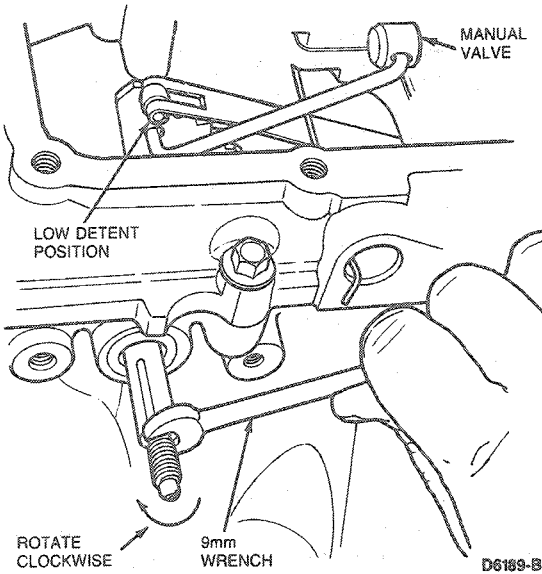


DISASSEMBLY AND ASSEMBLY (Continued)

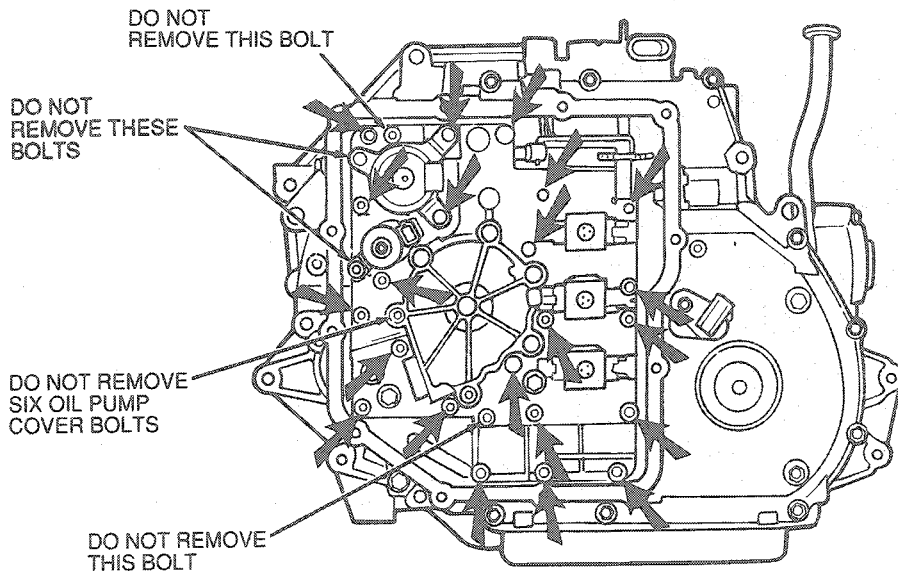
- 18. Using a 9mm wrench on flats on end of manual shaft, rotate shaft clockwise to position manual linkage in LOW detent (valve positioned all the way in).



CAUTION: Do not remove the two bolts that retain the oil pump and valve body assembly together.

CAUTION: Do not remove oil pump cover bolts.

- 19. Remove 22 8mm oil pump and valve body assembly retaining bolts. Note length and location of bolts.

