

GENERAL MOTORS 6L50/80/90

FALLS OUT OF GEAR

COMPLAINT: After transmission repairs or an overhaul the transmission develops the following complaints: Falls out of gear at hot idle, forward or reverse. Slips momentarily on take off, low line pressure at idle in forward or reverse and shift complaints or solenoid performance codes.

CAUSE #1: The 1-2-3-4 clutch balance piston is installed up side down or the seals are damaged. If the seals are damaged on the 4-5-6 compensator piston or on the 3-5-R drum bearing seal, these leaks will also produce the same complaints. A leak in the compensator circuit will create low line pressure. See figures 1, 2, 3 and 5. Note: The 4-5-6 piston in figure 2 cannot be installed upside down.

CAUSE #2: The compensator valve is stuck or is sticking in the bore. See figure 4.

CORRECTION #1: Install the balance pistons with the protruding seal flanges facing into the drum. Note: Some replacement 1-2-3-4 pistons may vary in configuration or look different as some may not have the 3 fingers circled in figure 1.

CORRECTION #2: Free up the compensator valve in the lower valve body.

SERVICE INFO: Do not neglect inspection or replacement of the compensator pistons as they are a critical part of the hydraulic system. Note: At times these pistons are referred to as a "dam". See figure 5.

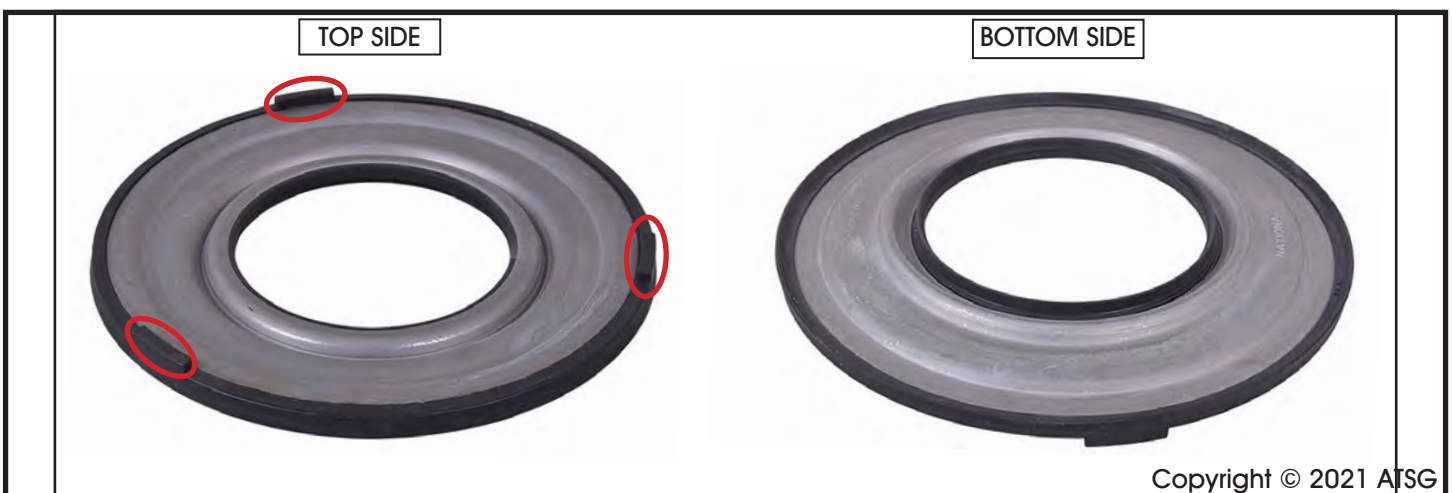


Figure 1

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Figure 2



Figure 3

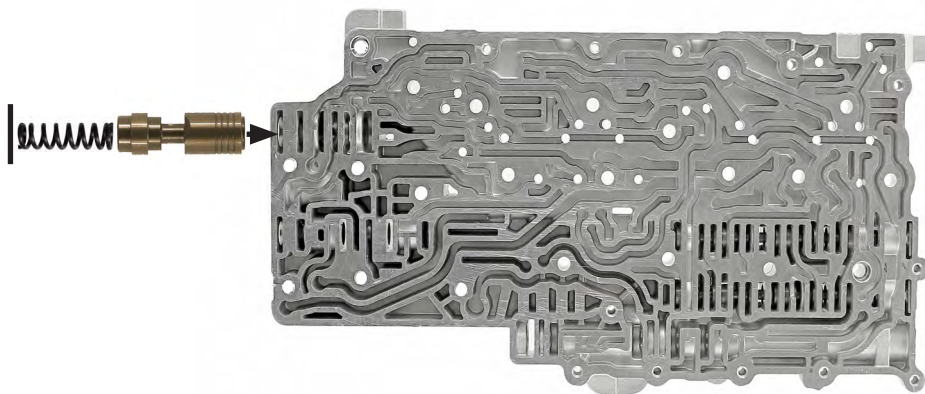


Figure 4

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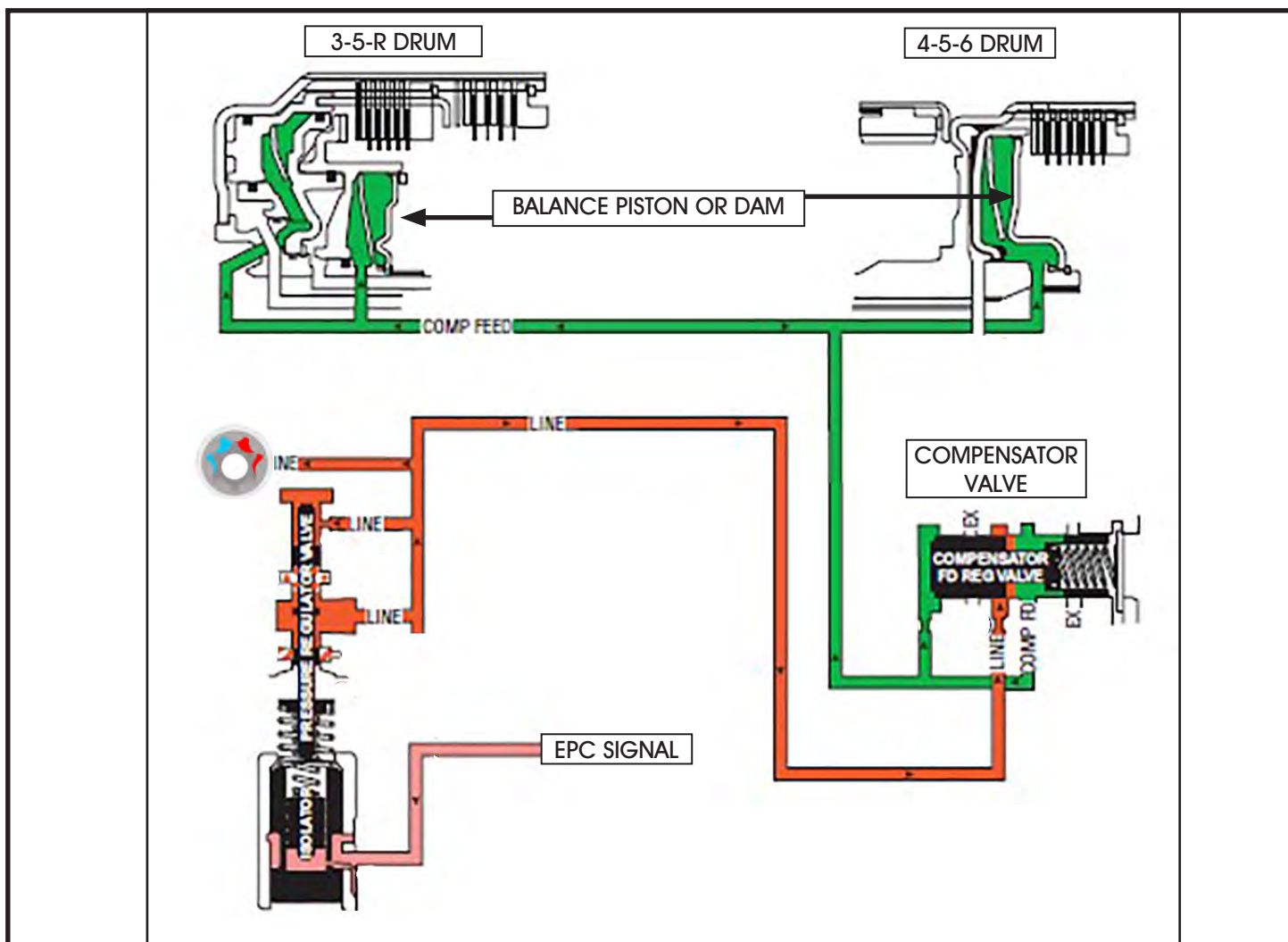


Figure 5