[Federal Register: March 6, 2002 (Volume 67, Number 44)]
[Rules and Regulations]
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[DOCID:fr06mr02-1]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 98-ANE-66; Amendment 39-12649; AD 2002-03-08]

RIN 2120-AA64

Airworthiness Directives; Pratt & Whitney PW4000 Series Turbofan Engines, Correction

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule, correction.

SUMMARY: This document makes a correction to Airworthiness Directive (AD) 2002-03-08, applicable to Pratt & Whitney (PW) PW4000 series turbofan engines, that was published in the Federal Register on February 15, 2002 (67 FR 7061). An engine model number was inadvertently omitted from the regulatory information. This document corrects that omission. In all other respects, the original document remains the same.

EFFECTIVE DATE: April 16, 2002.

FOR FURTHER INFORMATION CONTACT: Robert McCabe, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7138, fax (781) 238-7199.

SUPPLEMENTARY INFORMATION: A final rule AD applicable to Pratt & Whitney (PW) Model PW4050, PW4052, PW4056, PW4060, PW4060A, PW4060C, PW4062, PW4152, PW4156, PW4156A, PW4158, PW4160, PW4460, PW4462, PW4650, PW4164, PW4168, PW4168A, PW4074, PW4074D, PW4077, PW4077D, PW4084, PW4084D, PW4090, PW4090D, and PW4098 turbofan engines, installed on but not limited to Airbus A300, A310, and A330 series, Boeing 747, 767, and 777 series, and McDonnell Douglas MD-11 series airplanes was published in the Federal Register on February 15, 2002 (67 FR 7061). This AD superseded an AD that applied to the PW4090-3 model as well. The PW4090-3 model was included in the Notice of Proposed Rulemaking and inadvertently left out of the final rule. The following correction is needed:

Sec. 39.13 [Corrected]

On page 7062, in the Regulatory Information, in the sixth line of the third column, the engine model applicability is corrected to read ”PW4090, PW4090-3, PW4090D, and PW4098 turbofan." Also, on page 7062, in the Regulatory Information, in the third column, the thirteenth line of paragraph (a) is corrected to read ”PW4090-3, PW4090D, and PW4098 series turbofan."

Issued in Burlington, MA, on February 25, 2002.
Thomas A. Boudreau,
Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service.
[FR Doc. 02-5260 Filed 3-5-02; 8:45 am]
BILLING CODE 4910-13-U

[Federal Register: February 15, 2002 (Volume 67, Number 32)]
[Rules and Regulations]
[Page 7061-7065]
From the Federal Register Online via GPO Access [wais.access.gpo.gov]
[DOCID:fr15fe02-5]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 98-ANE-66-AD; Amendment 39-12649; AD 2002-03-08]

RIN 2120-AA64

Airworthiness Directives; Pratt & Whitney PW4000 Series Turbofan Engines

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment supersedes an existing airworthiness directive (AD), that is applicable to Pratt & Whitney PW4000 series turbofan engines. That AD currently requires revisions to the Time Limits Section of the manufacturer's Engine Manuals (EM's) to include required enhanced inspection of selected critical life-limited parts at each piece-part exposure. This amendment modifies the airworthiness limitations section of the manufacturer's manual and an air carrier's approved continuous airworthiness maintenance program to incorporate additional inspection requirements. An FAA study of in-service events involving uncontained failures of critical rotating engine parts has indicated the need for mandatory inspections. The mandatory inspections are needed to identify those critical rotating parts with conditions, which if allowed to continue in service, could result in uncontained failures. 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 16, 2002.

ADDRESSES: This information may be examined, by appointment, at the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA.

