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SERVICE INSTRUCTION

DATE: June 1, 2016

Service Instruction No. 1397A
Supersedes Service Instruction No. 1397
Engineering Aspects are
FAA Approved

SUBJECT: Overflow Oil from Breather Fitting of Inverted Oil System

MODELS AFFECTED: All AEIO-320, -360, -390, -540 and -580 Aerobatic series engines

TIME OF COMPLIANCE: Every 300 hours of operation or any time there is evidence of oil discharge from the breather.

REASON FOR REVISION: Added 390 and 580 engine models and clarification.

NOTICE: Incomplete review of all the information in this document can cause errors. Read the entire Service Instruction to make sure you have a complete understanding of the requirements.

This Service Instruction identifies necessary routine maintenance to be done on the inverted oil system of aerobatic Lycoming engines models.

Reports have been received from the field of oil being exhausted overboard through the breather fitting on the affected engine models. The loss of oil in this manner could cause the engine to be inoperative in a short period.

The loss of oil from the breather fitting can be caused by a series of aerobatic maneuvers performed in rapid sequence without enough normal flight to allow the oil to drain from the oil separator back to the engine oil sump. Also, loss of oil from the breather can be caused by an excessive amount of residue in the oil separator.

As a means of forestalling any problems that can arise from residue in the oil separator, it is recommended that the oil separator be removed from the aircraft and flushed with a petroleum solvent, such as mineral spirits or equivalent, every 300 hours of operation, or any time there is evidence of oil being discharged from the breather fitting.

If there is evidence of oil being discharged from the breather fitting and flushing the oil separator does not correct the problem, examine the inverted oil system components for any possible wear or damage. Replace any damaged or worn components.

NOTICE: Additional information regarding the general operation of the inverted oil system can be found in the applicable Lycoming Installation and Operation Manual or in the Christen Inverted Oil System Manual available from Aviat Aircraft, Afton WY.



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