

SERVICE BULLETIN

SB97-6A

Compliance Will Enhance Safety, Maintenance or Economy of Operation

FAA APPROVED
Supersedes M87-11 REV. 2

SUBJECT: MANDATORY REPLACEMENT PARTS

PURPOSE: TO IDENTIFY ITEMS TO BE REPLACED DURING MAINTENANCE, PREVENTATIVE MAINTENANCE AND OVERHAUL

COMPLIANCE: DURING MAINTENANCE, PREVENTIVE MAINTENANCE AND OVERHAUL

MODELS

AFFECTED: ALL MODELS

During any maintenance or preventive maintenance of engine or components, replace all removed gaskets, seals, packings, hoses, "O" rings, cotter pins, retaining rings (snap rings), safety wire, self locking fasteners (including exhaust and connecting rod nuts) and lock washers with new parts.

Engine mounted accessories must be maintained in accordance with the manufacturer's instructions. All accessories must be overhauled at engine overhaul, or more frequently, in accordance with the manufacturer's instructions.

Items such as spark plugs, alternator drive belts and air-conditioning drive belts must be replaced on condition.

Do not re-use any fasteners that are worn, damaged or deformed. Do not replate any cadmium plated fasteners or washers. If the cadmium plating has been removed discard the item and replace it with a new part.


At engine overhaul the starter, starter adapter, alternator, magnetos and engine fuel system must be overhauled. On turbocharged engines, the turbocharger, wastegate, controller and exhaust system must be overhauled. All engine baffles must be repaired or replaced and all flexible baffle seal replaced.

NOTE....Service bulletins published or revised subsequent to the issuance of this service bulletin may mandate the replacement of components and parts not included in this service bulletin. As such,

at engine overhaul the technician must review all service bulletins to insure compliance with the manufacturer's requirements for continued airworthiness.

In addition to the previously listed items, at engine overhaul the following parts must be discarded and replaced with new parts.


1. Hydraulic valve lifters (tappets)
2. Bearings: connecting rod, crankshaft main and thrust, needle, ball, and roller
3. Bushings: rocker arm, connecting rod, counter weight and crankshaft counterweight blade
4. Counterweight pins, retaining plates and snap rings
5. All connecting rod bolts and nuts
6. Connecting rod forging number 626119, TCM P/N's 646320 and 646321 with beam width less than .625 inches. Reference TCM CSB96-13.
7. Camshaft gear bolts
8. Crankshaft gear bolts
9. Crankshaft alternator face gear bolts and lock plates
10. Woodruff keys
11. Magneto drive rubber bushings
12. Exhaust valves
13. Exhaust valve rotocoils
14. Replace all intake valve rotocoils
15. Replace intake valve rotocoils with solid valve spring retainers on all E-series, O-470, IO-470, IO-520 / 550, TSIO-520 / 550 TSIOL-550 and GTSIO-520 engines.

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16. Intake and exhaust valve keepers
17. Inner and outer valve springs
18. Piston pins
19. Piston rings
20. Pistons
21. Rocker shafts
22. Rockers shaft thrust washers
23. Crankcase Through Bolts
24. Cylinder deck stud nuts and through bolt nuts
25. Exhaust clamps (Turbocharged engines)
26. Cold Start primer diverter valves
27. Fuel pump drive coupling P/N 631263 with P/N 653359 in accordance with TCM Mandatory Service Bulletin MSB 95-6 or latest revision
28. Starter Adapter Torsional Damper: GTSIO-520 model engines only
29. Starter Adapter shaft gear- GTSIO-520 model engines only
30. Replace all GTSIO-520 crankshaft gears.
31. Crankshaft gear 536421 or 653631 must be replaced with 657175 or later part number crankshaft gear in all SANDCAST applications; O470, IO470,TSIO470, IO520,LIO520, L/TSIO520, IO550and IOF550 engines.
32. Turbocharger oil supply and return check valves
33. Replace 360 series engine oil suction screens part numbers 649470, 649471, 652669, 652670 with current part number. Reference TCM Service Bulletin SB96-4.
34. Replace C-125, C-145 and O-300 series engine oil suction screen part number 633272 with current part number. Reference TCM Service Bulletin SB96-4.
35. O-300, IO-360, TSIO-360 and LTSIO-360 oil pump gears in accordance with TCM Service Bulletin SB 96-4 and CSB 96-5 or latest revision
36. Ignition system harness

AFFECTED PUBLICATIONS: Make the appropriate annotations to applicable manuals to call attention to this service bulletin.

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