

Airworthiness Directive Schedule

Engines

Honeywell International LTS101 and T53 Series

18 April 2019

- Notes:**
1. This AD schedule is applicable to Honeywell International LTS101-600, LTS101-650, LTS101-700, LTS101-750 and LTS101-850B-2 series engines (formally Allied Signal and Textron Lycoming), manufactured under Federal Aviation Administration (FAA) Type Certificate No. E5NE and Honeywell International T53-L-13 and T5317A-1 series engines.
 2. The Federal Aviation Administration (FAA) is the National Airworthiness Authority (NAA) responsible for the issue of State of Design Airworthiness Directives (ADs) for these engines. State of Design ADs can be obtained directly from the FAA website at http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgAD.nsf/MainFrame?OpenFrameSet
 3. The date above indicates the amendment date of this schedule.
 4. New or amended ADs are shown with an asterisk *
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DCA/AL-T/1	Cancelled - Purpose fulfilled
DCA/AL-T/2	Accessory Drive Gears - Modification
Applicability:	All LTP 101-600, -600A and -600 A1A turboprop and LTS101-600A-2 turboshaft engines
Requirement:	To prevent failure: <ol style="list-style-type: none">1. Remove fuel control and fuel pump accessory drive gear P/N 4 083 020 01 from service and replace with gear P/N 4 083 020 02.2. Remove oil pump accessory drive gear P/N 4 081 080 02 from service and replace with gear P/N 4 081 080 06. (FAA AD 79-20-03 refers)
Compliance:	Before further flight
Effective Date:	10 August 1979
DCA/AL-T/3A	N2 Accessory Gear Installation - Modification
Applicability:	Model LTP101-600A-1A prior to S/N 50095 and -700A-1A prior to S/N 51009
Requirement:	Embody Avco Lycoming kit P/N TLW 18823 per Avco Lycoming SB's LTP 101A-72-0021 Rev.1 and LTP 101-72-0025 Rev.1. (FAA AD T82-20-51 refers)
Compliance:	Within next 25 hours TIS
Effective Date:	DCA/AL-T/3 - 24 September 1982 DCA/AL-T/3A - 1 August 1986
DCA/AL-T/4E	Rotating Components - Life Limitations
Applicability:	All Model LTS 101-600A-2, -600A-3, -650B-1, -650B-1A, -650C-2, -650C-3, -650C-3A, -750A-1, -750A-3, -750B-1, -750B-2, and -750C-1 turboshaft engines and LTP 101-600A-1A and -700A-1A turboprop engines.
Requirement:	Retire rotating components from service per Textron Lycoming SB LT 101-71-00-0002, Revision 13. (FAA AD 93-13-11 refers)
Effective Date:	DCA/AL-T/4D 30 October 1992 DCA/AL-T/4E 18 March 1994
DCA/AL-T/5	Gas Producer Blades - Modification
Applicability:	All model LTP101-600A-1A and -700A-1A turboprop and LTS101-600A-2 turboshaft engines
Requirement:	To prevent blade failure due to fatigue cracking from excessive vibratory stresses, modify per Avco Lycoming SB LT101-72-50-0079 Rev.1. (FAA AD 86-10-04 refers)
Compliance:	By 30 September 1986
Effective Date:	1 August 1986

- * DCA/AL-T/6** **Cancelled – DCA/AL-T/32 refers**
Effective Date: 18 April 2019
- DCA/AL-T/7** **Gear Assemblies - Replacement**
Applicability: All model LTS101-600A-2 turboshaft engines
Requirement: Replace output gear assemblies per FAA AD 84-02-07
Compliance: As prescribed in FAA AD 84-02-07 unless already accomplished
Effective Date: 12 June 1987
- DCA/AL-T/8** **Gas Producer Assembly - Inspections**
Applicability: All model LTS101-600A-2 turboshaft engines
Requirement: To prevent in-flight power loss due to failure of gas producer turbine blades, accomplish inspections detailed in FAA AD 84-14-01
Compliance: As prescribed in FAA AD 84-14-01
Effective Date: 12 June 1987
- DCA/AL-T/9B** **Power Turbine Rotor - Inspection**
Applicability: All LTP101 turboprop and LTS101 turboshaft engines
Requirement: To prevent fracture of the integrally cast power turbine (PT) rotor blade which can result in engine power loss and uncontained engine failure, accomplish inspections detailed in FAA AD 92-15-07. PT rotors found cracked must be removed before further flight
Compliance: 1. Within 50 hours TIS or 300 PT cycles in service (CIS), whichever occurs first, since last inspection per DCA/AL-T/9A. Thereafter at intervals not to exceed 50 hours TIS or 300 PT CIS, whichever occurs first.
2. Prior to installation into a PT module or prior to returning to service.
Note: For information on PT rotor cycle counting methodology consult the latest revision of Textron Lycoming SB LT 101-71-00-0002.
Effective Date: DCA/AL-T/9A - 12 June 1987
DCA/AL-T/9B - 30 October 1992
- DCA/AL-T/10** **Cancelled - DCA/AL-T/12 refers**
- DCA/AL-T/11** **Cancelled - DCA/AL-T/12 refers**
- DCA/AL-T/12B** **Lubrication System – Inspection**
Applicability: Model LTS101-600A-2, LTS101-600A-3 & LTS101-600A-3A series turboshaft engines.
Note 1: This AD introduces note 2. Since the release of this AD the manufacturer has issued Honeywell SB No. LT 101-72-50-0227. Accomplishment of this SB meets the requirements of this AD.
Requirement: To prevent uncontained failure of the power turbine disc which could result from failure of the number 3 or 4 bearings, accomplish the inspections detailed in FAA AD 88-14-01.
(FAA AD 88-14-01 refers)

Note 2: Accomplishment of the instructions in paragraph 3 of Honeywell SB No. LT 101-72-50-0227 including the daily inspection requirements in the engine maintenance manual, is approved as an alternate means of compliance to the requirements of this AD. AD should be annotated as 'Embodied' in AD section of log book.

Compliance: As prescribed in FAA AD 88-14-01.