FOR FURTHER INFORMATION CONTACT: Robert McCabe, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7138, fax (781) 238-7199.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) by superseding AD 2000-12-02, Amendment 39-11780 (65 FR 37473, June 15, 2000), which is applicable to Pratt & Whitney PW4000 series turbofan engines was published in the Federal Register on October 5, 2001 (66 FR 50888). That action proposed to modify the airworthiness limitations section of the manufacturer's manual and an air carrier's approved continuous airworthiness maintenance program to incorporate additional inspection requirements. An FAA study of in-service events involving uncontained failures of critical rotating engine parts has indicated the need for mandatory inspections. The mandatory inspections are needed to identify those critical rotating parts with conditions, which if allowed to continue in service, could result in uncontained failures.

Comments

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

Two commenters state that EM part numbers 50A345, 50A751, and 50A882 are incorrect and should be changed to the correct part numbers of 51A345, 51A751, and 50A822, respectively.

The FAA agrees. The correct manual part numbers are included in this final rule.

One commenter requests that the comment period of this AD be extended until the manufacturer issues the new inspection requirements in the EM's or, that the operator's compliance to the final rule of this AD be delayed for 30 days after the manufacturer publishes the new inspection procedures in the manufacturer's EM's.

The FAA disagrees. The manufacturer has confirmed its ability to issue Temporary Revisions to the affected EM's within several weeks after the effective date of this AD. 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 (and therefore the operator's compliance time period) has been extended to 60 days after publication to allow ample time for the specific inspection procedures and requirements to be published by the manufacturer and then incorporated into the operator's maintenance programs. Operators may submit comments to the docket 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 that the initial compliance time be extended to accommodate the manufacturer's manual revision cycle.

One commenter concurs with the intent of the AD as proposed.

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.

Economic Analysis

No comments were received on the economic analysis contained in the proposed rules. The FAA has determined that the annual cost of complying with this AD does not create a significant economic impact on small entities.

Regulatory Analysis

This final rule does not have federalism implications, a s defined in Executive Order 13132, because it 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. Accordingly, the FAA has not consulted with state authorities prior to publication of this final 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 the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) if promulgated, 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 by contacting 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.

Sec. 39.13 [Amended]

2. Section 39.13 is amended by removing Amendment 39-11780 (65 FR 37473, June 15, 2000) and by adding a new airworthiness directive, Amendment 39-12649, to read as follows:

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

2002-03-08 Pratt & Whitney: Amendment 39-12649. Docket No. 98-ANE-66-AD. Supersedes AD 2000-12-02, Amendment 39-11780.

Applicability: Pratt & Whitney (PW) Model PW4050, PW4052, PW4056, PW4060, PW4060A, PW4060C, PW4062, PW4152, PW4156, PW4156A, PW4158, PW4160, PW4460, PW4462, PW4650, PW4164, PW4168, PW4168A, PW4074, PW4074D, PW4077, PW4077D, PW4084, PW4084D, PW4090, **PW4090-3**, PW4090D, and PW4098 turbofan engines, installed on but not limited to Airbus A300, A310, and A330 series, Boeing 747, 767, and 777 series, and McDonnell Douglas MD-11 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 already done.

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 60 days after the effective date of this AD, revise the Time Limits Section (TLS) of the Engine Manuals (EM's), part numbers 50A443, 50A605, 50A822, 51A342, 51A345, and 51A751, as applicable, for Pratt & Whitney PW4050, PW4052, PW4056, PW4060, PW4060A, PW4060C, PW4062, PW4152, PW4156, PW4156A, PW4158, PW4160, PW4460, PW4462, PW4650, PW4164, PW4168, PW4168A, PW4074, PW4074D, PW4077, PW4077D, PW4084, PW4084D, PW4090, **PW4090-3**, PW4090D, and PW4098 series turbofan engines; and for air carrier operations revise the approved mandatory inspections section of the continuous airworthiness maintenance program, to read as follows:

"MANDATORY INSPECTIONS

(1) Perform inspections of the following parts at each piece-part opportunity in accordance with the instructions provided in the PW4000 series Engine Cleaning, Inspection and Repair (CIR) Manuals:

For Engine Manuals 50A443, 50A605, and 50A822, add the following table data:

