2001 & UP FORD 4R70W FAMILY
VALVE BODY CHANGE

CHANGE: Beginning at the start of production in 2001, Ford Motor Company redesigned the Valve Body for the 4R70W. ***NOTE:*** This change also carries over to the 4R70E and 4R75E models.

REASON: For improved durability.

PARTS AFFECTED:

(1) VALVE BODY CASTING (*Lower side*) - The Lower side of the valve body had casting changes to connect the 2-3 Backout Valve to the Shift Solenoid 2 hydraulic circuit, as shown in Figure 2. Figure 1 shows the previous design casting and identifies the EPC circuit that was connected to the 2-3 Backout Valve on the earlier models.

(2) SPACER PLATE GASKETS - The 2001 and up design upper and lower spacer plate gaskets had numerous hole configuration changes to accommodate the hydraulic changes with the valve body. The most obvious change is the plate that was eliminated over the Direct Clutch Accumulator, as shown in Figure 3.

(3) SPACER PLATE - The 2001 and up design spacer plate had hole changes to connect the added Overdrive Servo Regulator Valve Boost Valve and Sleeve to the EPC solenoid circuit, and to accommodate the changes in the 3-4 Capacity Modulator Valve. Figure 5 shows that a change also was made to the cover plate connecting the Forward Clutch Circuit to the 3-4 Capacity Modulator Valve. The bolt holes were removed from the Spacer plate along with the plate over the Direct Clutch Accumulator. Refer to Figure 4 for a view of the previous design Spacer Plate.

(4) DIRECT CLUTCH ACCUMULATOR RETAINER - The retainer for the accumulator had a dimensional change to accommodate the elimination of the plate over the the Direct Clutch Accumulator. See Figure 6.

(5) MAIN VALVE BODY - The main valve body had casting changes to accommodate the removal of the Orifice Control Valve and the 2-3 Capacity Modulator Valve as shown in Figures 7, 8 and 9.

(6) CASE - The Overdrive Servo Bleed orifice, as shown in Figure 10, was eliminated to accommodate the hydraulic circuit changes in the Overdrive Servo Regulator Valve. See Figure 11 for a partial hydraulic circuit diagram identifying the 2001 and up hydraulic circuit.

SERVICE INFORMATION:

SPACER PLATE GASKET TO CASE.....1L3Z-7C155-AA
SPACER PLATE GASKET TO VALVE BODY.....1W7Z-7D100-AB

Special thanks to Robert at Tri-County Trans

PREVIOUS DESIGN VALVE BODY LOWER SIDE

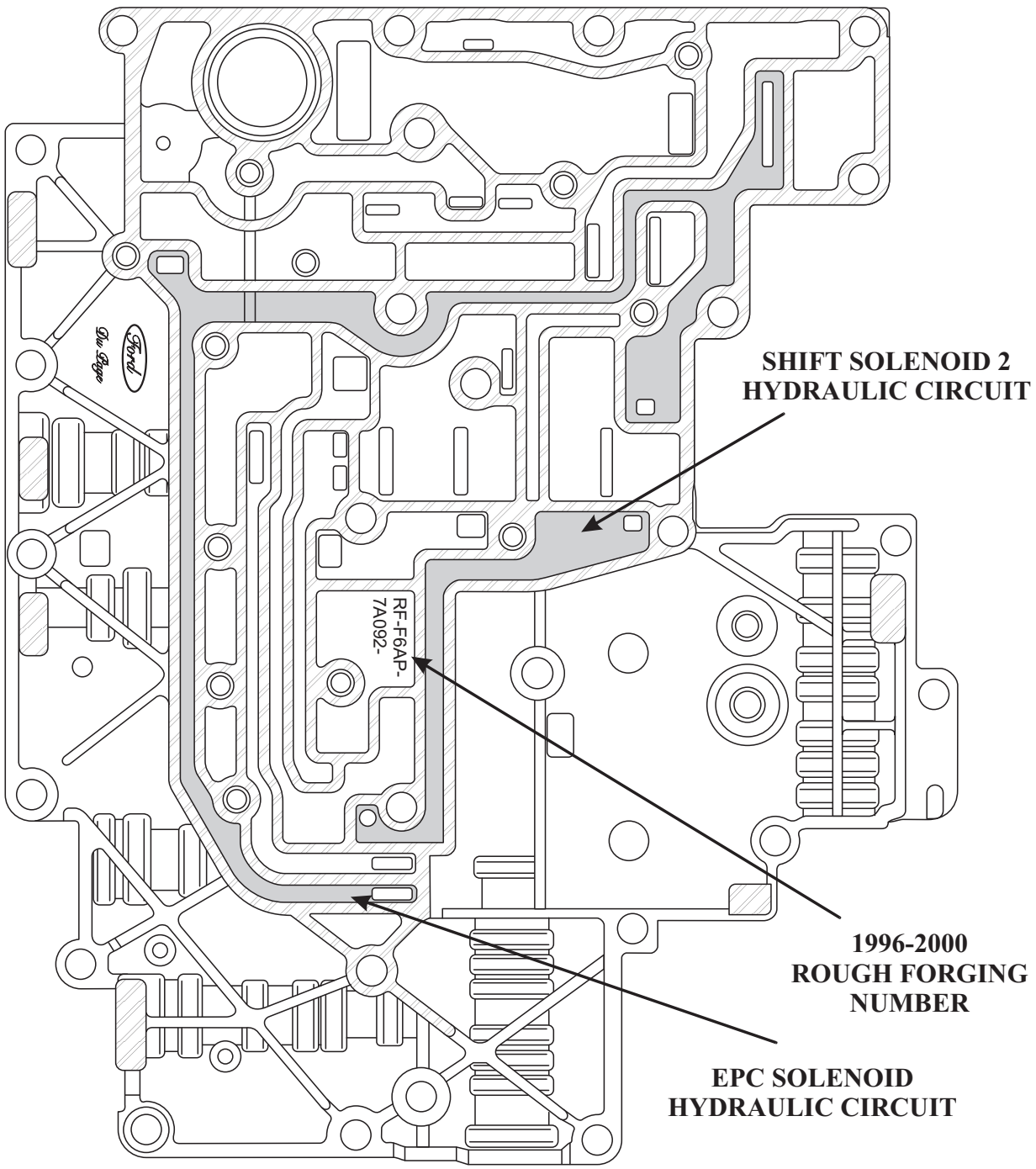


Figure 1

2001 & UP DESIGN VALVE BODY LOWER SIDE

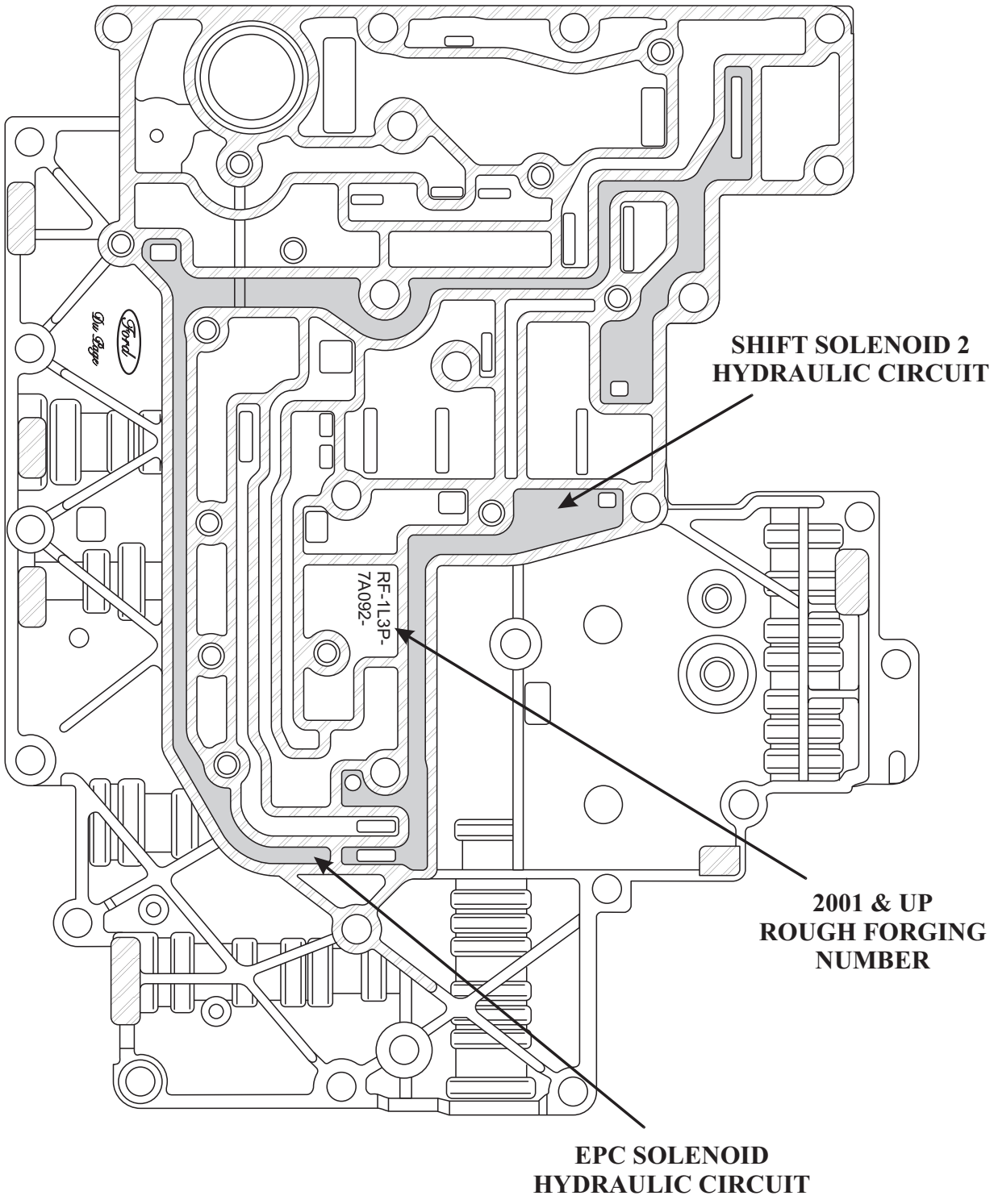
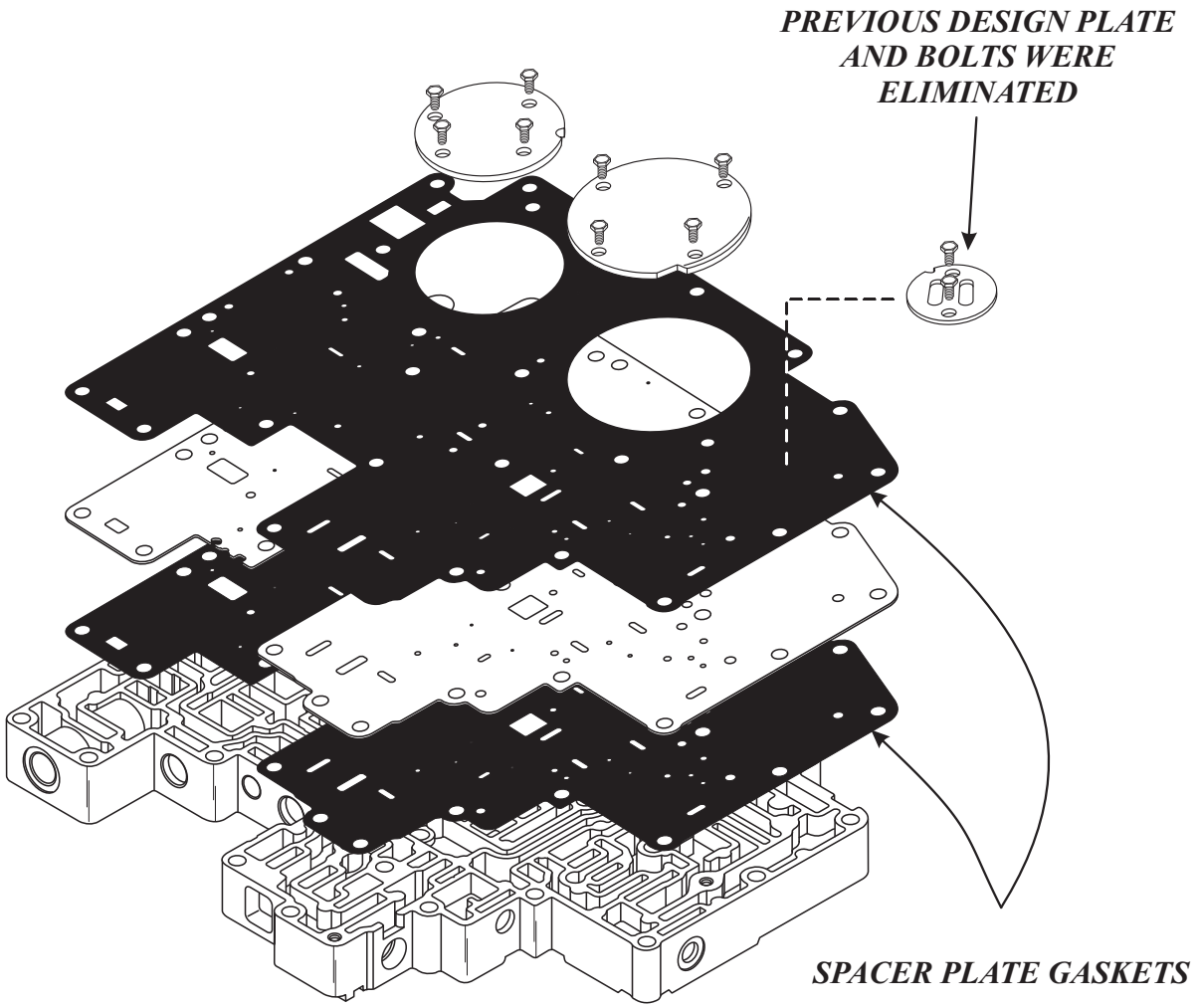


