## TELEDYNE CONTINENTAL ® AIRCRAFT ENGINE

## SERVICE BULLETIN

**SB09-14** 

**Approved** 

Category 3

Technical Portions FAA

Contains Important Information Pertaining to Your Aircraft Engine.
Compliance Will Enhance Safety

SUBJECT: Crankshaft corrosion treatment

PURPOSE: To clarify recommendation of treatment of corrosion (rust) on the crankshaft surface as visible between the oil slinger and the back of the propeller flange.

COMPLIANCE: At any time rust corrosion is noted on crankshafts in the area listed above.

MODELS AFFECTED: ALL MODELS

## General;

Corrosion is defined as "Deterioration of a surface usually caused by oxidation of metal (steel surface rust and pitting)". Excerpt from O470 Overhaul manual X30586A.

Pitting is defined as a hole, indentation or "pit" in the surface caused by rust corrosion. Corrosion pitting can be caused by extended exposure of a steel surface to moisture or harsh cleaning chemicals without sufficient rinse of the surface after cleaning. The pitting evident in conjunction with metal corrosion is red or rust colored, usually uneven and jagged around the outside edge of the pit.

At any time evidence of corrosion and/or (rust) pitting is noted in the crankshaft area visible between the propeller flange and the front crankshaft seal or oil slinger, the crankshaft must be inspected. Visual inspection is necessary to determine if the corrosion (rust) is a surface indication or if the crankshaft exhibits pitting in the surface. Surface corrosion may be cleaned from the surface with non-corrosive soap product and Scotch-brite pad. After inspection and cleaning is completed, the crankshaft surface should be prepped and sprayed with a coating suitable to protect the bare metal. A good grade of Silver or Aluminum paint with a compatible primer will offer the surface coating required for abatement of further corrosion (follow the application instructions of the paint manufacturer)

Crankshaft should be inspected at each 100 hour/Annual inspection for any new corrosion indications.

TCM has NO factory approved field repair procedure for crankshafts exhibiting corrosion (rust) pitting while in service. Any crankshaft exhibiting pitting from corrosion (rust), must be repaired or replaced

Crankshaft repairs must be performed using only FAA approved procedures and processes meeting all requirements of the Federal Aviation Regulations (FARs).FAA approved repair facilities may have their own approved repair procedures to correct corrosion (rust) pitting in these areas.

Surface corrosion and/or pitting are not warrantable conditions.

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