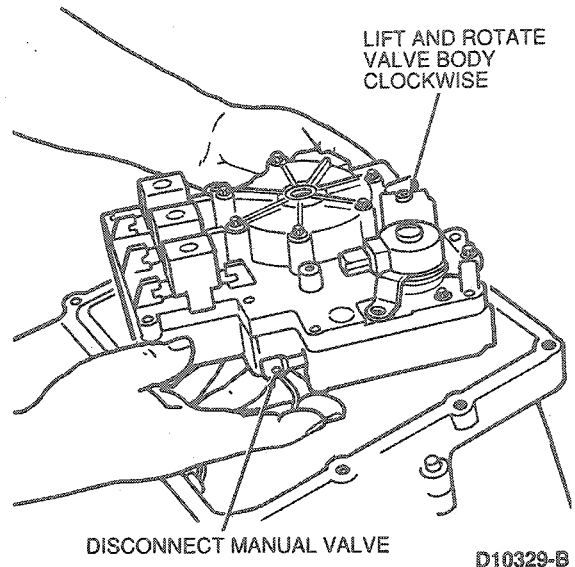


REMOVE VALVE BODY BOLTS INDICATED BY ARROWS

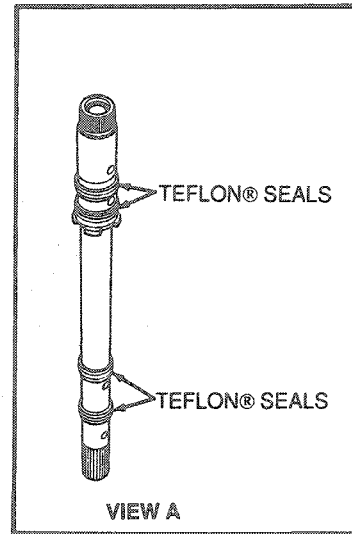
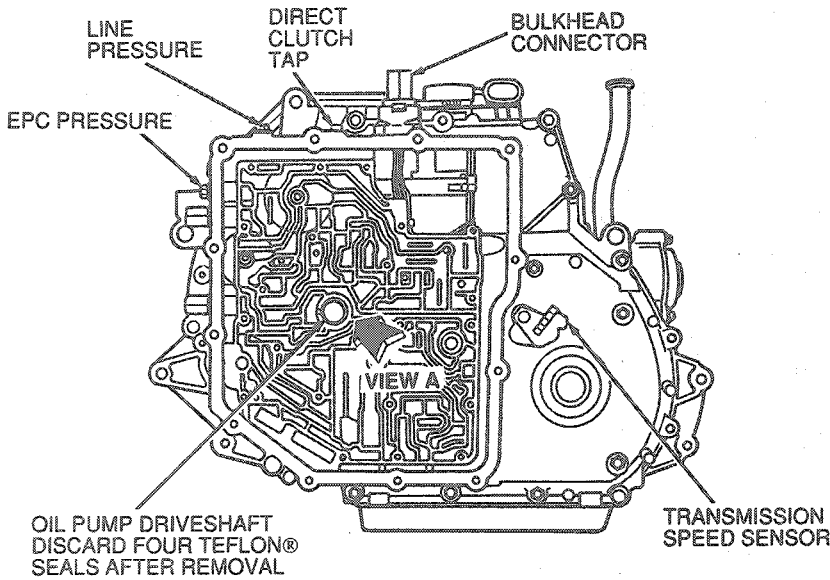
D8071-C

DISASSEMBLY AND ASSEMBLY (Continued)

20. Rotate valve body clockwise. Remove manual valve link from manual valve and remove valve body / pump assembly.

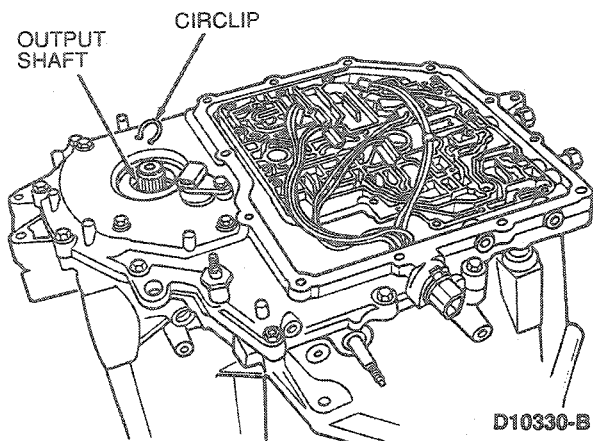


- 21. Disconnect manual valve link from detent lever.
- 22. Pull oil pump driveshaft out of case. Remove and discard four Teflon® seals from pump shaft.



