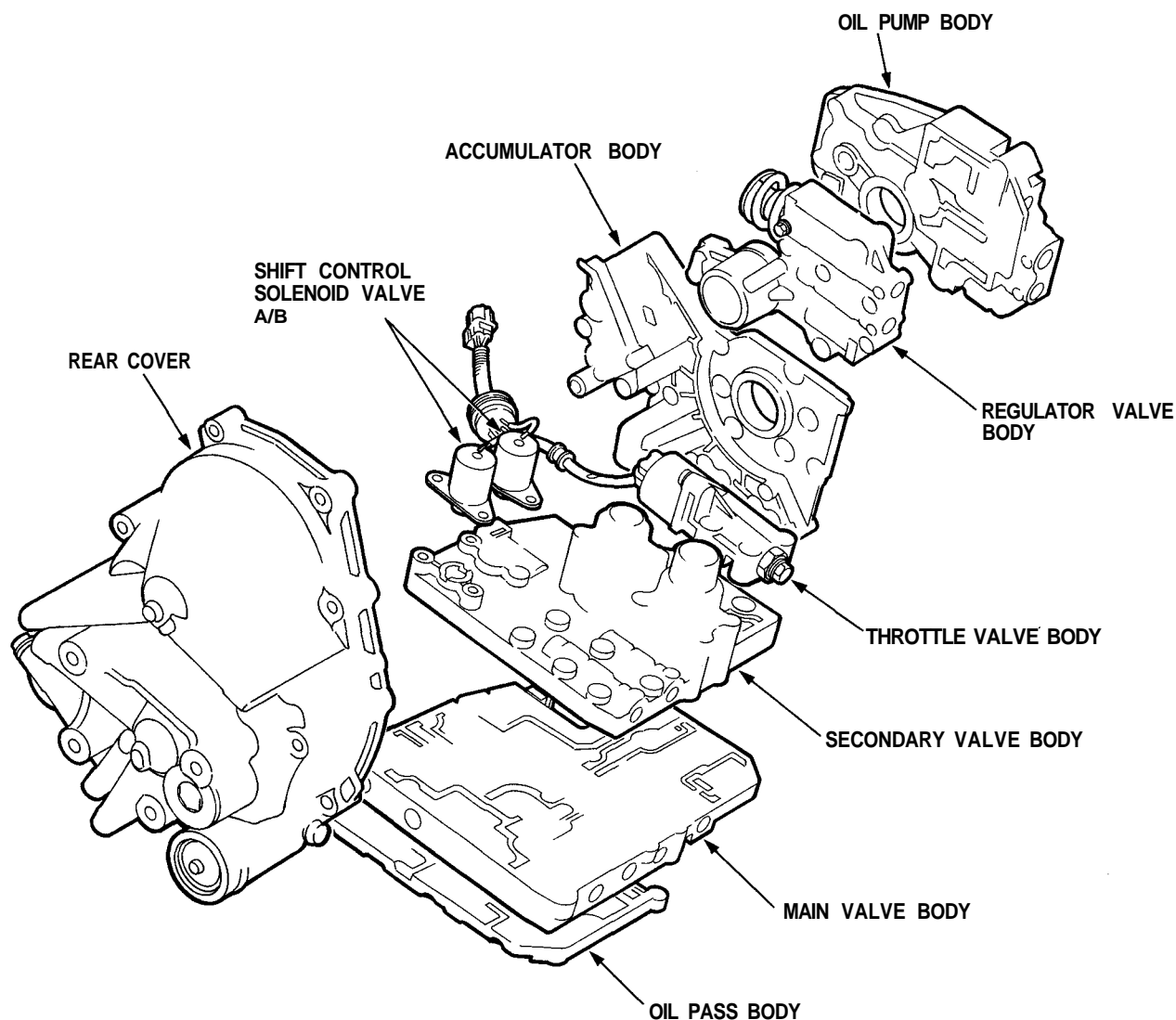


Description

Hydraulic Control

The valve bodies include the main valve body, secondary valve body, throttle valve body, oil pump body, regulator valve body, and accumulator body.