Effective Date: DCA/AL-T/12 - 5 July 1988
DCA/AL-T/12A - 7 October 1988
DCA/AL-T/12B - 25 September 2008

DCA/AL-T/13B Main Fuel Pump – Inspection

Applicability: All LTS101-600A-2, -600A-3, -600A-3A, -600A-1A and -700A-1A series incorporating Chandler Evans Company (CECO) engine fuel pumps, P/N 4-301-128-01, -02, -03, -04, -05, -06, -07, -08, -09, and -10 and -11. These engines are installed on but not limited to the Aerospatiale AS350D and the PAC 08-600. This AD is not applicable to engines installed on twin-engine aircraft.

Requirement: To prevent engine fuel pump failure, which can result in total engine power loss, accomplish the following:-

Remove pump from service and return to CECO for inspection per AlliedSignal SB LT 101-73-20-0203, or Honeywell SB LT 101-73-20-0203, Revision 1.

Engine fuel pumps that exhibit wear beyond the limits specified in the SBs, may not be returned to service.

(FAA AD 2001-17-15 refers)

Compliance: At 600 hours TIS (since new, overhaul, or time since last inspection), or within the next 100 hours TIS, whichever is the later. Thereafter at intervals not to exceed 600 hours TIS since the last inspection.

Effective Date: DCA/AL-T/13A – 28 October 1994
DCA/AL-T/13B – 25 October 2001

DCA/AL-T/14 Number Two Bearings - Removal

Applicability: LTS101 and LTP101 series engines incorporating number 2 bearings P/N 4-301-262-01 that have S/N 3-740 through 3-839, 3-1288 through 3-1361, and 4-534 through 4-680. These engines are installed on but not limited to Eurocopter (Aerospatiale AS350D, Bell 222 series, BMM BK117 series and the PAC 08-600.

Note: Affected bearings, or kits P/N T05K21714, incorporating those bearings, would have been shipped from Textron Lycoming or an approved Service Facility after 20 September 1993.

Requirement: To prevent engine failure due to number 2 bearing failure, remove the number 2 bearing per Textron Lycoming ASB A-LT101-72-50-0163, Rev 1, and replace with serviceable parts.
(FAA AD 94-18-06 refers)

Compliance: For engines installed on single-engine aircraft and twin-engine aircraft with both engines having affected bearings, prior to further flight.

For engines installed on all other aircraft, within next 25 hours TIS.

Effective Date: 1 October 1994

DCA/AL-T/15 Engine Overspeed Protection System - Inspection

- Applicability** Models LTS101-650B1, -750B1, -650C3/3A, and -750C1 turboshaft engines incorporating electronic overspeed protection system. These engines are installed on but not limited to BK117 series and Bell 222 series helicopters.
- Requirement:** To prevent the engine electronic overspeed protection system from failing to function, accomplish the following:
- 1(a) Replace magnetic speed pickups, P/N 4-301-356-01 with a serviceable part per AlliedSignal SB LTS101-73-10-0169, or
- 1(b) Inspect magnetic speed pickups, P/N 4-301-356-01 for polarity per SB LTS101-73-10-0169. Remove magnetic speed pickups with incorrect polarity and replace with a serviceable part per AlliedSignal SB LTS101-73-10-0169 before further flight.
2. Inspect all uninstalled magnetic speed pickups, P/N 4-301-356-01 for polarity per SB LTS101-73-10-0169. Replace pickups with incorrect polarity per AlliedSignal SB LTS101-73-10-0169.
(FAA AD 95-08-14 refers)
- Compliance:**
1. Within next 150 hours TIS.
 2. Prior to installation.
- Effective Date:** 7 July 1995

DCA/AL-T/16 Axial Compressor Rotors - Removal

- Applicability** LTS101 and LTP101 engines, installed on but not limited to Aerospatiale AS350, Bell 222, BMM BK117 and the PAC 08-600.
- Requirement:** To prevent engine power loss and in-flight engine shutdown, accomplish the following:
- Remove from service P/N 4-101-006-20, -21, -24, -26, -35, -36 and -40 cast material axial compressor rotors per Textron Lycoming SB LT 101-72-30-0088, Revision 5.
- Replace with a serviceable wrought material axial compressor rotor P/N 4-101-006-28, -32, -39 or -41 as applicable per SB LT 101-72-30-0088, Revision 5.
(FAA AD 95-16-04 refers)
- Compliance:** As detailed in SB LT 101-72-30-0088, Revision 5.
- Effective Date:** 29 September 1995

DCA/AL-T/17A Improved PT Rotor and PT Rotor Overspeed Controller - Installation

- Applicability** Models LTS101-650B1, -750B1, -650C and -750C engines installed on Bell 222 series, Messerschmitt-Bolkow-Blohm BK117 and Kawasaki Heavy Industry BK117 series helicopters
- Requirement:** To prevent power turbine (PT) overspeed and uncontained engine failure, accomplish the following:-
1. Install the improved PT rotor with retention capability per Textron Lycoming SB LTS101B-72-50-0122 Rev 4, LTS101B-72-50-0116 Rev 6 or LTS101C-72-50-0119 Rev 2 as applicable.
 2. Install the improved PT rotor overspeed controller per Textron Lycoming SB LTS101B-73-10-0127 Rev 2 or LTS101C-73-10-0129 Rev 3 as applicable.
(FAA AD 95-26-01 and JCAB TCD-4385-1-97 refer)
- Note:** Compliance with this requirement constitutes terminating action to the inspection requirements of DCA/AL-T/12A (FAA AD 88-14-01 refers).

