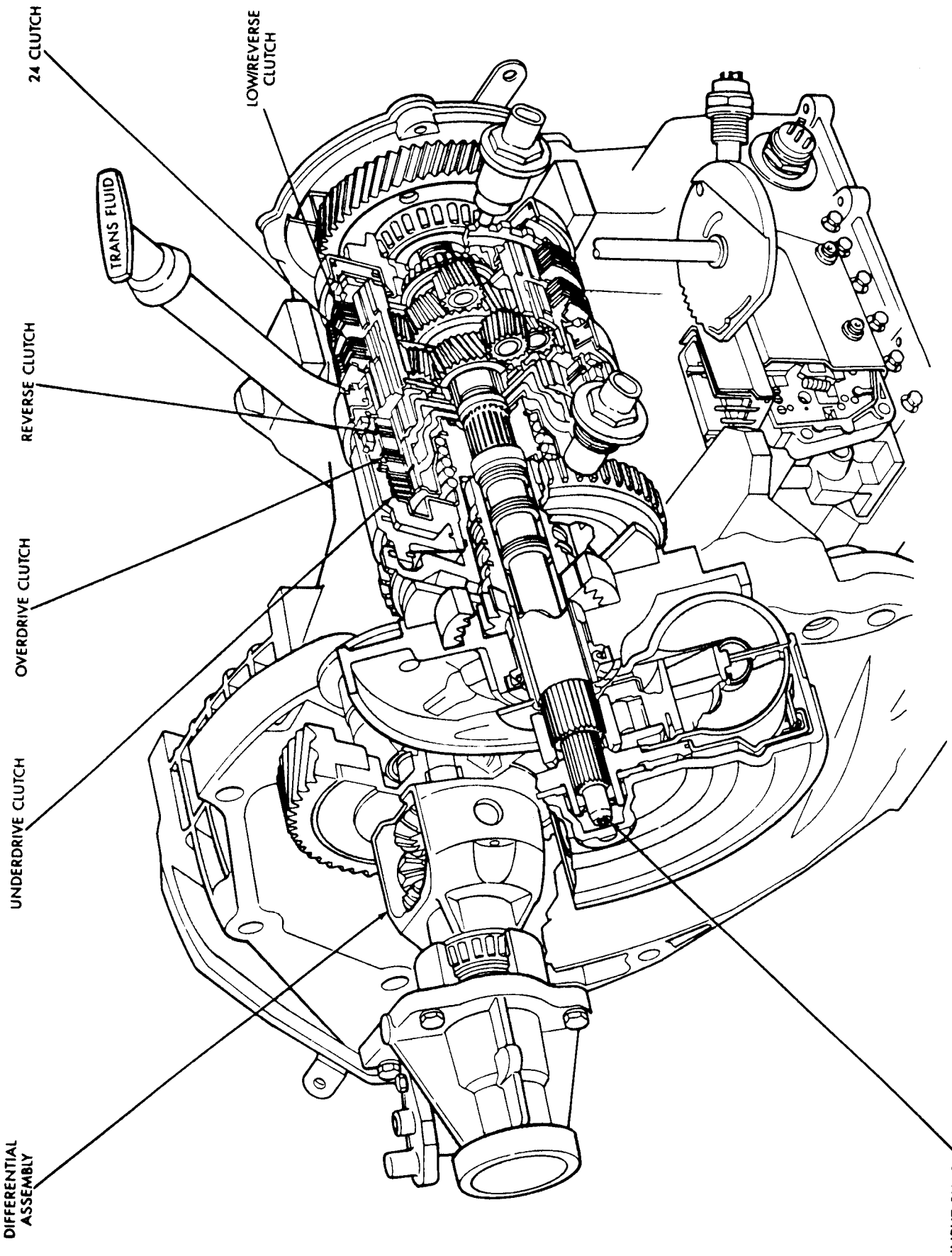

24 CLUTCH
LOW/REVERSE CLUTCH
TRANS FLUID
REVERSE CLUTCH
OVERDRIVE CLUTCH
UNDERDRIVE CLUTCH
DIFFERENTIAL ASSEMBLY
INPUT SHAFT

