

[4910-13-U]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [65 FR 65731 11/2/2000]

[Docket No. 98-ANE-48-AD; Amendment 39-11940; AD 2000-21-08]

RIN 2120-AA64

Airworthiness Directives; Pratt & Whitney JT8D Series Turbofan Engines

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; correction.

SUMMARY: This amendment supersedes an existing airworthiness directive (AD), applicable to certain Pratt & Whitney JT8D series turbofan engines, that currently requires revisions to the Time Limits Section (TLS) of the JT8D Turbofan Engine Manual to include required enhanced inspection of selected critical life-limited parts at each piece-part exposure. This action adds additional critical life-limited parts for enhanced inspection. This amendment is prompted by focused inspection procedures that have been developed by the manufacturer for additional critical life-limited parts. The actions specified by this AD are intended to prevent critical life-limited rotating engine part failure, which could result in an uncontained engine failure and damage to the airplane.

DATES: Effective date April 23, 2001.

ADDRESSES: The information referenced in this AD may be examined at the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA 01803; or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC 20001.

FOR FURTHER INFORMATION CONTACT: Christopher Spinney, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; 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 99-12-03, Amendment 39-11187 (64 FR 30379, June 8, 1999), which is applicable to Pratt & Whitney (PW) JT8D turbofan engines, was published in the **Federal Register** on June 8, 1999 (64 FR 30379). That action proposed to require revisions to the Time Limits Section (TLS) of the PW JT8D-1, -1A, -1B, -7, -7A, -7B, -9, -9A, -11, -15, -15A, -17, -17A, -17R, and -17AR series Turbofan Engine Manual to include required enhanced inspection of selected critical life-limited parts at each piece-part exposure.

Since the issuance of that AD, additional focused inspection procedures for other critical life-limited rotating engine parts have been developed by PW.

Comments Received

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

Request to Extend the Comment Period

One commenter requests that the FAA extend the NPRM comment period because the required procedures had not been published in the engine manual (EM). The FAA does not agree. The FAA believes that the nature and scope of the added inspections will not be significantly different from existing inspections. In addition, the effective date of this AD has been extended to 180 days after publication to allow time for the specific procedures to be published. The extra time until the AD

becomes effective should also allow the manufacturer to issue a manual revision. Operators may submit comments to the docket file on the specific procedures, once they are published, and the FAA will consider extending the effective date further or additional rulemaking, as necessary. The FAA does not believe, however, that this final rule need be delayed pending the publication of the inspection procedures, or the initial compliance time extended to accommodate the manufacturer's manual revision cycle.

Request to Remove Part Numbers

One commenter requests that the FAA remove the part numbers from the proposed AD. The commenter feels that the part numbers are unnecessary and that eliminating them will minimize the administrative burden on the operators. The FAA does not agree. The current structure of the JT8D engine manual does not lend itself to reference “all” part numbers, as does the structure of other engine lines. However, the FAA will discuss with Pratt and Whitney the possibility of converting the engine manual to incorporate the simpler approach in future supersedures of the JT8D enhanced inspection AD.

Request to Remove “of this chapter” from Paragraph (e)

One commenter requests that the FAA remove the statement “of this chapter” from the first sentence of paragraph (e) of this AD. The commenter feels that removing the statement will improve the clarity of the paragraph. The FAA agrees. The statement “of this chapter” has been removed from the first sentence of paragraph (e).

Request to Revise the Definition of Piece-Part Level

One commenter requests that the FAA revise the definition of piece-part level to include a debladed high pressure disk (HPT) disk that is still attached to the HPT shaft. The commenter incorporates an HPT blade management program that does not require unbolting the disk from the shaft. The FAA does not agree. The engine manual inspections required for an HPT disk at piece part level do not apply to the disk and shaft assembly. The FAA recognizes the need to include the disk and shaft assembly to the critical inspection section and are working with the manufacturer to develop new inspection criteria. The HPT disk and shaft assembly will be considered in a future revision of this enhanced inspection initiative

Economic Analysis

No comments were received on the economic analysis contained in the proposed rules. Based on that analysis, the FAA has determined that the annual per engine cost of \$60 does not create a significant economic impact on small entities.

