

SERVICE BULLETIN

SB97-6

Compliance Will Enhance Safety, Maintenance or Economy of Operation

FAA APPROVED
Supersedes M87-11 REV. 2

SUBJECT: MANDATORY REPLACEMENT PARTS

PURPOSE: IDENTIFIES ITEMS TO BE REPLACED DURING MAINTENANCE AND OVERHAUL

COMPLIANCE: DURING MAINTENANCE, PREVENTIVE MAINTENANCE AND OVERHAUL

MODELS

AFFECTED: ALL MODELS

At assembly during maintenance, preventive maintenance and engine or component overhaul replace all gaskets, seals, packings, hoses, "O" rings, cotter pins, retaining rings (snap rings), safety wire, self locking fasteners (including exhaust nuts) and lock washers with new parts.

Engine mounted accessories must be maintained in accordance with the manufacturer's instructions. Additionally, 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 should 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, 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 seals 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. 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

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14. Replace intake valve rotocoils with solid valve retainers part number 35971 on all E-series, O-470, IO-470, IO-520 / 550, TSIO-520 / 550 TSIOL-550 and GTSIO-520 engines.
15. Intake and exhaust valve keepers
16. Inner and outer valve springs
17. Piston pins
18. Piston rings
19. Pistons
20. Rocker shafts
21. Rockers shaft thrust washers
22. Crankcase Through Bolts
23. Cylinder deck stud nuts and through bolt nuts
24. Exhaust clamps (Turbocharged engines)
25. Cold Start primer diverter valves
26. Fuel pump drive coupling P/N 631263 with P/N 653359 in accordance with TCM Mandatory Service Bulletin MSB 95-6 or latest revision
27. Starter Adapter Torsional Damper: GTSIO-520 model engines only
28. Starter Adapter shaft gear- GTSIO-520 model engines only
29. Crankshaft gear - GTSIO-520 model engines only
30. Turbocharger oil supply and return check valves
31. Replace 360 series engine oil suction screens part numbers 649470, 649471, 652669, 652670 with part number 653658. Reference TCM Service Bulletin SB96-4.
32. Replace C-125, C-145 and O-300 series engine oil suction screen part number 633272 with part number 653986. Reference TCM Service Bulletin SB96-4.
33. 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
34. Ignition system harness

AFFECTED PUBLICATIONS: We recommend that you make the appropriate annotations to applicable manuals to call attention to this service bulletin.

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