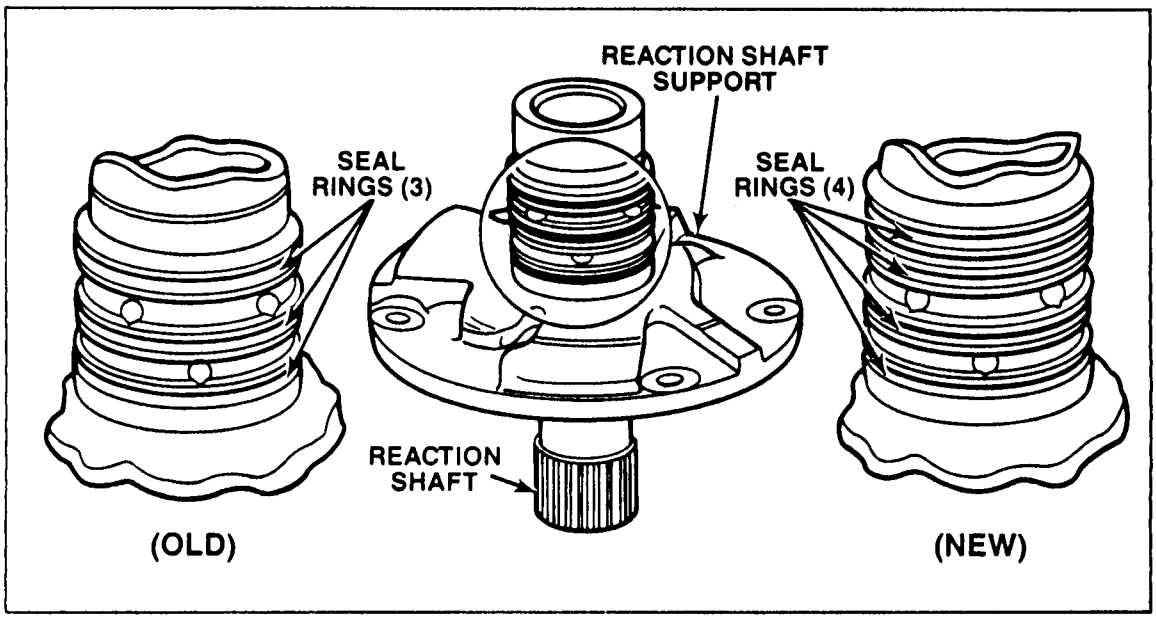


Figure 1

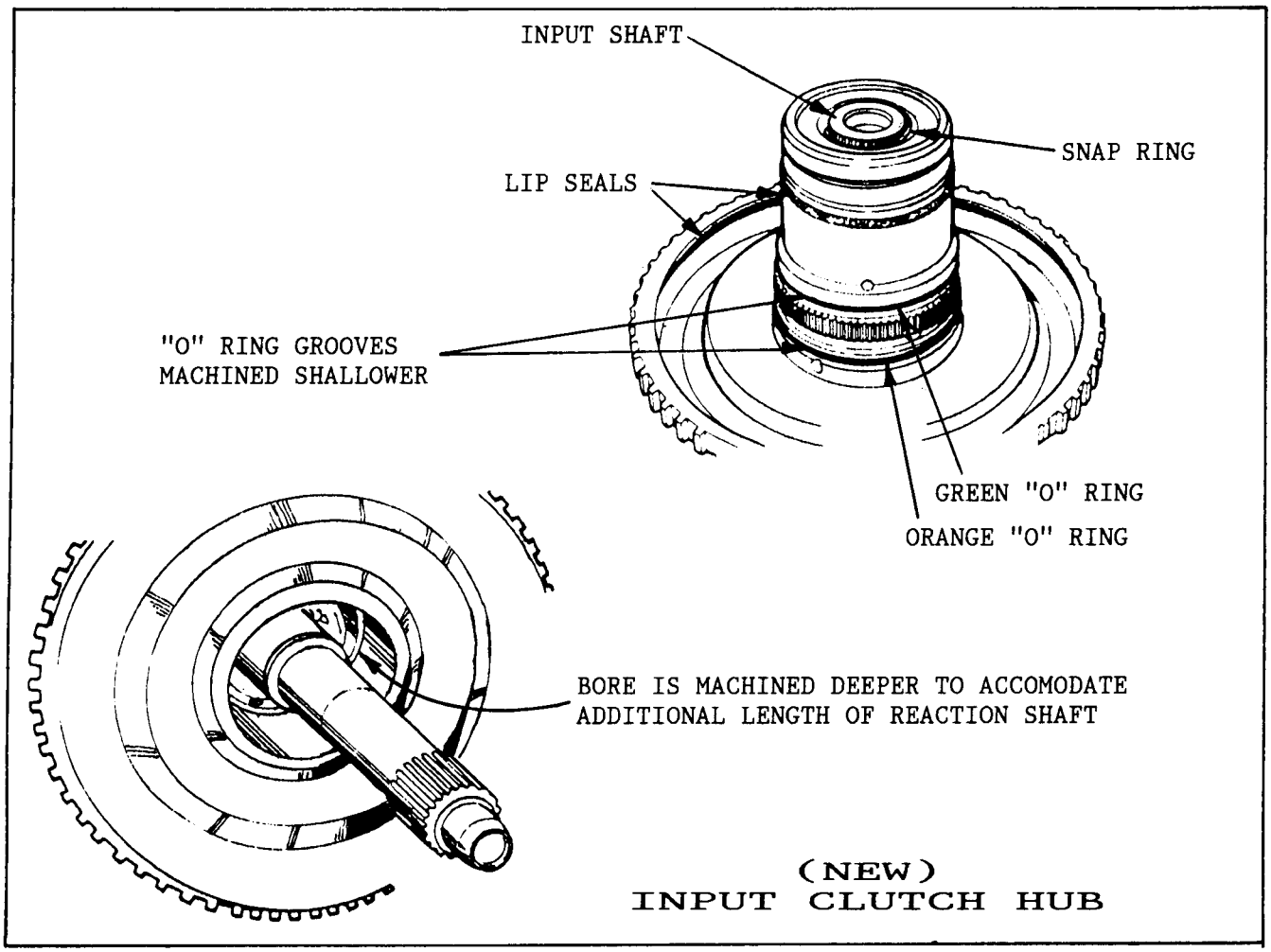


Figure 2

CHRYSLER A604

NEW PRNODL AND NEUTRAL SAFETY SWITCHES

CHANGE: PRNODL Switch and Neutral Safety Switch have been changed for the 1990 model year, as well as the vehicle wiring harness connectors. Refer to Figure 17 for location of switches on the transaxle.

REASON: Positive locking mechanism, with a weathertight seal, to prevent the connection from becoming loose.

PARTS AFFECTED:

(1) PRNODL SWITCH AND CONNECTOR - The PRNODL Switch and its wiring harness connector have changed for 1990, and can be identified visually (See Figure 18). These PRNODL Switches WILL NOT interchange with one another.

(2) NEUTRAL SAFETY SWITCH AND CONNECTOR - The Neutral Safety Switch and its wiring harness connector have changed for 1990, and can be identified visually (See Figure 19). These Neutral Safety Switches WILL NOT interchange with one another.

INTERCHANGEABILITY:

The 1989 and 1990 Switches are not compatable with one another and WILL NOT interchange between these model years.

NOTE: Each of the new for 1990 switches may look similar at first glance, but the PRNODL switch features a "Coarse" thread, while the Neutral Safety switch is black and features "Fine" threads. (See Figures 18 and 19).

SERVICE INFORMATION:

PRNODL Switch (1989 Model)	5234022
PRNODL Switch (1990 Model)	5234393
Neutral Safety Switch (1989 Model)	3747361
Neutral Safety Switch (1990 Model)	5234319

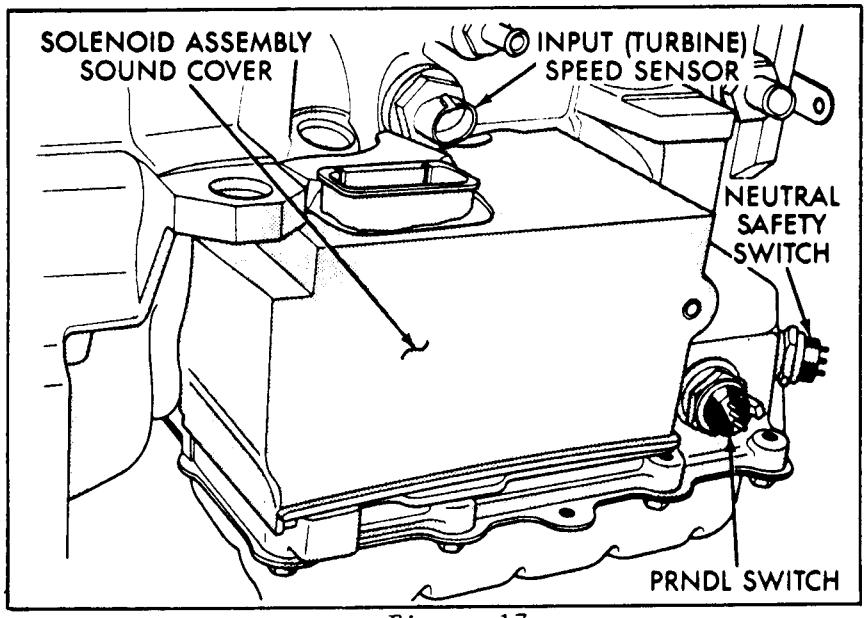


Figure 17

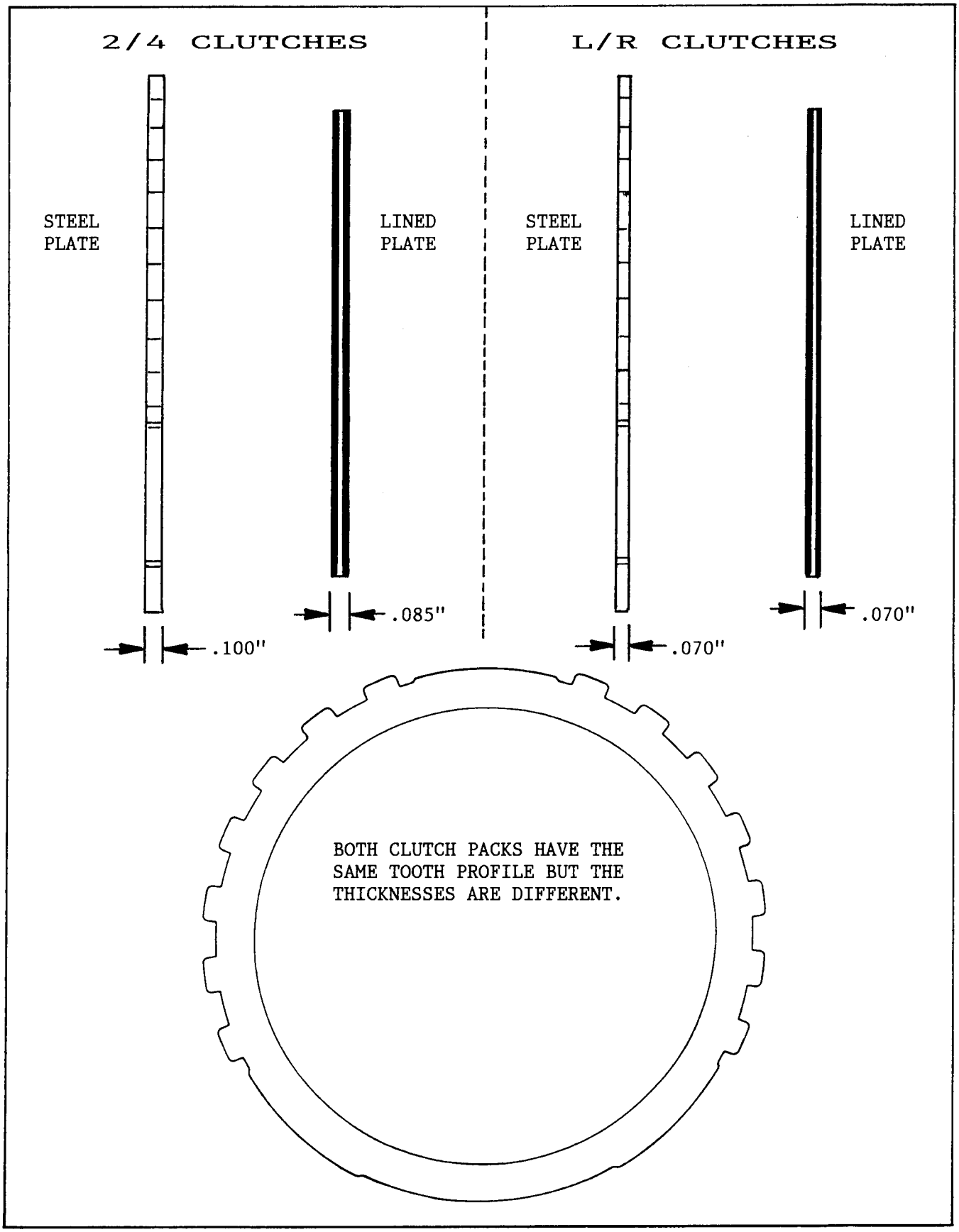
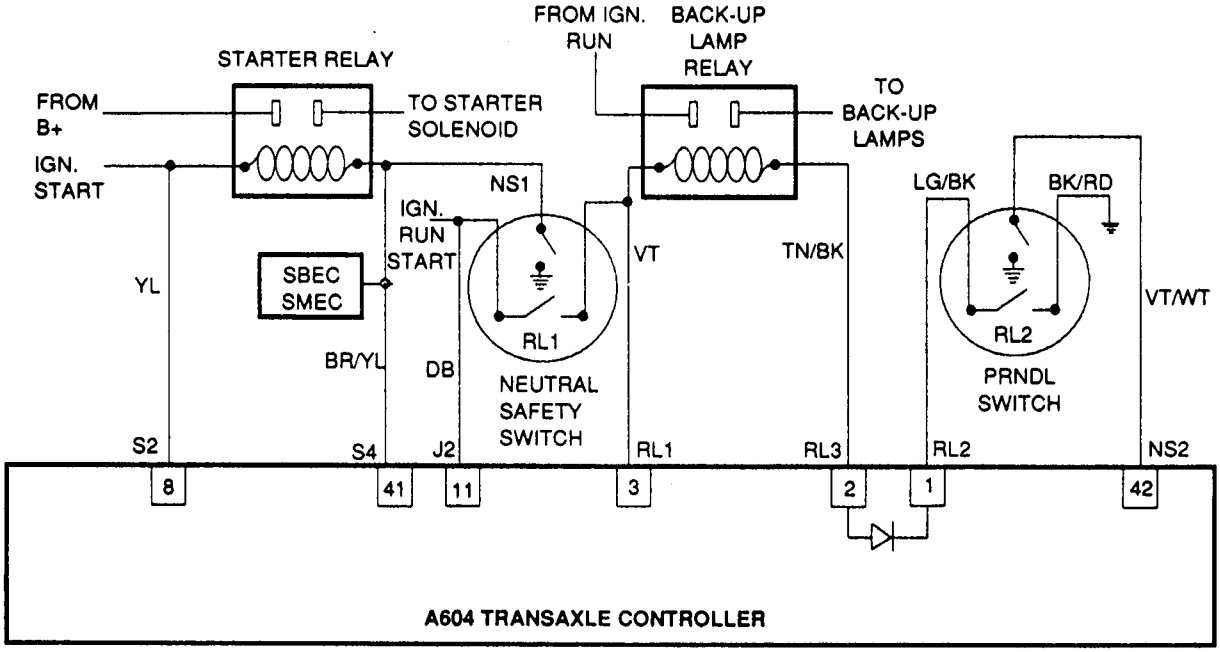