The oil pump is driven by splines behind the torque converter which is attached to the engine. Oil flows through the regulator valve to maintain specified pressure through the main valve body to the manual valve, directing pressure to each of the clutches.





Lower Valve Body Assembly

The lower valve body assembly is located on the bottom of the transmission. The lower valve body assembly consists of main valve body, secondary valve body and oil pass body.

Main Valve Body

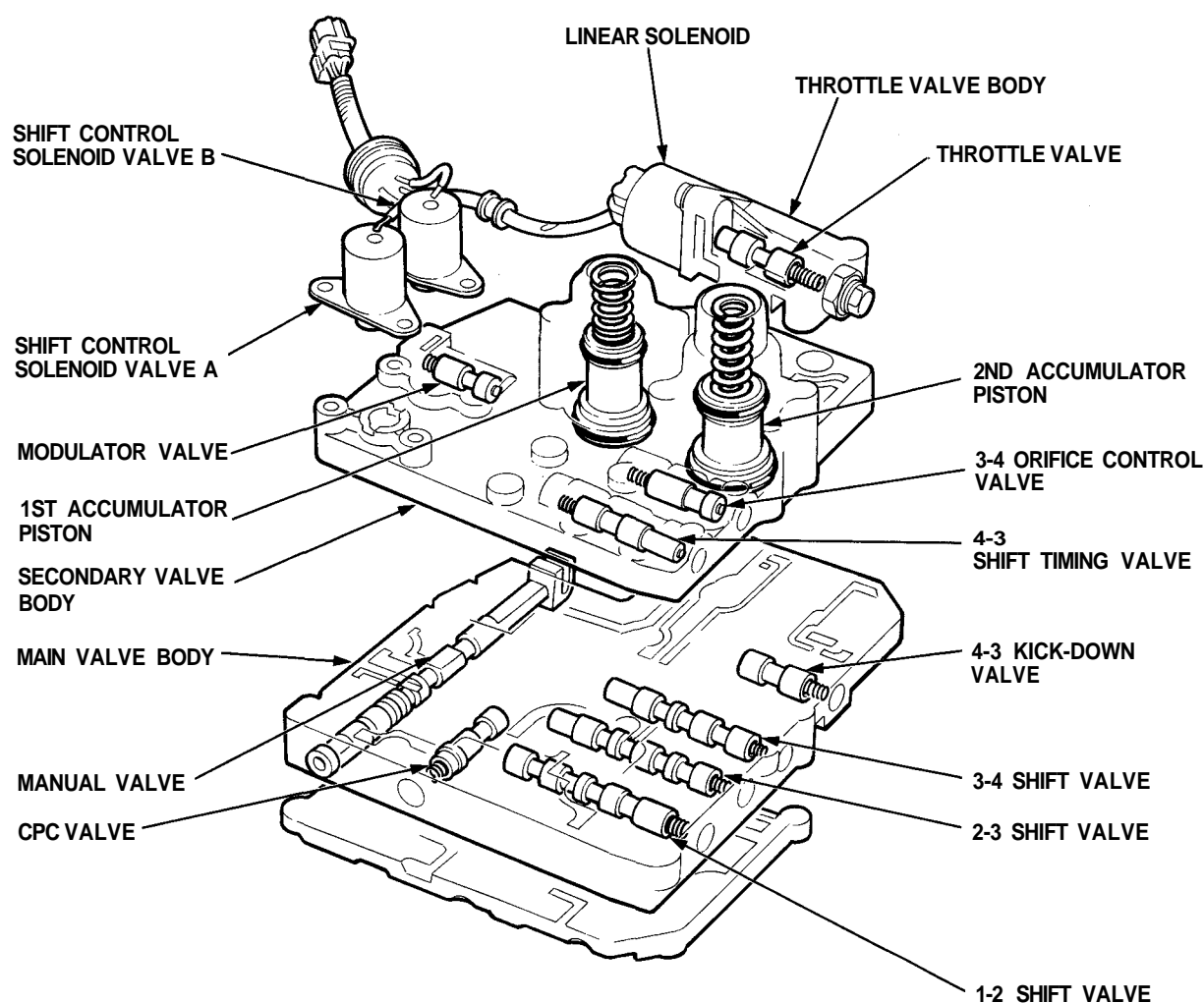
The manual valve, 1-2, 2-3, 3-4 shift valves, 4-3 kick-down valve and CPC valve are all assembled in the main valve body. The primary function of this valve body is switching oil passages on and off and controlling the hydraulic pressure going to the hydraulic control system.

