LUFTFARTSVERKET
Luftfartsinspektionen

LUFTVÄRDIGHETSDIREKTIV (LVD)

Motor
Garret
LVD Nr 2461

Sektion 2. Utlandstillverkad flygmateriel

TITEL: **Kontroll av stödet för inre tätning i tredje turbinstegets stator**

GÄLLER: Modell TPE 331 installerade i luftfartyg angivna i bifogad kopia av FAA AD 92-26-08 under applicability.

ÅTGÄRD: Utför åtgärder angivna i National Flight Services Alert Bulletin nr NF331-A72-11921 daterad 9 november 1992 (sänd till ägare/brukare).

TID FÖR ÅTGÄRD: Inom cycles angivna i FAA AD 92-26-08 under (a).

UNDERLAG: FAA AD 92-26-08
National Flight Services Alert Bulletin nr NF331-A72-11921 daterad 9 november 1992, eller senare utgåva.

REFERENS: FAA AD 92-26-08
LFV skrivelse L 9212-1904-31207 daterad 1992-12-18 och 1992-12-29 och sänd till ägare/brukare.

UTGIVNINGS-DATUM: 1993-02-25

LFS: 1993:10

Åtgärd enligt LVD utgör nödvändig förutsättning för ifrågavarende flygmateriels luftvärdighet. Referens BCL M 1.11. Anteckning om åtgärd, som vidtagits i enlighet med LVD, skall införas i teknisk journal för berörd flygmateriel med hänvisning till ifrågavarande LVD-nummer. Angivet underlag refererar till senaste gällande revision/utgåva. LVD utges i luftfartsverkets författningssamlingar LFS.

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L 1563:1

PRIORITY LETTER AIRWORTHINESS DIRECTIVE

FLIGHT STANDARDS SERVICE
REGULATORY SUPPORT DIVISION
P.O. BOX 26460
OKLAHOMA CITY, OKLAHOMA 73125-0460

U.S. Department
of Transportation
Federal Aviation
Administration

DATE: December 16, 1992
92-26-08

This priority letter Airworthiness Directive (AD) is prompted by reports of Allied-Signal Inc., Garrett Engine Division, Model TPE331 series turboprop engine failures. A Hastelloy S material inner seal support in a third stage stator assembly, Part Number (P/N) 868379-3, fatigue cracked, moved aft, and made contact with the third stage turbine wheel, resulting in an uncontained engine failure. In reports of other incidents, several Hastelloy S material inner seal supports exhibited numerous circumferential cracks prior to achieving the FAA approved life limit.

Haynes 25 material is the approved material used in the manufacture and repair of P/N 868379-3 third stage stator assemblies. The FAA has determined that 283 third stage stator assemblies were repaired at National Flight Services between February 20, 1990, and April 6, 1992. An undetermined number of these third stage stator assemblies were repaired using Hastelloy S material. The FAA has determined that the Hastelloy S material has approximately one-sixth of the expected fatigue life in this particular application. This condition, if not corrected, can result in an uncontained failure of the third stage turbine wheel.

The FAA has reviewed and approved the technical contents of National Flight Services Alert Bulletin No. NF331-A72-11921, dated November 9, 1992, that describes procedures for replacing third stage stator assemblies with serviceable assemblies.

Since an unsafe condition has been identified that is likely to exist or develop on other engines of this same type design, this AD requires replacing third stage stator assemblies listed by serial number in National Flight Services Alert Bulletin No. NF331-A72-11921, dated November 9, 1992, with serviceable assemblies, and maintaining a record of accumulated operating hours and cycles on a life limited part log card and maintenance record. The actions are required to be accomplished in accordance with the service bulletin described previously.

Pursuant to the authority of the Federal Aviation Act of 1958, delegated to me by the Administrator, the following priority letter AD 92-26-08, applicable to Allied-Signal Inc., Garrett Engine Division, Model TPE331-1, -2, -2UA, -3U, -3UW, -5, -5A, -6, and -6A turboprop and TSE331-3U turboshaft engines, is issued and is effective immediately upon receipt.

92-26-08 Allied-Signal Inc., Garrett Engine Division: Priority Letter issued on December 16, 1992. Docket No. 92-ANE-58.

Applicability: Allied-Signal Inc., Garrett Engine Division, Model TPE331-1, -2, -2UA, -3U, -3UW, -5, -5A, -6, and -6A turboprop and Model TSE331-3U turboshaft engines incorporating third stage stator assemblies, Part Number (P/N) 868379-3, repaired at National Flight Services between February 20, 1990, and April 6, 1992, and identified by serial numbers listed in National Flight Services Alert Bulletin No. NF331-A72-11921, dated November 9, 1992. These engines are installed on but not limited to Mitsubishi MU-2B series (MU-2 series); Construcciones Aeronauticas, S.A. (CASA) C-212 series; Fairchild SA226 series (Swearingen Merlin and Metro series; Prop-Jets, Inc. Model 400; Twin Commander 680 and 690 (Jetprop Commander), Rockwell

Commander S-2R, Shorts Brothers and Harland, Ltd. SC7 (Skyvan), Dornier 228 series, Beech 18 and 45 series and Models JRB-6, 3N, 3NM, 3TM, and B100, Pilatus PC-6 series (Fairchild Porter, Peacemaker), De Havilland Model DH 104 series 7AXC (Dove), and Ayres S-2R series airplanes; and Sikorsky S-55 series helicopters.

Compliance: Required as indicated, unless accomplished previously.

To prevent an uncontained failure of the third stage turbine wheel, accomplish the following:

(a) Replace affected third stage stator assemblies, P/N 868379-3, with serviceable assemblies in accordance with the following schedule:

Third Stage Stator Cycles in Service Since Repair by National Flight Services	Replacement Schedule
900 or more cycles	Within 50 cycles in service after receipt of this Priority Letter AD
450 to 899 cycles	Within 150 cycles in service after receipt of this Priority Letter AD, but not to exceed 950 cycles
Less than 450 cycles	Prior to accumulating 600 cycles

NOTE: The FAA has determined that cracking of third stage stator assemblies is related to operating cycles, rather than operating hours.

(b) If cycles cannot be determined, calculate cycles by multiplying third stage stator assembly hours time in service by 1.5.

(c) An alternative method of compliance or adjustment of the initial compliance time that provides an acceptable level of safety may be used if approved by the Manager, Los Angeles Aircraft Certification Office. The request should be forwarded through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Los Angeles Aircraft Certification Office.

NOTE: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the Los Angeles Aircraft Certification Office.

(d) Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate the aircraft to a location where the requirements of this AD can be accomplished.

(e) Copies of the applicable service information may be obtained from National Flight Services, Inc., 10971 E. Airport Service Road, Swanton, Ohio 43558; telephone (419) 865-2311. This information may be examined at the FAA, New England Region, Office of the Assistant Chief Counsel, 12 New England Executive Park, Burlington, Massachusetts.

(f) Priority Letter AD 92-26-08, issued December 16, 1992, becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

Joseph Costa, Aerospace Engineer, Propulsion Branch, ANM-140L, Los Angeles Aircraft Certification Office, Transport Airplane Directorate, Aircraft Certification Service, FAA, 3229 East Spring Street, Long Beach, California 90806-2425; telephone (310) 988-5246; fax (310) 988-5210.