

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-0546; Directorate Identifier 2012-NE-15-AD; Amendment 39-17253; AD 2012-22-16]

RIN 2120-AA64

Airworthiness Directives; Pratt & Whitney Division Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for all Pratt & Whitney Division PW4050, PW4052, PW4056, PW4060, PW4060A, PW4060C, PW4062, PW4062A, PW4152, PW4156, PW4156A, PW4158, PW4160, PW4460, PW4462, and PW4650 turbofan engines, including models with any dash number suffix. This AD was prompted by 16 reports of damaged or failed 3rd stage low-pressure turbine (LPT) duct segments. This AD requires removing from service certain part numbers (P/Ns) of 3rd stage LPT duct segments. We are issuing this AD to prevent failure of the 3rd stage LPT duct segments, which could lead to LPT rotor damage, uncontained engine failure, and damage to the airplane.

DATES: This AD is effective December 19, 2012.

ADDRESSES: For service information identified in this AD, contact Pratt & Whitney, 400 Main St., East Hartford, CT 06108; phone: 860-565-8770; fax: 860-565-4503. You may review copies of the referenced service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility 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 address for the Docket Office (phone: 800-647-5527) is Document Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: James Gray, Aerospace Engineer, Engine & Propeller Directorate, FAA, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7742; fax: 781-238-7199; email: james.e.gray@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. That NPRM published in the Federal Register on July 11, 2012 (77 FR 40822). That NPRM proposed to require removal from service of 3rd stage LPT duct segments P/Ns 50N095; 50N095-001; 50N235; 50N235-001; 50N494-01; 50N494-001; 50N495-01; and 50N495-001, at the next piece-part exposure after the effective date of the proposed AD.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the proposal and the FAA's response to each comment.

Agreement With the Proposed AD

One commenter, Boeing, agreed with the intent of the proposed AD.

Request To Reference Pratt & Whitney Service Bulletin PW4ENG 72-488

One commenter, FedEx Express, requested that we add a reference to Pratt & Whitney Service Bulletin PW4ENG 72-488 for a list of the engine serial numbers affected. We assume this request was made to add clarity.

We do not agree. The AD applicability is for PW4000 engines with certain P/N 3rd stage LPT duct segments installed. Although the Pratt & Whitney Service Bulletin does list engine serial numbers, it is not necessary to include this information in the AD. We did not change the AD.

Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting the AD as proposed.

Costs of Compliance

We estimate that this AD will affect 151 engines installed on airplanes of U.S. registry. We estimate that no additional labor costs will be incurred to perform the required work as the work is done when the 3rd stage LPT duct segments are at piece-part exposure. The average labor rate is \$85 per work-hour. Required parts will cost about \$44,441 per engine. Based on these figures, we estimate the total cost of the AD to U.S. operators will be \$6,710,591.

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

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),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) 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.

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 FAA 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 adding the following new airworthiness directive (AD):



2012-22-16 Pratt & Whitney Division: Amendment 39-17253 ; Docket No. FAA-2012-0546;
Directorate Identifier 2012-NE-15-AD.

(a) Effective Date

This AD is effective December 19, 2012.

(b) Affected ADs

None.

(c) Applicability

This AD applies to all Pratt & Whitney Division PW4050, PW4052, PW4056, PW4060, PW4060A, PW4060C, PW4062, PW4062A, PW4152, PW4156, PW4156A, PW4158, PW4160, PW4460, PW4462, and PW4650 turbofan engines, including models with any dash number suffix, with 3rd stage low-pressure turbine (LPT) duct segments part numbers (P/Ns) 50N095; 50N095-001; 50N235; 50N235-001; 50N494-01; 50N494-001; 50N495-01; or 50N495-001, installed.

(d) Unsafe Condition

This AD was prompted by 16 reports of damaged or failed 3rd stage LPT duct segments. We are issuing this AD to prevent failure of the 3rd stage LPT duct segments, which could lead to LPT rotor damage, uncontained engine failure, and damage to the airplane.

(e) Compliance

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

(f) 3rd Stage LPT Duct Segments Removal from Service

At the next piece-part exposure after the effective date of this AD, remove from service 3rd stage LPT duct segments, P/Ns 50N095; 50N095-001; 50N235; 50N235-001; 50N494-01; 50N494-001; 50N495-01; and 50N495-001.

(g) Installation Prohibition

After the effective date of this AD, do not install into any engine any 3rd stage LPT duct segment, P/N 50N095; 50N095-001; 50N235; 50N235-001; 50N494-01; 50N494-001; 50N495-01; or 50N495-001, that is at piece-part exposure.

(h) Definition

For the purpose of this AD, piece-part exposure is when the 3rd stage LPT duct segment is removed from the engine and completely disassembled.

(i) Alternative Methods of Compliance (AMOCs)

The Manager, Engine Certification Office, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request.

(j) Related Information

(1) For more information about this AD, contact James Gray, Aerospace Engineer, Engine & Propeller Directorate, FAA, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7742; fax: 781-238-7199; email: james.e.gray@faa.gov.

(2) Pratt & Whitney Engine-Duct Segment, Third Stage LPT Assembly Service Bulletin No. PW4ENG 72-488 is related to this AD.

(3) For service information identified in this AD, contact Pratt & Whitney, 400 Main St., East Hartford, CT 06108; phone: 860-565-8770; fax: 860-565-4503. You may review copies of the service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

(k) Material Incorporated by Reference

None.

Issued in Burlington, Massachusetts, on October 29, 2012.
Colleen M. D'Allessandro,
Assistant Manager, Engine & Propeller Directorate,
Aircraft Certification Service.