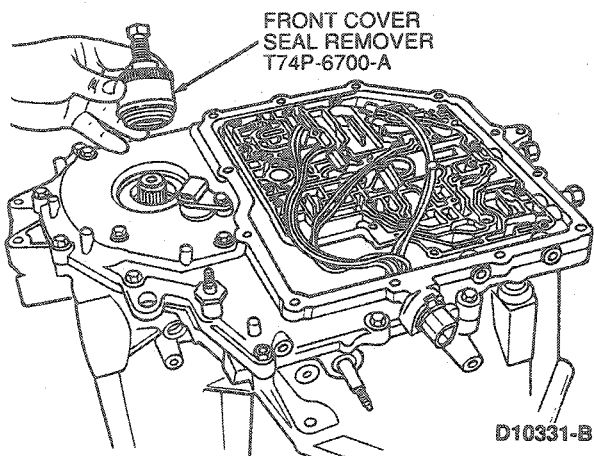
DISASSEMBLY AND ASSEMBLY (Continued)

23. Remove and discard output shaft circlip.

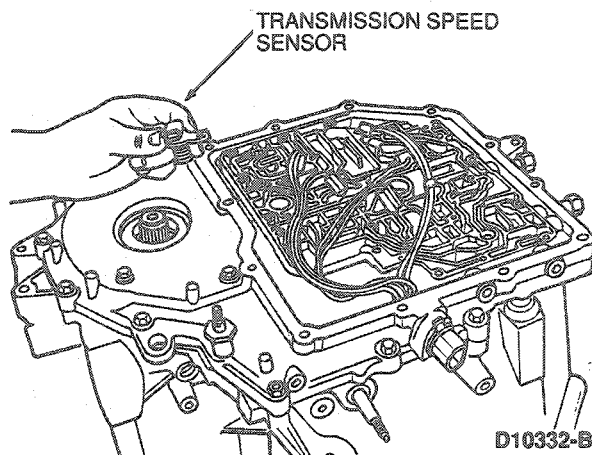


24. Remove LH output shaft seal as follows:

- a. Screw Front Cover Seal Remover T74P-6700-A into metal seal protector.
- b. Tighten screw on the end of tool until metal seal protector is removed.
- c. Remove metal seal protector from tool and install tool into seal.
- d. Tighten screw on end of tool until seal is removed.



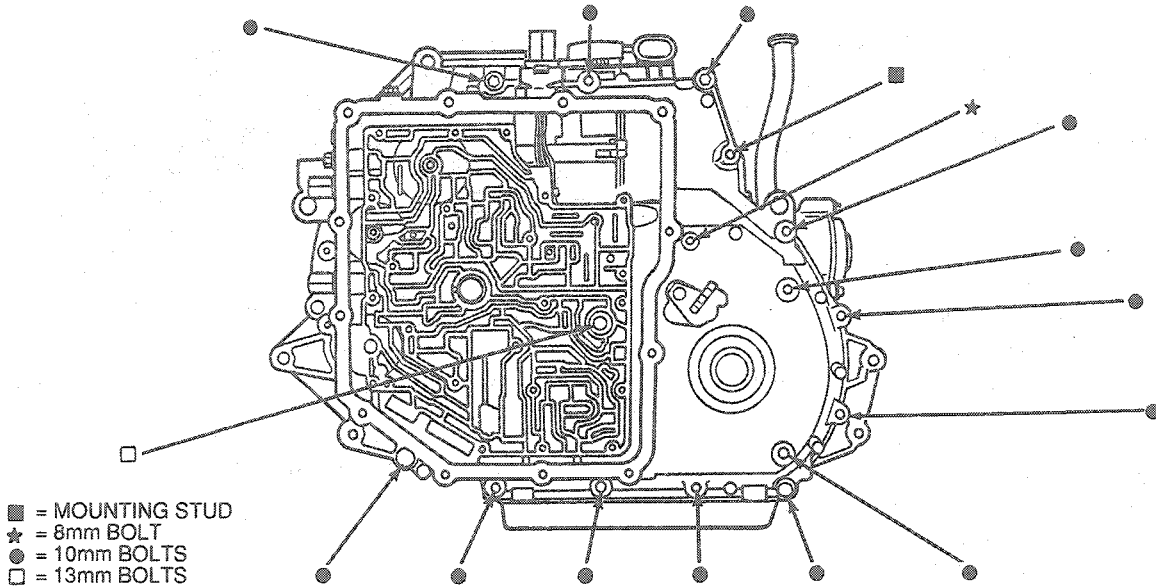
25. Remove 8mm bolt and TSS.



CAUTION: Chain cover is under spring pressure. Use care when removing.

