

(3) Remove from service any cracked 4th stage LPT hub and replace with a serviceable part.

(b) 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 shall forward their requests through an appropriate FAA

Principal Maintenance Inspector, who may add comments and then send it to the Manager, Engine Certification Office.

**Note 2:** Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the Engine Certification Office.

(c) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the aircraft to a location where the requirements of this AD can be accomplished.

(d) The actions required by this AD shall be done in accordance with the following PW ASB:

Document No.	Pages	Revision	Date
A6274 .....	1-23	1	December 9, 1996.

#### Total Pages: 23.

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, Publication Department, Supervisor Technical Publications Distribution, M/S 132-30, 400 Main St., East Hartford, CT 06108; telephone (860) 565-7700, fax (860) 565-4503. Copies may be inspected at the FAA, New England Region, Office of the Assistant Chief 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.

(e) This amendment becomes effective on November 18, 1997.

Issued in Burlington, Massachusetts, on September 10, 1997.

**Mark C. Fulmer,**

*Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service.*

[FR Doc. 97-24796 Filed 9-18-97; 8:45 am]

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## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. 96-ANE-35; Amendment 39-10134; AD 97-19-13]

RIN 2120-AA64

#### Airworthiness Directives; Pratt & Whitney JT8D-200 Series Turbofan Engines

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

**ACTION:** Final rule.

**SUMMARY:** This amendment supersedes an existing airworthiness directive (AD) 94-23-03, applicable to Pratt & Whitney (PW) JT8D-200 series turbofan engines, that currently requires installation and periodic inspection of temperature indicators installed on the No. 4 and 5

bearing compartment scavenge oil tube and performance of any necessary corrective action. This amendment requires the installation and periodic inspection of temperature indicators to all PW JT8D-200 series engines, including those incorporating the containment hardware specified in AD 93-23-10. This amendment is prompted by a report of an uncontained turbine failure due to a high pressure turbine (HPT) shaft fracture on an engine that had the containment hardware installed. The actions specified by this AD are intended to prevent fracture of the HPT shaft, which can result in uncontained release of engine fragments, engine fire, inflight engine shutdown, or possible aircraft damage.

**DATES:** Effective October 24, 1997.

The incorporation by reference of PW Alert Service Bulletin (ASB) No. 5944, Revision 2, dated June 8, 1992, was previously approved by the Director of the Federal Register as of January 31, 1995 (59 FR 61789, December 2, 1994). The incorporation by reference of PW ASB No. 5944, Revision 3, dated December 16, 1994, is approved by the Director of the Federal Register as of October 24, 1997.

**ADDRESSES:** The service information referenced in this AD may be obtained from Pratt & Whitney, Publication Department, Supervisor Technical Publications Distribution, M/S 132-30, 400 Main St., East Hartford, CT 06108; telephone (860) 565-7700, fax (860) 565-4503. This information may be examined at the Federal Aviation Administration (FAA), New England Region, Office of the Assistant Chief Counsel, 12 New England Executive Park, Burlington, MA 01803-5299; 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 94-23-03, Amendment 39-9065 (59 FR 61789, December 2, 1994), applicable to Pratt & Whitney (PW) JT8D-200 series turbofan engines, was published in the **Federal Register** on January 9, 1997 (62 FR 1298). That action proposed to require installation and periodic inspection of temperature indicators to all PW JT8D-200 series engines, including those incorporating the containment hardware modifications required by AD 93-23-10.

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

One commenter states that the inspection interval should be increased from 65 hours time in service (TIS) to 75 hours TIS, as this increased interval could be incorporated into the service check of that operator's maintenance program. The FAA disagrees. Previous alternative methods of compliance (AMOCs) have been approved to adjust the inspection interval on a case-by-case basis, and the operator is invited to apply for an AMOC using the usual procedure. Generally, however, the compliance interval remains at 65 hours TIS.

One commenter states that the reporting requirements of the AD should be eliminated, as the original AD terminated reporting requirements six months after the effective date of the AD. The FAA concurs and has eliminated the reporting requirements in the final rule.

One commenter notes that the containment hardware has been ineffective in ensuring containment and that costs associated with installing the containment hardware have been excessive. The commenter, however, offers no objection to the proposed rule. The indirect costs of operating engines

with the containment hardware installed are not directly related to this proposed 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 containment hardware, or as in this case, installation and inspection of temperature indicators. Because the original level of safety was already determined to be cost beneficial, these additional requirements needed to return the engine to that level of safety do not add any additional regulatory burden, and, therefore, a full cost analysis would be redundant and unnecessary.

