



Technical Service Information

GM 4T40E

SLIPPING FORWARD AND/OR REVERSE

COMPLAINT: The transmission may exhibit one or more of the following complaints, a slipping or loss of forward and reverse movement, lube failure of the forward clutch support and a loss of engine braking in manual low. A code P0730 for an “Incorrect Gear Ratio” may be stored.

CAUSE: The oil feed tube assembly has developed cracks at the welds, located in the bottom pan area. Commonly, it is the forward clutch feed tube that cracks, (Refer to Figure 1).

NOTE #1: When the P0730 code is stored a default action to high line pressure will occur. If the technician checks line pressure, and high line is seen, the technician may assume that the above complaints cannot be related to the forward clutch since there is more than enough line pressure to apply the clutch. The technician, at this time, may disassemble the transmission looking for a failure of an input sprag or low roller clutch when it is the cracked oil feed tube assembly causing the complaint.

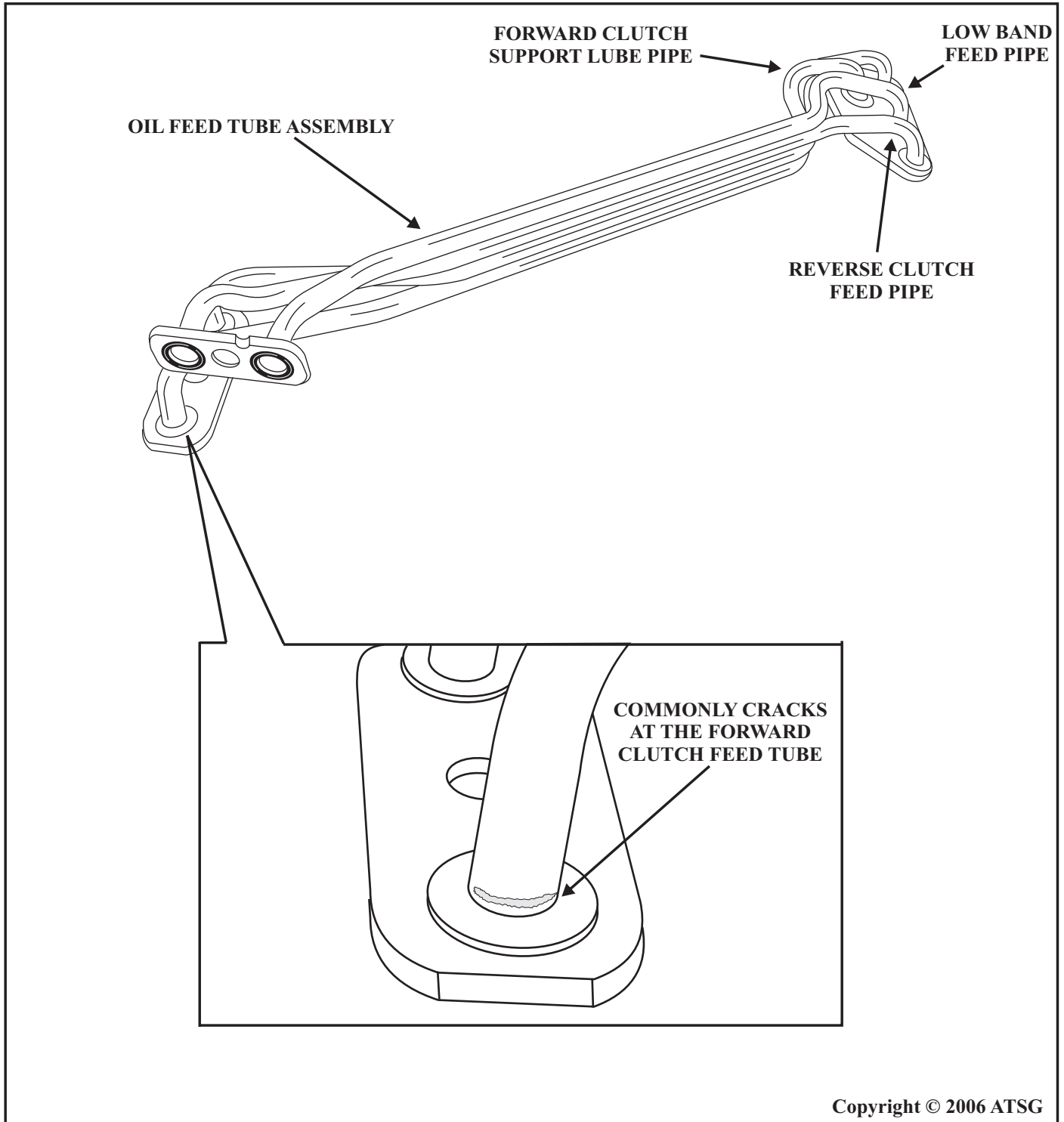
NOTE #2: The fluid going through the feed tube to the forward clutch must first pass through a .090” orifice in the spacer plate, (Refer to Figure 2). Line pressure feeding this orifice comes from the manual valve. The line pressure service port is located in the circuit before the manual valve. The feed pressure on the service port side of the orifice via the manual valve is not affected by the pressure drop on the feed tube side of the orifice.

