

THIS SERVICE BULLETIN IS FAA APPROVED FOR ENGINEERING DESIGN

SERVICE BULLETIN M20-274  
DATE: OCTOBER 20, 2000

SUBJECT: INSPECTION OF OIL & FUEL PRESSURE TRANSDUCERS AND FITTINGS FOR LEAKAGE AND IMPROPER ADAPTERS.

MODELS/S/N AFFECTED: M20M, S/N 27-0001 THRU 27-0282

TIME OF COMPLIANCE: WITHIN THE NEXT 25 FLIGHT HOURS OR AT NEXT SCHEDULED MAINTENANCE ACTION

INTRODUCTION: SOME AIRCRAFT MAY HAVE INCORRECT MS51503B3 ADAPTER FITTINGS INSTALLED ON THE OIL OR FUEL PRESSURE TRANSDUCERS. IT IS RECOMMENDED, FOR THE ABOVE LISTED AIRCRAFT, THAT THE INSTALLED ADAPTER FITTING BE IDENTIFIED AND, IF THE TRANSDUCER IS EITHER A KULITE OR PATRIOT TRANSDUCER, THE FITTING BE REPLACED WITH THE MOONEY ADAPTER FITTING, P/N 610297-1. IF THE TRANSDUCER IS MANUFACTURED BY DRUCK, THE MS51503B3 MAY BE THE CORRECT ADAPTER FITTING. HOWEVER, THERE IS A DRUCK TRANSDUCER [FUEL PRESSURE] THAT HAS #4 STRAIGHT, FLARE FITTING THREADS AND DOES NOT REQUIRE AN ADAPTER FITTING.

INSTRUCTIONS:

1. Remove cowling per M20M Service and Maintenance Manual (S & M), CHAPTER 71-10-00.
2. Locate oil pressure transducer (aft, center, near firewall) and fuel pressure transducer (forward, right, near upper RH engine mount).
3. Identify P/N and manufacturer of transducer that is installed on aircraft.

NOTE

See Figure SB M20-274-1 for clarification on transducers, adapter fittings and O-ring seals required for correct installation.

NOTE

If there is no adapter fitting installed on the transducer [due to the transducer having a #4 straight, flare fitting] inspect for any leakage between the hose and the transducer connection at this time, since access has been gained to the area. No further action is required.

NOTE

Some aircraft may have had the original transducer replaced with one of the alternate transducers due to a malfunction. These aircraft are included in the effectivity above and require inspection to identify that the correct installation is on the replaced transducer.

After review of Figure SB M20-274-1 for correct application of transducers, adapters [if any] and O-ring seals and it has been determined that the incorrect adapter may be installed, proceed with the following steps:

4. Remove electrical connection from transducer.
5. Disconnect and remove adapter fitting and O-ring seal from transducer and hose connection to determine if the proper adapter fitting is installed.
6. Remove existing adapter fitting and O-ring seal from transducer threaded connection.
7. Inspect transducer threads for any damage done by the 1/8 NPT pipe threads being forced onto the transducer straight threads. Since the transducer is stainless steel, it is unlikely that the softer adapter threads damaged the transducer threads.
8. Replace the existing adapter and O-ring seal on the oil or fuel pressure transducer [provided no thread damage has occurred] with the new adapter, P/N 610297-1, and O-ring seal, [P/N MS28778-3] included in this SB Kit [P/N SB M20-274-1].
9. If transducer threads are damaged, order a new replacement transducer from nearest Mooney Service Center.
10. Install operable components; re-connect electrical connection(s).
11. Perform a leak check on any new installation.
12. Re-install cowling per S & M, Chapter 71-11-00 and return aircraft to service.

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WARRANTY: Mooney Aircraft Corporation will allow up to 2.0 hours to inspect and replace affected transducer/adaptor discrepancies in accordance with this SB when Warranty Claim Forms and removed components are received by the Service Parts Department within 180 days of the date of this SB.

REFERENCE DATA: SEE FIGURE SB-M20-274-1 BELOW

PARTS LIST: KIT PART NUMBER -- SB M20-274-1

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
1.	610297-1	FITTING, ADAPTER [MAC]	2
2.	MS28778-3	O-RING SEAL	2

FIGURES/TABLES: SEE FIGURE SB M20-274-1

<b>OIL PRESSURE TRANSDUCER</b>			
MFG.	P/N	THREADS	EFFECTIVITY
DRUCK	PDCR821-0662-100	1/8 NPT	27-0001 THRU 27-0239, 27-0258 & ON
MS51503B3 ADAPTER IS REQUIRED FOR THIS TRANSDUCER			
KULITE	APT-201-1000-100PSIG	7/16x20	27-0240 THRU 27-0257
NO ADAPTER IS REQUIRED FOR THIS TRANSDUCER			
KULITE	APT-154-1000-100PSIG	3/8x24	27-0108 THRU 27-0282
MAC P/N 610297-1 ADAPTER IS REQUIRED FOR THIS TRANSDUCER			
PATRIOT	KA21-014-100G	3/8x24	27-0258 THRU 27-0282
MAC P/N 610297-1 ADAPTER IS REQUIRED FOR THIS TRANSDUCER			
NOTE: -- ALL OIL PRESSURE TRANSDUCERS USING THE MAC ADAPTER, P/N 610297-1 WILL REQUIRE AN MS28778-3 O-RING.			
<b>FUEL PRESSURE TRANSDUCER</b>			
DRUCK	PDCR920-U143-50PSID	7/16x20	27-0001, 27-0108 THRU 27-0282
NO ADAPTER IS REQUIRED FOR THIS TRANSDUCER			
DRUCK	PDCR-821-0662-30	1/8 NPT	27-0002 THRU 27-0107
MS51503B3 ADAPTER IS REQUIRED FOR THIS TRANSDUCER			
KULITE	APT-153-1000-30PSIG	3/8x24	27-0002 THRU 27-0107
MAC P/N 610297-1 ADAPTER IS REQUIRED FOR THIS TRANSDUCER			
KULITE	APT-155-1000-50D	7/16x20	27-0240 THRU 27-0257
NO ADAPTER IS REQUIRED FOR THIS TRANSDUCER			
PATRIOT	KA21-016-50D	3/8x24	27-0258 THRU 27-0282
MAC P/N 610297-1 ADAPTER IS REQUIRED FOR THIS TRANSDUCER			
NOTE: -- ALL FUEL PRESSURE TRANSDUCERS USING THE MAC ADAPTER, P/N 610297-1 WILL REQUIRE AN MS28778-3 O-RING.			

FIGURE M20-274-1 ---- TRANSDUCERS, ADAPTER AND O-RINGS TO BE USED