- Compliance:**
1. For the Bell 222 and MBB BK117, at the next shop visit when the PT rotor is removed, but prior to 31 December 1997. For the Kawasaki BK117 at the next shop visit when the PT rotor is removed, but prior to 16 April 1998.
 2. At the same time as compliance with part 1, or at the next airframe 600 hour inspection, whichever occurs later.
- Effective Date:** DCA/AL-T/17 - 12 April 1996
DCA/AL-T/17A - 16 January 1998

DCA/AL-T/18 Power Turbine Rotor Retention System - Modifications

- Applicability** Models LTS101-600A-2 and -600A-3 engines installed on Eurocopter France AS-350D helicopters.
- Requirement:** To prevent an uncontained engine failure due to power turbine disk failure, accomplish the following:-
- Incorporate improved power turbine rotor retention system modifications per AlliedSignal SB LTS101A-72-50-0134 revision 2 paras A through AT. Also replace elbow fitting in fuel control governor orifice cover Py port with tee-fitting assembly, P/N 2543854 per SB LTS101A-73-20-166 revision 2, Section II paras C (5) through C (7). (FAA AD 96-06-10 refers)
- Compliance:** By 1 July 1996
- Effective Date:** 10 May 1996

DCA/AL-T/19 Cancelled – DCA/AL-T/24A refers

- Effective Date:** 25 September 2008

DCA/AL-T/20 Power Turbine Rotors - Removal

- Applicability** Model LTS101 series and LTP101 series
- Requirement:** To prevent power turbine rotor failure accomplish the following:-
1. For all LTS101 series except LTS101-750B2 model, and for all LTP101 series, replace power turbine rotors identified in Table 1 of Textron Lycoming SB LT101-72-50-0144 per the accomplishment procedures in SB LT101-72-50-0144.
 2. For all model LTS101-750B2 replace power turbine rotors per SB LT101-72-50-0145. (FAA AD 96-12-05 refers)
- Compliance:**
1. For power turbine rotors with more than 1000 hours time since new (TSN), replace within the next 50 hours TIS or not to exceed 1,800 cycles since new (CSN), whichever occurs first.
- For power turbine rotors with 1000 hours TSN or less, but more than 800 hours TSN, replace within the next 100 hours TIS or not to exceed 1,800 CSN, whichever occurs first.
- For power turbine rotors with 800 hours TSN or less, but more than 400 hours TSN, replace within the next 150 hours TIS or not to exceed 1,800 CSN, whichever occurs first.
- For power turbine rotors with 400 hours TSN or less, replace by 600 hours TSN or not to exceed 1,800 CSN, whichever occurs first.
- 2. Replace within the next 100 hours TIS or 800 hours TSN, whichever occurs first.

Effective Date: 2 August 1996

DCA/AL-T/21 Gas Producer Rotor Discs - One Time Inspection

Applicability: Models LTS 101 series and LTP 101 series.

Requirement: To prevent loss of engine power and possible damage to the aircraft, accomplish the following:-

Remove from service suspect gas generator disks and perform a one-time inspection of the disk tenon area of the disk per Textron Lycoming SB LT 101-72-50-0150. Replace if necessary with a serviceable part per SB LT 101-72-50-0150. (FAA AD 96-12-27 refers)

Compliance: Comply before the accumulation of the additional cycles as detailed in SB LT 101-72-50-0150.

Effective Date: 2 August 1996

DCA/AL-T/22 N2 Spur Gear Retainer - Replacement

Applicability: Model T5311, T5313, T5317, and T53 (military) series turboshaft engines, installed on but not limited to Bell Helicopter Textron 209, 205, 204, AH-1 and UH-1 series.

Requirement: To prevent N2 accessory drive assembly disengagement due to N2 spur gear nut retainer separation, accomplish the following:-

Remove from service N2 spur gear nut retainers, P/N 1-070-066-01, and replace with N2 spur gear nut retainers P/Ns 1-070-066-02 or 1-070-066-03, per the following applicable AlliedSignal Aerospace SBs:

(1) For retainers installed on T5311 and T53-L-11 (military) series engines, per SB T5311/T53-L-11-0080, dated May 28, 1996.

(2) For retainers installed on T5313B and T5317 series engines, per SB T5313B/T5317-0081, Revision 1, dated May 28, 1996.

(3) For retainers installed on T53-L-13B/SSA/SSB (military) series engines, per SB T53-L-13B-0082, Revision 1, dated October 25, 1996.

(4) For retainers installed on T53-L-13B/SSD (military) series engines, per SB T53-L-13B/D-0083, dated May 28, 1996.

(5) For retainers installed on T53-L-703 (military) series engines, per SB T53-L-703-0084, Revision 1, dated October 25, 1996.

(FAA AD 97-07-05 refers)

Compliance: Within 300 hours time in service, or by 6 June 1999, whichever occurs first.

Effective Date: 6 June 1997

DCA/AL-T/23 Accessory Drive Carrier Assembly - Removal from Service

Applicability: Model T5313B, T5317A, and T53 series military turboshaft engines, with accessory drive carrier assemblies, P/N 1-070-220-03, 1-070-220-12, and 1-070-220-13, that were installed after November 1, 1985, and have S/Ns listed in AlliedSignal Inc. ASB T5313B/17A-A0092, Revision 1; T53-L-13B-A0092; or T53-L-703-A0092. These engines may be installed on but not limited to Bell 205A-1 and 205B series helicopters as well as the following ex-military helicopters: UH-1A through E; UH-1G, H, L, M; AH-1F, Q, G, S; HH-1H, K; TH-1L; OV-1C, D; and HH-43.

Requirement: To prevent accessory drive carrier assembly failure, which could result in an N2 overspeed and an uncontained engine failure, accomplish the following per AlliedSignal Inc. ASB T5313B/17A-A0092, Revision 1; or T53-L-13B-A0092; or T53-L-703-A0092, as applicable.

Visually inspect to determine if the accessory drive carrier assembly is marked with an affected S/N listed in the applicable ASBs.

If the accessory drive carrier assembly is not marked with an affected S/N listed in the applicable ASB, no further action is required.

If the accessory drive carrier assembly is marked with an affected S/N listed in the applicable ASB, or the serial number cannot be positively determined, remove the accessory drive carrier assembly from service and replace with a serviceable assembly.

(FAA AD 97-21-07R1 refers)

Compliance: Within next 100 hours TIS or by 21 May 1998, whichever is the sooner.

Effective Date: 21 November 1997

DCA/AL-T/24A Fuel Control Bellows - Replacement

Applicability: Model LTS101-600A-2 engines fitted with fuel control P/N 4-301-098-01, 4-301-098-04, 4-301-098-10 & 4-301-098-15

Model LTS101-600A-3 engines fitted with fuel control P/N 4-301-288-01, 4-301-288-02 & 4-301-288-04

Model LTP101-600A-1A engines fitted with fuel control P/N 4-303-023-01, 4-303-023-02, 4-303-023-03 & 4-303-023-04

Model LTP101-700A-1A engines fitted with fuel control P/N 4-303-033-01, 4-303-033-02 & 4-303-033-04.

