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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2009-0883; Directorate Identifier 97-ANE-08; Amendment 39-16237; AD 97-17-04R1]

RIN 2120-AA64

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

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: The FAA is revising an existing airworthiness directive (AD) for Pratt & Whitney JT8D-209, -217, -217C, and -219 turbofan engines with front compressor front hub (fan hub), part number (P/N) 5000501-01 installed. That AD currently requires cleaning the front compressor front hubs (fan hubs), initial and repetitive eddy current (ECI) and fluorescent penetrant inspections (FPI) of tierod and counterweight holes for cracks, removal of bushings, cleaning and ECI and FPI of bushed holes for cracks and, if necessary, replacement with serviceable parts. In addition, that AD currently requires reporting the findings of cracked fan hubs and monthly reports of the number of inspections completed. This AD requires the same actions, except for the monthly reporting of the number of completed inspections. This AD results from the FAA determining that it has collected a sufficient amount of data since issuing AD 97-17-04 and that therefore, it no longer needs the monthly reporting of the number of completed inspections. We are issuing this AD to prevent fan hub failure due to tierod, counterweight, or bushed hole cracking, which could result in an uncontained engine failure and damage to the airplane.

DATES: This AD becomes effective April 22, 2010. The Director of the Federal Register previously approved the incorporation by reference of the publications listed in the regulations as of March 5, 1997 (62 FR 4902).

ADDRESSES: You can get the service information identified in this AD from Pratt & Whitney, 400 Main St., East Hartford, CT 06108; telephone (860) 565-8770; fax (860) 565-4503.

The Docket Operations office is located at Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue, SE., West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.

FOR FURTHER INFORMATION CONTACT: Kevin Dickert, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: kevin.dickert@faa.gov; telephone (781) 238-7117; fax (781) 238-7199.

SUPPLEMENTARY INFORMATION: The FAA proposed to amend 14 CFR part 39 with a proposed AD. The proposed AD applies to Pratt & Whitney JT8D-209, -217, -217C, and -219 turbofan engines with front compressor front hub (fan hub), P/N 5000501-01 installed. We published the proposed AD in the Federal Register on December 21, 2009 (74 FR 67831). That action proposed to require cleaning the front compressor front hubs (fan hubs), initial and repetitive ECI and FPI of tierod and counterweight holes for cracks, removal of bushings, cleaning and ECI and FPI of bushed holes for cracks and, if necessary, replacement with serviceable parts. That action also proposed to eliminate the monthly reporting of the number of completed inspections.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office 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 Operations office (telephone (800) 647-5527) is provided in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

Comments

We provided the public the opportunity to participate in the development of this AD. We have considered the one comment received. The commenter supports the proposal.

Conclusion

We have carefully reviewed the available data, including the comment received, and determined that air safety and the public interest require adopting the AD as proposed.

Costs of Compliance

We estimate that this AD revision will affect 1,170 JT8D-209, -217, -217C, and -219 turbofan engines installed on airplanes of U.S. registry. We estimate that it will take four work-hours per engine to complete one inspection of the fan hub at piece-part exposure. The average labor rate is \$80 per work-hour. Based on these figures, we estimate the total cost of the AD to U.S. operators to be \$374,400.

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

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 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); 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 at the address listed under ADDRESSES.

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 Federal Aviation Administration 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 removing Amendment 39-10106 (62 FR 45152, August 26, 1997), and by adding a new airworthiness directive, Amendment 39-16237, to read as follows:



97-17-04R1 Pratt & Whitney: Amendment 39-16237. Docket No. FAA-2009-0883; Directorate Identifier 97-ANE-08.

Effective Date

- (a) This airworthiness directive (AD) becomes effective April 22, 2010.

Affected ADs

- (b) This AD revises AD 97-17-04, Amendment 39-10106.

