

Continuing Airworthiness Notice – 85-004



Teledyne Continental (TCM) Engines Crankshaft Gear P/N 657175

6 April 2009

Issued by the Civil Aviation Authority of New Zealand in the interests of aviation safety. A Continuing Airworthiness Notice (CAN) is intended to alert, educate, and make recommendations to the aviation community. A CAN contains non-regulatory information and guidance that does not meet the criteria for an Airworthiness Directive (AD). The inspections and practices described in this CAN must still be carried out in accordance with the applicable NZCAR Parts 21, 43 and 91. CAN numbering is by ATA Chapter and a serial number for the next CAN in that ATA Chapter.

The contents of this notice are ADVISORY ONLY and are NOT MANDATORY.

Applicability:

All Teledyne Continental Motors (TCM) O470, IO470, TSIO470, IO520, LIO520, LTSIO520, TSIO520, IO550 and IOF550 sandcast engines fitted with starter adaptor P/N 635050A()().

Note 1: The parentheses appearing in the starter adaptor P/N indicates the presence or absence of an additional letter(s)/number(s) that varies the basic P/N. This CAN applies regardless of whether these letters are present or absent in the adapter P/N.

Note 2: To determine which starter adaptor is fitted to the engine, refer to TCM SB08-12. The clutch spring on the old type starter adaptors P/N 635050A()() is covered by an adaptor housing sleeve. It is possible that the ink stamped P/N on the starter adaptor housing may no longer be visible.

Note 3: This Continuing Airworthiness Notice (CAN) is not applicable to the improved type starter adaptors P/N 643259()(), 643147()(), 643152()(), 646220()() and 653074()(). The clutch spring on these adaptors are exposed because the adaptor housing does not have a sleeve. For more information about these adaptors refer to TCM SB M92-10 dated 14 August 1992.

Purpose:

This CAN advises operators/maintainers of TCM engines fitted with the old type adaptor P/N 635050A()() to inspect for possible interference between the crankshaft gear attach bolt heads and the clutch spring adapter housing sleeve when fitting replacement crankshaft gear P/N 657175 per the instructions in TCM SB08-12.

Background:

This CAN is prompted by a report from an engine maintenance provider of finding the crankshaft gear retaining bolt heads interfering with the spring retaining sleeve on the old style adaptor P/N 635050A()() when fitting the thicker crankshaft gear P/N 657175 per the instructions in TCM SB08-12. This TCM SB introduced the mandatory replacement of sandcast crankshaft gears P/N 536421 and 653631 with a thicker crankshaft gear P/N 657175. The SB states that the replacement crankshaft gear P/N 657175 is thicker (0.69 inches) than gears P/N 536421 and 653631 which are respectively 0.565 and 0.562 inches thick.

Recommendation:

If crankshaft gear P/N 657175 is fitted with an old type adaptor P/N 635050A()() per the instructions in TCM SB08-12 the CAA recommends the following assembly procedure and inspection to check for interference between the crankshaft gear attach bolt heads and the clutch spring adapter housing sleeve, before starting the engine.

Fit the starter adaptor to the crankcase by pressing into position by hand. Do not use the attachment bolts to pull the starter adaptor into place. With the adaptor in position fit and tighten the attachment bolts. Before starting the engine, turn the engine over one complete revolution by hand and determine whether there is any interference between the crankshaft gear attach bolt heads and the adaptor housing. If any interference is found contact the engine manufacturer for corrective action.

Note 4: Copies of TCM SB08-12 and SB M92-10 are available on the TCM website at <http://tcmlink.com/servicebulletins.cfm>

Enquiries:

Enquiries with regard to the content of this Continued Airworthiness Notice should be sent to:

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