

DEPARTMENT OF TRANSPORTATION**Federal Aviation Administration****14 CFR Part 39**

[Docket No. 2003-NE-52-AD Amendment 39-13410; AD 2003-24-12R1]

RIN 2120-AA64

Airworthiness Directives; Pratt & Whitney JT9D-3A, -7, -7A, -7F, -7H, -7AH, and -7J Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is revising an existing airworthiness directive (AD) for Pratt & Whitney (PW) JT9D-3A, -7, -7A, -7F, -7H, -7AH, and -7J turbofan engines, with gearbox pressure tube, part number (P/N) 697896, and No. 4 bearing front pressure manifold, P/N 670663, installed. That AD currently requires a one-time visual inspection of the gearbox pressure tube and No. 4 bearing front pressure manifold and the attaching clamp assemblies for correct positioning and for wear and damage, and replacement if necessary. This AD requires the same actions. This AD results from the need to correct errors in depicted clamping to ensure that AD compliance can be achieved, and to relax the level of maintenance required, as an optional method, when inspecting the affected tubing for dents. We are issuing this AD to prevent engine fires caused by failed gearbox pressure tubes or failed No. 4 bearing front pressure manifolds.

DATES: Effective December 18, 2003.

We must receive any comments on this AD by March 1, 2004.

ADDRESSES:

Use one of the following addresses to submit comments on this AD:

- By mail: Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 2003-NE-52-AD, 12 New England Executive Park, Burlington, MA 01803-5299.

- By fax: (781) 238-7055.

- By e-mail: 9-ane-adcomment@faa.gov

You may examine the AD docket, by appointment, at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA.

FOR FURTHER INFORMATION CONTACT:

Keith Lardie, Aerospace Engineer, Aircraft Certification Office, FAA, Engine and Propeller Directorate, 12

New England Executive Park; telephone (781) 238-7189; fax (781) 238-7199.

SUPPLEMENTARY INFORMATION: On November 25, 2003, the FAA issued AD 2003-24-12, Amendment 39-13381 (68 FR 67585, December 3, 2003). That AD requires a one-time visual inspection of the gearbox pressure tube and No. 4 bearing front pressure manifold and the attaching clamp assemblies for correct positioning and for wear and damage, and replacement if necessary. That AD was the result of a report of a failed gearbox pressure tube that resulted in an engine fire. That condition, if not corrected, could result in engine fires caused by failed gearbox pressure tubes or failed No. 4 bearing front pressure manifolds.

Actions Since AD 2003-24-12 Was Issued

Since that AD was issued, errors in the depicted clamping configuration have been found. The clamping configuration must be correct to ensure that AD compliance can be achieved. Also, an operator has requested that as an option to inspecting dented tubing by passing a ball bearing through the tube, to add dent depth limit criteria for each specific part number tube. The manufacturer supports this optional method and we have added it to the AD. This method avoids having to disconnect the tube from the engine.

FAA's Determination and Requirements of this AD

The unsafe condition described previously is likely to exist or develop on other PW JT9D-3A, -7, -7A, -7F, -7H, -7AH, and -7J turbofan engines of the same type design. We are issuing this AD to prevent an engine fire caused by a failed gearbox pressure tube. This AD requires a one-time visual inspection of the gearbox pressure tube, P/N 697896, the No. 4 bearing front pressure manifold, P/N 670663, and the attaching clamp assemblies, P/Ns ST1594-06, ST1594-08, and ST1594-10, for correct positioning, for wear and damage, and replacement if necessary.

FAA's Determination of the Effective Date

The effective date of this AD is the same as AD 2003-24-12. We discussed the errors depicted in AD 2003-24-12 with the U.S. operators, and adding the optional dent inspection method, and conclude that there is no adverse impact from using the same effective date.

Changes to 14 CFR Part 39—Effect on the AD

On July 10, 2002, we issued a new version of 14 CFR part 39 (67 FR 47998,

July 22, 2002), which governs our AD system. This regulation now includes material that relates to special flight permits, alternative methods of compliance, and altered products. This material previously was included in each individual AD. Since this material is included in 14 CFR part 39, we will not include it in future AD actions.

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, we invite you to submit any written relevant data, views, or arguments regarding this AD. Send your comments to an address listed under **ADDRESSES**. Include "AD Docket No. 2003-NE-52-AD" in the subject line of your comments. If you want us to acknowledge receipt of your mailed comments, send us a self-addressed, stamped postcard with the docket number written on it; we will date-stamp your postcard and mail it back to you. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify it. If a person contacts us verbally, and that contact relates to a substantive part of this AD, we will summarize the contact and place the summary in the docket. We will consider all comments received by the closing date and may amend the AD in light of those comments.