Note 1: The applicability of this AD revised to include the replacement of fuel control P/N 4-301-288-02. Compliance with this AD supersedes the requirements of AD DCA/AL-T/19 (FAA AD 1996-10-04 refers).

Requirement: To prevent failure of fuel control bellows due to possible corrosion damage which could result in uncommanded loss of engine power, remove affected fuel controls and replace with a fuel control P/N that is not listed in the applicability of this AD.

Note 2: Honeywell SB LT101-73-20-0202 dated 1 February 1999 pertains to the subject of this AD. Compliance with this AD ensures that fuel controls fitted with Beryllium - Copper Bellows are withdrawn from service and replaced with a part with an improved Inconel 718 stainless steel bellows.
(FAA AD 2001-25-04 refers)

Compliance: At the next replacement of the FCU or by 25 March 2009 whichever occurs first, unless previously accomplished.

Effective Date: DCA/AL-T/24 - 31 January 2002
DCA/AL-T/24A - 25 September 2008

DCA/AL-T/25A Centrifugal Compressor Impeller - Inspection

Applicability: Model LTS101 series turboshaft and LTP101 series turboprop engines with the following centrifugal compressor impeller P/Ns installed:

4-101-052-57 and 4-101-052-62,

Except those with a P/N or S/N listed in paragraphs 1.A.(1) through 1.A.(3) of AlliedSignal Service Bulletin (SB) LT 101-72-30-0186, dated October 1, 1999, or Honeywell International Inc. SB LT 101-72-30-0186, Revision 1, dated April 25, 2000.

These engines are installed on, but not limited to Aerospatiale AS350, Eurocopter MBB-BK117 and HH-65A, Bell 222, Page Thrush, Air Tractor AT-302, Piaggio P.166-DL3, Riley International R421, and Pacific Aerospace 08-600 aircraft.

Requirement: To prevent impeller failure from cracks in the impeller back face area, which could result in an uncontained engine failure, accomplish the following:

1. Conduct a one-time visual inspection for surface finish and fluorescent penetrant inspection of impellers P/N 4-101-052-57 and 4-101-052-62 for cracks in accordance with paragraphs 3.A through 3.F of the Accomplishment Instructions of Allied Signal

SB LT 101-72-30-0186, or Honeywell International Inc. SB LT 101-72-30-0186, Revision 1. Replace all impellers that exceed the acceptable limits of SB LT 101-72-30-0186 or SB LT 101-72-30-0186 (as applicable), with a serviceable impeller.

2. Do not install impeller P/Ns 4-101-052-57 or 4-101-052-62, except those with an impeller P/N or S/N listed in paragraphs 1.A.(1) through 1.A.(3) of SB LT 101-72-30-0186, or SB LT 101-72-30-0186, Revision 1, unless it has passed the inspection requirements of paragraph 1 of this AD.
(FAA AD 2002-03-09R1 refers)

Compliance: 1. Within 900 gas generator (Ng) cycles, unless already accomplished.
2. After effective date.

Effective Date: DCA/AL-T/25 - 28 March 2002
DCA/AL-T/25A - 26 April 2002

DCA/AL-T/26 Tachometer Drive Spur Gear - Vibration Test

Applicability: Model T5311A, T5311B, T5313B, T5317A, T5317B, and former military T53-L-11, T53-L-11A, T53-L-11B, T53-L-11C, T53-L-11D, T53-L-11A S/SA, T53-L-13B, T53-L-13B S/SA, T53-L-13B S/SB, and T53-L-703 turboshaft engines.

Note: These engines are installed on, but not limited to Bell 204, 205, and 209 series, and the following surplus military helicopters: AH-1, HH-43, TH-1, UH-1 and SW-204/205 (UH-1) series.

Requirement: To prevent failure of the tachometer drive spur gear, perform special vibration tests of the engine per SB T5311A/B-0100, T5313B/17-0100, T53-L-11-0100 rev 2, T53-L-13B-0100 rev 2, or T53-L-703-0100 rev 2, as applicable.
(FAA AD 2002-03-01 refers)

Compliance: Within next 100 hours TIS, and thereafter at intervals not to exceed 500 hours TIS for engines fitted with spur gear P/N 1-070-062-04 or 1000 hours TIS for engines fitted with spur gear P/N 1-070-062-06.

Effective Date: 28 March 2002

DCA/AL-T/27 Centrifugal Compressor - Revised Cycle Limit and Inspection

Applicability: T53 series turboshaft engines with centrifugal compressor impellers P/N 1-100-078-07 or 1-100-078-08 installed. These engines are installed on, but not limited to, Bell AH-1, UH-1, and SW-204/205 (UH-1) helicopters.

Requirement: To prevent centrifugal compressor impeller failure, which can result in an uncontained engine failure, accomplish the following:-

1. Cycle Calculation

Do a revised centrifugal compressor impeller operating cycle count (prorate) per Honeywell International, Inc. SB T53-L-13B-0020, Revision 3, SB T53-L-13B/D-0020 Revision 1, or SB T53-L-703-0020 Revision 1, as applicable to engine type.

2. Removal from Service

Following the revised operating cycle count required by part 1 of this AD, remove from service installed centrifugal compressor impellers that exceed their life limit or whose life cannot be determined, and replace with a serviceable part that does not exceed the life limit, which is revised per part 1 of this AD.

3. Inspection

Inspect centrifugal compressor impellers, P/N 1-100-078-07 and 1-100-078-08, per the accomplishment instructions of AlliedSignal SB No. T53-L-13B-0108, Revision 1, SB No. T53-L-13B/D-0108, Revision 1, or SB No. T53-L-703-0108, Revision 1, as applicable to engine model. Impellers found cracked must be removed from service prior to further flight and replaced with a serviceable part.

4. Repetitive Inspections

If no cracks are found, perform repetitive inspections of the centrifugal compressor impellers per the applicable SB.
(FAA AD 2002-09-09 refers)

- Compliance:**
1. Within 25 CIS or 7 calendar days, whichever occurs first.
 2. Within a further 50 hours TIS, or 25 CIS, whichever occurs first.
 3. Prior to reaching 4800 CSN or within 200 CIS whichever occurs later.
 4. At intervals not to exceed 500 CIS since last inspection.