Part nomenclature	Part No.	CIR manual section	CIR manual inspection	CIR manual
Hub, Front Compressor.....	All.....	72-31-07	Insp/Check-02.....	51A357
Hub, Turbine, Front Assy (Stage 1)..	All.....	72-52-05	Insp/Check-02.....	51A357
Hub, Turbine, Intermediate Rear (Stage 2).	All.....	72-52-06	Insp/Check-02.....	51A357

For Engine Manual 51A342, add the following table data:

Part nomenclature	Part No.	CIR manual section	CIR manual inspection	CIR manual
Hub, LPC Assembly.....	All.....	72-31-07	Insp/Check-02.....	51A357
Hub, Turbine, Front Assembly (Stage 1).	All.....	72-52-05	Insp/Check-02.....	51A357
Seal--Air, HPT Stage 2.....	All.....	72-52-22	Insp/Check-02.....	51A357
Hub, Turbine, Rear (Stage 2).....	All.....	72-52-06	Insp/Check-02.....	51A357

For Engine Manuals 51A345 and 51A751, add the following table data:

Part nomenclature	Part No.	CIR manual section	CIR manual inspection	CIR manual
Hub, LPC Assembly.....	All.....	72-31-07	Insp/Check-02.....	51A750
Seal--Air, HPT Stage 1.....	All.....	72-52-19	Insp/Check-02.....	51A750
Hub, Turbine, Front Assembly (Stage 1).	All.....	72-52-05	Insp/Check-02.....	51A750
Seal--Air, HPT Stage 2 Assembly.....	All.....	72-52-22	Insp/Check-02.....	51A750
Hub, Turbine rear Assembly (Stage 2)	All.....	72-52-06	Insp/Check-02.....	51A750

For Engine Manuals 50A443, 50A605, and 50A822, add the following table data:

Part nomenclature	Part No.	CIR manual section	CIR manual inspection	CIR manual
HPC Stage 5 Disk.....	All.....	[1]72-35-06	Insp/Check-02.....	51A357
HPC Front Drum Rotor.....	All.....	[1]72-35-07	Insp/Check-02.....	51A357
HPC Rear Drum Rotor.....	All.....	[2]72-35-08	Insp/Check-02.....	51A357
HPC Rear Drum Rotor.....	All.....	[3]72-35-10	Insp/Check-02.....	51A357

[1]For PW4000-94" Phase I & III ONLY.
[2]For PW4000-94" Phase I ONLY.
[3]For PW4000-94" Phase III ONLY.

For Engine Manual 51A342, add the following table data:

Part nomenclature	Part No.	CIR manual section	CIR manual inspection	CIR manual
HPC Stage 5 Disk.....	All.....	72-35-06	Insp/Check-02.....	51A357
HPC Front Drum Rotor.....	All.....	72-35-07	Insp/Check-02.....	51A357
HPC Rear Drum Rotor.....	All.....	72-35-10	Insp/Check-02.....	51A357

For Engine Manuals 51A345 and 51A751, add the following table data:

Part nomenclature	Part No.	CIR manual section	CIR manual inspection	CIR manual
HPC Stage 5 Disk.....	All.....	72-35-06	Insp/Check-02.....	51A750
HPC Front Drum Rotor.....	All.....	72-35-07	Insp/Check-02.....	51A750
HPC Rear Drum Rotor.....	All.....	72-35-10	Insp/Check-02.....	51A750
HPC Stage 15 Disk.....	All.....	72-35-92	Insp/Check-02.....	51A750
HPT Stage 1 Airseal.....	All.....	72-52-19	Insp/Check-02.....	51A750
HPT Front Hub.....	All.....	72-52-05	Insp/Check-02.....	51A750
HPT Stage 2 Airseal.....	All.....	72-52-22	Insp/Check-02.....	51A750
HPT Rear Hub	All.....	72-52-06	Insp/Check-02.....	51A750