2/4 CLUTCHES
L/R CLUTCHES
STEEL PLATE
LINED PLATE
STEEL PLATE
LINED PLATE
.100"
.085"
.070"
.070"
BOTH CLUTCH PACKS HAVE THE SAME TOOTH PROFILE BUT THE THICKNESSES ARE DIFFERENT.

Figure 32

Probable Causes:
- Open/short S4 (same as NS1), NS2, RL1, RL2 or RL3.
- Open J2 circuit between N/S switch and splice.
- Open J91 circuit between PRNDL switch and splice.
- Defective or disconnected N/S or PRNDL switch
- Defective or disconnected Backup Lamp Relay.
- 60-way connector problem (cavities 1,2,3,41,42).
- Internal controller failure.

NOTE: If transaxle has been serviced recently one of these codes may appear, erase and retest to verify fault code was not set from lack of fluid in passages after service.



DIAGNOSIS GUIDE-VEHICLE WILL NOT MOVE

CHECK THE TRANSAXLE FLUID LEVEL BEFORE STARTING THE ENGINE. IF NO FLUID IS VISIBLE ON THE DIPSTICK, ADD FLUID TO THE "ADD" MARK BEFORE STARTING THE ENGINE. THEN START THE ENGINE WITH THE TRANSAXLE IN NEUTRAL AND LISTEN FOR NOISE.

ABNORMAL NOISE, STOP ENGINE IMMEDIATELY, REMOVE THE TRANSAXLE AND CONVERTER AS AN ASSEMBLY. DISASSEMBLE, CLEAN AND INSPECT ALL PARTS. CLEAN VALVE BODY; INSTALL ALL NEW SEALS, RINGS AND GASKETS; REPLACE WORN OR DEFECTIVE PARTS.

NO ABNORMAL NOISE, MOVE THE SELECTOR TO A FORWARD DRIVE RANGE AND OBSERVE THE FRONT WHEELS FOR TURNING

DRIVE SHAFTS TURN BUT FRONT WHEELS DO NOT TURN, INSPECT FOR BROKEN DRIVE SHAFT PARTS.

DRIVE SHAFTS DO NOT TURN

REMOVE ALL THREE OIL PANS. INSPECT FOR DEBRIS AND IF AXLE SHAFTS ARE PROPERLY INSTALLED.

NO DEBRIS. REMOVE VALVE BODY. DISASSEMBLE, CLEAN AND INSPECT ALL PARTS. REASSEMBLE, INSTALL AND CHECK PRESSURES AND OPERATION.

DEBRIS IS PRESENT. REMOVE TRANSAXLE AND CONVERTER AS AN ASSEMBLY; DISASSEMBLE, CLEAN AND INSPECT ALL PARTS; CLEAN THE VALVE BODY. INSTALL ALL NEW SEALS, RINGS, AND GASKETS; REPLACE WORN OR DEFECTIVE PARTS.

REPLACE TORQUE CONVERTER FLUSH COOLER AND LINES

DIAGNOSIS GUIDE-FLUID LEAKS

VISUALLY INSPECT FOR SOURCE OF LEAK. IF THE SOURCE OF LEAK CANNOT BE READILY DETERMINED, CLEAN THE EXTERIOR OF THE TRANSAXLE. CHECK TRANSAXLE FLUID LEVEL. CORRECT IF NECESSARY.

THE FOLLOWING LEAKS MAY BE CORRECTED WITHOUT REMOVING THE TRANSAXLE:

MANUAL LEVER SHAFT OIL SEAL
PRESSURE GAUGE PLUGS
NEUTRAL START SWITCH
OIL PAN RTV
OIL COOLER FITTINGS
EXTENSION HOUSING TO CASE BOLTS
SPEEDOMETER ADAPTER "O" RING
FRONT BAND ADJUSTING SCREW
EXTENSION HOUSING AXLE SEAL
DIFFERENTIAL BEARING RETAINER AXLE SEAL
REAR END COVER RTV
DIFFERENTIAL COVER RTV
EXTENSION HOUSING "O" RING
DIFFERENTIAL BEARING RETAINER RTV

THE FOLLOWING LEAKS REQUIRE REMOVAL OF THE TRANSAXLE AND TORQUE CONVERTER FOR CORRECTION.

TRANSAXLE FLUID LEAKING FROM THE LOWER EDGE OF THE CONVERTER HOUSING; CAUSED BY FRONT PUMP SEAL, PUMP TO CASE SEAL, OR TORQUE CONVERTER WELD.

CRACKED OR POROUS TRANSAXLE CASE.