Applicability

(c) This AD applies to Pratt & Whitney (PW) JT8D-209, -217, -217C, and -219 turbofan engines with front compressor front hub (fan hub), part number (P/N) 5000501-01, installed. These engines are installed on, but not limited to, McDonnell Douglas MD-80 series airplanes.

Unsafe Condition

(d) This AD results from the FAA determining that it has collected a sufficient amount of data since issuing AD 97-17-04 and that therefore, it no longer needs the monthly reporting of the number of completed inspections. We are issuing this AD to prevent fan hub failure due to tierod, counterweight, or bushed hole cracking, which could result in an uncontained engine failure and damage to the airplane.

Compliance

(e) You are responsible for having the actions required by this AD performed within the compliance times specified unless the actions have already been done.

(f) Inspect fan hubs for cracks in accordance with the Accomplishment Instructions, Paragraph A, Part 1, and, if applicable, Paragraph B, of PW Alert Service Bulletin (ASB) No. A6272, dated September 24, 1996, as follows:

(1) For fan hubs identified by serial numbers (S/Ns) in Table 2 of this AD, after the fan hub has accumulated more than 4,000 cycles-since-new (CSN), as follows:

(i) Initially inspect within 315 cycles-in-service (CIS) from the effective date of this AD, or 4,315 CSN, whichever occurs later.

(ii) Thereafter, re-inspect after accumulating 2,500 CIS since last inspection, but not to exceed 10,000 CIS since last inspection.

(2) For fan hubs identified by S/Ns in Appendix A of PW ASB No. A6272, dated September 24, 1996, after the fan hub has accumulated more than 4,000 CSN, as follows:

(i) Select an initial inspection interval from Table 1 of this AD, and inspect accordingly.

Table 1–Inspections

Initial inspection	Re-inspection
(A) Within 1,050 CIS after the effective date of AD 97–02–11, March 5, 1997, or prior to accumulating 5,050 CSN, whichever occurs later;	After accumulating 2,500 CIS since-last-inspection, but not to exceed 6,000 CIS since-last-inspection.
OR	OR
(B) Within 990 CIS after the effective date of AD 97–02–11, March 5, 1997, or prior to accumulating 4,990 CSN, whichever occurs later;	After accumulating 2,500 CIS since-last-inspection, but not to exceed 8,000 CIS since-last-inspection.
OR	OR
(C) Within 965 CIS after the effective date of AD 97–02–11, March 5, 1997, or prior to accumulating 4,965 CSN, whichever occurs later.	After accumulating 2,500 CIS since-last-inspection, but not to exceed 10,000 CIS since-last-inspection.

Table 2–Hubs With Traveler Notations

M67663	M67802	P66880	S25545	P66747	R33099	S25292
M67671	M67812	P66885	S25558	P66756	R33107	S25299
M67675	M67826	R32732	S25564	P66800	R33113	S25301
M67681	M67829	R32733	S25598	P66814	R33124	S25302
M67685	M67830	R32735	S25618	P66819	R33131	S25308
M67686	M67831	R32740	S25621	P66831	R33132	S25312
M67687	M67832	R32741	S25637	R32767	R33133	S25316
M67697	M67834	R32810	S25640	R32787	R33136	S25323
M67700	M67843	R32849	T50693	R32792	R33152	S25334
M67706	M67849	R32850	T50752	R32795	R33157	S25335
M67710	M67858	S25222	T50785	R32796	R33163	S25337
M67712	M67866	S25464	T50791	R32800	R33165	S25344
M67713	M67868	S25481	T50792	R32807	R33168	S25369
M67714	M67869	S25483	T50819	R32856	R33171	S25377
M67715	M67872	S25484	T50823	R32860	R33173	S25378
M67716	M67888	S25486	T50827	R32870	R33180	S25381
M67717	N71771	S25488	T50874	R32883	R33181	S25394
M67722	N71804	S25489	T50875	R32905	R33189	S25399
M67723	N71806	S25490	T51058	R32926	R33194	S25402
M67725	N71810	S25491	T51104	R32930	R33198	S25406
M67726	N71811	S25492		R32952	R33201	S25411
M67730	N71875	S25494		R32964	R33202	S25413
M67731	N71876	S25495		R32966	R33207	S25414
M67746	N71921	S25497		R32971	S25193	S25415
M67751	N71965	S25498		R32976	S25195	S25418
M67753	N72062	S25499		R32981	S25207	S25419
M67764	N72126	S25500		R32990	S25208	S25421
M67765	N72152	S25501		R32994	S25221	S25422
M67784	N72162	S25502		R33000	S25229	S25430
M67791	N72207	S25505		R33004	S25238	S25437
M67792	N72216	S25506		R33040	S25246	S25439
M67793	N72219	S25507		R33055	S25248	S25449
M67794	N72242	S25508		R33059	S25250	R33186
M67795	P66693	S25509		R33077	S25256	S25528
M67796	P66695	S25514		R33080	S25262	