Secondary Valve Body

The secondary valve body is located on the main valve body with the modulator valve, 3-4 orifice control valve, 4-3 shift timing valve, 1st and 2nd accumulator pistons built in. The shift control solenoid valves A and B are assembled on the secondary valve body.

Throttle Valve Body

The throttle valve body is located on the secondary valve body with the throttle valve operated by the linear solenoid.



(cont'd)

Description

Hydraulic Control (cont'd)

Oil Pump Body

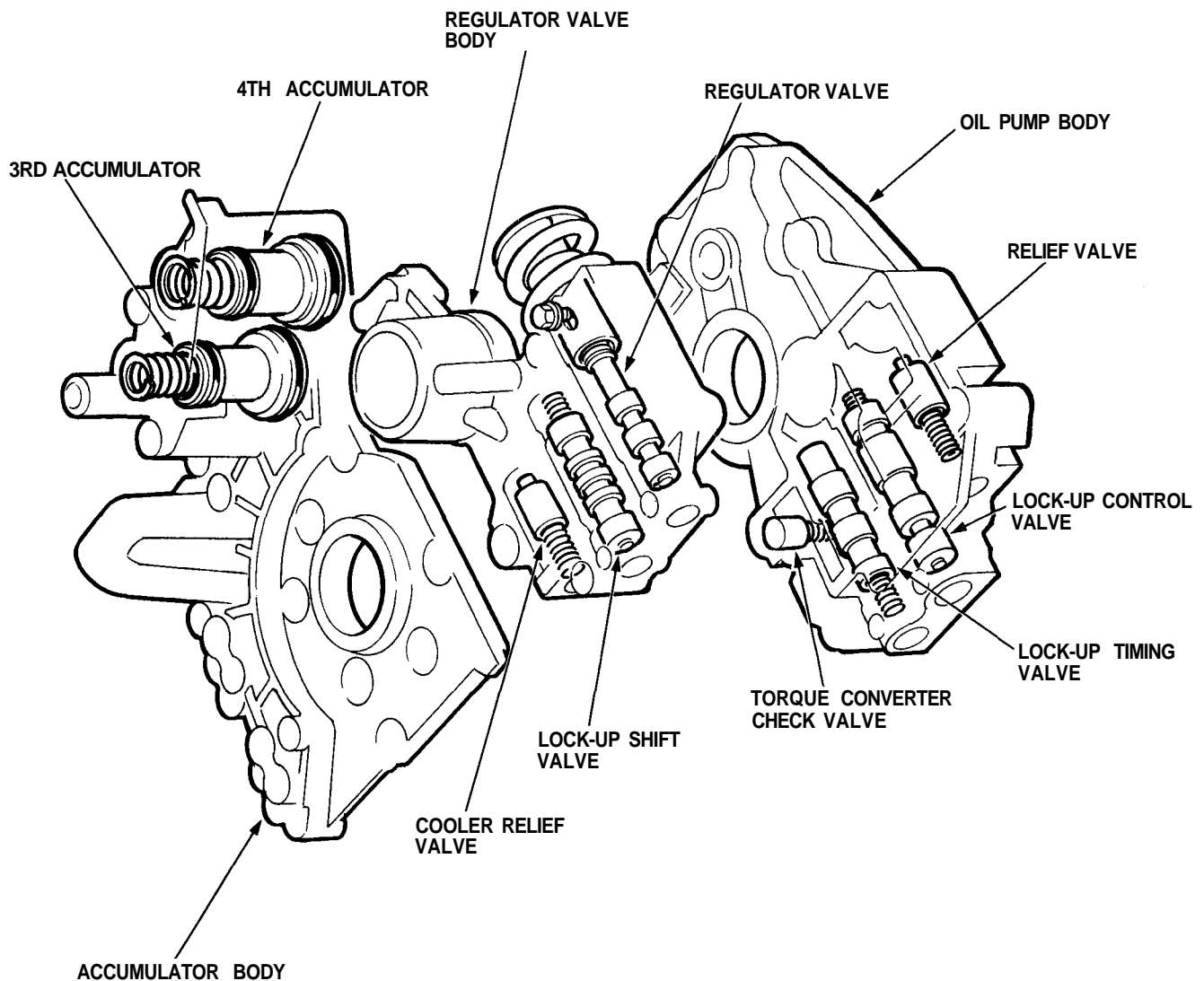
The oil pump body consists of the oil pump gears, lock-up timing valve, lock-up control valve and relief valve. The torque converter check valve is located under the oil pump body.

