required by this AD.

## **Definition**

(e) For the purpose of this AD, part accessibility is defined as an engine disassembly in which the CCOC is removed from the engine.

## **Alternative Methods of Compliance**

(f) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Engine Certification Office. Operators must submit their request through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, ECO.

**Note 3:** Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the ECO.

## **Special Flight Permits**

(g) Special flight permits may be issued in accordance with Secs. 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be done.

## **Documents That Have Been Incorporated By Reference**

(h) The inspections or replacements of the combustion chamber outer case (CCOC) must be done in accordance with the following Pratt & Whitney service bulletins:

<b>Document No.</b>	<b>Pages</b>	<b>Revision</b>	<b>Date</b>	
ASB JT8D A6359	1-3	3	August 31, 2001.	
	4-5	2	July 31, 2000.	
	6	3	August 31, 2001.	
	7	2	July 31, 2000.	
	8	1	July 30, 1999.	
	9	2	July 31, 2000.	
	10	1	July 30, 1999.	
	11	2	July 31, 2000.	
	12	1	July 30, 1999.	
	13-16	2	July 31, 2000.	
	17-19	1	July 30, 1999.	
	Total pages: 27.	20-27	2	July 31, 2000.
	SB JT8D 6291	1-2	3	August 31, 2001.
		3	2	August 27, 1999.
4-5		3	August 31, 2001.	
6		2	August 27, 1999.	
7-8		3	August 31, 2001.	
Total pages: 12.		9-12	2	August 27, 1999.
SB JT8D 6291	1-10	4	May 30, 2002.	
Total pages: 10.				

This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Pratt & Whitney, 400 Main St., East Hartford, CT 06108; telephone (860) 565-8770, fax (860) 565-4503. Copies may be inspected at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

### **Effective Date**

(i) This amendment becomes effective on September 20, 2002.

Issued in Burlington, Massachusetts, on August 2, 2002.

Jay J. Pardee,

Manager, Engine and Propeller Directorate, Aircraft Certification Service.

[FR Doc. 02-20267 Filed 8-15-02; 8:45 am]

BILLING CODE 4910-13-P