Conclusion

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.

Regulatory Impact

This rule does not have federalism implications, as defined in Executive Order 13132, because it does 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 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 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, 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 39-11187 (64 FR 30379, June 8, 1999) and by adding a new airworthiness directive, Amendment 39-11940, to read as follows:

SUPERSEDED

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

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

We post ADs on the internet at "av-info.faa.gov"

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).

CORRECTION - Inadvertently omitted superseded AD number.

2000-21-08 Pratt & Whitney: Amendment 39-11940. Docket 98-ANE-48-AD. Supersedes AD 99-12-03, Amendment 39-11187.

Applicability: Pratt & Whitney (PW) JT8D-1, -1A, -1B, -7, -7A, -7B, -9, -9A, -11, -15, -15A, -17, -17A, -17R, and -17AR series turbofan engines, installed on but not limited to Boeing 727 and 737 series, and McDonnell Douglas DC-9 series airplanes.

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 (c) 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 critical life-limited rotating engine part failure, which could result in an uncontained engine failure and damage to the airplane, accomplish the following:

Inspections

(a) Within the next 30 days after the effective date of this AD, revise the Time Limits Section (TLS) of the JT8D-1, -1A, -1B, -7, -7A, -7B, -9, -9A, -11, -15, -15A, -17, -17A, -17R, and -17AR series Turbofan Engine Manual, and for air carrier operations revise the approved continuous airworthiness maintenance program, by adding the following:

"Critical Life Limited Part Inspection

A. Inspection Requirements:

- (1) This section has the definitions for individual engine piece-parts and the inspection procedures which are necessary when these parts are removed from the engine.
- (2) It is necessary to do the inspection procedures of the piece-parts in Paragraph B when:
 - (a) The part is removed from the engine and disassembled to the level specified in paragraph B; and
 - (b) The part has accumulated more than 100 cycles since the last piece part inspection, provided that the part is not damaged or related to the cause of its removal from the engine.
- (3) The inspections specified in this section do not replace or make unnecessary other recommended inspections for these parts or other parts.

B. Parts Requiring Inspection:

Note: Piece-part is defined as any of the listed parts with all the blades removed.

DESCRIPTION	ENGINE MANUAL	
	SECTION	INSPECTION
Hub (Disk), 1st Stage Compressor		
491201	72-33-31	-02, -03, -04
496501	72-33-31	-02, -03, -04
504101	72-33-31	-02, -03, -04
515201	72-33-31	-02, -03, -04
594301	72-33-31	-02, -03, -04
640501	72-33-31	-02, -03, -04
640601	72-33-31	-02, -03, -04
743301	72-33-31	-02, -03, -04
749701	72-33-31	-02, -03, -04
749801	72-33-31	-02, -03, -04
750001	72-33-31	-02, -03, -04
750101	72-33-31	-02, -03, -04
778901	72-33-31	-02, -03, -04
791401	72-33-31	-02, -03, -04
791501	72-33-31	-02, -03, -04
791601	72-33-31	-02, -03, -04
791701	72-33-31	-02, -03, -04
791801	72-33-31	-02, -03, -04
806001	72-33-31	-02, -03, -04
806101	72-33-31	-02, -03, -04
817401	72-33-31	-02, -03, -04
844401	72-33-31	-02, -03, -04
845401	72-33-31	-02, -03, -04
848001	72-33-31	-02, -03, -04
848101	72-33-31	-02, -03, -04
Disk, 2nd Stage Compressor:		
482502	72-33-33	-02
502502	72-33-33	-02
520602	72-33-33	-02
570302	72-33-33	-02
570402	72-33-33	-02
678202	72-33-33	-02
730202	72-33-33	-02
730302	72-33-33	-02
730402	72-33-33	-02
740502	72-33-33	-02
745702	72-33-33	-02
745902	72-33-33	-02
746002	72-33-33	-02
746802	72-33-33	-02
760402	72-33-33	-02
760502	72-33-33	-02
807502	72-33-33	-02
500240201	72-33-33	-02

