



CIVIL AVIATION AUTHORITY
CZECH REPUBLIC
Airworthiness Division
Airport Ruzyně, 160 08 Prague 6
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AIRWORTHINESS DIRECTIVE

Number: CAA-AD-086/2001R1
Supersedes CAA-AD-086/2001
Date of issue: March 20, 2003
Teledyne Continental

ENGINE - TIME BETWEEN OVERHAUL - CHANGE

Applicability: All types and models Teledyne Continental piston aircraft engines operated in the Czech Republic.

Reason: On a base of the service experience of the piston engines and verification of technical condition of piston engines the Civil Aviation Authority (CAA) makes decision to specify conditions prescribed in issued Airworthiness Directive (AD) for all Teledyne Continental piston aircraft engines.

Effective date: May 15, 2003.

Compliance :

If maximum twelve (12) years are reached since production or since latest overhaul.

All engines that do not accumulate the recommended operating hours since new or between overhaul in twelve (12) year period must be overhauled during the twelfth year. The time between overhaul may be extended for more than twelve years but the special check must be performed by approved maintenance organisation which is holder of Approval for performing overhaul. The technical condition of engine determines if it is possible to extent the time between overhaul, or if it is necessary to perform overhaul for continuing airworthiness of engine. The extension is allowed only once time. Maintenance organisation which is holder of Approval for performing overhaul must inform CAA by letter about intention and term of extension of time between overhaul over 12 years. CAA makes decision whether CAA inspector will be present during the check of the engine.

The possibility of extension of the time between overhaul for Teledyne Continental piston engines over twelve years from manufacturing or from the latest overhaul is determined by performing the special check. The special check consists of following items:

Approved maintenance organisation:

- 1.) performs boroscopic (see Remarks) or after disassembly of engine visual inspection of interior space of crankcase and checks that crankshaft, connecting rods, camshaft and other visible parts are not damaged mechanically or by corrosion.
- 2.) checks technical condition of work surfaces of all cylinders using boroscop or by disassembly of engine, condition of carbon deposits in combustion space, mechanical damage or corrosion damage, valves for tightness and valve rockers, valves springs for general condition and corrosion, composition parts of engine (gaskets, seals, flexible hoses) for general condition and replaces unserviceable parts.
- 3.) checks propeller flange for cracks by Liquid Penetrant (PT) defectoscopy method and checks corrosion in accordance with Maintenance manual.
- 4.) checks magnetos, spark plugs and all ignition harness for general condition. Approved maintenance organisation must pay particular attention to cable terminals and wire insulation.
- 5.) checks accomplishment of all applicable Mandatory Service Bulletins and of all applicable Airworthiness Directives.

- 6.) performs power parameters assurance check of engine and after that compression check of each engine cylinder and results compare with the Operator's Manual for the engine. Performs check of oil and oil filter for presence of metal parts.
- 7.) Issues the protocol about the special check performance assesses the result of the check and decides about necessity to perform overhaul or about one time extension of time between overhaul for more then twelve years, but maximum by three (3) years.
- 8.) The time between overhaul in operating hours cannot ever be exceeded.

Remarks:

- Approved organisation for overhauls will use documentation for overhaul including all service instructions and information letters issued by manufacturer for assembly, disassembly and consideration of technical status of engine.
- Certifying person records the AD compliance and the check result in Engine Logbook.
- Address inquiries concerning this AD to: Civil Aviation Authority, Airworthiness Division, Ruzyne Airport, 160 08 Prague 6, Czech Republic, tel: 420 233320922, fax: 420 220562270.
- This AD supersedes CAA-AD-086/2001
- The boroscope must include videocamera, monitor, videorecorder and light source min. 150 W. The boroscope must comply minimum:
 - Optical adapter outer diameter must be max 6mm
 - depth of field from 5 mm. to infinite
 - field of view minimum 50°

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