[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2020-1116; Project Identifier AD-2020-00784-E]

RIN 2120-AA64

Airworthiness Directives; Pratt & Whitney Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to supersede Airworthiness Directive (AD) 2012-04-15, which applies to all Pratt & Whitney (PW) JT9D-3A, JT9D-7, JT9D-7A, JT9D-7AH, JT9D-7F, JT9D-7H, JT9D-7J, JT9D-20, JT9D-20J, JT9D-59A, JT9D-70A, JT9D-7Q, JT9D-7Q3, JT9D-7R4D, JT9D-7R4D1, JT9D-7R4E, JT9D-7R4E1, JT9D-7R4E4, JT9D-7R4G2, and JT9D-7R4H1 (JT9D) model turbofan engines. AD 2012-04-15 requires revisions to the Airworthiness Limitations Section (ALS) of the manufacturer's Instructions for Continued Airworthiness (ICA) to include required enhanced inspection of selected critical life-limited parts at each piece-part opportunity. AD 2012-04-15 also requires additional revisions to the JT9D model engines ALS of the manufacturer's ICA. Since the FAA issued AD 2012-04-15, PW notified the FAA that revisions to the mandatory inspections contained within the ALS of the manufacturer's ICA were necessary. This proposed AD would revise the required inspections of selected critical life-limited parts specified in the ALS of the manufacturer's ICA and, for air carriers, to the existing continuous airworthiness air carrier maintenance program (CAMP). The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

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 at https://www.regulations.gov by searching for and locating Docket No. FAA-2020-1116; 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 NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Nicholas Paine, Aviation Safety Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: (781) 238-7742; fax: (781) 238-7199; email: nicholas.j.paine@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include "Docket No. FAA-2020-1116; Project Identifier AD-2020-00784-E" 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. The FAA will consider all comments received by the closing date and may amend the proposal because of those 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 agency will also post a report summarizing each substantive verbal contact received about this proposed AD.

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 NPRM 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 NPRM, 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 NPRM. Submissions containing CBI should be sent to Nicholas Paine, Aviation Safety Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The FAA issued AD 2012-04-15, Amendment 39-16971 (77 FR 15939, March 19, 2012) (AD 2012-04-15) for all PW JT9D model turbofan engines. AD 2012-04-15 was prompted by the need to require enhanced inspection of selected critical life-limited parts. AD 2012-04-15 requires revisions to the ALS of the manufacturer's ICA to include required enhanced inspection of selected critical life-limited parts at each piece-part opportunity. The agency issued AD 2012-04-15 to prevent failure of critical life-limited rotating engine parts, which could result in uncontained engine failure and damage to the airplane.

Actions Since AD 2012-04-15 Was Issued

Since the FAA issued AD 2012-04-15, PW identified errors in the list of mandatory inspections to add to the ALS. During review of the AD, PW found that AD 2012-04-15 did not include eddy current inspections of the fan hubs. Additionally, PW

identified duplicate inspections of the HPT Stage 2 disk tie rod and web cooling holds. This AD revises the ALS of the manufacturer's ICA.

FAA's Determination

The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

Proposed AD Requirements in this NPRM

This proposed AD would retain certain requirements of AD 2012-04-15. This proposed AD would revise the required inspections of selected critical life-limited parts specified in the ALS of the manufacturer's ICA and, for air carriers, to the existing CAMP.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 27 engines installed on airplanes of U.S. registry. Based on updated information since the publication of AD 2012-04-15, the FAA revised the estimated number of engines installed on airplanes of U.S. registry from 438 in AD 2012-04-15 to 27 in this proposed rule.

The FAA estimates the following costs to comply with this proposed AD:

Estimated costs

Action	Labor Cost	Parts Cost	Cost per product	Cost on U.S. operators
Update ALS	1 work-hour x $85 per hour = $85	$0	$85	$2,295

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

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD 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.

For the reasons discussed above, I certify that the proposed regulation:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Would not affect intrastate aviation in Alaska, and

(3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

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

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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:

a. Removing airworthiness directive 2012-04-15, Amendment 39-16971 (77 FR 15939, March 19, 2012); and

b. Adding the following new airworthiness directive:

Pratt & Whitney: Docket No. FAA-2020-1116; Project Identifier AD-2020-00784-E.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) action by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2012-04-15, Amendment 39-16971 (77 FR 15939, March 19, 2012).

(c) Applicability

This AD applies to all Pratt & Whitney (PW) JT9D-3A, JT9D-7, JT9D-7A, JT9D-7AH, JT9D-7F, JT9D-7H, JT9D-7J, JT9D-20, JT9D-20J, JT9D-59A, JT9D-70A, JT9D-7Q, JT9D-7Q3, JT9D-7R4D, JT9D-7R4D1, JT9D-7R4E, JT9D-7R4E1, JT9D-7R4E4, JT9D-7R4G2, and JT9D-7R4H1 (JT9D) model turbofan engines.

(d) Subject

Joint Aircraft System Component (JASC) Code 7230, Turbine Engine Compressor Section.