DESCRIPTION	ENGINE MANUAL	
	SECTION	INSPECTION
790832 (Disk assembly)	72-33-33	-02
Turbine Disk, First Stage with Integral Shaft:		
481135	72-52-04	-03
494211	72-52-04	-03
500701	72-52-04	-03
516101	72-52-04	-03
529115	72-52-04	-03
538901	72-52-04	-03
544501	72-52-04	-03
544601	72-52-04	-03
544701	72-52-04	-03
553201	72-52-04	-03
558401	72-52-04	-03
565101	72-52-04	-03
565201	72-52-04	-03
565301	72-52-04	-03
578201	72-52-04	-03
579001	72-52-04	-03
HP Turbine Disk, First Stage, Separable		
587501	72-52-02	-03
5006101-01	72-52-02	-03
578001	72-52-02	-03
5005201-01	72-52-02	-03
696801	72-52-02	-03
742501	72-52-02	-03
752401	72-52-02	-03
767601	72-52-02	-03
792801	72-52-02	-03
856501	72-52-02	-03
832201	72-52-02	-03
855701	72-52-02	-03
856401	72-52-02	-03
5003601-01	72-52-02	-03
5003601-021	72-52-02	-03
5004301-01	72-52-02	-03"

(b) Except as provided in paragraph (c) of this AD, and notwithstanding contrary provisions in §43.16 of the Federal Aviation Regulations (14 CFR 43.16), these mandatory inspections shall be performed only in accordance with the TLS of the PW JT8D-1, -1A, -1B, -7, -7A, -7B, -9, -9A, -11, -15, -15A, -17, -17A, -17R, and -17AR series Turbofan Engine Manual.

Alternative Methods of Compliance

(c) 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 (ECO). Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, ECO.

Note 2: 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

(d) Special flight permits may be issued in accordance with §§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.

Continuous Airworthiness Maintenance Program

(e) FAA-certificated air carriers that have an approved continuous airworthiness maintenance program in accordance with the record keeping requirement of § 121.369 (c) of the Federal Aviation Regulations [14 CFR 121.369 (c)] must maintain records of the mandatory inspections that result from revising the TLS of the PW JT8D-1, -1A, -1B, -7, -7A, -7B, -9, -9A, -11, -15, -15A, -17, -17A, -17R, and -17AR series Turbofan Engine Manual, and the air carrier's continuous airworthiness program. Alternately, certificated air carriers may establish an approved system of record retention that provides a method for preservation and retrieval of the maintenance records that include the inspections resulting from this AD, and include the policy and procedures for implementing this alternate method in the air carrier's maintenance manual required by § 121.369 (c) of the Federal Aviation Regulations [14 CFR 121.369 (c)]; however, the alternate system must be accepted by the appropriate PMI and require the maintenance records be maintained either indefinitely or until the work is repeated. Records of the piece-part inspections are not required under § 121.380 (a) (2) (vi) of the Federal Aviation Regulations [14 CFR 121.380 (a) (2) (vi)]. All other operators must maintain the records of mandatory inspections required by the applicable regulations governing their operations.

Note 3: The requirements of this AD have been met when the engine manual changes are made and air carriers have modified their continuous airworthiness maintenance plans to reflect the requirements in the PW JT8D-1, -1A, -1B, -7, -7A, -7B, -9, -9A, -11, -15, -15A, -17, -17A, -17R, and -17AR series Turbofan Engine Manual.

(f) This amendment becomes effective on April 23, 2001.

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

Issued in Burlington, Massachusetts, on October 16, 2000.

Jay J. Pardee, Manager, Engine and Propeller Directorate, Aircraft Certification Service.