DISASSEMBLY AND ASSEMBLY (Continued)

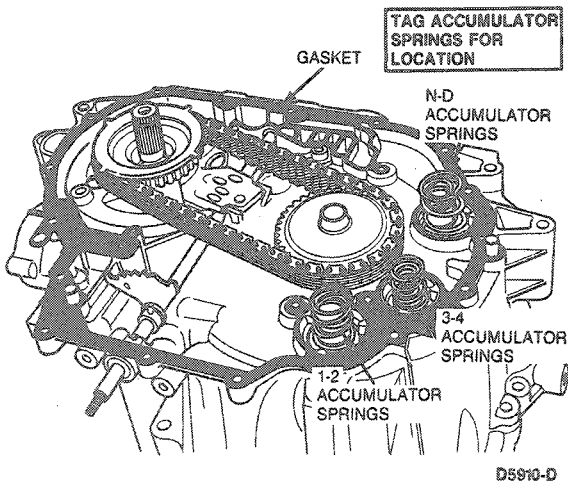
26. Remove 13 10mm, one 13mm, one 8mm bolt, and one 24mm mounting stud. Note length and location of bolts. Start at inside and work out.



D8833-C

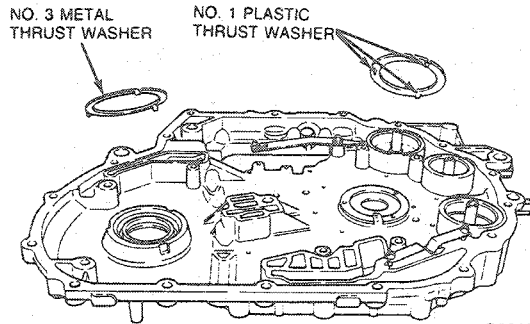
27. Remove chain cover and tag accumulator springs to be sure they are installed in their correct positions during assembly.

28. Remove and discard chain cover gasket.



D5910-D

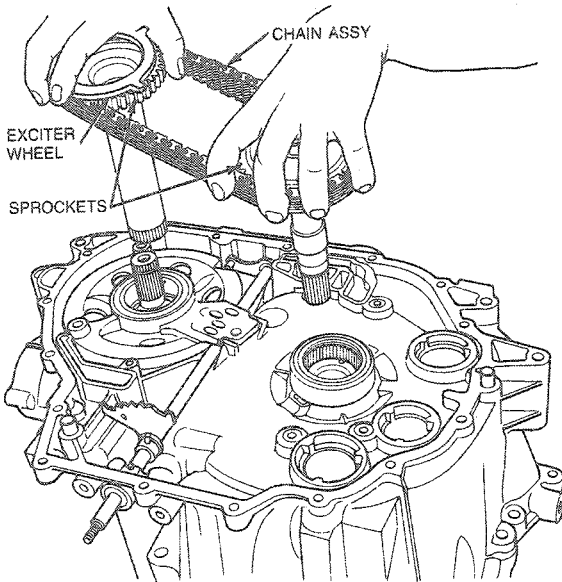
29. Remove No. 1 and No. 3 thrust washers from chain cover.



D5949-A

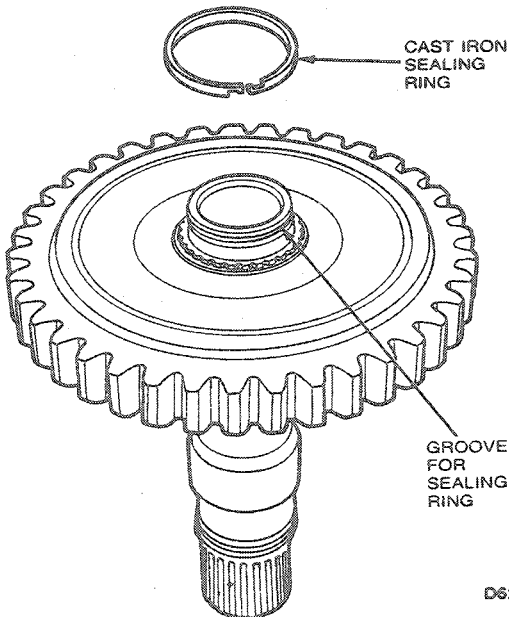
DISASSEMBLY AND ASSEMBLY (Continued)