This is why a line pressure check does not reveal the loss of forward clutch pressure due to the cracked feed tube.

CORRECTION: A simple air test can be performed to check the oil feed tubes for cracks. Remove the bottom pan and filter. With the gear shift lever in drive and/or reverse, blow air into the line pressure service port and watch for oil to leak at the feed tube welds where the tubes meet the flange, (Refer to Figure 3).

Many thanks to Louie Zabala at WiWi's Transmissions in Miami, FL. for the feed tube assembly.

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Figure 1

SLIPPING FORWARD & REVERSE

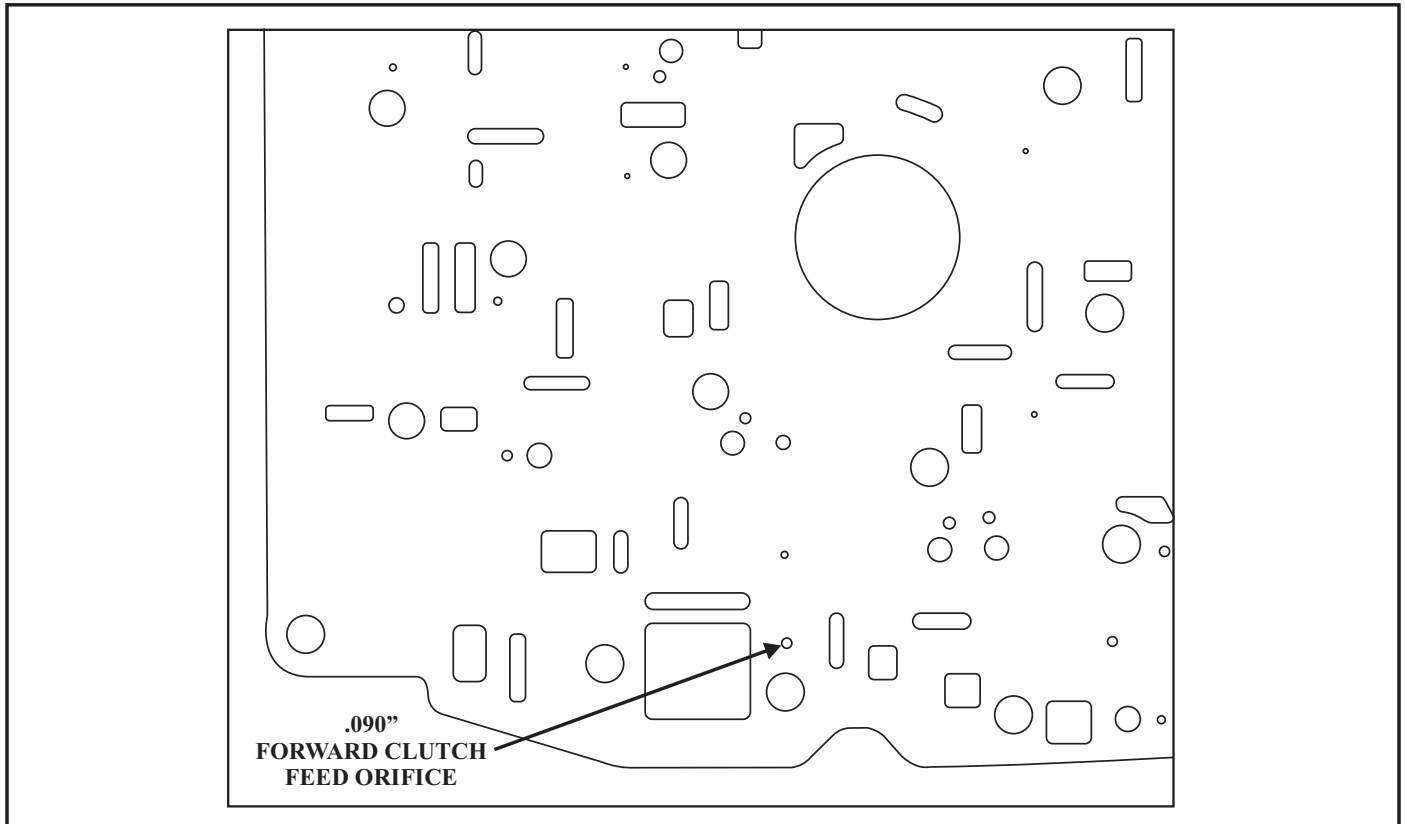


Figure 2

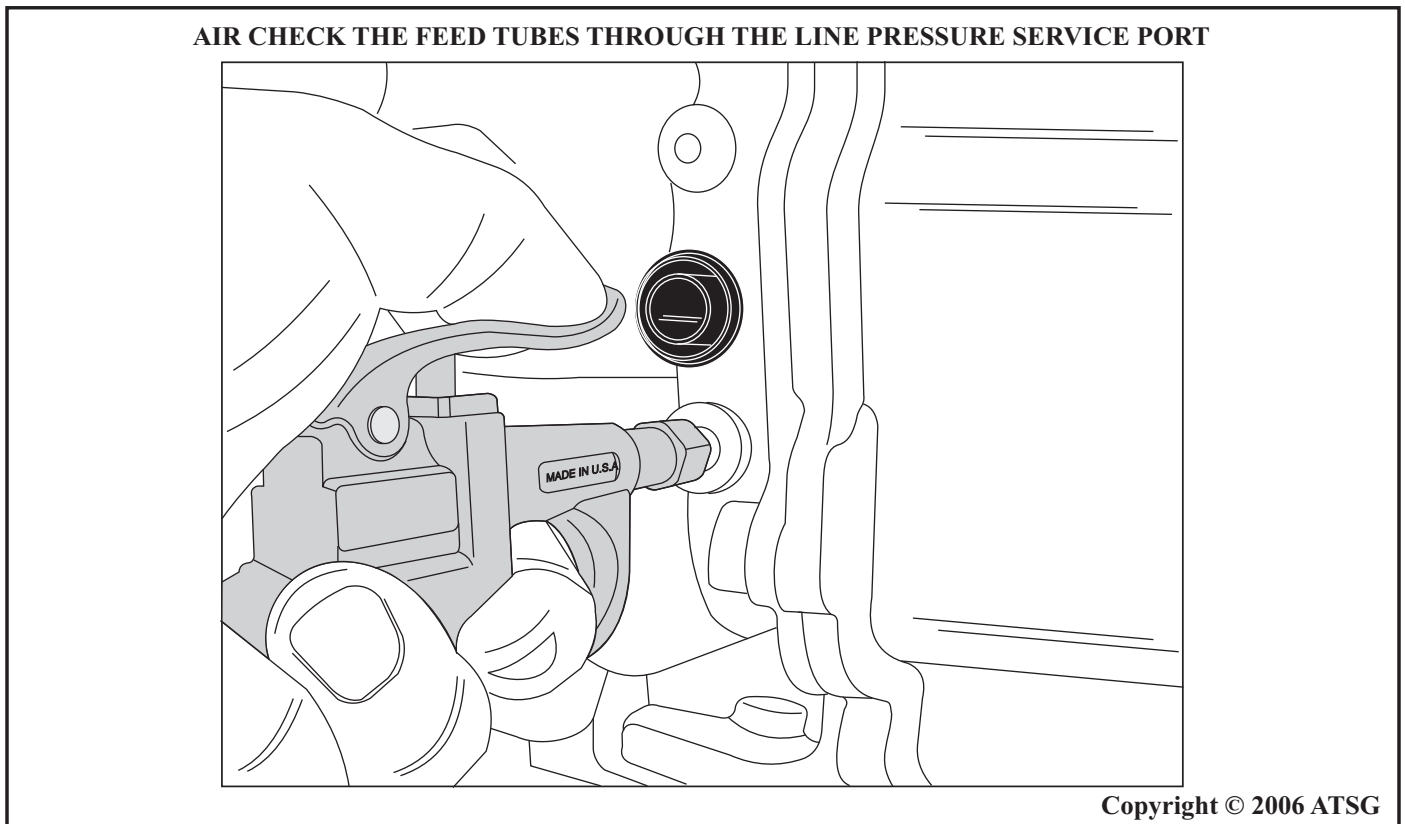


Figure 3