One commenter supports the AD as proposed on the assumption that the AD requires diagnostic inspections should the required oil temperature indicators show signs that high oil temperatures have occurred within the engine. The AD does require troubleshooting and diagnostic testing and corrective action in accordance with service documents incorporated by reference.

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.

There are approximately 2,432 series engines of the affected design in the worldwide fleet. The FAA estimates that 1,044 engines installed on aircraft of U.S. registry will be affected by this AD, that it will take approximately 1.5 work hours per engine to accomplish the required actions, and that the average labor rate is \$60 per work hour. Based on these figures, the total cost impact of the AD on U.S. operators is estimated to be \$93,960.

The regulations adopted herein will not have substantial direct effects 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. Therefore, in accordance with Executive Order 12612, it is determined that this final rule does not have sufficient federalism

implications to warrant the preparation of a Federalism Assessment.

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 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 from 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.

##### **§ 39.13 [Amended]**

2. Section 39.13 is amended by removing amendment 39–9065 (59 FR 61789, December 2, 1994) and by adding a new airworthiness directive, Amendment 39–10134, to read as follows:

**97–19–13 Pratt & Whitney:** Amendment 39–10134. Docket 96–ANE–35. Supersedes AD 94–23–03, Amendment 39–9065.

**Applicability:** Pratt & Whitney (PW) JT8D–209, –217, –217A, –217C, and –219 turbofan engines, installed on but not limited to McDonnell Douglas MD–80 series and Boeing 727 series aircraft.

**Note 1:** This airworthiness directive (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 (d) 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:** Required as indicated, unless accomplished previously.

To prevent fracture of the high pressure turbine (HPT) shaft, which can result in uncontained release of engine fragments, engine fire, inflight engine shutdown, or possible aircraft damage, accomplish the following:

(a) Install and inspect one or two temperature indicators, part number (P/N) 810486, or a single or double set of P/N 809129 and P/N 809130 temperature indicators, on the No. 4 and 5 bearing compartment scavenge oil tube, as follows:

(1) Install temperature indicators on the No. 4 and 5 bearing compartment scavenge oil tube in accordance with Section 2.A.(1) of the Accomplishment Instructions of PW Alert Service Bulletin (ASB) No. 5944, Revision 3, dated December 16, 1994, or Revision 2, dated June 8, 1992, within 90 days after the effective date of this AD.

(2) Visually inspect temperature indicators within 65 hours TIS of installation. Thereafter, inspect at intervals not to exceed 65 hours TIS since last inspection.

(3) If upon inspection, the color of any temperature indicator window(s) has turned completely black, perform troubleshooting and diagnostic testing and corrective action as required, in accordance with Section 2.A.(2) (c) and (d) or (f) and (g), as applicable, of the Accomplishment Instructions of PW ASB No. 5944, Revision 3, dated December 16, 1994, or Revision 2, dated June 8, 1992. Prior to returning the engine to service, replace any temperature indicator that has turned black and inspect in accordance with paragraphs (a)(2) and (a)(3) of this AD.

(b) For aircraft installations utilizing one P/N 810486 indicator or one set of P/N 809129 and 809130 indicators, and inspection reveals a missing indicator, inspect the remaining temperature indicator, if applicable, to determine if the indicator window has turned completely black. If the indicator window has turned completely black, perform troubleshooting and diagnostic testing, and corrective action as required, in accordance with paragraph (a)(3) of this AD. If the indicator window has not turned completely black or if there are no additional indicators installed, then install a new indicator in accordance with Section 2.A.(1) of the Accomplishment Instruction of PW ASB No. 5944, Revision No. 3, dated December 16, 1994, or Revision 2, dated June 8, 1992, prior to return to service, and visually inspect the temperature indicator within 65 hours TIS since installation. Thereafter, inspect at intervals not to exceed 65 hours TIS since last inspection in accordance with paragraphs (a)(2) and (a)(3) of this AD.

(c) For aircraft installations utilizing two P/N 810486 indicators or two sets of P/N 809129 and 809130 indicators, and inspection reveals a missing indicator(s), inspect the remaining temperature indicator(s), if applicable, to determine if the indicator window has turned completely black. If the indicator window has turned completely black, perform troubleshooting and diagnostic testing, and corrective action

as required, in accordance with paragraph (a)(3) of this AD. If the indicator window has not turned completely black, install a new indicator(s) in accordance with Section 2.A.(1) of the Accomplishment Instructions of PW ASB No. 5944, Revision 3, dated December 16, 1994, or Revision 2, dated June 8, 1992, prior to return to service, and visually inspect the temperature indicator within 65 hours TIS since installation. Thereafter, inspect at intervals not to exceed 65 hours TIS since last inspection in

accordance with paragraphs (a)(2) and (a)(3) of this AD.