30. Simultaneously, lift out both sprockets with chain assembly.



D5909-C

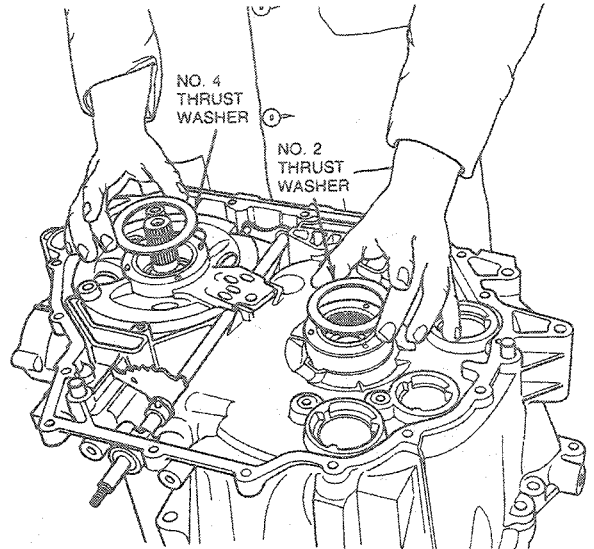
31. Remove cast iron sealing ring from input shaft sprocket.



D6241-A

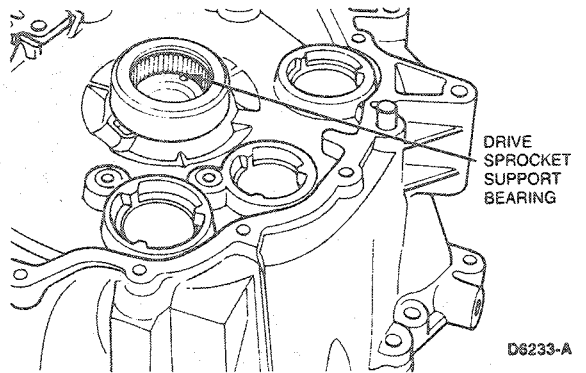
NOTE: Thrust washers may remain on driven sprocket.

32. Remove No. 2 thrust washer from drive sprocket support and No. 4 thrust washer from driven sprocket support.



D5922-B

33. Inspect drive sprocket support bearing to determine if it needs to be replaced. If OK, go to Step 35.



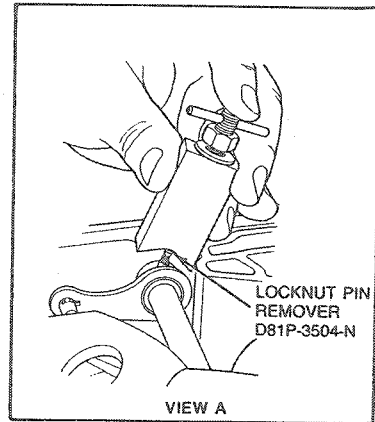
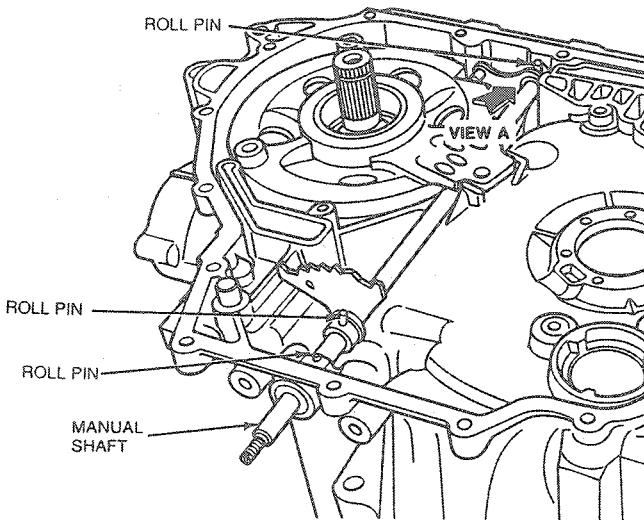
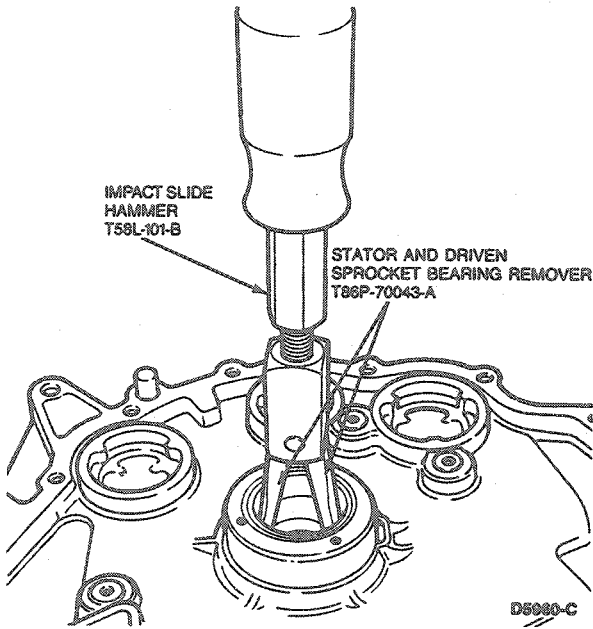
D6233-A