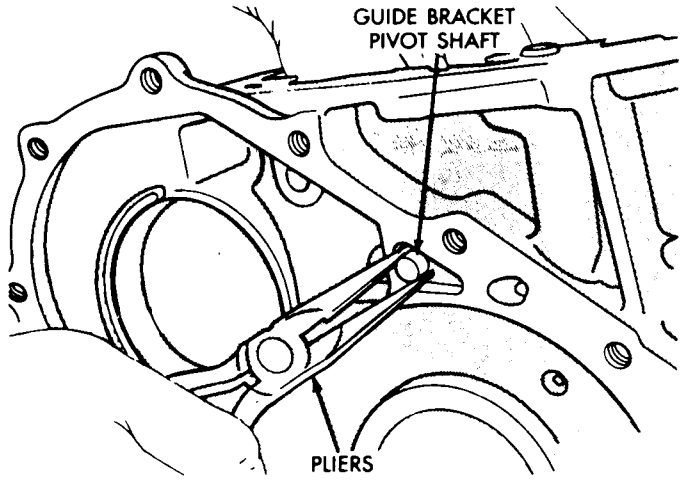


Fig. 59—Guide Bracket Pivot Shaft

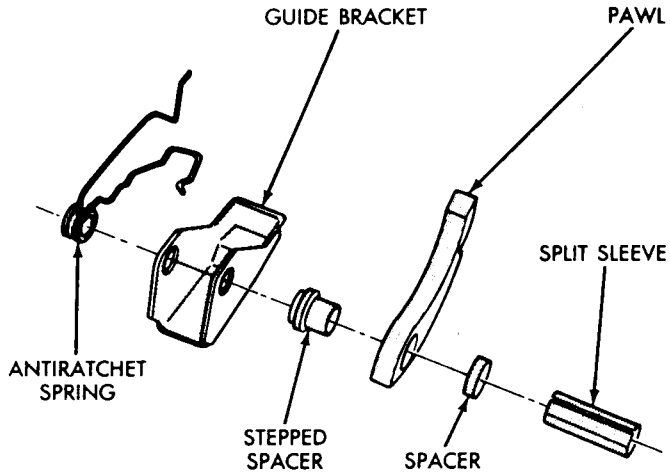


Fig. 62—Guide Bracket Disassembled

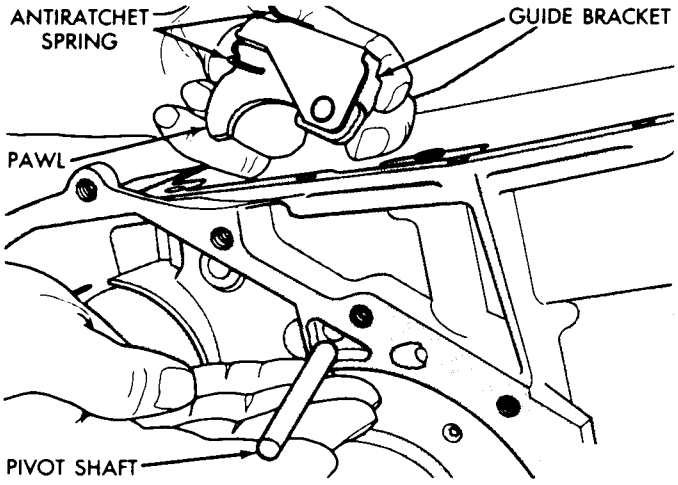


Fig. 60—Pivot Shaft and Guide Bracket

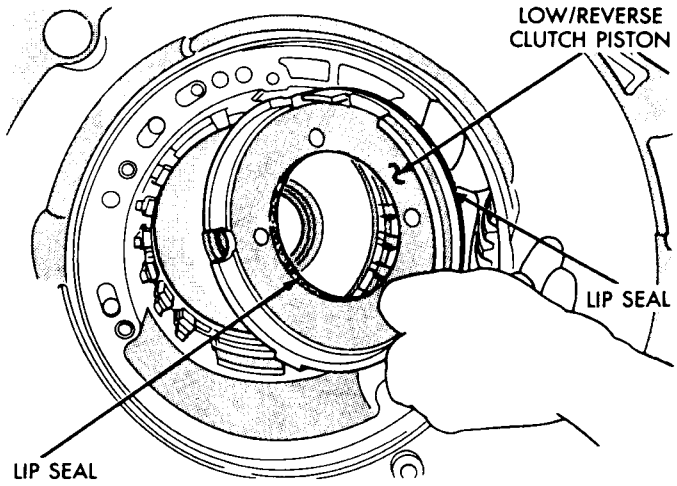