Effective Date: 30 May 2002

* **DCA/AL-T/28** **Cancelled – DCA/AL-T/33 refers**

Effective Date: 18 April 2019

DCA/AL-T/29 **Engine Fuel Control Regulator – Inspection and Replacement**

Applicability: Model T5311A, T5311B, T5313B, T5317A, T5317A-1 and T5317B series turboshaft engines, and

Model T53-L-11B, T53-L-11D, T53-L-13B, T53-L-13B/D and T53-L-703 series turboshaft engines,

Fitted with Goodrich Pump & Engine Control Systems, Inc. (formerly Chandler Evans Control Systems) engine fuel control regulator assembly models TA-2S, TA-2G, TA-2F, TA-7 or TA-10.

These engines are installed on, but not limited to, Bell 204, Bell 205, Kaman K-1200, Bell AH-1 and Bell UH-1 helicopters.

Requirement: To prevent in-flight engine failure due to the possibility of loss of fuel flow from the engine fuel control regulator assembly because of the failure of both main and secondary drive shaft and pump gear splines, perform a visual and dimensional inspection of the fuel control regulator assembly main and secondary drive shaft and pump gear splines for wear, per Goodrich Pump & Engine Control Systems, Inc. (TA series) Service Bulletin No. 73-42, revision 1.

Remove the fuel control regulator assembly from the engine and accomplish a visual and dimensional inspection of the fuel control regulator assembly main and secondary drive shaft and pump gear splines, per paragraphs 2.A. through to 2.D.(7) and paragraphs 2.E. through to 2.F.(2) in the accomplishment instructions of SB No. 73-42.

Engine fuel control regulators which fail the inspection are to be replaced per SB No. 73-42, before further flight.
(FAA AD 2006-11-16 refers)

Compliance: Within the next 150 hours TIS and thereafter at intervals not to exceed 1250 hours TIS.

Effective Date: 29 June 2006

DCA/AL-T/30 Boost Pump Drive Shaft – Replacement

- Applicability:** Model T53 series turbine engines.
- Requirement:** To prevent secondary failure of the N2 secondary drive shaft as a result of possible binding of the torque meter boost pump drive shaft, replace the torque meter boost pump P/N 1-300-221-02 and P/N 1-300-221-02 with P/N 1-300-221-03 or P/N 1-300-221-04.
- Note:** Avco Lycoming SB No. 0031 pertains to the subject of this AD. (FAA AD 1975-22-02 refers)
- Compliance:** Within the next 200 hours TIS unless previously accomplished.
- Effective Date:** 26 February 2009

DCA/AL-T/31 Fuel Regulator Lever – Rework

- Applicability:** Model T53 series turbine engines.
- Requirement:** To prevent failure of the fuel regulator P1 multiplier lever which could result in loss of engine power, accomplish the following instructions in accordance with Avco Lycoming SB No. 0048, revision 1, dated 15 March 1978 or later approved revisions:
- Fill the fuel regulator P1 multiplier cavity with silicone oil, General Electric P/N SF96-100 or an equivalent and re-identify the fuel regulator with a new P/N per the instructions in SB No. 0048.
- Note:** Avco Lycoming SB No. 0048 revision 1 dated 15 March 1878 pertains to the subject of this AD. (FAA AD 1977-17-08 refers)
- Compliance:** By 26 April 2009.
- Effective Date:** 26 February 2009

DCA/AL-T/32 Compressor Drive Assembly – Inspection & Life Limitation

- Applicability:** Model T5313B and T5317 series turboshaft engines.
- Requirement:** To prevent centrifugal compressor impeller failure which could result in an uncontained engine failure, possible damage to the aircraft and loss of engine power, accomplish the following:
1. Inspect the aircraft engine logbooks and determine the centrifugal compressor impeller operating cycle count per the revised operating cycle count in paragraph 2.E. of Textron Lycoming SB No. T5313B/17-0020 revision 4 dated 5 July 1994.
 2. Replace centrifugal compressor impellers that have exceeded their life limit.
 3. Centrifugal compressor impellers that have exceeded their life limit shall not be fitted to any engine.
 4. For centrifugal compressor impellers fitted to model T5313B engines:
Inspect centrifugal compressor impellers P/N 1-100-078-07 and 1-100-078-08 for cracks per Textron Lycoming SB No. T5313B/17-0052 revision 2 dated 16 December 1993. Replace cracked centrifugal compressor impellers with a serviceable part.

5. For centrifugal compressor impellers fitted to model T5317 series engines:

Inspect centrifugal compressor impellers P/N 1-100-078-07 and 1-100-078-08 for cracks, per SB No. T5313B/17-0052. Replace cracked centrifugal compressor impellers with a serviceable part.
(FAA AD 1995-10-04 refers)

- Compliance:**
1. By 16 March 2009 unless previously accomplished.
 2. Within the next 50 hours TIS or 25 cycles whichever occurs first, unless previously accomplished.
 3. From 26 February 2009.
 4. Within 200 cycles for centrifugal compressor impellers with 4600 or more cycles and by 4800 cycles for centrifugal compressor impellers with less than 4600 cycles, and thereafter at intervals not to exceed 500 cycles.
 5. Within 200 cycles for centrifugal compressor impellers with 3500 or more cycles and by 3700 cycles for centrifugal compressor impellers with less than 3500 cycles and thereafter at intervals not to exceed 500 cycles.

Effective Date: 26 February 2009

DCA/AL-T/33 Turbine Rotating Components – Life Limitation

Applicability: Model T5309, T5311, T5313B, T5317A, T5317A-1 and T5317B series turboshaft engines which are fitted to Bell 204, Bell 205 and Kaman K-1200 series helicopters.

Model T53-L-9, T53-L-11, T53-L-13B, T53-L-13BA, T53-L-13B S/SA, T53-L-13B S/SB, T53-L-13B/D and T53-L-703 series turboshaft engines fitted to Bell AH-1 and UH-1 helicopters.

