# COMMONWEALTH OF AUSTRALIA CIVIL AVIATION SAFETY AUTHORITY SCHEDULE OF AIRWORTHINESS DIRECTIVES

#### AIRWORTHINESS DIRECTIVE

On the effective date specified below, and for the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive (AD) AD/CON/60 Amdt 3 and issues the following 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.

## **Teledyne Continental Motors Piston Engines**

## AD/CON/60 Amdt 4

# **Fuel Injection Supply Lines**

2/2012

Applicability:

All Teledyne Continental Motors (TCM) fuel injected horizontally opposed piston engines.

#### Requirement:

- 1. Inspect all fuel nozzle supply lines between the fuel injector manifold and the fuel injector nozzles for evidence of cracking, corrosion, pitting, physical damage and stains caused by fuel leakage.
- 2. Replace any fuel nozzle supply line with evidence of cracking, corrosion, pitting, physical damage or stains caused by fuel leakage.
- 3. Inspect all fuel nozzle supply lines between the fuel injector manifold and the fuel injector nozzles for fitment and integrity of fuel line support clamps, in accordance with the engine manufacturer's published data.
- 4. Fit or replace as necessary, fuel nozzle supply line support clamps not in accordance with the engine manufacturer's published data.

Note: This Directive extends the applicability of FAA Airworthiness Directive (AD) 2011-26-04 Amendment 39-16894, or latest FAA approved revision (applicable to Lycoming Engines) to include all Teledyne Continental fuel injected horizontally opposed piston engines, and supersedes the requirements of Airworthiness Directive AD/CON/26.

### Compliance:

Requirement 1 & 3: At the next scheduled maintenance after the effective date of this AD and thereafter, at intervals not exceeding 110 hours time in service.

Requirement 2 & 4: Before further flight, following the inspections in accordance with Requirement 1 & 3 of this Directive.

This Amendment becomes effective on 30 January 2012.

#### Background:

This Directive has been issued, not to reflect a design error or a material fault, but to address inadequate maintenance. The FAA has reports of fatal accidents attributable to fuel injector supply line failure because of the inadequate maintenance.

## COMMONWEALTH OF AUSTRALIA CIVIL AVIATION SAFETY AUTHORITY SCHEDULE OF AIRWORTHINESS DIRECTIVES

#### **Teledyne Continental Motors Piston Engines**

AD/CON/60 Amdt 4 (continued)

A review of Australian Service Difficulty Reports (SDRs) has revealed many reports of fuel nozzle supply line defects. The majority of these reports advise of fuel leaks. In each report, there was evidence of inadequate maintenance.

This AD requires inspection and replacement as necessary of the fuel nozzle supply lines and their support clamps to preclude a fuel nozzle supply line failure, which may result in an engine failure or an engine fire event.

Amendment 4 of the AD corrects a typographical error noted in Amendment 3 and removes a reference to CAO 106 as it is no longer applicable, with no change in the AD Requirements or Compliance schedules.

Amendment 3 of the AD referred to FAA 2011-26-04 Amendment 39-16894, or latest FAA approved revision.

Amendment 2 of the AD corrected a typographical error noted in the Amendment 1 with no change in the AD Requirements or Compliance schedules.

Amendment 1 of the AD required additional visual inspection for the presence of pitting and corrosion in the fuel nozzle supply lines which was determined by ATSB to be the causal factor behind failure of one of the fuel lines. (ATSB Report reference BO/200601291).

Amendment 1 of this AD became effective on 31 August 2006.

The original issue of this AD became effective on 17 September 1992.



Mike Higgins Delegate of the Civil Aviation Safety Authority

24 January 2012