Fig. 63—Low/Reverse Clutch Piston

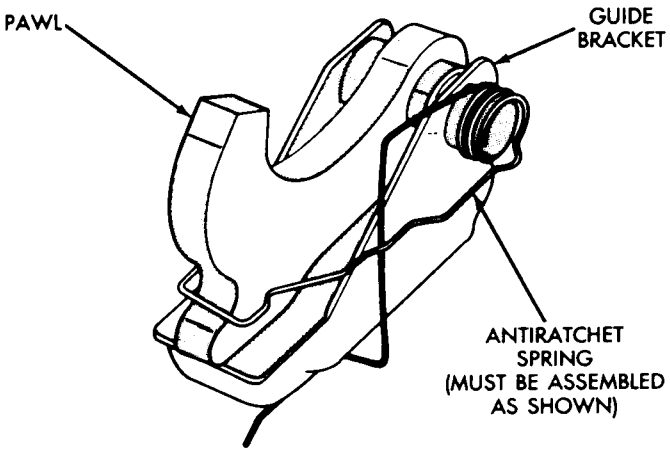


Fig. 61—Guide Bracket Assembled

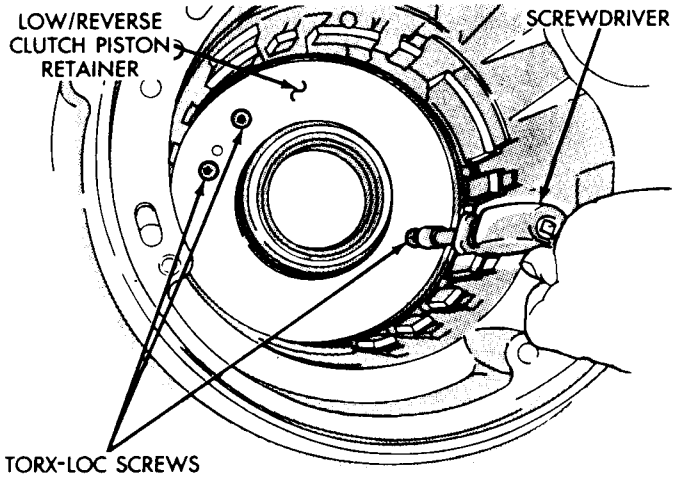
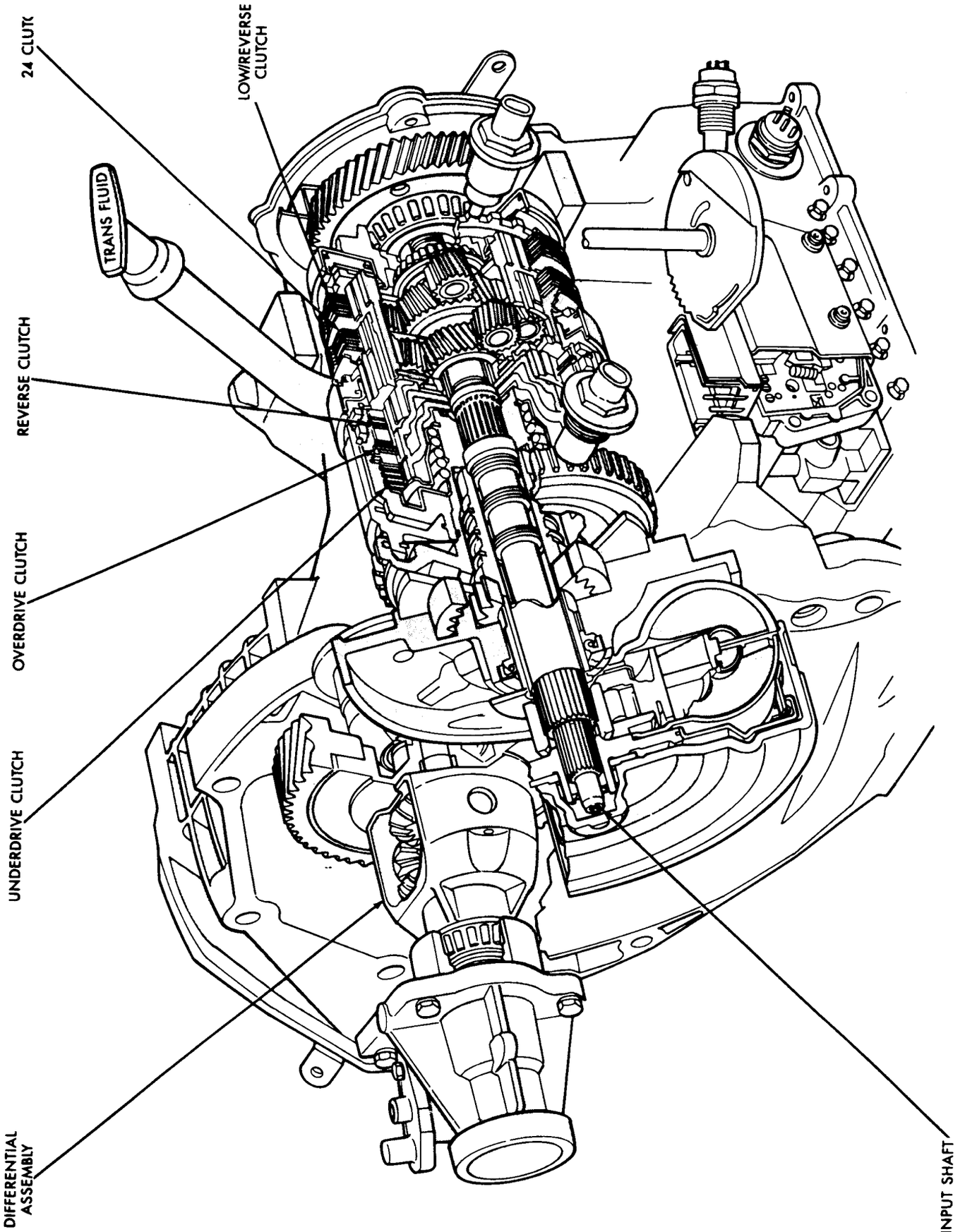
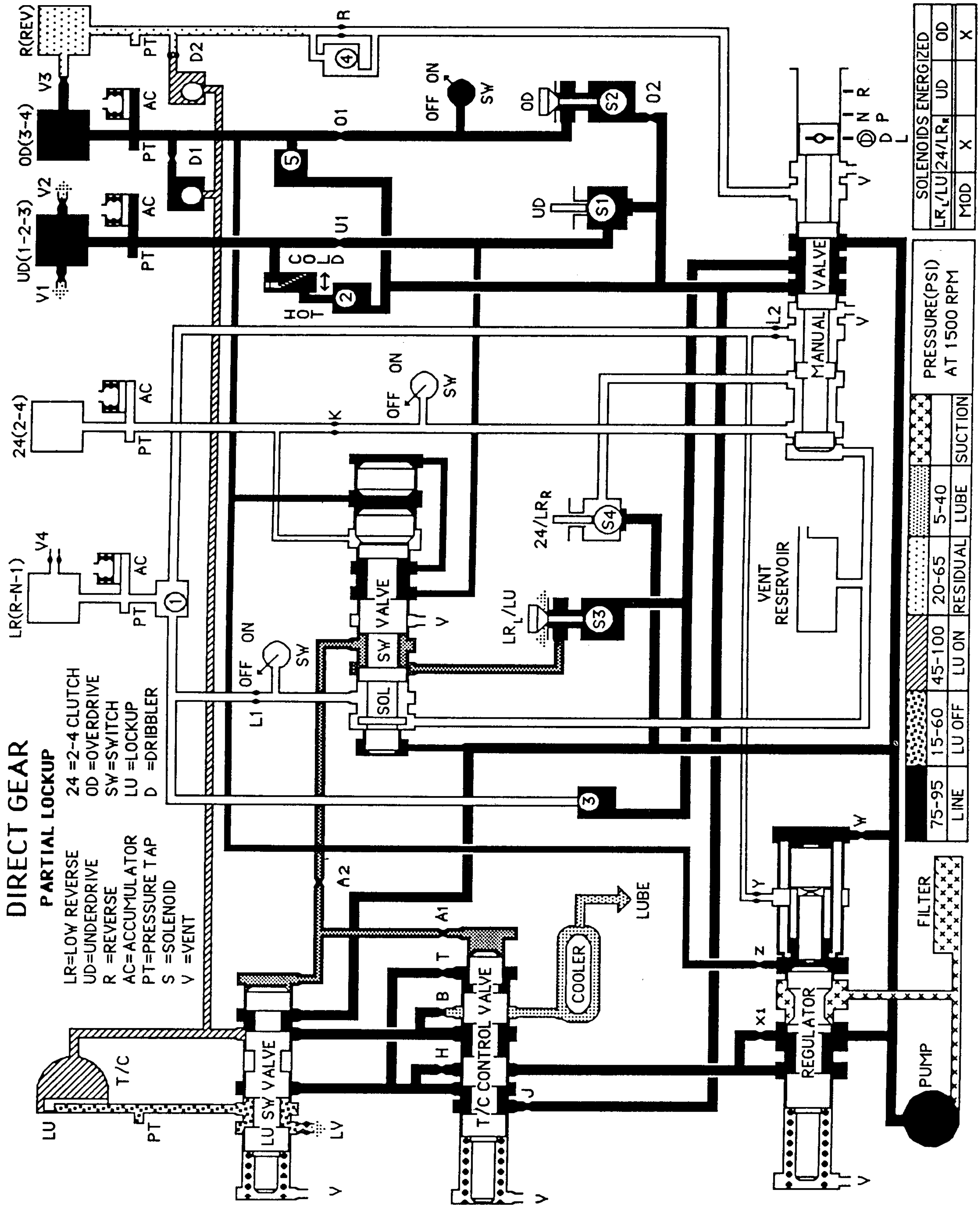
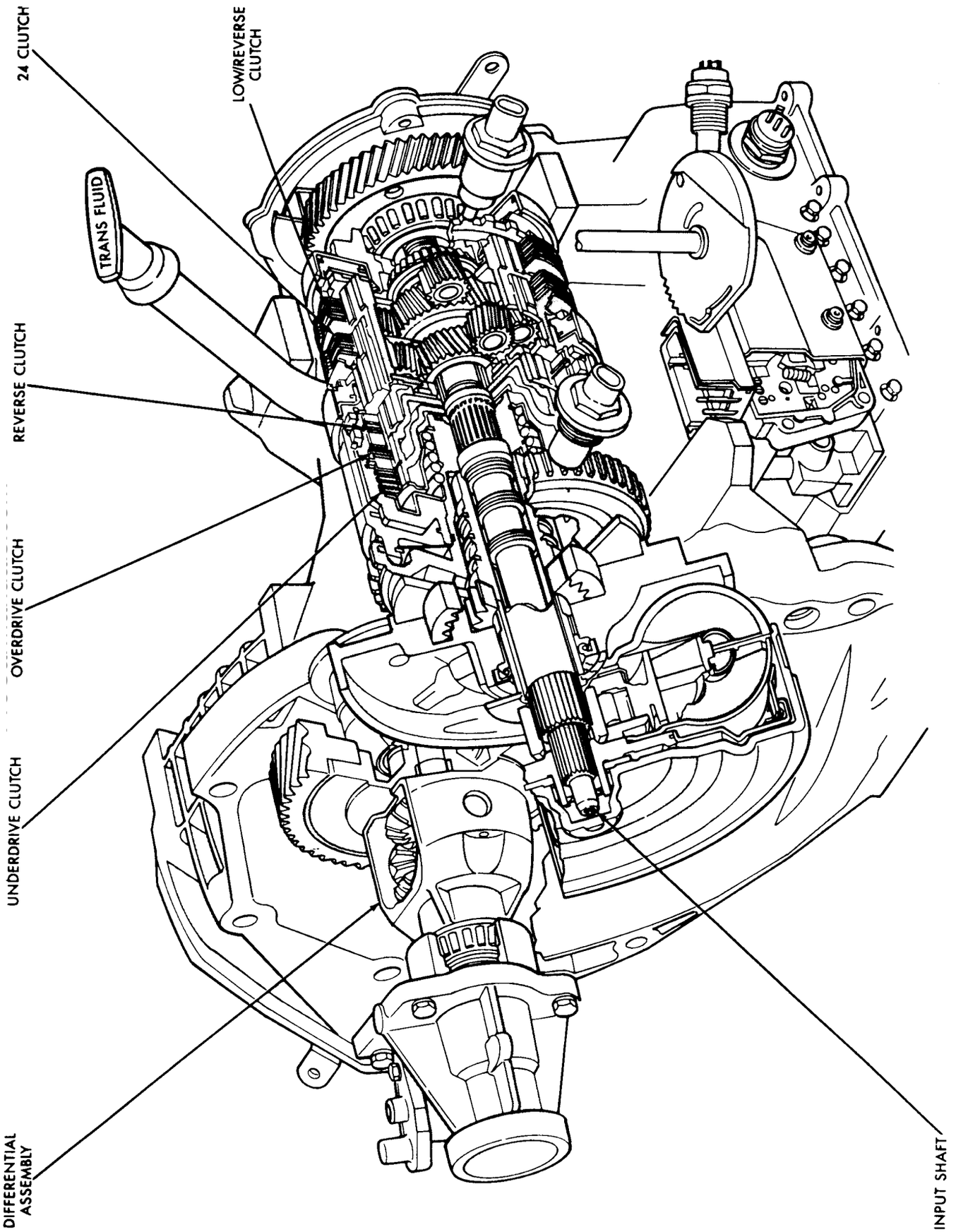


