

concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this notice must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 94-ANE-64." The postcard will be date stamped and returned to the commenter.

Availability of NPRMs

Any person may obtain a copy of this NPRM by submitting a request to the FAA, New England Region, Office of the Assistant Chief Counsel, Attention: Rules Docket No. 94-ANE-64, 12 New England Executive Park, Burlington, MA 01803-5299.

Discussion

The Federal Aviation Administration (FAA) has determined that cast material axial compressor rotors in Textron Lycoming LTS101 series turboshaft and LTP101 series turboprop engines are susceptible to high cycle fatigue (HCF) failure. The FAA has received 36 reports of axial compressor blade failures on cast material axial compressor rotors installed in these engines. Metallurgical evaluation of these failed rotors found that cracks originated from porosity, inclusions, or pitting erosion. This condition, if not corrected, can result in engine power loss and inflight engine shutdown.

Statistical analysis shows decreasing failure probability with increasing rotor time in service. In addition, engine testing has identified blade excitation frequencies that occur within the engine operating range that could contribute to HCF failure. The wrought rotor design has improved material properties and increased HCF margin. This proposed airworthiness directive (AD) requires replacement of cast material axial compressor rotors with wrought material axial compressor rotors.

The FAA has reviewed and approved the technical contents of Textron Lycoming Service Bulletin No. LT 101-72-30-0088, Revision 5, dated September 25, 1992, that describes procedures and schedules for replacing cast material axial compressor rotors with wrought material axial compressor rotors.

Since an unsafe condition has been identified that is likely to exist or develop on other products of this same type design, the proposed AD would require replacing cast material axial compressor rotors with wrought material axial compressor rotors that have improved fatigue characteristics

and material properties. The actions would be required to be accomplished in accordance with the service bulletin described previously.

There are approximately 200 engines of the affected design in the worldwide fleet. The FAA estimates that 100 engines installed on aircraft of U.S. registry would be affected by this proposed AD, that it would take approximately 50 work hours per engine to accomplish the proposed actions, and that the average labor rate is \$60 per work hour. Required parts would cost approximately \$6,500 per engine, on a prorated cost basis. Based on these figures, the total cost impact of the proposed AD on U.S. operators is estimated to be \$955,000.

The regulations proposed herein would not have substantial direct effects 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. Therefore, in accordance with Executive Order 12612, it is determined that this proposal would not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

For the reasons discussed above, I certify that this proposed regulation (1) is not a "major rule" under Executive Order 12291; (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 copy of the draft regulatory evaluation prepared for this action 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.

The Proposed Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration proposes to amend 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. App. 1354(a), 1421 and 1423; 49 U.S.C. 106(g); and 14 CFR 11.89.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

Textron Lycoming: Docket No. 94-ANE-64.

Applicability: Textron Lycoming LTS101 turboshaft and LTP101 turboprop engines installed on but not limited to Aerospatiale AS 350 and SA366G, Bell 222, and Messerschmitt Bolkow-Blohm (MBB) BK117 helicopters; Piaggio P166-DL3 and Airtractor AT302 airplanes.

Compliance: Required as indicated, unless accomplished previously.

To prevent engine power loss and inflight engine shutdown, accomplish the following:

(a) Remove from service Part Numbers (P/N) 4-101-006-20, -21, -24, -26, -35, -36, and -40 cast material axial compressor rotors, as follows:

(1) For axial compressor rotors P/N 4-101-006-35 with serial number suffix "E," remove in accordance with Textron Lycoming Service Bulletin (SB) No. LT 101-72-30-0088, Revision 5, dated September 25, 1992, within 50 hours time in service (TIS), or 60 days after the effective date of this AD, whichever occurs first.

(2) For axial compressor rotors P/N 4-101-006-35 with serial number suffix other than "E," and all other axial compressor rotors with P/N listed in paragraph (a) of this airworthiness directive (AD), remove in accordance with Textron Lycoming SB No. LT 101-72-30-0088, Revision 5, dated September 25, 1992, as follows:

(i) For axial compressor rotors that have accumulated 600 hours or less TIS since new, remove within 100 hours TIS, or 120 days after the effective date of this AD, whichever occurs first.

(ii) For axial compressor rotors that have accumulated more than 600 but less than or equal to 1,200 hours TIS since new, remove within 300 hours TIS, or 240 days after the effective date of this AD, whichever occurs first.

(iii) For axial compressor rotors that have accumulated more than 1,200 but less than or equal to 2,400 hours TIS since new, remove within 600 hours TIS, or 360 days after the effective date of this AD, whichever occurs first.

(iv) For axial compressor rotors that have accumulated more than 2,400 hours TIS since new, remove within 1,200 hours TIS, or 720 days after the effective date of this AD, whichever occurs first.

(3) Replace with a serviceable wrought material axial compressor rotor P/N 4-101-006-28, -32, -39, or -41, as applicable, in accordance with Textron Lycoming SB No. LT 101-72-30-0088, Revision 5, dated September 25, 1992.

(b) 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. The request should be forwarded through an appropriate FAA Maintenance Inspector, who may add comments and then send it to the Manager, Engine Certification Office.

Note: Information concerning the existence of approved alternative methods of