M67797	P66696	S25529		R33082	S25268	
M67798	P66698	S25532		R33086	S25278	
M67799	P66699	S25541		R33087	S25287	
M67800	P66737	S25543		R33089	S25288	
M67801	P66753	S25544		R33090		

(ii) Thereafter, re-inspect at intervals that correspond to the selected inspection interval.

(3) If a fan hub is identified in both Table 2 of this AD and Appendix A of PW ASB No. A6272, dated September 24, 1996, inspect in accordance with paragraph (f)(1) or (f)(2) of this AD, whichever occurs first.

(4) For fan hubs with S/Ns not listed in Table 2 of this AD or in Appendix A of PW ASB No. A6272, dated September 24, 1996, after the fan hub has accumulated more than 4,000 CSN, inspect the next time the fan hub is in the shop at piece-part level, but not to exceed 10,000 CIS after March 5, 1997.

(5) Prior to further flight, remove from service fan hubs found cracked or that exceed the bushed hole acceptance criteria described in PW ASB No. A6272, dated September 24, 1996.

Reporting Requirements

(g) Report findings of cracked fan hubs using Accomplishment Instructions, Paragraph F, of Attachment 1 to PW ASB No. A6272, dated September 24, 1996, within 48 hours to Kevin Dickert, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; telephone (781) 238-7117; fax (781) 238-7199; e-mail: kevin.dickert@faa.gov.

(h) The Office of Management and Budget (OMB) has approved the reporting requirements and assigned OMB control number 2120-0056.

Alternative Methods of Compliance

(i) The Manager, Engine Certification Office, FAA, has the authority to approve alternative methods of compliance for this AD if requested using the procedures found in 14 CFR 39.19. Alternate methods of compliance approved in accordance with AD 97-17-04 are approved as alternate methods of compliance with this AD.

Material Incorporated by Reference

(j) You must use the Pratt & Whitney service information specified in Table 3 of this AD to perform the inspections required by this AD. The Director of the Federal Register previously approved the incorporation by reference of the documents listed in the following Table 3 as of March 5, 1997 (62 FR 4902) in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Contact Pratt & Whitney, 400 Main St., East Hartford, CT 06108; telephone (860) 565-8770; fax (860) 565-4503, for a copy of this service information. You may review copies at the FAA, New England Region, 12 New England Executive Park, Burlington, MA; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Table 3–Incorporation by Reference

Service Information	Page	Revision	Date
Alert Service Bulletin No. A6272 Total Pages: 21	All	Original	September 24, 1996
Non-Destruct Inspection Procedure No. NDIP-892 Total Pages: 30	All	A	September 15, 1996
Attachment I Total Pages: 4	All	A	September 15, 1996

Issued in Burlington, Massachusetts, on March 9, 2010.

Peter A. White,
Assistant Manager, Engine and Propeller Directorate,
Aircraft Certification Service.