
AIRWORTHINESS DIRECTIVE

For the reasons set out in the background section, the CASA delegate whose signature appears below issues the following Airworthiness Directive (AD) under subregulation 39.001(1) of CASR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

AlliedSignal (Lycoming) Turbine Engines - T53 Series**AD/T53/22****Engine Fuel Pump Spline Failure****8/2006**

Applicability: Honeywell International Inc., (formerly AlliedSignal, Inc., formerly Textron Lycoming, formerly Avco Lycoming) T5311A, T5311B, T5313B, T5317A, T5317A-1, and T5317B series turboshaft engines and Lycoming former military T53-L-11B, T53-L-11D, T53-L-13B, T53-L-13B/D, and T53-L-703 series turboshaft engines using Goodrich Pump & Engine Control Systems, Inc. (GPECS) (formerly Chandler Evans Control Systems) engine fuel control regulator assembly models TA-2S, TA-2G, TA-2F, TA-7, or TA-10.

Note 1: The T5311A, T5311B, T5313B, T5317A, T5317A-1, and T5317B turboshaft engines are installed on, but not limited to, Bell 204, 205, and Kaman K-1200 helicopters. Lycoming T53-L-11B, T53-L-11D, T53-L-13B, T53-L-13B/D, and T53-L-703 series turboshaft engines are installed on, but not limited to, Bell AH-1 and UH-1 helicopters.

- Requirement:**
1. Remove the fuel control regulator assembly from the engine and perform an initial visual and dimensional inspection of the fuel control regulator assembly main and secondary drive shaft and pump gear splines for wear in accordance with paragraphs 2.A. through 2.D.(7) and 2.E. through 2.F.(2) of the Accomplishment Instructions of Goodrich Pump & Engine Control Systems, Inc. (TA series) Service Bulletin (SB) No. 73-42, Revision 1, dated 12 August 2004 or later FAA approved revision.
 2. Perform repetitive visual and dimensional inspections of the fuel control regulator assembly main and secondary drive shaft and pump gear splines for wear, as specified in requirement 1 of this AD.
 3. Do not install any engine fuel control regulator assembly that fails inspection.

Note 2: FAA AD 2006-11-16 Amdt 39-14620 dated 23 May 2006 refers.

- Compliance:**
1. Within 150 flight hours after the effective date of this AD, unless previously accomplished.
 2. Repetitively every 1,250 flight hours since-last- inspection.
 3. From the effective date of this AD.

This Airworthiness Directive becomes effective on 3 August 2006.

AlliedSignal (Lycoming) Turbine Engines - T53 Series

AD/T53/22 (continued)

Background: This AD results from several reports of loss of fuel flow from the engine fuel control regulator assembly due to failure of both main and secondary drive shaft and pump gear splines. The actions detailed in this AD are intended to prevent in-flight engine failure and forced autorotation landing.

A handwritten signature in black ink, appearing to read 'James Coyne', with a stylized flourish at the end.

James Coyne
Delegate of the Civil Aviation Safety Authority

21 June 2006