Fig. 64—Piston Retainer Attaching Screws


24 CLUTCH
LOW/REVERSE CLUTCH
TRANS FLUID
REVERSE CLUTCH
OVERDRIVE CLUTCH
UNDERDRIVE CLUTCH
DIFFERENTIAL ASSEMBLY
INPUT SHAFT


DIRECT GEAR
PARTIAL LOCKUP
LR=LOW REVERSE
UD=UNDERDRIVE
R =REVERSE
AC=ACCUMULATOR
PT=PRESSURE TAP
S =SOLENOID
V =VENT
24 =2-4 CLUTCH
OD =OVERDRIVE
SW=SWITCH
LU =LOCKUP
D =DRIBBLER
R(REV)
OD(3-4)
UD(1-2-3)
24(2-4)
LR(R-N-1)
V1
V2
V3
V4
AC
PT
D1
D2
O1
O2
U1
OFF ON
SW
OD
UD
S1
S2
S3
S4
24/LR$_R$
LR$_L$/LU
COLD
HOT
K
L1
L2
A1
A2
T
B
H
J
W
X1
Y
Z
SOL
SW VALVE
VALVE
MANUAL VALVE
VENT
RESERVOIR
T/C
LU
LV
LU SW VALVE
T/C CONTROL VALVE
COOLER
LUBE
REGULATOR
PUMP
FILTER
R
N
D
P
L
SOLENOIDS ENERGIZED
LR$_L$/LU
24/LR$_R$
UD
OD
MOD
X
X
X
PRESSURE(PSI)
AT 1500 RPM
75-95
LINE
15-60
LU OFF
45-100
LU ON
20-65
RESIDUAL
5-40
LUBE
SUCTION


24 CLUTCH
LOW/REVERSE CLUTCH
TRANS FLUID
REVERSE CLUTCH
OVERDRIVE CLUTCH
UNDERDRIVE CLUTCH
DIFFERENTIAL ASSEMBLY
INPUT SHAFT

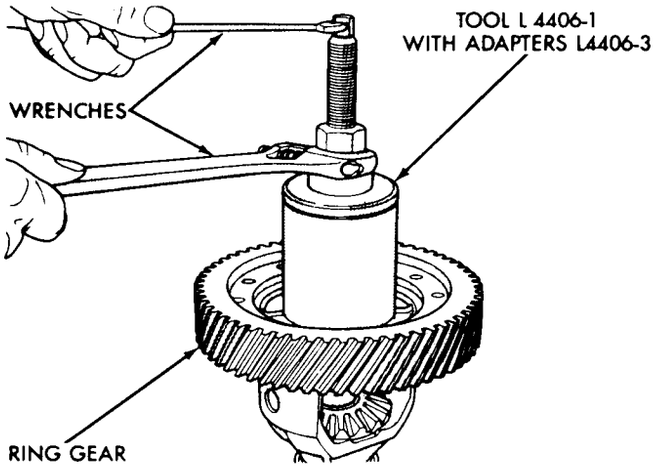


Fig. 13—Remove Differential Bearing Cone

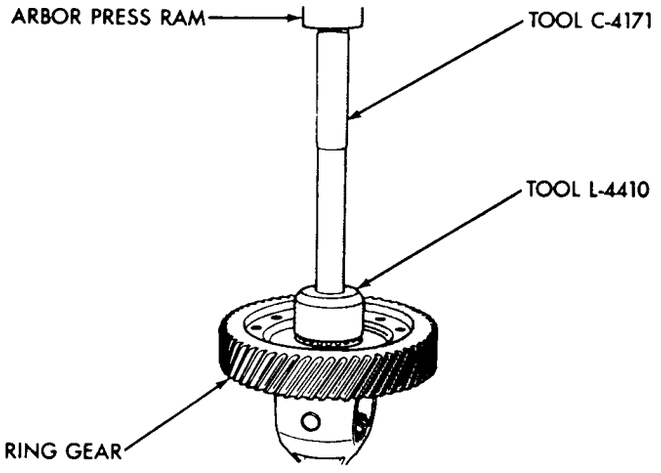


Fig. 14—Install Differential Bearing Cone

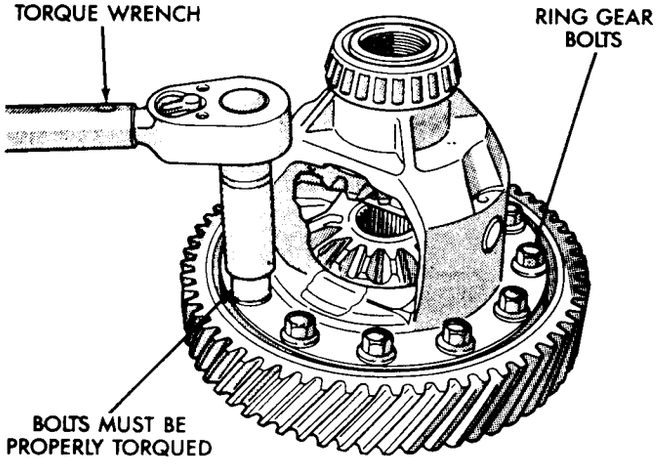


Fig. 15—Torque New Ring Gear Bolts to 95 N·m (70 Ft. Lbs.)

CAUTION: Always install NEW ring gear bolts. Bolts must be properly torqued.