Requirement: To prevent failure of certain compressor, gas producer and power turbine rotating components which could result in an uncontained engine failure, possible damage to the aircraft and loss of engine power, accomplish the following:

1. For T5309, T5311, T53-L-9, and T53-L-11 series turboshaft engines:

Inspect the aircraft engine logbooks and determine the total operating hours and cycles of the rotating components and replace as required before exceeding the new service life limits per paragraph 2.a. through to 2.f. and the Component Service Life Limits Table 1 in Lycoming SB No. 0002 revision 2 dated 6 March 1989.

2. For T5313B, T5317A, T5317A-1, and T5317B turboshaft engines:

Inspect the aircraft engine logbooks and determine the total operating hours and cycles of the rotating components and replace as required before the new service life limits per 2.A. through to 2.K. and the Component Service Life Limits Table 1 in Honeywell International Inc. SB No. T5313B/17-0020 revision 7 dated 21 November 2002.

For affected engines that have one or more rotating components that exceed the limits specified in the Component Service Life Limits Table 1 of SB No. T5313B/17-0020, replace the components using the applicable draw-down schedule in Table 1 of Honeywell International Inc. SB No. T5313B-0125 dated 15 March 2001 or Honeywell International Inc. SB No. T5317-0125 dated 15 March 2001.

3. For T53-L-13B, T53-L-13BA, T53-L-13B S/SA, and T53-L-13B S/ SB turboshaft engines:

Inspect the aircraft engine logbooks and determine the total operating hours and cycles of the rotating components and replace as required before the new service life limits per 2.A. through to 2.J. and Component Service Life Limits Table 1 in Honeywell International Inc. SB No. T53-L-13B-0020 revision 3 dated 25 October 2001.

For affected engines that have one or more rotating components that exceed the limits specified in the Component Service Life Limits Table 1 of Honeywell SB No. T53-L-13B-0020 replace the components using the applicable draw-down schedule in Table 1 of Honeywell International Inc. SB No. T53-L-13B-0125 dated 5 April 2001.

4. For T53-L-13B/D turboshaft engines:

Inspect the aircraft engine logbooks and determine the total operating hours and cycles of the rotating components and replace as required before the new service life limits per 2.A. through to 2.J. and the Component Service Life Limits Table 1 in Honeywell International Inc. SB No. T53-L-13B/D-0020 revision 2, dated 25 November 2002.

For affected engines that have one or more rotating components that exceed the limits specified in the Component Service Life Limits Table 1 in Honeywell International Inc. SB No. T53-L-13B/D-0020, replace the components using the applicable draw-down schedule in Table 1 in SB No. T53-L-13B/D-0125 date 5 April 2001.

5. For T53-L-703 turboshaft engines:

Inspect the aircraft engine logbooks and determine the total operating hours and cycles of the rotating components and replace as required before the new service life limits per 2.A. through to 2.K. and Component Service Life Limits Table 1 in SB No. T53-L-703-0020 revision 2 dated 25 November 2002.

For affected engines that have one or more rotating components that exceed the limits specified in the Component Service Life Limits Table 1 in SB No. T53-L-703-0020, replace the components using the applicable draw-down schedule in Table 1 in SB No. T53-L-703-0125 dated 5 April 2001.

6. For any engines fitted with affected parts with unknown hour TIS or cycles:

Replace the affected parts. Computing Compliance Intervals.

7. Do not fit any rotating component to any engine which has been removed from service per the requirements of this AD.

Note: For the purpose of this AD, use the effective date of this AD for determining compliance intervals whenever the SBs refer to the release date of the SB. (FAA AD 2006-01-05 refers)

- Compliance:**
1. Within the next 100 hours TIS or by 26 May 2009 whichever occurs first, unless previously accomplished.
 2. Within the next 100 hours TIS or by 26 May 2009 whichever occurs first, unless previously accomplished.
 3. Within the next 100 hours TIS or by 26 May 2009 whichever occurs first, unless previously accomplished.
 4. Within the next 100 hours TIS or by 26 May 2009 whichever occurs first, unless previously accomplished.
 5. Within the next 100 hours TIS or by 26 May 2009 whichever occurs first, unless previously accomplished.
 6. Within the next 250 cycles.
 7. From 26 February 2009.

Effective Date: 26 February 2009

DCA/AL-T/34 Combustion Chamber Housings – Inspection and Replacement

Applicability: Model T5313B, T5317A, T5317A-1, T5317B and T5317BCV turboshaft engines fitted with combustion chamber housing P/N 1-130-610-05, 1-130-610-12 or 1-130-610-17. These engines are installed on, but not limited to, Bell 205 and 210 series aircraft and Kaman K-1200 aircraft.

Requirement: To prevent failure of the Combustion Chamber Housing (CCH) due to possible cracks which could result in loss of engine power, accomplish the following:

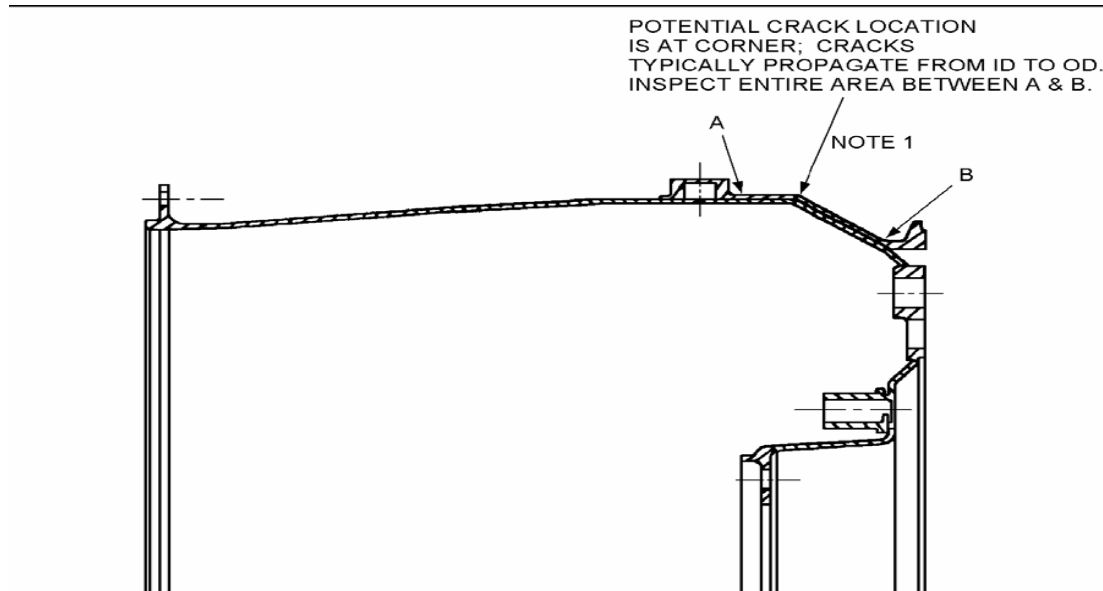
1. Visual Inspection of CCH P/N 1-130-610-05 and 1-130-610-12:

Inspect the area between points A and B around the entire housing circumference in figure 1 of this AD for weld repairs and cracks.