For Engine Manuals 50A443, 50A605 and 50A822, add the following table data:

Part nomenclature	Part No.	CIR manual section	CIR manual inspection	CIR manual
Stage 3 LPT Disk.....	All.....	72-53-13	Insp/Check-02.....	51A357
Stage 4 LPT Disk.....	All.....	72-53-14	Insp/Check-02.....	51A357
Stage 5 LPT Disk.....	All.....	72-53-15	Insp/Check-02.....	51A357
Stage 6 LPT Disk.....	All.....	72-53-16	Insp/Check-02.....	51A357

For Engine Manual 51A342, add the following table data:

Part nomenclature	Part No.	CIR manual section	CIR manual inspection	CIR manual
Stage 3 LPT Disk.....	All.....	72-53-13	Insp/Check-02.....	51A357
Stage 4 LPT Disk.....	All.....	72-53-14	Insp/Check-02.....	51A357
Stage 5 LPT Disk.....	All.....	72-53-15	Insp/Check-02.....	51A357
Stage 6 LPT Disk.....	All.....	72-53-16	Insp/Check-02.....	51A357
Stage 7 LPT Disk.....	All.....	72-53-61	Insp/Check-02.....	51A357

For Engine Manual 51A345, add the following table data:

Part nomenclature	Part No.	CIR manual section	CIR manual inspection	CIR manual
Stage 3 LPT Disk	All	72-53-13	Insp/Check-02, Config-1.	51A750
Stage 4 LPT Disk	All	72-53-14	Insp/Check-02	51A750
Stage 5 LPT Disk	All	72-53-60	Insp/Check-02	51A750
Stage 6 LPT Disk	All	72-53-16	Insp/Check-02, Config-1.	51A750
Stage 7 LPT Disk	All	72-53-72	Insp/Check-02	51A750
Stage 8 LPT Disk	All	72-53-62	Insp/Check-02, Config-1.	51A750
Stage 9 LPT Disk	All	72-53-63	Insp/Check-02	51A750

For Engine Manual 51A751, add the following table data:

Part nomenclature	Part No.	CIR manual section	CIR manual inspection	CIR manual
Stage 3 LPT Disk	All	72-53-13	Insp/Check-02, Config-2 See Note (1).	51A750
Stage 4 LPT Disk	All	72-53-14	Insp/Check-02	51A750
Stage 5 LPT Disk	All	72-53-60	Insp/Check-02	51A750
Stage 6 LPT Disk	All	72-53-16	Insp/Check-02, Config-2 See Note (1).	51A750
Stage 7 LPT Disk	All	72-53-72	Insp/Check-02	51A750
Stage 8 LPT	All	72-53-62	Insp/Check-02, Config-2 See Note (1).	51A750
Stage 9 LPT Disk	All	72-53-63	Insp/Check-02	51A750

[1]FPI method only.

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

(i) The part is considered completely disassembled when accomplished in accordance with the disassembly instructions in the manufacture's EM's to either the part detail or part assembly level part numbers for the parts listed in the Tables above, 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."

(b) Except as provided in paragraph (c) of this AD, and notwithstanding contrary provisions in Sec. 43.16 of the Federal Aviation Regulations (14 CFR 43.16), these mandatory inspections must be performed only in accordance with the Time Limits Section of the manufacturer's EM's.

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 must submit their request 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 Secs. 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be done.

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 Sec. 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 Time Limits Section of the EM's and the air carrier's continuous airworthiness program. Alternatively, 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 Sec. 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 Sec. 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 EM changes are made and air carriers have modified their continuous airworthiness maintenance plans to reflect the requirements in the applicable EM's.

(f) This amendment becomes effective on April 16, 2002.

Issued in Burlington, Massachusetts, on February 5, 2002.

Jay J. Pardee,

Manager, Engine and Propeller Directorate, Aircraft Certification Service.

[FR Doc. 02-3579 Filed 2-14-02; 8:45 am]

BILLING CODE 4910-13-U