

93-11-03 TELEDYNE CONTINENTAL MOTORS: Amendment 39-8600. Docket 93-ANE-32.

Applicability: Teledyne Continental Motors (TCM) Models O-200A, O-300A, O-300C, and O-300D reciprocating engines with the following serial numbers:

New O-200A: 256005 through 256009, 256011 and 256012;

Rebuilt O-200A: 281313-R, 281316-R, 281319-R through 281323-R, 281325-R through 281327-R, 281329-R, 281331-R, 281335-R, 281338-R, 281340-R, 281342-R, 281344-R, 281345-R, 281347-R, 281350-R, 281354-R, 281356-R, 281358-R, 281359-R, 281364-R, 281367-R, 281372-R through 281375-R, 281385-R, 281389-R, 281394-R, 281398-R, 281405-R, 281407-R, 281409-R, 281410-R, 281416-R, 281419-R through 281423-R, 281427-R, 281428-R, 281433-R, 281435-R, 281436-R, 281438-R, 281440-R, 281444-R through 281446-R, 281457-R, 281459-R through 281461-R, 281463-R, 281464-R, 281472-R, 281476-R, 281479-R, 281494-R, 285002-R, and 285005-R;

Factory Overhauled O-200A: 242663-H, 252848-H, 254252-H, 255170-H, 255210-H, and 255984-H;

Rebuilt O-300A: 16107D-R and 16108D-R;

Rebuilt O-300C: 230815-R;

Rebuilt O-300D: 25356-R, 25363-R, 25622D-R, 29680-R, 29723-R, 35774-R, 35977-R, and 35978-R;

Factory Overhauled O-300D: 27903-H, 29712-H, and 29899-H.

These engines are installed on but not limited to: Aeronca Models 15AC and S15AC; American Champion (Bellanca) Models 7ECA and 402; Cessna 150, 170, and 172 series; Maule Models Bee Dee M-4, M-4, M-4C, M-4S, and M-4T; and Taylorcraft Model F-19 aircraft.

Compliance: Required prior to further flight, unless accomplished previously.

To prevent engine failure from an incorrect connecting rod, accomplish the following:

(a) For engines that have less than 100 hours time in service (TIS), or unknown TIS, on the effective date of the AD since new, rebuild, or factory overhaul, accomplish the following:

(1) With the engine cold, remove the engine cowling, ground both magnetos, and remove the top spark plugs.

(2) Taking each cylinder in turn:

(i) Position each piston at about 60 degrees before top dead center.

(ii) Insert a small brass rod into the spark plug bore until contact with the top of the piston is achieved.

(iii) Holding the brass rod against the top of the piston, move the propeller back and forth about 30 degrees in a rocking motion to move the crankshaft.

(iv) By observing the brass rod move, ascertain that piston movement

responds immediately and synchronously to connecting rod/crankshaft movement; that is, the brass rod must move immediately upon moving the crankshaft.

(v) While checking for synchronous movement between the piston and the crankshaft, there must be no audible indication of differential movement between the piston and the connecting rod/crankshaft.

(3) If for any cylinder, piston movement does not respond immediately and synchronously to crankshaft movement, or if there is an audible indication of differential movement between the piston and the connecting rod/crankshaft, replace the connecting rod with the correct serviceable part for that model engine, and inspect for serviceability, and replace as necessary, other applicable engine parts.

(b) For engines that have 100 hours or more TIS on the effective date of this AD, since new, rebuild, or factory overhaul, no inspection is required.

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Atlanta Aircraft Certification Office. The request should be forwarded through an appropriate FAA Maintenance Inspector, who may add comments and then send it to the Manager, Atlanta Aircraft Certification Office.

NOTE: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the Atlanta Aircraft Certification Office.

(d) This amendment becomes effective July 13, 1993, to all persons except those persons to whom it was made immediately effective by priority letter AD 93-11-03, issued June 1, 1993, which contained the requirements of this amendment.