(d) 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 shall forward their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Engine Certification Office.

**Note 2:** Information concerning the existence of approved alternative method of

compliance with this AD, if any, may be obtained from the Engine Certification Office.

(e) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the aircraft to a location where the requirements of this AD can be accomplished.

(f) The actions required by this AD shall be done in accordance with the following PW ASBs:

Document No.	Pages	Revision	Date
5944 .....	1-35	3	December 16, 1994.
Total pages: 35.			
5944 .....	1-44	2	June 8, 1992.
Total pages: 44.			

This incorporation by reference of PW ASB No. 5944, Revision 2, dated June 9, 1993, was previously approved by the Director of the **Federal Register** in accordance with 5 U.S.C. 552(a) and 1 CFR part 51 as of January 31, 1995 (59 FR 61789, December 2, 1994). Copies may be obtained from Pratt & Whitney, Publication Department, Supervisor Technical Publications Distribution, M/S 132-30, 400 Main St., East Hartford, CT 06108; telephone (860) 565-7700, fax (860) 565-4503. Copies may be inspected at the FAA, New England Region, Office of the Assistant Chief 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.

(g) This amendment becomes effective on October 24, 1997.

Issued in Burlington, Massachusetts, on September 10, 1997.

**Mark C. Fulmer,**

*Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service.*

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## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. 97-ANE-07; Amendment 39-10135; AD 97-19-14]

RIN 2120-AA64

#### Airworthiness Directives; Pratt & Whitney JT8D Series Turbofan Engines

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

**ACTION:** Final rule.

**SUMMARY:** This amendment supersedes an existing airworthiness directive (AD), applicable to Pratt & Whitney JT8D series turbofan engines, that currently

requires inspections of low pressure turbine (LPT) blade sets for blade shroud crossnotch wear, and removal, if necessary. In addition, the current AD requires, as a terminating action to the inspections, installation of improved LPT containment hardware, and installation of an improved No. 6 bearing scavenge pump bracket bushing. This amendment keeps the compliance actions of the current AD intact but changes the compliance time for LPT containment hardware installation from the current calendar end-date to December 31, 1998, for engines that contain suspect 4th stage hubs identified by serial number. This amendment is prompted by a report of a fourth stage hub manufacturing defect that led to the failure of the hub and subsequent release of LPT blades. The actions specified by this AD are intended to prevent damage to the aircraft resulting from engine debris following an LPT blade, shaft, or hub failure.

**DATES:** Effective October 24, 1997.

The incorporation by reference of PW Alert Service Bulletin No. A6131, Revision 1, dated May 16, 1995; PW Alert Service Bulletin No. A6131, Revision 2, dated July 28, 1997; PW Alert Service Bulletin No. A6274, Original, dated November 7, 1996; and PW Alert Service Bulletin No. A6274, Revision 1, dated December 9, 1996, is approved by the Director of the Federal Register as of October 24, 1997.

The incorporation by reference of all other publications listed in the regulations was previously approved as of November 14, 1994 (59 FR 51842, October 13, 1994).

**ADDRESSES:** The service information referenced in this AD may be obtained from Pratt & Whitney, 400 Main St., East Hartford, CT 06108; telephone (860)

565-6600, fax (860) 565-4503. This information may be examined at the Federal Aviation Administration (FAA), New England Region, Office of the Assistant Chief Counsel, 12 New England Executive Park, Burlington, MA 01803-5299; 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 94-20-08, Amendment 39-9036 (59 FR 51842, October 15, 1994), applicable to Pratt & Whitney (PW) JT8D-1, -1A, -1B, -7, -7A, -7B, -9, -9A, -11, -15, -17, and -17R series turbofan engines, was published in the **Federal Register** on April 1, 1997 (62 FR 15437). That action proposed to require inspections of low pressure turbine (LPT) blade sets for blade shroud crossnotch wear, and removal, if necessary. In addition, the current AD requires, as a terminating action to the inspections, installation of improved LPT containment hardware, and installation of an improved No. 6 bearing scavenge pump bracket bushing. The proposal would have reduced the compliance time for LPT containment hardware installation from the current calendar end-date to December 31, 1998.

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due