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# MANDATORY

# SERVICE BULLETIN

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Engineering Aspects are  
FAA (DER) Approved

SUBJECT: Action to Take If Loss of Oil Pressure

MODELS AFFECTED: All Lycoming series engines.

TIME OF COMPLIANCE: Prior to flight and/or during engine operation.

To operate correctly at various attitudes, Lycoming engines must be supplied with a sufficient quantity of lubricating oil. Unless an adequate quantity of lubricating oil is maintained, loss of oil pressure can occur.

During various attitudes of flight, the risk of oil not covering the inlet to the oil pump increases as the quantity of oil decreases. Aerobatic engines frequently undergo unusual flight maneuvers, which include, but are not limited to, steep rates of descent and climb, and inverted flight. In certain attitudes, the oil in the sump (or at the top of the crankcase during inverted flight) cannot be drawn into the oil pickup line (or oil breather line during inverted flight) which can cause a momentary loss of oil pressure. If there is insufficient oil during flight, oil starvation can occur. Yet, not all low oil pressure incidents result in oil starvation.

Very often a sudden loss of oil pressure is quickly accompanied by a sudden rise in oil temperature.

As a preventive measure, prior to every take-off, make sure the engine oil level is sufficient, as specified in the aircraft Flight Manual or Pilot Operating Handbook. Oil level requirements can vary among different aircraft.

Any time oil pressure falls below the minimum level, land the aircraft as soon as possible and diagnose to determine the root cause according to the following protocol progressive steps:

- a) Do a check of the oil level in the oil sump or the external tank (AIO-360 Series). Drain the oil, if necessary, to determine the oil quantity.
- b) If the oil level is sufficient, verify that the oil pressure indication system is accurate. If the oil pressure gage is malfunctioning, replace it.
- c) Examine oil line connections for leaks. Tighten any loose connections and look for leaks, Replace leaking oil lines.
- d) Examine the oil suction screen at the oil sump and the pressure screen/oil filter for blockage or metal deposits. If metal or blockage is found, remove the material and identify the origin of material and correct the root cause.
- e) Examine the oil pump for malfunction. Replace the oil pump if it is malfunctioning.
- f) If the oil pressure indication system is functioning correctly and oil pressure loss/oil starvation has been confirmed, remove and disassemble the engine and perform a complete inspection.



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Circumstances which cause loss of oil pressure are many and varied. Therefore, it is difficult to predict the extent of damage to the engine or assure its future reliability. In case of oil pressure loss or engine operation with oil below the minimum operating level, the most conservative action is to remove the engine, disassemble, and completely inspect all engine components. Any decision to operate an engine that was subjected to loss of oil pressure without an inspection must be the responsibility of the agency returning the aircraft to service.

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