Figure 2

2001 MODEL 4R70W VALVE BODY



SPACER PLATE GASKET TO CASE (FORD NUMBER) 1L3Z-7C155-AA
SPACER PLATE GASKET TO VALVE BODY (FORD NUMBER) 1W7Z-7D100-AB

Figure 3

PREVIOUS DESIGN SPACER PLATE

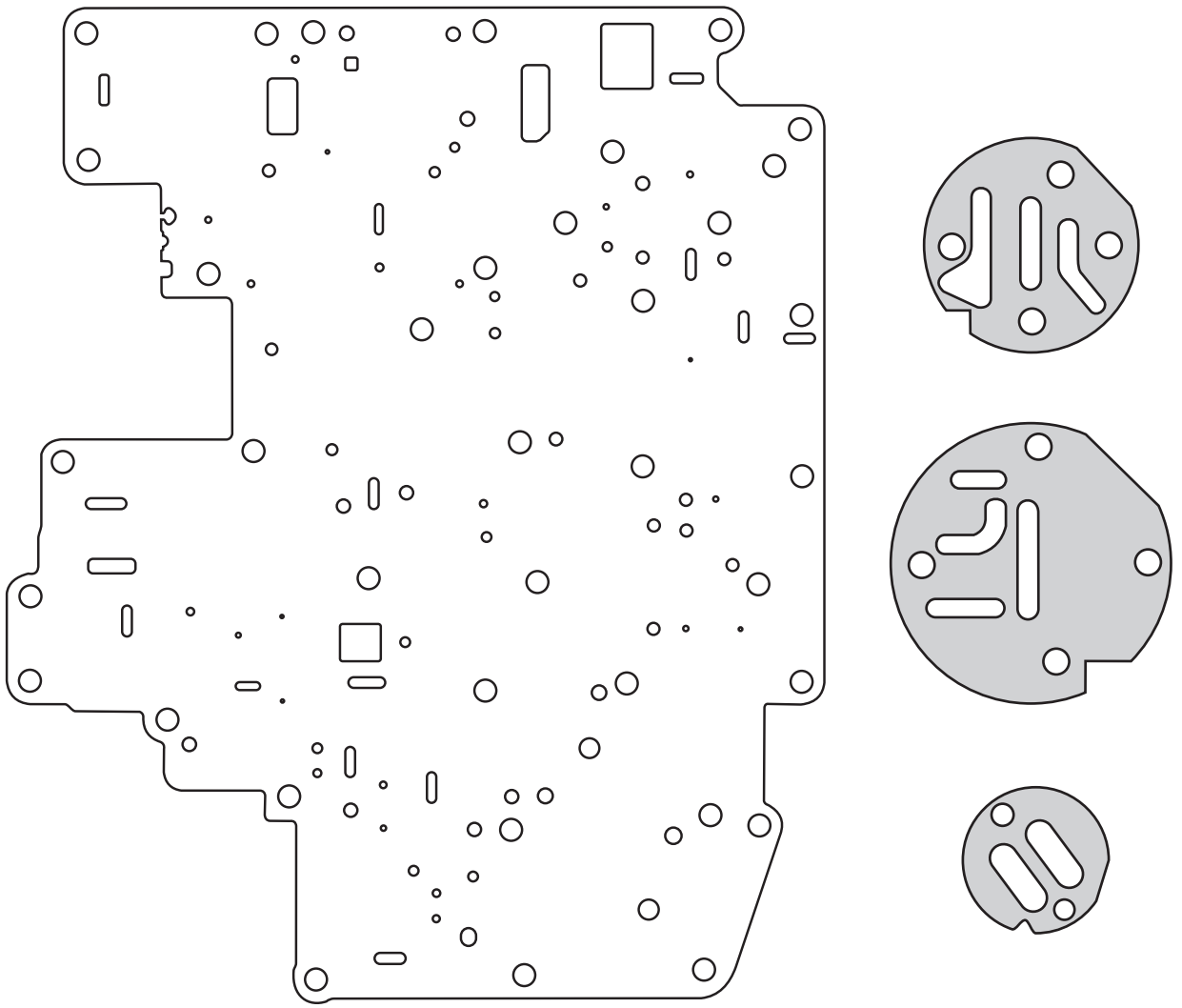
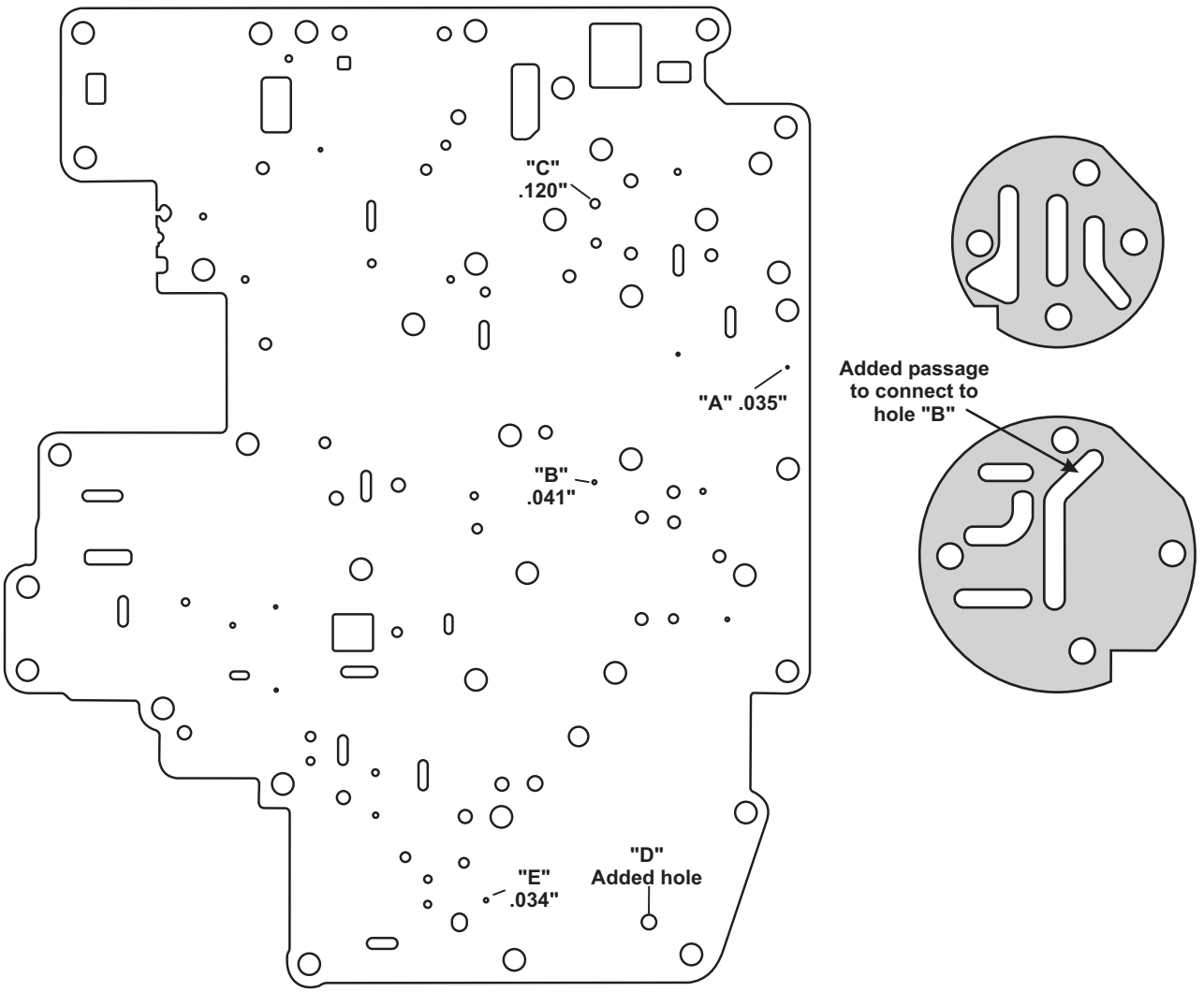


Figure 4

2001 & UP SPACER PLATE



"A" = Added hole to connect the EPC circuit to the added Overdrive Servo Regulator Valve Boost Valve and Sleeve

"B" = Added hole to connect the Forward Clutch to the 3-4 Capacity Modulator Valve

"C" = Tcc Signal Pressure from TCC PWM solenoid. Hole was enlarged to .120"

"D" = Hole moved to connect the Direct Clutch to the Direct Clutch Accumulator

"E" = Orifice added to Direct Clutch Accumulator (Forward Clutch side)