If any cracks are found, replace the CCH per Honeywell International ASB T53-A0142 revision 1, dated 14 September 2006 before further flight.

If any weld repairs are found replace the CCH within the next 100 hours TIS after accomplishing the visual inspection per requirement 1 of this AD.

Note 1: Honeywell International Standard Practices Manual 70-20-02, SP 1302, contains additional guidance on the visual inspection requirements.



Note 1: No weld repairs allowed in this area.

Figure 1: Visual Inspection of Combustion Chamber Housing (CCH)

2. Ultrasonic Inspection of CCH P/N 1-130-610-05 and 1-130-610-12:

Accomplish an ultrasonic inspection on the CCH per section 3 and the appendix of Honeywell International SB No. T53-0144 revision 4, dated 31 March 31, 2008.

3. Ultrasonic Inspection of CCH P/N 1-130-610-17:

Accomplish an ultrasonic inspection on the CCH per section 3 and the appendix of SB No. T53-0144.

- Note 2:** The installation of a CCH P/N 1-130-610-19 or 1-130-610R16 or a manufacturer approved equivalent part is a terminating action to the inspection requirements of this AD.
- Note 3:** Honeywell International ASB T53-A0142 revision 1, dated 14 September 2006 and the Standard Practices Manual 70-20-02, SP 1302 pertains to the subject of this AD. (FAA AD 2009-15-13 refers)
- Compliance:**
1. Within the next 50 hours TIS and thereafter at intervals not to exceed 50 hour TIS.
 2. Within the next 500 hours TIS, or the next hot section inspection, or by 27 February 2010 whichever occurs sooner, and
Thereafter at intervals not to exceed 1200 cycles (defined as the cumulative number of landings), or at intervals not to exceed 200 cycles if there were ultrasonic findings at the last inspection as defined in paragraph 3.A.(2) or paragraph 3.A.(3) of SB No. T53-0144.
 3. At the first engine overhaul, or before 5000 hours TTIS on the engine, or 11000 total cycles on the engine, whichever occurs sooner, and
Thereafter at intervals not to exceed 1200 cycles (defined as the cumulative number of landings), or at intervals not to exceed 200 cycles if there were ultrasonic findings at the last inspection as defined in paragraph 3.A.(2) or paragraph 3.A.(3) of SB No. T53-0144.
- Effective Date:** 27 August 2009

DCA/AL-T/35 Gas Generator Turbine Discs – Life Limitation and Replacement

Applicability: Model LTS101-600A-2, -600A-3, -600A-3A, -650B-1, -650B-1A, -650C-2, -650C-3, -650C-3A, -750A-1, -750A-3, -750B-1, -750B-2, and -750C-1 turboshaft engines and LTP101-600A-1A and -700A-1A turboprop engines fitted with a gas generator turbine disc P/N 4-111-015-14 and S/N listed in appendix 1 of Honeywell International Inc. SB LT 101-71-00-0002.

These engines are known to be installed on, but not limited to, Eurocopter France AS350, Eurocopter Deutschland GMBH BK117, Bell Helicopter Textron 222 helicopters, Page Thrush, Air Tractor AT-302, Industrie Aeronautique e Meccaniche (formerly Piaggio & Co.) P166-DL3, Pacific Aerospace 08-600 and Riley International R421 aircraft.

- Requirement:** To prevent failure of the gas generator turbine disc due to an error in a change to the engineering drawing which could result in an uncontained engine rupture, loss of engine power and damage to the aircraft, accomplish the following:
1. Replace affected engines or replace affected gas generator turbine discs per the instructions in Honeywell International Inc. SB LT 101-71-00-0002, revision 26, dated 2 April 2008.
 2. An affected gas generator turbine disc P/N 4-111-015-14 with a S/N listed in appendix 1 of SB LT 101-71-00-0002 with 5040 or more CSN shall not be fitted to any model LTS101-600, -650 or -750 series turboshaft engine.
 3. An affected gas generator turbine disc P/N 4-111-015-14 with a S/N listed in appendix 1 of SB LT 101-71-00-0002 with 2770 or more CSN shall not be fitted to any model LTP101-600A-1A or -700A-1A turboprop engine.

Note: The S/N of affected gas generator turbine discs are listed in appendix 1 of Honeywell International Inc. SB LT 101-71-00-0002 revision 26 dated 2 April 2008. (FAA AD 2009-24-12 refers)

- Compliance:**
1. For model LTS101–600, –650, and –750 series turboshaft engines:
 Within the next 100 cycles for engines with 4940 or more CSN, and at 5040 CSN for engines with less than 4940 CSN.
For LTP101–600A–1A and –700A–1A turboprop engines:
 Within the next 50 cycles for engines with 2720 or more CSN, and at 2770 CSN for engines with less than 2720 CSN.
 2. From 4 January 2010.
 3. From 4 January 2010.
- Effective Date:** 4 January 2010

DCA/AL-T/36 Rigid Tube Fuel Manifolds – Inspection and Replacement

Applicability: Model LTS101 series turboshaft engines fitted with rigid tube fuel manifolds P/N 4-301-042-02, 4-301-042-04, 4-301-042-05, 4-301-042-06, 4-301-236-01, 4-301-236-02, 4-301-236-03, 4-301-236-04, 4-301-286-01, 4-301-286-02 and 4-301-376-01.
 These engines are installed on, but not limited to Aerospatiale AS350, Eurocopter MBB-BK117 and HH-65A, Bell 222, Page Thrush, Air Tractor AT-302, Piaggio P.166-DL3, Riley International R421, and Pacific Aerospace 08-600 aircraft.

