



Technical Service Information

BMW/ISUZU 4L30E INADEQUATE LINE RISE

COMPLAINT: Before or after overhaul, a BMW/ISUZU with the 4L30E transmission exhibits a complaint of soft or flared up-shifts, complaints of slipping, or gear ratio codes stored. A line pressure check indicates pressure is not increasing properly with throttle opening and an electrical check shows proper amp drop in EPC Solenoid circuit.

CAUSE: One cause may be a worn Feed Limit Valve bore in the Adapter Case Valve Body.

The responsibility of the Feed Limit Valve is to regulate line pressure before it is fed to the Force Motor/Pressure Control Solenoid. As the valve bore wears, the valve and spring will lose it's ability to regulate properly, as bore wear becomes more severe, excessive exhaust of line pressure occurs creating the soft or flared shifts, slipping and other complaints.

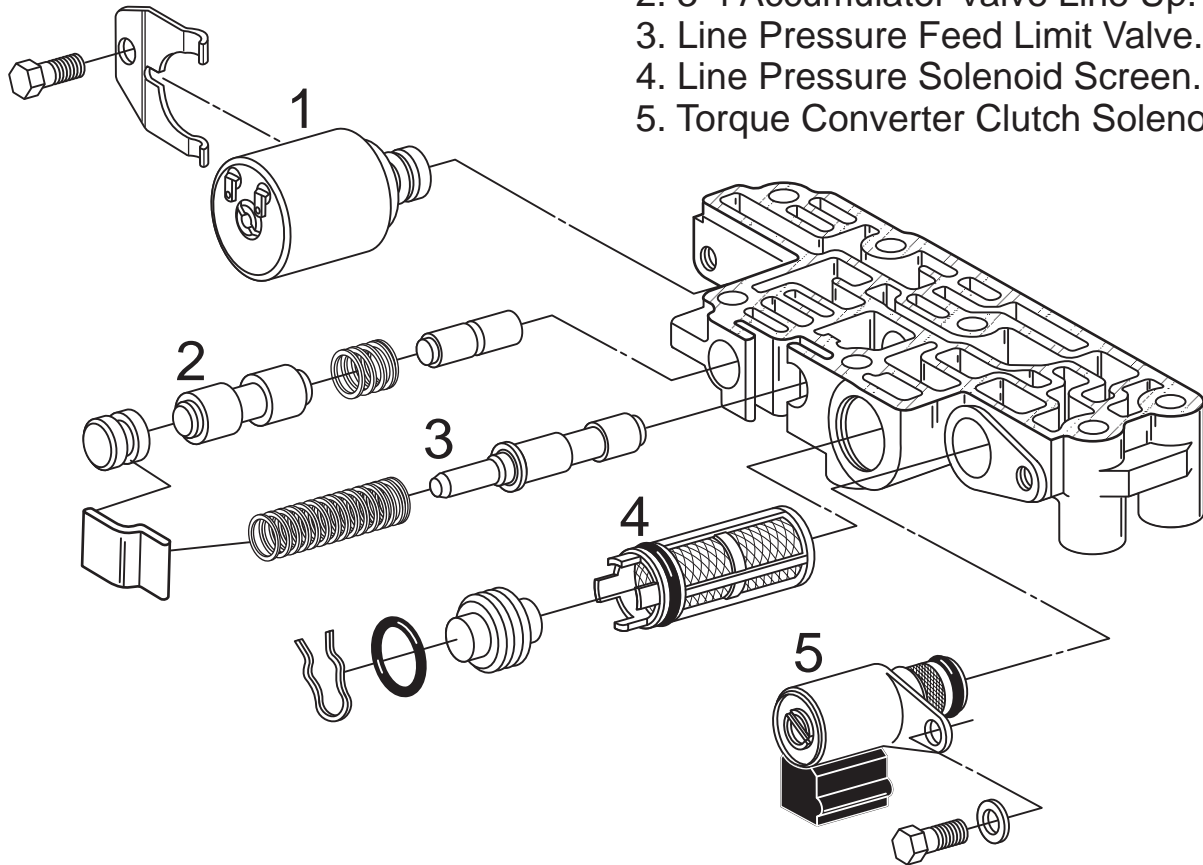
Refer to Figure 1 for diagram of Adapter Case Valve Body, and a partial cross-sectional view of the Feed Limit Valve, showing bore wear location.

CORRECTION: Replace the Adapter Case Valve Body.

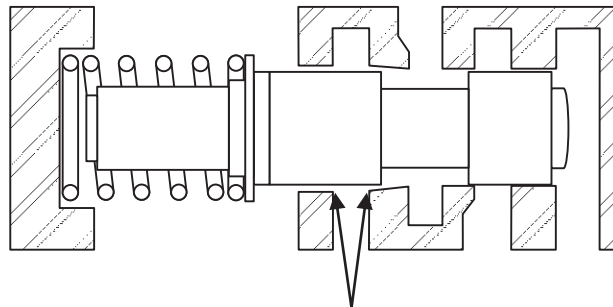
Many thanks to Dano at Dano's Transmissions for supplying us with the valve body.

ADAPTER CASE VALVE BODY

1. Line Pressure Solenoid.
2. 3-4 Accumulator Valve Line Up.
3. Line Pressure Feed Limit Valve.
4. Line Pressure Solenoid Screen.
5. Torque Converter Clutch Solenoid.



PARTIAL CUTAWAY OF FEED LIMIT VALVE BORE



Valve body casting may wear in this location
allowing line pressure to exhaust excessively.

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Figure 1