Figure 5

DIRECT CLUTCH ACCUMULATOR RETAINER

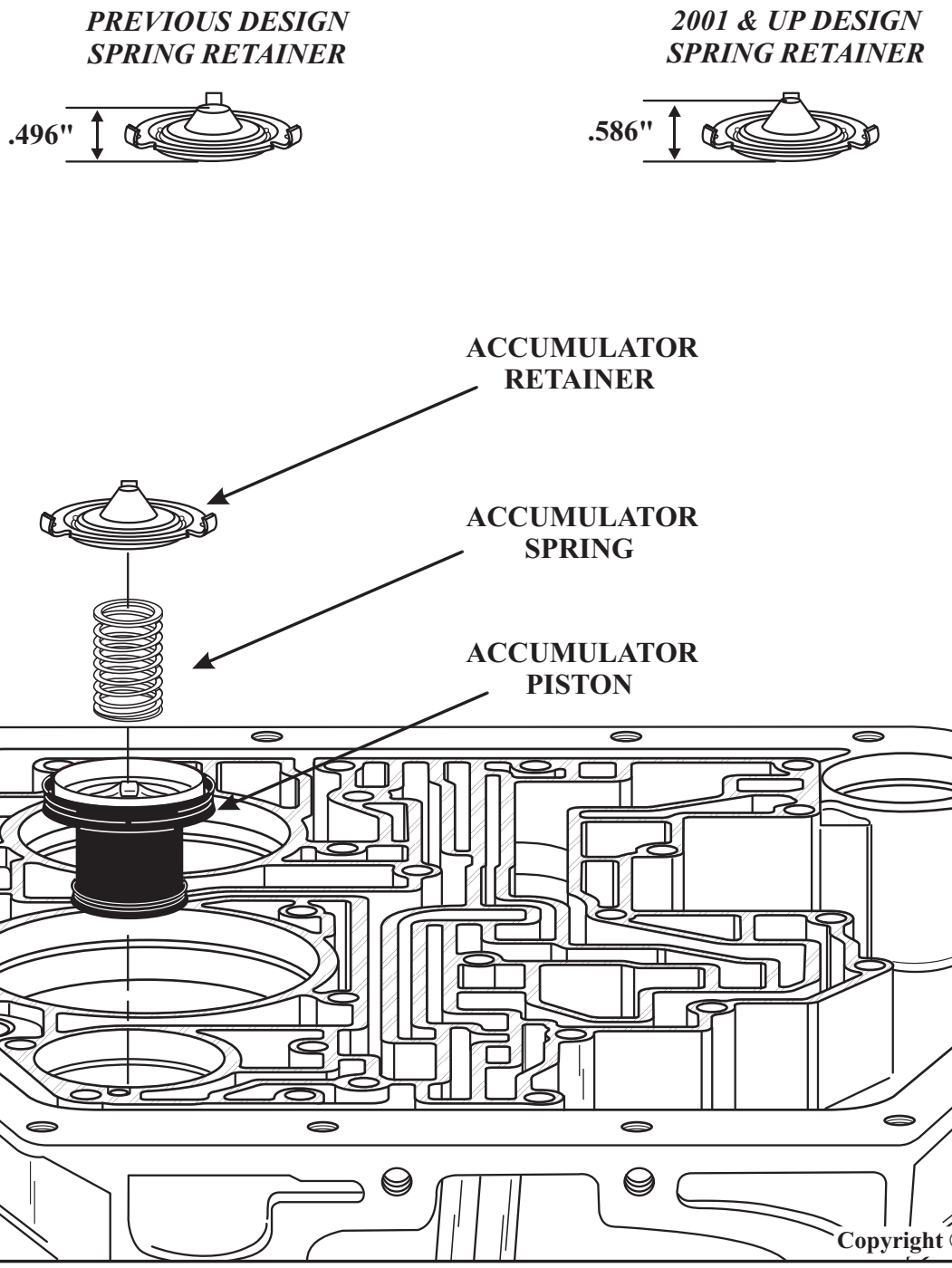


Figure 6

FORD 4R70W
2001-UP MAIN VALVE BODY EXPLODED VIEW

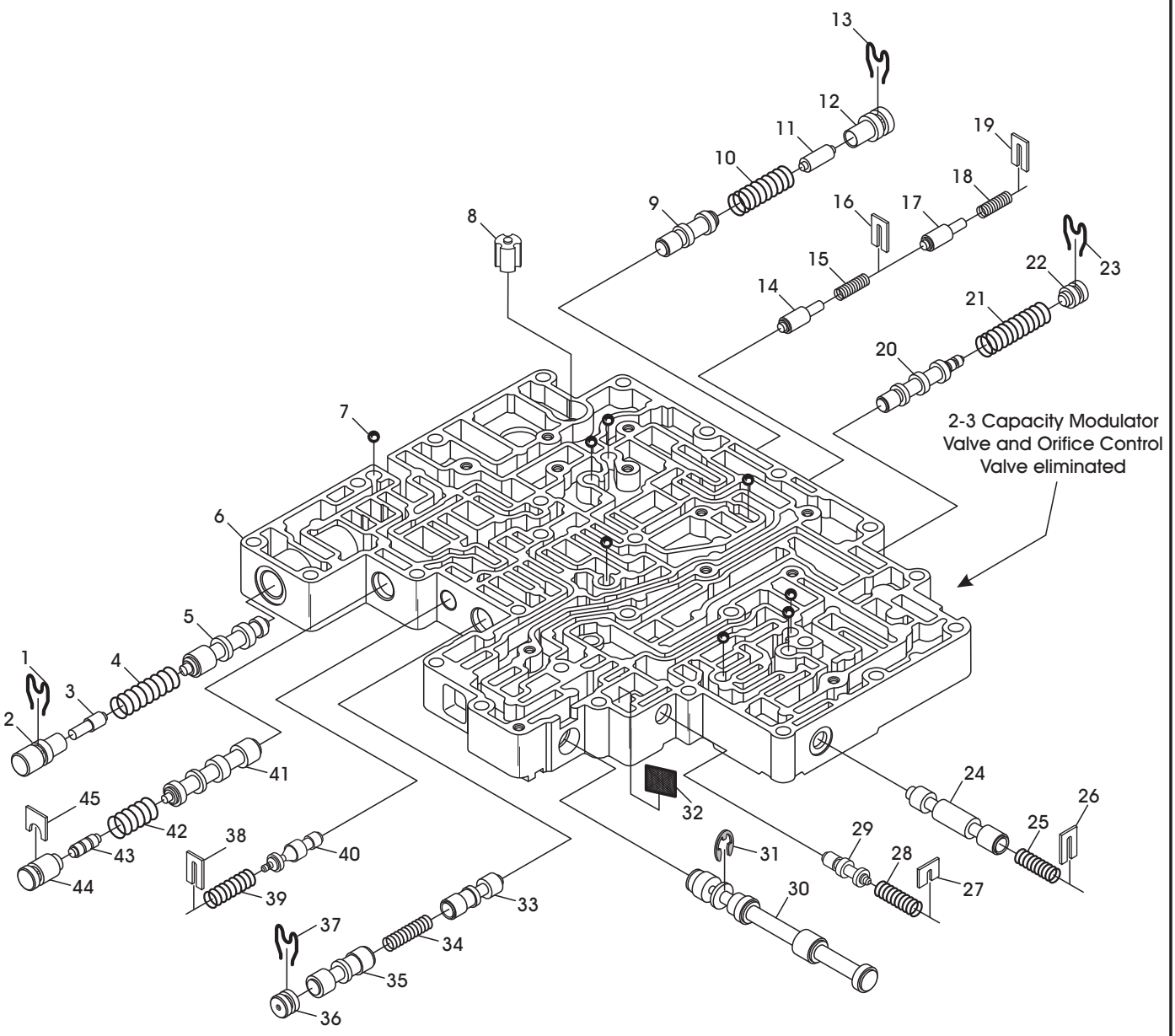


Figure 7

FORD 4R70W

MAIN VALVE BODY LEGEND

1 MAIN PRESSURE REGULATOR BOOST VALVE SLEEVE RETAINER.
2. MAIN PRESSURE REGULATOR BOOST VALVE SLEEVE.
3 MAIN PRESSURE REGULATOR BOOST VALVE.
4 MAIN PRESSURE REGULATOR VALVE SPRING.
5 MAIN PRESSURE REGULATOR VALVE.
6 MAIN VALVE BODY CASTING.
7 CHECK BALL, 1/4" DIAMETER (8 REQUIRED).
8 CONVERTER DRAIN BACK VALVE.
9 O.D. SERVO PRESSURE REGULATOR VALVE.
10 O.D. SERVO PRESSURE REGULATOR VALVE SPRING.
11 O.D. SERVO PRESSURE REGULATOR BOOST VALVE.
12 O.D. SERVO PRESSURE REGULATOR BOOST VALVE SLEEVE.
13 BOOST VALVE SLEEVE RETAINER.
14 3-4 CAPACITY MODULATOR VALVE.
15 3-4 CAPACITY MODULATOR VALVE SPRING.
16 3-4 CAPACITY MODULATOR VALVE SPRING RETAINER.
17 LOW SERVO CAPACITY MODULATOR VALVE.
18 LOW SERVO CAPACITY MODULATOR VALVE SPRING.
