

SUBJECT: INCORPORATION OF LYCOMING KIT NO. 05K22169 - OIL COOLED VALVE GUIDES FOR TIO-540-AF1A ENGINE IN M20M, MOONEY TLS.
 Revision B - Rework to engine cooling baffle required.
 Revision C - Relocate CHT probe from #5 cylinder to #3 cylinder for -AF1B configuration.

MODELS/S/N AFFECTED: M20M, S/N 27-0001 THRU 27- 0210

Revision B rework - As aircraft have Lycoming modification kit installed using 1/2 inch rocker box oil drain lines, the engine baffling will need to be reworked per Figure SI M20-101-2.

Revision C - Relocation of CHT probe should be accomplished at next maintenance action.

TIME OF COMPLIANCE: AT OWNERS DISCRETION

INTRODUCTION: Lycoming has introduced a redesigned cylinder head assembly which incorporates an oil cooled exhaust valve guide. Oil cooled valve guides have been used successfully in other Lycoming engines to reduce valve guide wear in high power and temperature environments. An engine and airframe retrofit kit is available per Lycoming Service Instruction No. 1479. The kit may be installed by any Lycoming Authorized Repair Facility as Lycoming components become available and aircraft can be scheduled into the facilities.

INSTRUCTIONS:

1. Retrofit in accordance with Lycoming Kit No. 05K22169 & SI No. 1479.
2. Drill .50 dia. hole in RH rear engine baffle. Locate hole from center of RH engine mount clearance hole: 3.6 in. inbd, 0.1 in. up
3. Remove CHT Probe from Cylinder #5. Relocate CHT Probe to Cylinder #3 mounting boss.
4. Reroute and secure all wire harnesses as needed.

WARRANTY: In accordance with Lycoming SI No. 1479.

REFERENCE

DATA: Lycoming Kit No. 05K22169 & SI No. 1479

PARTS LIST: Refer to Lycoming Kit No. 05K22169 for complete list of parts.

*Mooney hoses and hardware to be provided in Lycoming SI No. 1479, retrofit kit: **

| ITEM | P/N | DESCRIPTION | QTY |
|------|--------------------------|--------------------|-----|
| 1. | * 156F003-10D 0300 | HOSE ASSY | 1 |
| 2. | * 156F001-10D 0271 | HOSE ASSY | 1 |
| 3. | Lycoming Supplied | HOSE ASSY | 1 |
| 4. | Lycoming Supplied | HOSE ASSY | 1 |
| 5. | Lycoming Supplied | HOSE ASSY | 1 |
| 6. | * 6602-10-10-10 (Airway) | TEE, SWIVEL | 1 |
| | C5706x10 (W'hd) | TEE, SWIVEL (ALT) | |
| 7. | * 620066-21 | FLARE, ADAPTER | 1 |
| 8. | * 7A10 | SEAL, FLARE (SECO) | 1 |
| 9. | Lycoming Supplied | TEE, BLKHD | 1 |
| 10. | Lycoming Supplied | NUT, BLKHD | 1 |
| 11. | Lycoming Supplied | Modified Fittings | AR |

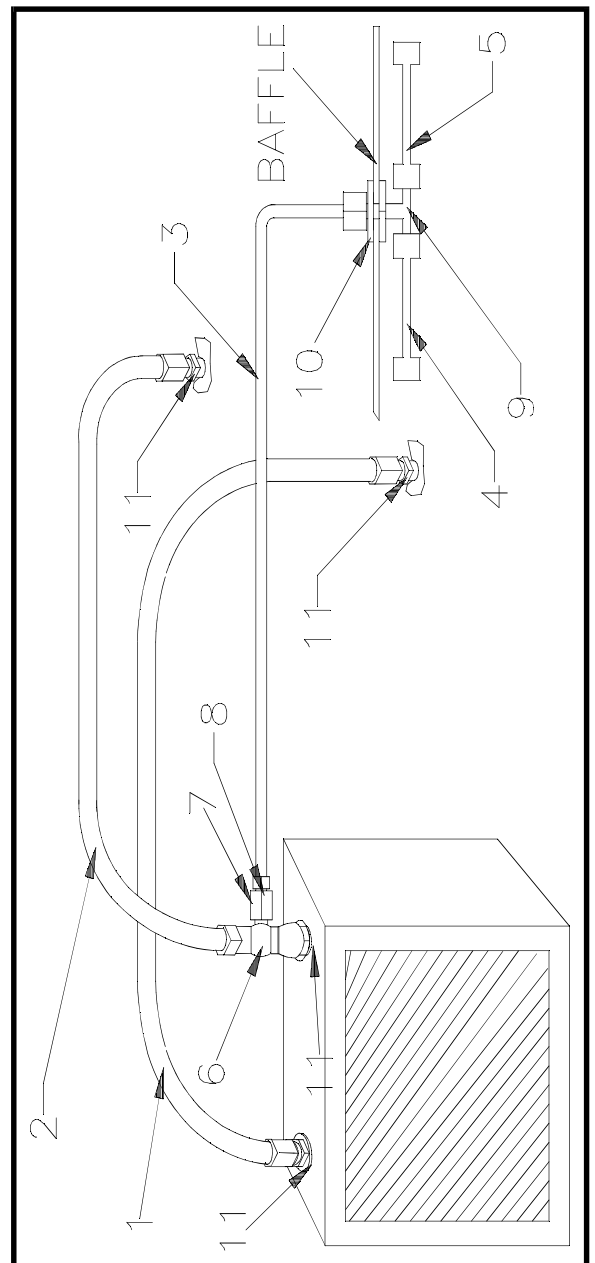


FIGURE SI M20-101-1

PARTS LIST: (con't.)