- Requirement:** To prevent engine fuel leaks due to possible low cycle fatigue cracks in the rigid tube fuel manifold, which could result in an inflight fire, accomplish the following:
1. Replace affected fuel manifolds per the compliance of this AD.
 2. New Life Limitation:
 Affected fuel manifolds listed in the applicability of this AD may not be fitted to any engine if they meet any of the following conditions:
 - The manifold has accumulated 3000 or more total Ng cycles, or
 - The manifold has had partial tube replacements, or
 - The manifold has an unknown number of Ng cycles.

(FAA AD 2001-22-07 refers)

- Compliance:**
1. Fuel Tube Replacement Schedule:
 Replace affected fuel manifolds that have accumulated the following gas generator rotor (Ng) cycles since new (CSN) on the effective date of this AD, or Ng cycles in service (CIS) on the effective date of this AD since all tubes were replaced, unless previously accomplished:

Gas Generator (Ng) CSN, or Ng CIS since total tube replacement:	Replacement schedule:
With 2750 or less	Before accumulating 3000 total Ng cycles.
With more than 2750	Within 250 CIS after the effective date of this AD.
Unknown	Within 2000 CIS after the effective date of this AD, or At the next engine removal, or At the removal of the fuel manifold for cause, whichever occurs sooner.

2. From 31 March 2011.

Effective Date: 31 March 2011

DCA/AL-T/37 Power Turbine Rotor – Life Limitation

Applicability: Model LTS101-600A-2, -3, -3A, LTS101-700D-2, LTS101-650B-1, LTS101-650C-3, LTS101-650C-3A, LTS101-750B-1, LTS101-750B-2, LTS101-750C-1 and LTS101-850B-2 turboshaft engines, and

Model LTP101-600A-1A and LTP101-700A-1A turboprop engines,

Fitted with power turbine rotor P/N 4-141-290-01, -02, -03, -05, -06, -11, -12, -13, -14 or -16.

These engines are installed on, but not limited to Eurocopter AS350 and BK117 series helicopters and Bell 222 series helicopters, and Page Thrush, Air Tractor AT-302, Pacific Aero 08-600, Piaggio P166 DL3 and Riley International R421 aeroplanes.

Note: This AD is not applicable to engines fitted with power turbine rotors P/N 4-141-290-11, -12, -13 and -14 marked with "ORI T41881" on the aft hub in the vicinity of the P/N.

Requirement: To prevent failure of power turbine blades which could result in sudden loss of engine power and safe continued flight, accomplish the following:

1. For LTS101-600A-2, -3, -3A and LTS101-700D-2 turboshaft engines and LTP101-600A-1A and LTP101-700A-1A turboprop engines:

Replace power turbine rotors P/N 4-141-290-01, -02, -03, -05, -06, -11, -12, -13, -14, or -16 per the instructions in Honeywell International Inc. SB LT 101-71-00-0252 and/or LTS101-71-00-0253 as applicable.

2. For LTS101-650B-1, -650C-3, -650C-3A, -750B-1, -2, -750C-1 and -850B-2 turboshaft engines:

Replace power turbine rotors P/N 4-141-290-01, -02, -03, -05, -06, -11, -12, -13, -14, or -16 per the instructions in Honeywell International Inc. SB LT 101-71-00-0252 and/or LTS101-71-00-0253 as applicable.
(FAA AD 2011-08-06 refers)

Compliance: 1. For LTS101-600A-2, -3, -3A and LTS101-700D-2 turboshaft engines and LTP101-600A-1A and LTP101-700A-1A turboprop engines:

Power Turbine Rotor CSN:	Replace Power Turbine Rotor:
Less than 5000 CSN	Between 5000 and 5500 CSN
5000 to 7899 CSN	Within the next 500 cycles or before exceeding 8000 CSN whichever occurs sooner.
7900 to 9999 CSN	Within the next 100 cycles or before exceeding 10050 CSN whichever occurs sooner.
10000 or more CSN	Within the next 50 cycles.

2. For LTS101-650B-1, -650C-3, -650C-3A, -750B-1, -2, -750C-1 and -850B-2 turboshaft engines:

Power Turbine Rotor CSN:	Replace Power Turbine Rotor:
Less than 5500 CSN	Between 5000 and 7200 CSN.
5500 to 7999 CSN	Within the next 1700 cycles or before exceeding 8950 CSN whichever occurs sooner.
8000 to 9999 CSN	Within the next 950 cycles or before exceeding 10400 CSN whichever occurs sooner.
10000 or more CSN	Within the next 400 cycles.

Effective Date: 17 May 2011

DCA/AL-T/38 Power Turbine Governor (PTG) – Inspection and Replacement

Applicability: Model LTS101-600A-2, LTS101-600A-3, LTS101-600A-3A and LTS101-700D-2 turboshaft engines with a Power Turbine Governor (PTG) model AL-AB1 P/N 4-301-289-03, 4-301-289-05, 4-301-289-09, 4-301-101-16 or 4-301-101-18 that has no compliance symbol, or is marked with a compliance symbol N or P on the PTG identification plate.

Requirement: To prevent loss of engine power which could result in an emergency autorotation landing and damage to the aircraft, accomplish the following:

1. For a PTG marked with a compliance symbol N, or with no compliance symbol on the PTG identification plate, replace the PTG with a part eligible for installation.
2. For a PTG marked with compliance symbol P on the PTG identification plate, replace the PTG with a part eligible for installation.

Note: Honeywell International Inc. SB No. LTS101-73-20-A0268, dated 23 August 2011 pertains to the subject of this AD.
(FAA AD 2011-23-13 refers)

Compliance:

1. Within the next 50 hours TIS for PTG with more than 150 hours TIS, TSN or TSO, and
Before accumulating 200 hours TTIS for PTG with 150 hours or less TIS, TSN or TSO, and
Thereafter at intervals not to exceed 200 hours TIS, TSN or TSO.
2. Before accumulating 900 hours TTIS, and thereafter at intervals not to exceed 900 hours TIS, TSN or TSO.

Effective Date: 8 December 2011