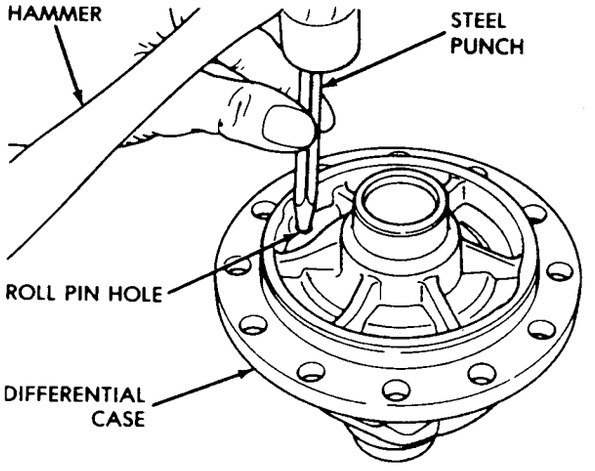


Fig. 16—Remove Pinion Shaft Roll Pin

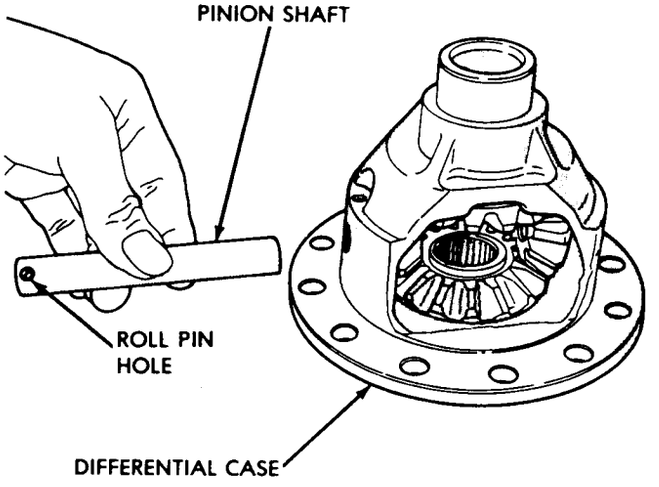


Fig. 17—Remove or Install Pinion Shaft

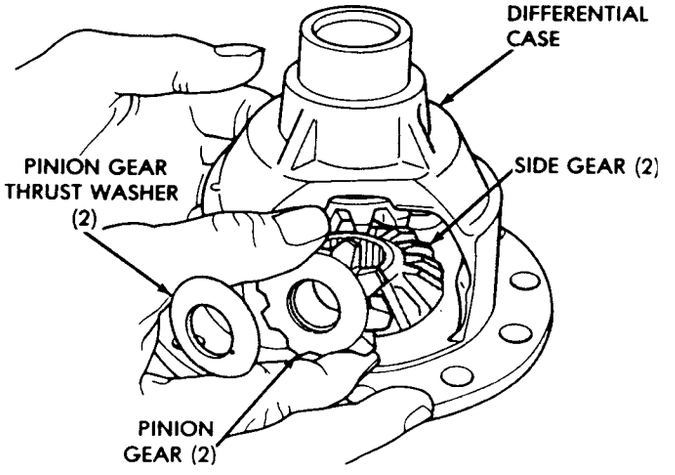
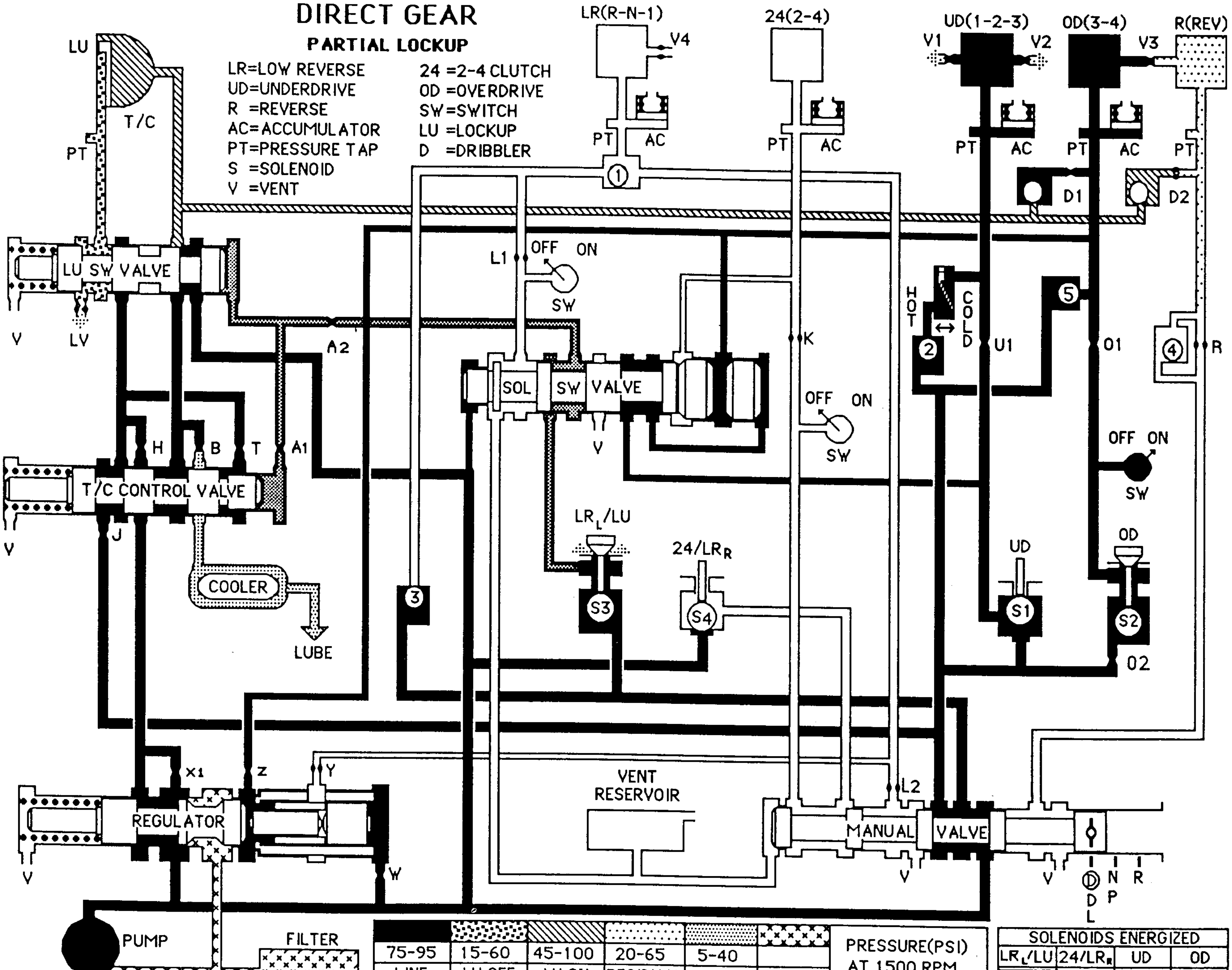


Fig. 18—Remove or Install Pinion Gears, Side Gears, and Tabbed Thrust Washers, by Rotating Pinion Gears to Opening in Differential Case



75-95	15-60	45-100	20-65	5-40		PRESSURE(PSI) AT 1500 RPM
LINE	LU OFF	LU ON	RESIDUAL	LUBE	SUCTION	

SOLENOIDS ENERGIZED			
LR$_L$/LU	24/LR$_R$	UD	OD
MOD	X		X

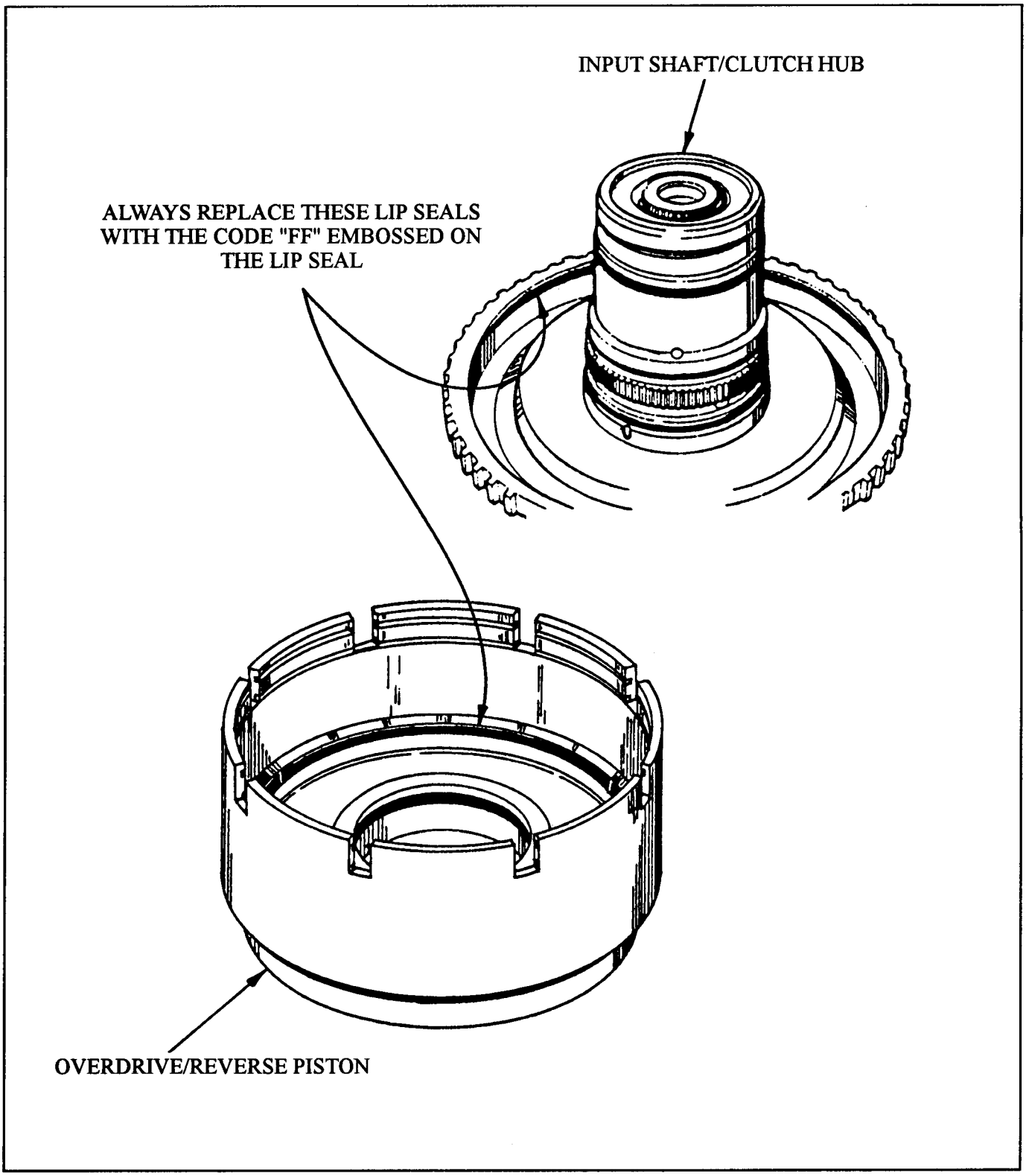
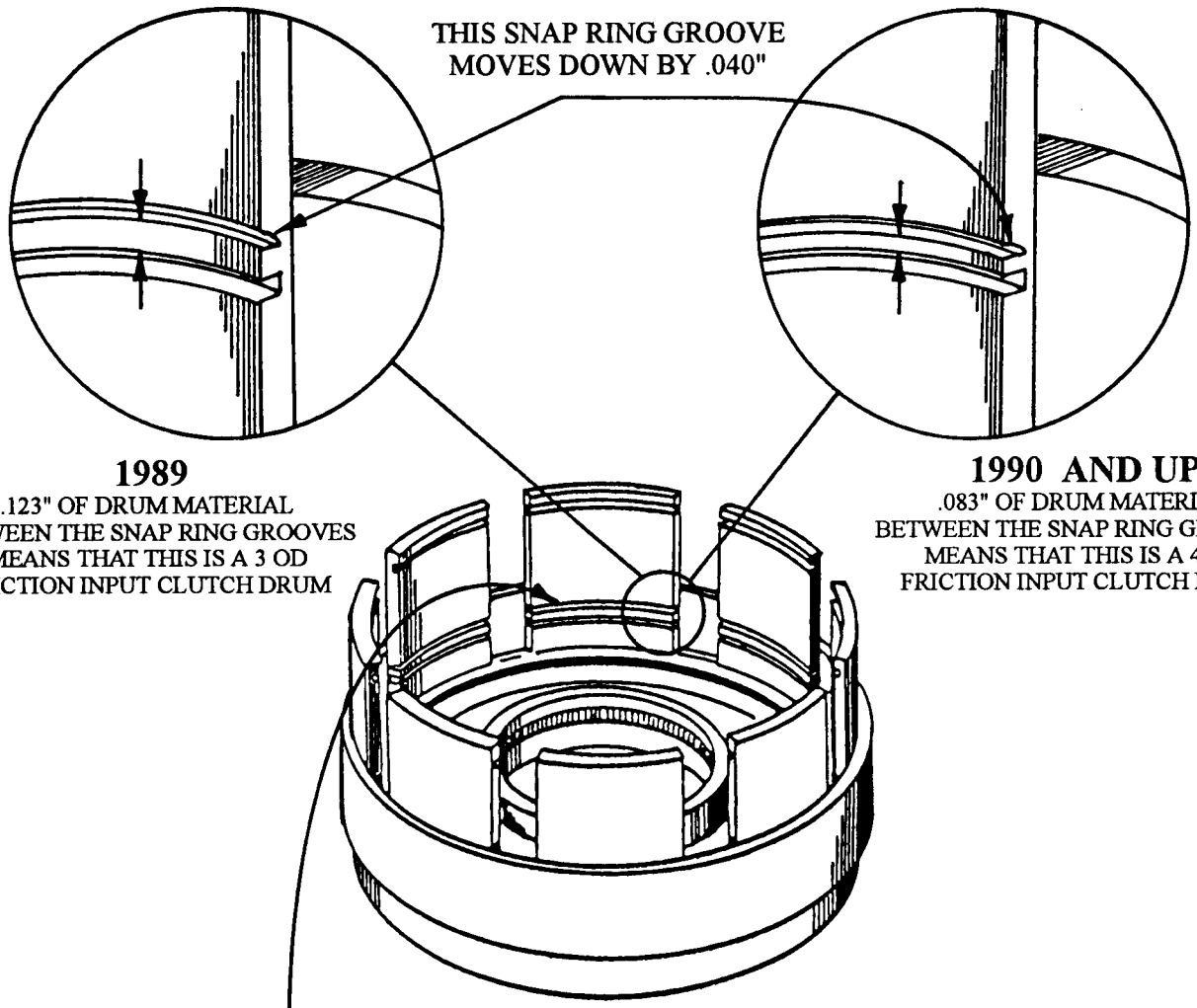