We are reviewing the writing style we currently use in regulatory documents. We are interested in your comments on whether the style of this document is clear, and your suggestions to improve the clarity of our communications with you. You may get more information about plain language at <http://www.faa.gov/language> and <http://www.plainlanguage.gov>.

Examining the AD Docket

You may examine the AD Docket (including any comments and service information), by appointment, between 8 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays. See **ADDRESSES** for the location.

Regulatory Findings

We have determined that 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 the regulation:

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.

We prepared a summary of the costs to comply with this AD and placed it in the AD Docket. You may get a copy of this summary by sending a request to us at the address listed under **ADDRESSES**. Include "AD Docket No. 2003-NE-52-AD" in your request.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

Adoption of the Amendment

■ Accordingly, under 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. The FAA amends § 39.13 by removing Amendment 39-13381 (68 FR 67585, December 3, 2003), and by adding a new airworthiness directive, Amendment 39-13410, to read as follows:

2003-24-12R1 Pratt & Whitney:

Amendment 39-13410. Docket No. 2003-NE-52-AD. Revises AD 2003-24-12, Amendment 39-13381.

Effective Date

- (a) The effective date of this AD is the same as AD 2003-24-12, which is December 18, 2003.

Affected ADs

- (b) This AD revises AD 2003-24-12.

Applicability

- (c) This AD applies to Pratt & Whitney (PW) JT9D-3A, -7, -7A, -7F, -7H, -7AH, and -7J turbofan engines, with gearbox pressure tube, part number (P/N) 697896, and No. 4 bearing front pressure manifold, P/N 670663, installed. These engines are installed on, but not limited to, Boeing 747-100, -200B, -200C, and -200F airplanes.

Unsafe Condition

(d) This AD results from the need to correct errors in depicted clamping, to ensure that AD compliance can be achieved. The actions specified in this AD are intended to prevent engine fires caused by failed gearbox pressure tubes or failed No. 4 bearing front pressure manifolds.

Compliance

(e) You are responsible for having the actions required by this AD performed within 250 hours-in-service or at the next shop visit, whichever occurs first, after the effective date of this AD, unless the actions have already been done.

One-Time Visual Inspection of Clamp Assemblies

(f) Visually inspect the clamp assemblies, P/Ns ST1594-06, ST1594-08, and ST1594-10, (see Figure 1 of this AD) that attach the gearbox pressure tube and the No. 4 bearing front pressure manifold to the engine. Replace clamp assemblies before further flight that are rejected by any of the following rejection criteria:

(1) Cracks, wear, or distortion in clamp metal.

(2) Clamp cushions that are worn, compacted, cracked, coming apart in chunks, deteriorated, or missing. A reddish powder found around the clamp is an indication of deterioration.

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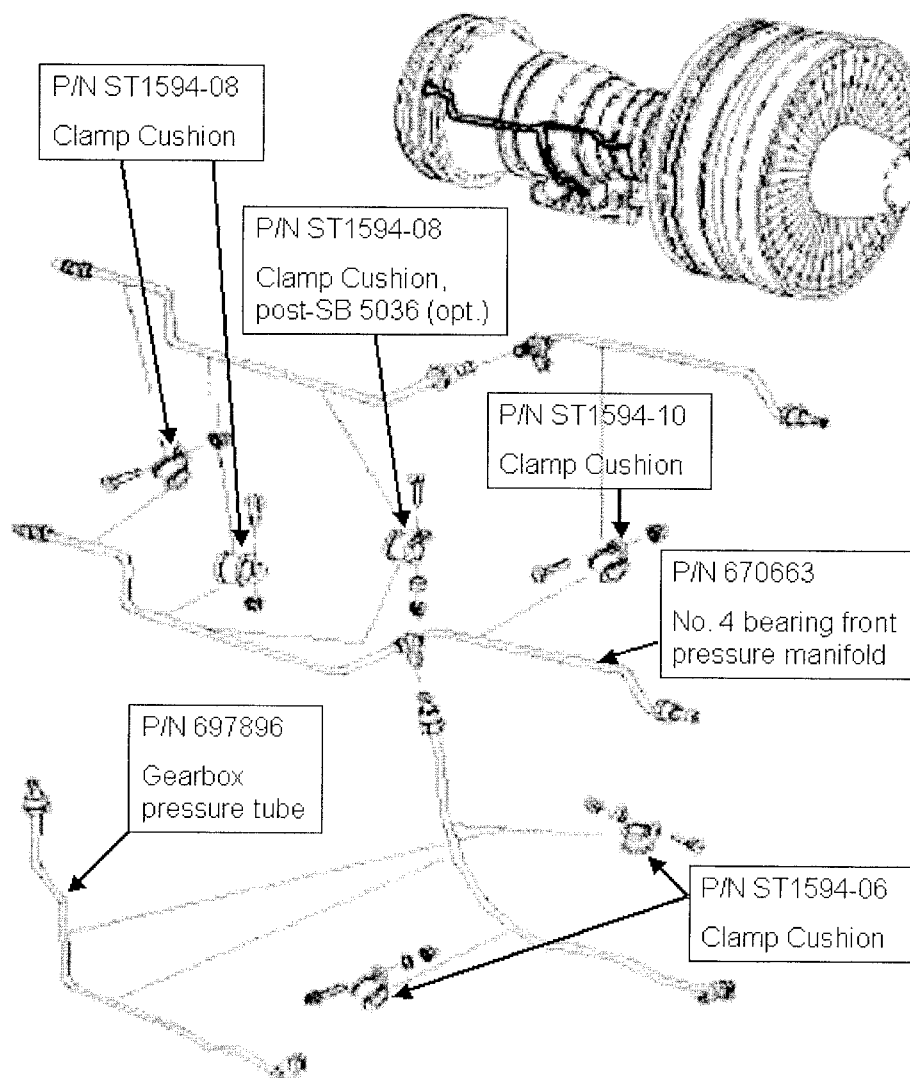