(e) Unsafe Condition

This AD was prompted by the need to require enhanced inspection of selected critical life-limited parts of PW JT9D model turbofan engines. The FAA is issuing this AD to prevent the failure of critical life-limited rotating engine parts. The unsafe condition, if not addressed, could result in uncontained part release, damage to the engine, and damage to the airplane.

(f) Compliance

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

(g) Required Actions

Within the 30 days after the effective date of this AD, add Figure 1 to paragraph (g) of this AD to the Airworthiness Limitations Section (ALS) of the manufacturer's Instructions for Continued Airworthiness (ICA) and, for air carrier operations, to the existing continuous airworthiness air carrier maintenance program.

Figure 1 to Paragraph (g) – *Mandatory Inspections*

Mandatory Inspections

(1) Inspect the following life-limited parts at each piece-part opportunity in accordance with the instructions provided in the applicable manual provisions:

Engine Model (JT9D-xxx)	**Engine Manual Part Number (P/N)**	**Part Nomenclature**	**Inspect per Manual Section**	**Inspection/ Check**
3A/7/7A/7AH/7F/7H/7J/20/20J	*646028 (or the equivalent customized versions, 770407 and 770408)	All Fan Hubs	72-31-04	Inspection-03
		All Fan Hubs	72-31-04	Inspection-02
		All HPC Stage 5 – 15 Disks and Rear Compressor Drive Turbine Shafts	72-35-00	Inspection-03
		All HPT Stage 1-2 Disks and Hubs	72-51-00	Inspection-03
		**All HPT Stage 1 Disk Web Cooling Holes	72-51-02	Inspection -06
		All HPT Stage 2 Disk Web Tie rod Holes	72-51-02	Inspection- 05
		All LPT Stage 3 – 6 Disks and Hubs	72-52-00	Inspection-03
59A/70A	754459	All Fan Hubs	72-31-04	Check-00
		All Fan Hubs	72-31-00	Check-00
		All HPC Stage 5 – 15 Disks and Rear Compressor Drive Turbine Shafts	72-35-00	Check-00
		All HPT Stage 1-2 Disks and Hubs	72-51-00	Check-03
		All HPT Stage 1 Disk Web Cooling Holes	72-51-02	Check-03
		**All HPT Stage 2 Disk Tie rod and Web Cooling Holes	72-51-02	Check-04
		All LPT Stage 3 – 6 Disks and Hubs	72-52-00	Check-03

Engine Model (JT9D-xxx)	Engine Manual (P/N)	Part Nomenclature	Inspect per Manual Section	Inspection/ Check
7Q/7Q3	777210	All Fan Hubs	72-31-02	Inspection-02
		All Fan Hubs	72-31-00	Inspection-03
		All HPC Stage 5 – 15 Disks and Rear Compressor Drive Turbine Shafts	72-35-00	Inspection-03
		All HPT Stage 1-2 Disks and Hubs	72-51-00	Inspection-03 Inspection-03
		All HPT Stage 1 Disk Web Cooling Holes	72-51-06	
		**All HPT Stage 2 Disk Tie rod and Web Cooling Holes	72-51-07	Inspection-03
		All LPT Stage 3 – 6 Disks and Hubs	72-52-00	Inspection-03
7R4D/7R4D1/7R4E/7R4E1/7R4E4	785058, 785059, and 789328	All Fan Hubs	72-31-00	Inspection/Check-03
		**All Fan Hub Slots	72-31-01	Inspection/Check-02
		All HPC Stage 5 – 15 Disks and Rear Compressor Drive Turbine Shafts	72-35-00	Inspection/Check 03
		All HPT Stage 1-2 Disks and Hubs	72-51-00	Inspection/Check 03
		All LPT Stage 3 – 6 Disks and Hubs	72-52-00	Inspection/Check 03
		**All HPT Stage 2 Disk Tie rod and Web Cooling Holes	72-51-07	Inspection/Check-02
7R4D/7R4D1/7R4E/7R4E1	785058 and 785059	All HPT Stage 1 Disk Web Cooling Holes	72-51-06	Inspection/Check-02

* P/N 770407 and 770408 are customized versions of P/N 646028 engine manual.
** Two asterisks identify the part nomenclatures and inspections added to the table.

(2) For the purposes of these mandatory inspections, piece-part opportunity means:

(i) The part is considered completely disassembled when disassembly is in accordance with the disassembly instructions in the manufacturer's engine shop manual; and

(ii) The part has accumulated more than 100 cycles-in-service since the last piece-part opportunity inspection, provided that the part was not damaged or related to the cause for its removal from the engine.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, ECO 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 Related Information. You may email your request to: ANE-AD-AMOC@faa.gov.

(2) 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.

(i) Related Information

For more information about this AD, contact Nicholas Paine, Aviation Safety Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: (781) 238-7742; fax: (781) 238-7199; email: nicholas.j.paine@faa.gov.

Issued on December 9, 2020.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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