| ITEM | P/N | DESCRIPTION | QTY |
|------|---|-------------|--------|
| 12. | *Pgs. 1-3,2-5,5-4,6-12,7-18, AFM#3502 (Rev. D) | | 1 ea. |
| 13. | *Pgs. 1-3,2-5,5-4,6-13,7-18, AFM #3501 (Rev. A) | | 1 ea.. |
| 14. | *Pgs. 1-3,2-5,5-4,6-13,7-21, AFM # 3500 (Rev.C) | | 1 ea. |

Insert proper AFM pages into applicable AFM for S/N aircraft.

Lycoming Supplied components are identified in Lycoming Kit No. 05K22169's list of material.

FIGURES/

TABLES: See Figure SI M20-101-1(previous page) & Figure SI M20-101-2 below:
 Figure SI M20-101-1 is a schematic depiction of the retrofit (Refer to Lycoming Kit No. 05K22169 for full depiction).

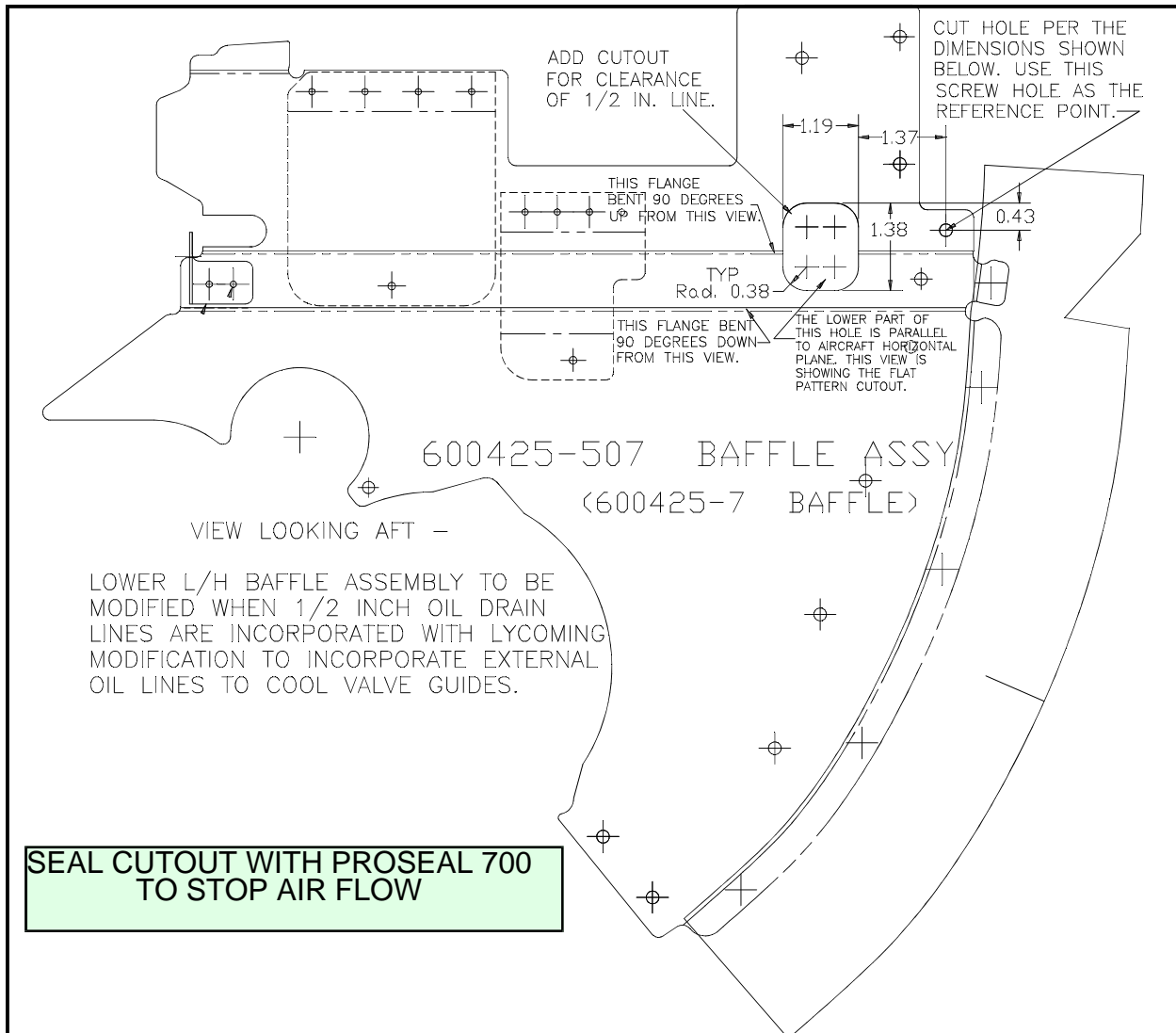


FIGURE SI M20-101-2