19 LOW SERVO CAPACITY MODULATOR VALVE SPRING RETAINER.
20 3-4 SHIFT VALVE.
21 3-4 SHIFT VALVE SPRING.
22 3-4 SHIFT VALVE SPRING BORE PLUG.
23 3-4 SHIFT VALVE BORE PLUG RETAINER.
24 2-3 BACKOUT VALVE.
25 2-3 BACKOUT VALVE SPRING.
26 2-3 BACKOUT VALVE SPRING RETAINER.
27 SOLENOID PRESSURE REGULATOR VALVE SPRING RETAINER.
28 SOLENOID PRESSURE REGULATOR VALVE SPRING.
29 SOLENOID PRESSURE REGULATOR VALVE.
30 MANUAL CONTROL VALVE.
31 MANUAL CONTROL VALVE "E" CLIP.
32 EPC SOLENOID SCREEN.
33 1-2 SHIFT VALVE.
34 2-3 SHIFT VALVE SPRING.
35 2-3 SHIFT VALVE.
36 2-3 SHIFT VLAVE BORE PLUG.
37 2-3 SHIFT VALVE BORE PLUG RETAINER.
38 CONVERTER PRESSURE REGULATOR VALVE SPRING RETAINER.
39 CONVERTER PRESSURE REGULATOR VALVE SPRING.
40 CONVERTER PRESSURE REGULATOR VALVE.
41 BYPASS CLUTCH CONTROL VALVE.
42 BYPASS CLUTCH CONTROL VALVE SPRING.
43 BYPASS CLUTCH CONTROL BOOST VALVE.
44 BYPASS CLUTCH CONTROL BOOST VALVE SLEEVE.
45 BYPASS CLUTCH CONTROL VALVE SLEEVE RETAINER.

