

# MANDATORY

# SERVICE BULLETIN

DATE: February 5, 2003

Service Bulletin No. 240S  
(Supersedes Service Bulletin No. 240R)  
Engineering Aspects are  
FAA Approved

SUBJECT: Mandatory Parts Replacement at Normal Overhaul and During Repair  
or Normal Maintenance

MODELS AFFECTED: All Lycoming reciprocating aircraft engines.

TIME OF COMPLIANCE: As specified below.

## **AT OVERHAUL OR UPON REMOVAL:**

Any time the following parts are removed from any Lycoming reciprocating engine, it is mandatory that the parts be replaced regardless of their apparent condition.

- All circlips, lockplates, retaining rings and laminated shims
- All counterweight washers
- All lockwashers and locknuts
- Stressed bolts and fasteners, such as:
  - Stationary drive gear bolts (reduction gear)
  - Camshaft gear attaching bolts
  - Connecting rod bolts and nuts
  - Crankshaft flange bolts
  - Crankshaft gear bolt

## **AT OVERHAUL:**

During overhaul of any Lycoming reciprocating engine, it is mandatory that the following parts be replaced regardless of their apparent condition.

- All engine hoses
- All engine hose assemblies
- All oil seals
- All cylinder base seals
- All gaskets
- Piston rings
- Piston pins (thin wall)\*
- Piston pin plugs
- Propeller governor oil line elbow (aluminum)\*\*
- Propeller shaft sleeve rings
- Propeller shaft rollers (reduction gear pinion cage)

- Propeller shaft thrust bearings (all geared drive engines)
- Supercharger bearing oil seal (mechanically supercharged series)
- All exhaust valves (replace with current exhaust valves)
- All intake and exhaust valve guides
- All exhaust valve retaining rings
- Rocker arms and fulcrums (O-320-H, O, LO, TO, LTO-360-E Series)
- Aluminum push rod assemblies (O-235 and O-290 series)
- Hydraulic plunger assemblies (Except for P/N 78290, refer to the latest edition of Service Instruction No. 1011.)
- All bearing inserts (main and connecting rod)
- Cylinder fin stabilizers
- Magneto drive cushions
- Thermostatic bypass valves
- Damaged ignition cables
- Crankshaft sludge tubes
- Counterweight bushings in crankshaft and in counterweights (See latest edition of Service Instructions No. 1142 and 1143 for instructions.)
- Accessory drive coupling springs (supercharged and VO-540 engines)
- AC diaphragm fuel pumps
- Oil pump bodies (two-piece)
- Oil pump gears (Reference latest editions of Service Bulletin No. 524 and Service Instruction No. 1164)
- All V-band couplings and gaskets

Requirements for replacement of parts for accessories such as magnetos, carburetors, fuel injectors, AN fuel pumps, and turbochargers are described in the applicable manufacturer's manual.

\* - Heavy-wall piston pins P/N LW-14077 and P/N LW-14078 may be reused; all others should not be reused. See latest edition of Service Instruction No. 1340 and No. 1267 for replacement data.

\*\* - P/N MS-20822-6D aluminum propeller governor oil line elbow must be replaced with P/N MS20822-6 steel elbow at overhaul. It is not necessary to replace a steel elbow. (Reference latest edition of Service Instruction no. 1435 and Service Bulletin No. 488.)

Dimensional inspections should be carried out in accordance with measurements and tolerances as listed in "Table of Limits" (SSP-1776) for all parts approved for use.

| NOTE: Revision "S" adds counterweight washers.