DISASSEMBLY AND ASSEMBLY (Continued)

- 34. If necessary, remove drive sprocket support needle bearing using Impact Slide Hammer T58L-101-B and Stator and Driven Sprocket Bearing Remover T86P-70043-A.

- 35. Remove and discard three roll-pins from manual shaft using Locknut Pin Remover D81P-3504-N or equivalent.

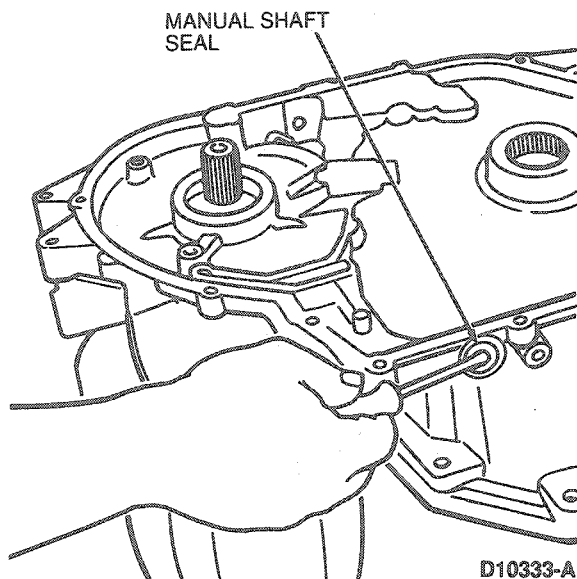
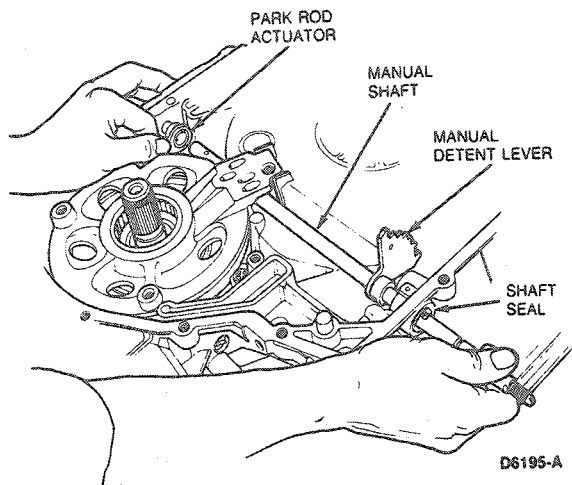
CAUTION: Use care not to damage any machined surfaces.



D5921-E

DISASSEMBLY AND ASSEMBLY (Continued)

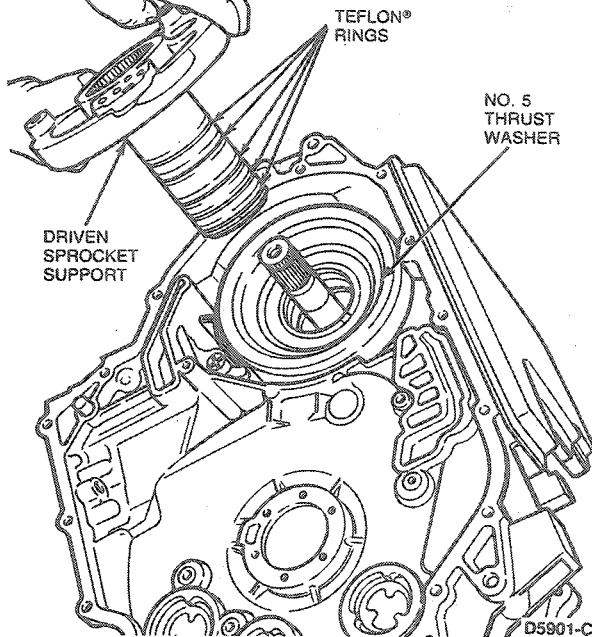
36. Slide manual linkage shaft out of case. Then, pry seal out of case.