Figure 8

2001 & UP FORD 4R70W
VALVE BODY CHECKBALL AND RETAINER LOCATIONS

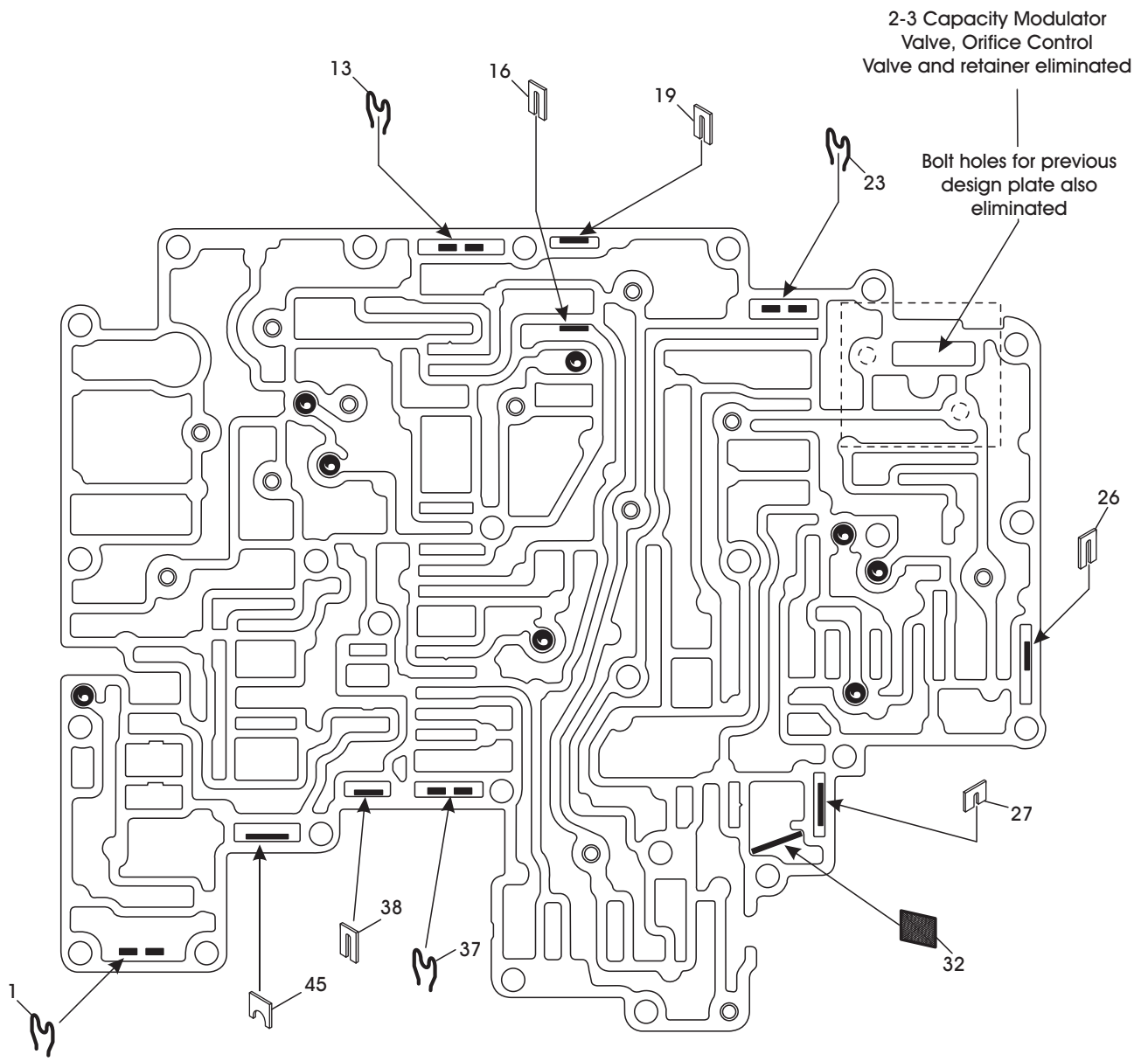
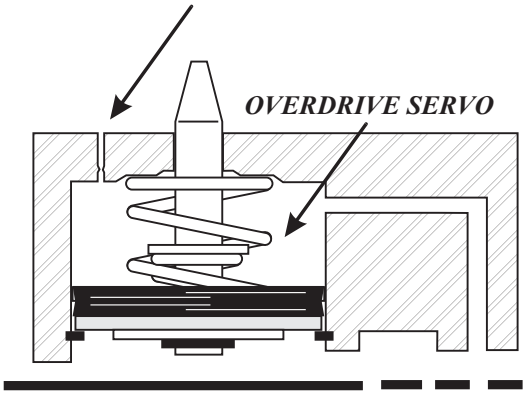