Figure 1

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Visual Inspection of Gearbox Pressure Tube and No. 4 Bearing Front Pressure Manifold

(g) If one or more clamp assemblies are rejected as described in paragraph (f) of this AD, or out of position or missing (see Figure 1 of this AD), clean any debris and oil from the outer surface of the gearbox pressure tube and No. 4 bearing front pressure manifold and visually inspect the tube and manifold. Repair or replace the affected tube or manifold before further flight if it is rejected by any of the following rejection criteria:

- (1) Nicks, chafing, scratches, and or pitting 0.003 inch or greater in depth.
- (2) Dents within 0.25 inch of the ferrules or will not permit free passage of a ball having a minimum diameter of 80% of the tubing inner diameter.
- (3) Corrosion that is unable to be removed by a light polishing.
- (4) Tube or manifold is leaking oil.

(5) As an option to the dent inspection method specified in paragraph (g)(2) of this AD, measure tube dent depth and use the following rejection criteria:

- (i) Dents in the gearbox pressure tube, P/N 697896, greater than 0.055-inch depth.
- (ii) Dents in the No. 4 bearing front pressure manifold, P/N 670663, forward of the tee fitting, greater than 0.100-inch depth.
- (iii) Dents in the No. 4 bearing front pressure manifold, PN 670663, aft of the tee fitting, greater than 0.080-inch depth.

Gearbox Pressure Tube, No. 4 Bearing Front Pressure Manifold, and Clamp Assembly Positioning

(h) Ensure that the gearbox pressure tube, No. 4 bearing front pressure manifold, and clamp assemblies are properly positioned, before further flight, as shown in Figure 1 of this AD.

(i) Information on general inspection of these parts can be found in the Boeing 747 Aircraft Maintenance Manual, section 72-00-

00, and in PW Standard Practices Manual, P/N 585005.

Reporting Requirements

(j) Report within 30 calendar days of the inspection, the results that equal or exceed the reject criteria to: Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7189; fax (781) 238-7199. Reporting requirements have been approved by the Office of Management and Budget control number 2120-0056.

Alternative Methods of Compliance

(k) The Manager, Engine Certification Office, has the authority to approve alternative methods of compliance for this AD if requested using the procedures found in 14 CFR 39.19.

Material Incorporated by Reference

- (l) None.

Related Information

(m) None.

Issued in Burlington, Massachusetts, on December 23, 2003.

Mark C. Fulmer,

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

[FR Doc. 03-32155 Filed 12-30-03; 8:45 am]

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DEPARTMENT OF TRANSPORTATION**Federal Aviation Administration****14 CFR Part 39**

[Docket No. 2003-NE-40-AD; Amendment 39-13407; AD 2003-26-09]

RIN 2120-AA64

Airworthiness Directives; Pratt & Whitney PW4074, PW4074D, PW4077, PW4077D, PW4084, PW4084D, PW4090, PW4090D, PW4090-3, and PW4098 Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is superseding an existing airworthiness directive (AD) for Pratt & Whitney PW4074, PW4074D, PW4077, PW4077D, PW4084, PW4084D, PW4090, PW4090D, PW4090-3, and PW4098 turbofan engines. That AD requires initial and repetitive visual and borescope inspections of the No. 3 bearing weep tube and turbine exhaust case (TEC), and removal of the high pressure turbine (HPT) assembly and replacement of any heat distressed HPT assembly hardware if oil wetting or staining is found.