Accumulator Body

The accumulator body consists of the 3rd and 4th accumulators.

Regulator Valve Body

The regulator valve body is located on the oil pump body with the regulator valve, lock-up shift valve and cooler relief valve built in.

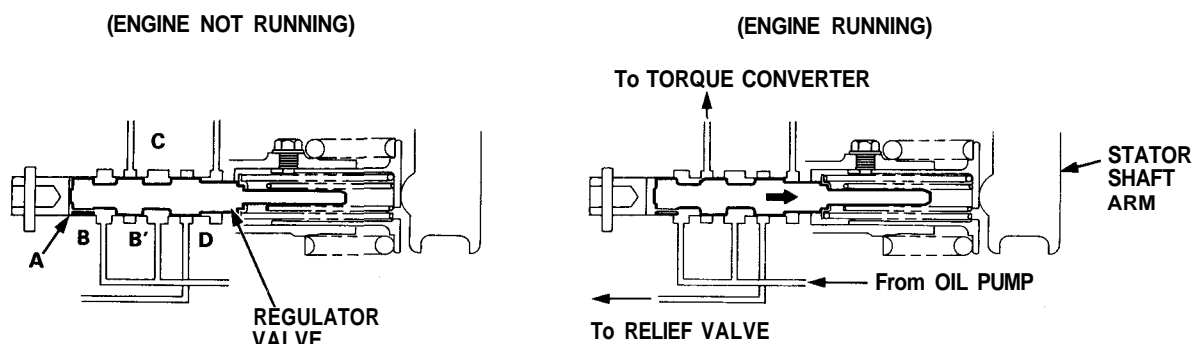




Regulator Valve

The regulator valve maintains a constant hydraulic pressure from the oil pump to the hydraulic control system, while also furnishing oil to the lubricating system and torque converter.

Oil flows through B and B'. The oil which enters through B flows through the valve orifice to A, pushing the regulator valve to the right side. According to the level of hydraulic pressure through B, the position of the valve changes, and the amount of the oil through B' from D also changes. This operation is continued, maintaining line pressure.



Stator Reaction Hydraulic Pressure Control

Hydraulic pressure increase according to torque is performed by the regulator valve using stator torque reaction. The stator shaft is splined to the stator and its arm end contacts the regulator spring cap. When the car is accelerating or climbing (Torque Converter Range), stator torque reaction acts on the stator shaft and the stator shaft arm pushes the regulator spring cap in this → direction in proportion to the reaction. The stator reaction spring compresses and the regulator valve moves to increase the regulated control pressure or line pressure. Line pressure is maximum when the stator reaction is maximum.