INPUT SHAFT/CLUTCH HUB
ALWAYS REPLACE THESE LIP SEALS WITH THE CODE "FF" EMBOSSED ON THE LIP SEAL
OVERDRIVE/REVERSE PISTON

Figure 6

INPUT CLUTCH RETAINER



1989
.123" OF DRUM MATERIAL
BETWEEN THE SNAP RING GROOVES
MEANS THAT THIS IS A 3 OD
FRICTION INPUT CLUTCH DRUM

1990 AND UP
.083" OF DRUM MATERIAL
BETWEEN THE SNAP RING GROOVES
MEANS THAT THIS IS A 4 OD
FRICTION INPUT CLUTCH DRUM

THE UPPER SNAP RING GROOVE WAS MOVED DOWN .040" AS A PART OF A DIMENSIONAL CHANGE TO ACCOMMODATE THE EXTRA STEEL AND LINED PLATE

1989 INPUT CLUTCH RETAINER.....4431609
1990 INPUT CLUTCH RETAINER.....4505623

Figure 16

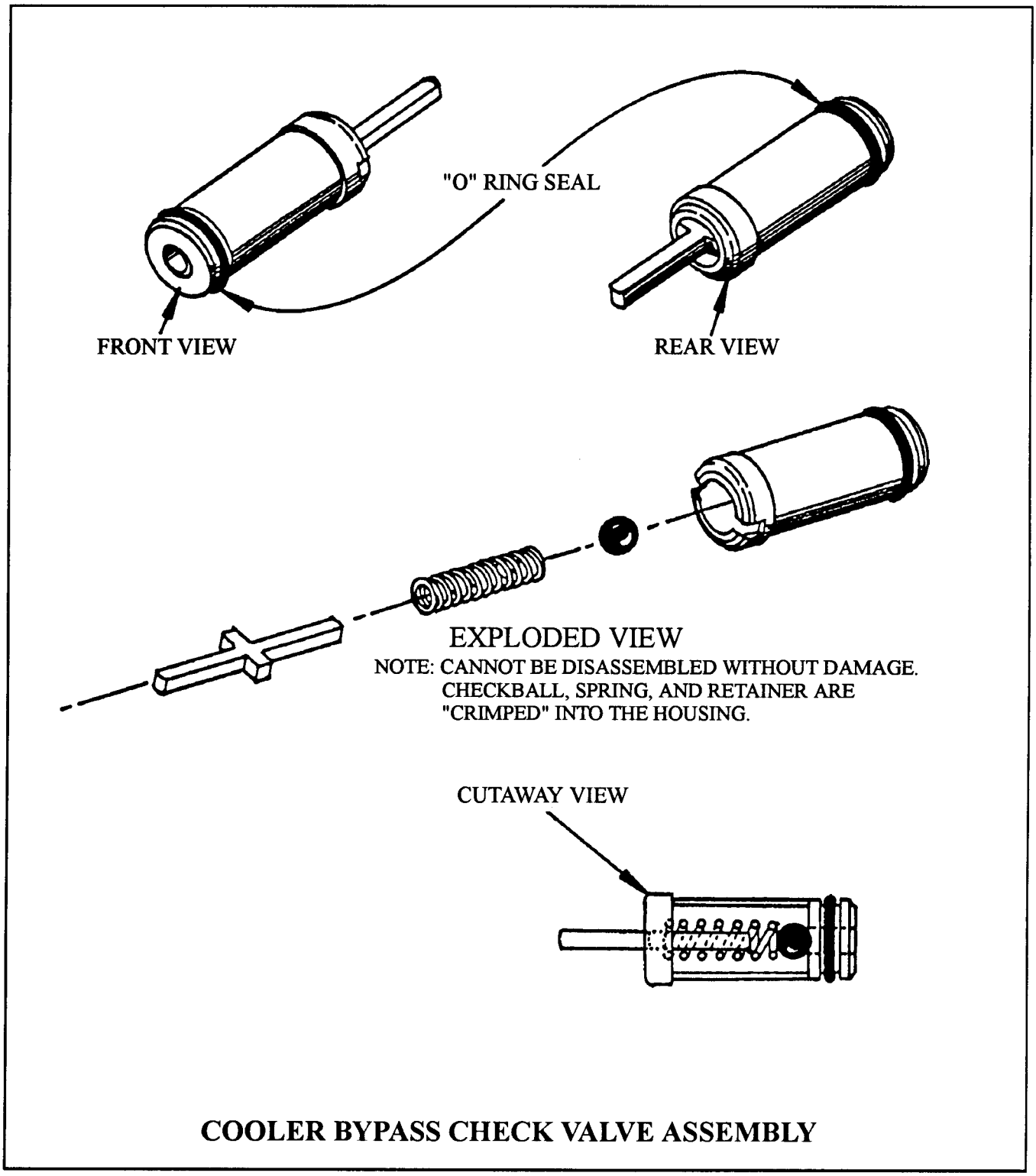

"O" RING SEAL
FRONT VIEW
REAR VIEW
EXPLODED VIEW
NOTE: CANNOT BE DISASSEMBLED WITHOUT DAMAGE.
CHECKBALL, SPRING, AND RETAINER ARE
"CRIMPED" INTO THE HOUSING.
CUTAWAY VIEW
COOLER BYPASS CHECK VALVE ASSEMBLY

Figure 42