This AD requires the same actions. This AD results from the finding of a significant reference error in one of the borescope inspection compliance paragraphs. We are issuing this AD to prevent thermal distressed HPT assembly hardware from remaining in service, which could result in a cracked HPT stage 1 disk or HPT stage 1-2 air seal and an uncontained engine failure.

DATES: Effective December 3, 2003. The Director of the Federal Register approved the incorporation by reference of certain publications listed in the regulations as of December 3, 2003.

We must receive any comments on this AD by March 1, 2004.

ADDRESSES: Use one of the following addresses to submit comments on this AD:

- By mail: Federal Aviation Administration (FAA), New England

Region, Office of the Regional Counsel, Attention: Rules Docket No. 2003-NE-40-AD, 12 New England Executive Park, Burlington, MA 01803-5299.

- By fax: (781) 238-7055.
- By e-mail: 9-ane-adcomment@faa.gov

You can get the service information referenced in this AD from Pratt & Whitney, 400 Main St., East Hartford, CT 06108; telephone (860) 565-7700; fax (860) 565-1605.

You may examine the AD docket, by appointment, at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA. You may examine the service information, by appointment, 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.

FOR FURTHER INFORMATION CONTACT:

Keith Lardie, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7189; fax (781) 238-7199.

SUPPLEMENTARY INFORMATION:

On October 24, 2003, the FAA issued AD 2003-22-09, Amendment 39-13357 (68 FR 62228, November 3, 2003). That AD requires:

- Borecope inspection of the No. 3 bearing weep tube, on engines with high oil consumption that troubleshooting procedures fail to determine the source of oil loss.
- For all engines, initial and repetitive visual inspections of the turbine exhaust case (TEC) in the vicinity of the No. 3 bearing oil vent tube for evidence of oil wetting or staining. If the vent tube borescope inspection is unsuccessful due to tube blockage, that AD also requires borescope inspections of the HPT assembly for oil wetting or staining.
- Removal of the HPT assembly and replacement of any heat distressed HPT assembly hardware if oil wetting or staining is found.

That AD is the result of engine HPT assembly hardware being damaged as a result of thermal distress from oil igniting after leaking from the No. 3 bearing compartment. That condition, if not corrected, could result in a cracked HPT stage 1 disk or HPT stage 1-2 air seal and an uncontained engine failure.

Actions Since AD 2003-22-09 Was Issued

Since that AD was issued, a comment was received that revealed an error in

the compliance section. We have considered that comment.

Incorrect Inspection Reference

One commenter states that paragraph (i)(3) of the AD contains an incorrect reference. In that paragraph, the wording "since performing the visual inspection of the TEC specified in paragraph (h)(1) of this AD", is misleading as it should be referencing borescope inspection and not visual inspection.

We agree. Therefore, we have corrected the wording to read "since performing the borescope inspection of the No. 3 bearing oil vent tube specified in paragraph (i)(1) of this AD".

AD Effectivity

The effective date of this AD is the same as AD 2003-22-09. We discussed the reference error in AD 2003-22-09 with the one U.S. operator, and conclude that there is no adverse impact from using the same effective date.

Relevant Service Information

We have reviewed and approved the technical contents of Pratt & Whitney Alert Service Bulletin (ASB) No. PW4G-112-A72-257, Revision 1, dated August 22, 2003, that describes procedures for:

- Borecope inspection of the No. 3 bearing weep tube, on engines with high oil consumption that troubleshooting procedures fail to determine the source of oil loss.
- For all engines, initial and repetitive visual inspections of the TEC, in the vicinity of the No. 3 bearing oil vent tube assembly and borescope inspections of the No. 3 bearing oil vent tube assembly, for evidence of oil wetting or staining.
- Borecope inspection of the HPT assembly for evidence of oil wetting or staining if the borescope inspection of the No. 3 bearing oil vent tube assembly is unsuccessful due to blockage.
- Removal of the engine if oil wetting or staining is found.

Differences Between This AD and the Service Information

Although ASB No. PW4G-112-A72-257, Revision 1, dated August 22, 2003, requires removal of the engine from service if oil wetting or staining is found, this AD requires removal of the HPT assembly and replacement of any heat distressed HPT assembly hardware if oil wetting or staining is found.

FAA's Determination and Requirements of This AD

The unsafe condition described previously is likely to exist or develop on other Pratt & Whitney PW4074,