

Airworthiness Directive

Federal Register Information

Header Information DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-5893; AD 80-04-03 R2

AVCO LYCOMING Model O-320-H, O-360-E, LO-360-E, TO-360-E and LTO-360-E Series Engines **PDF Copy (If Available):**

Preamble Information

DATES: Effective April 25, 1988.

Regulatory Information

80-04-03 R2 AVCO LYCOMING: Amendment 39-3692 as amended by Amendment 39-3977 is further amended by Amendment 39-5893. Applies to O-320-H series engines and O-360-E, LO-360-E, TO-360-E and LTO-360-E series engines; (all serial numbers and hydraulic lifter (tappet) configurations). Compliance required as indicated, unless already accomplished.

a. To prevent hazards in flight associated with bent push rods on Model O-320-H series engines,

accomplish the following:

Within the next 50 hours in service after the effective date of this AD, replace the upper exhaust valve spring seats with P/N LW-16475-KLI and the exhaust hydraulic lifters with P/N LW-16586 in accordance with AVCO Lycoming Service Bulletin No. 435 dated March 17, 1979, or FAA-approved equivalent, on all O- 320-H series engines with serial numbers up to and including L-6182-76 and on all O-320-H series engines overhauled (remanufactured by Lycoming) before March 19, 1979. b. To prevent excessive wear and oil system contamination associated with hydraulic lifters spalling on O-320-H, and O-360-E, LO-360-E, TO-360-E and LTO-360-E series engines, accomplish the following: 1. At the next engine oil change but no later than 50 hours in service after the effective date of this AD, and at each subsequent oil change or 50-hour interval, whichever occurs earlier, add one 6-ounce can of Lycoming P/N LW-16702 oil additive in accordance with Lycoming Service Bulletin No. 446B. 2. Within the next 50 hours in service after the effective date of this AD and at every subsequent oil change thereafter, not to exceed 100-hour intervals, inspect lubrication system for metal contaminants. Inspection of the lubrication system consists of visual examination for minute particles of metal suspended in the oil, examination of the engine oil suction screen for presence of metal particles and the inspection of the external full flow oil filter for metal particles by cutting it open so that the pleated element can be unfolded and examined. If ferrous metal contaminants are detected during the above inspections, the camshaft lobes and all hydraulic lifters must be inspected for wear or loss of metal. Replace the camshaft and hydraulic lifters found to have such indications.

3. If contaminants are detected, engine maintenance entries shall be made. If the engine is one of the affected Textron Lycoming engine models with the 'T mod' modification (larger diameter hydraulic lifters), notification in writing must be sent to the Manager, New York Aircraft Certification Office, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581, specifying the following information:

1. Engine Model and Serial Number.

- 2. Total time and time since overhaul.
- 3. Total time on cam and hydraulic lifters.
- 4. Total time since oil additive first used.

5. Visual condition of cam lobe and lifter contact surfaces.

(Information collection requirements contained in this regulation (Section 39.13) have been approved by the Office of Management and Budget under the provisions of the Paperwork Reduction Act of 1980 (Pub. L. 96- 511) and have been assigned OMB control number 2120-0056).

NOTE: The 'T mod' is the latest design crankcase that incorporates large diameter hydraulic lifters and wide lobe camshafts and is described in Textron Lycoming Service Instruction No. 1406B. Engines incorporating this configuration are identified by the letter 'T' stamped as a suffix to the engine serial number which appears on the engine nameplate for overhaul modified, remanufactured, and new production engines (e.g., L-6005-76T).

c. Equivalent methods of compliance may be approved by the Manager, New York Aircraft Certification Office, FAA, New England Region.

d. Upon submission of substantiating data by an owner or operator through an FAA Maintenance Inspector, the Manager, New York Aircraft Certification Office, FAA, may adjust the compliance time specified in this AD.

e. Special Flight Permits may be issued per FAR's 21.197 and 21.199 to authorize operation of aircraft to

a base where the modification and inspection required by this AD may be performed. Amendment 39-3692 was effective February 8, 1980. Amendment 39-3977 was effective November 24, 1980. This amendment 39-5893, becomes effective on April 25, 1988.

Footer Information

Comments