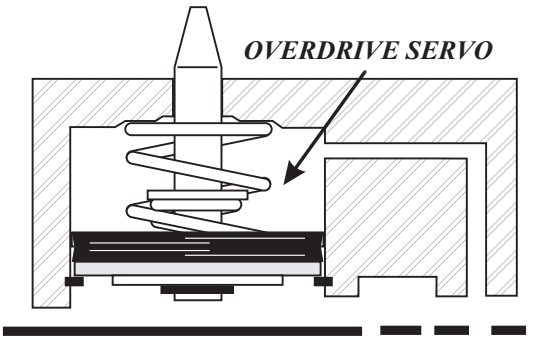
Figure 9

CASE CHANGES

PREVIOUS DESIGN
CASE WITH .020" BLEED ORIFICE



2001 & UP DESIGN
CASE WITHOUT BLEED ORIFICE



OVERDRIVE SERVO
BORE

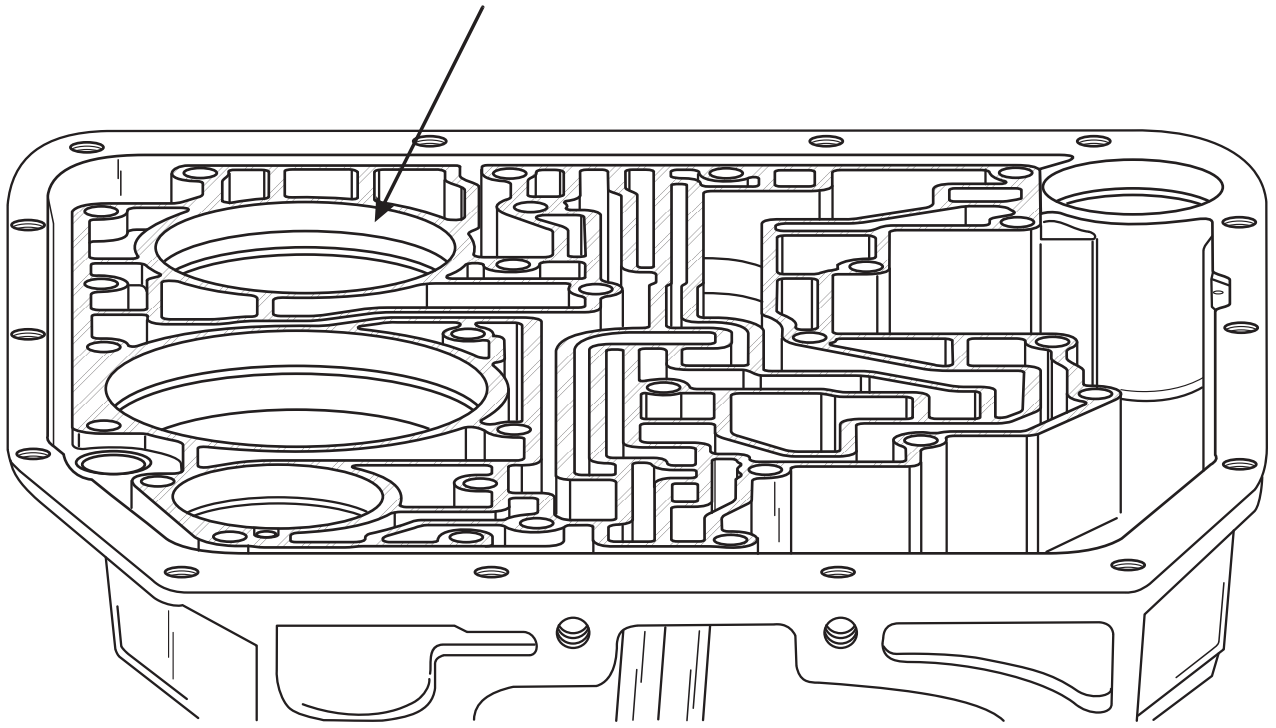


Figure 10

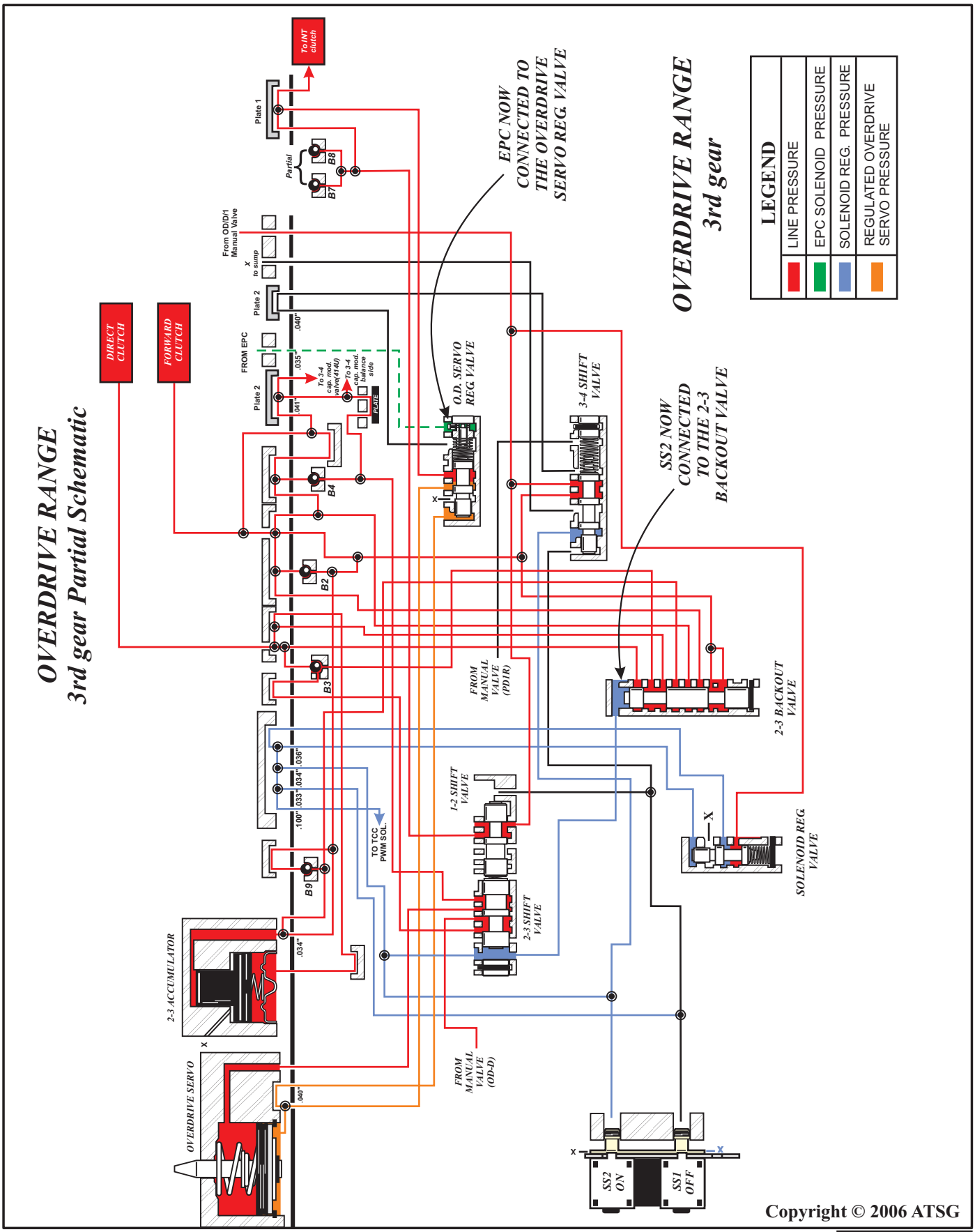


Figure 11