

Thanakom Panyothin

From: Mcconnell, DAVE P <dave.p.mcconnell@lmco.com>
Sent: Wednesday, July 25, 2018 12:52 PM
To: Thanakom Panyothin
Cc: Grant Robinson
Subject: 761063 MGB oil pressure low - Recommended troubleshooting

Khun San

Following is the CSE recommendation for troubleshooting reported intermittent MGB low and fluctuating oil pressure on HVE.

Upon removal of the pumps please photograph the pump check valve positions and forward to this office.

Case Number: C0100157
Customer: Thai Aviation Services Limited
Aircraft S/N: 761063
Aircraft Model: S-76D
Aircraft TT: 2,069
ATA: 63
Part Number: 76351-09600-045
Case Subject: MGB Oil Pressure Low After Landing-Pump Adjustment Maxed

Problem Description:

A/C S/N 761063 has an intermittent history dating back to 07 JAN 2018 at A/C TT 1356.6 of MGB oil pressure momentarily undershooting and dropping below 49 PSI when the collective is lowered after landing, causing the MGB OIL PRESS caution light to illuminate.

Maintenance records do not indicate any MGB related maintenance in the weeks prior to the onset of the first event.

MGB P/N 76351-09600-045 S/N A231-00365 is original to the A/C. Oil was changed over to Mobil 1 ATF on 02 SEP 2017, A/C TT 930.0.

There have also been at least two reports of MGB oil pressure fluctuation of 4-6 PSI in cruise flight which were rectified the first time by a bypass valve replacement and the second time by an cooler replacement.

Troubleshooting to date has included replacement of the oil cooler thermostatic bypass valve, replacement of the cooler itself, replacement of the MGB oil pressure switch and oil pressure transmitter, and investigation of all associated wiring.

After a crew report on 10 MAR 2018 A/C TT 1534.8, troubleshooters increased both pumps 3/4 of a turn to a final pressure on the ground at FLY/FLAT PITCH of 75 PSI at 68 degrees C.

Since the pump pressure adjustment, the MGB oil pressure in cruise flight has been noted to be slightly higher than the TAS fleet average, but the MGB OIL PRESS caution light still illuminates when the collective is lowered after touchdown.

The exact frequency at which the caution light is occurring is uncertain as it is thought that not every crew reports the event.

After the most recent MGB OIL PRESS caution event to be reported on 21 JUL 2018, A/C TT 2061.6, troubleshooters again tried to adjust the pumps but discovered that the R/H pump adjustment was

bottomed at full increase, and the L/H pump adjustment was within a quarter turn of bottoming at full increase. No adjustments were made at that time.

HUMS RDF 78286.S-76D.1063.20180721T042951,050Z.RDF represents a typical recent flight where MGB OIL PRESS caution light illumination was reported by crew when the collective was lowered after landing.

TAS suspect a problem with one or both pump relief valves.

They request SA approval to replace pumps, and they solicit any other troubleshooting guidance. EoM

Problem Resolution:

Engineering has stated that it is acceptable to have the customer remove the Oil Pumps to inspect the relief valves. Have the customer reference ASB 76-66-40 for the pump removal procedures, the inspection of the relief valves, and to re-install the pumps.

Please have the customer inform CSE on the results, or any findings.

This email notification is provided as the case has been reviewed and does not contain technical data in the resolution.

David P. McConnell

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