37. Remove driven sprocket support assembly and remove five Teflon® seals from support.

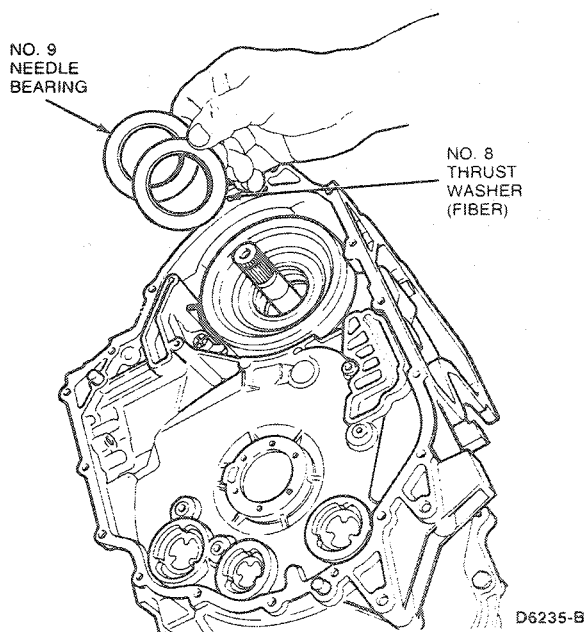
NOTE: Thrust washer may remain on sprocket support assembly.

38. Remove No. 5 selective thrust washer.



NOTE: Thrust washer and needle bearing may remain on driven sprocket support assembly when it is removed.

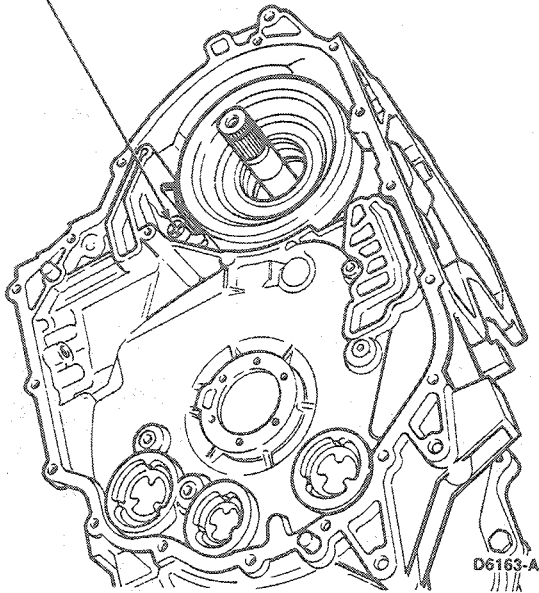
39. Using O-Ring Remover T7 1P-19703-C, remove No. 8 selective thrust washer and No. 9 needle bearing from bottom of cylinder.



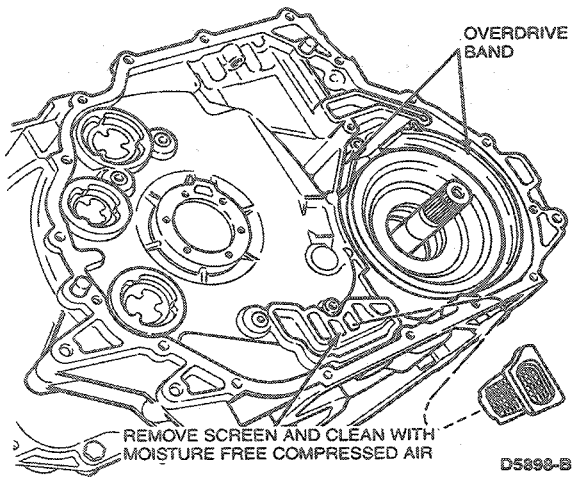
DISASSEMBLY AND ASSEMBLY (Continued)

40. Remove plastic overdrive band retainer.

OVERDRIVE
BAND RETAINER

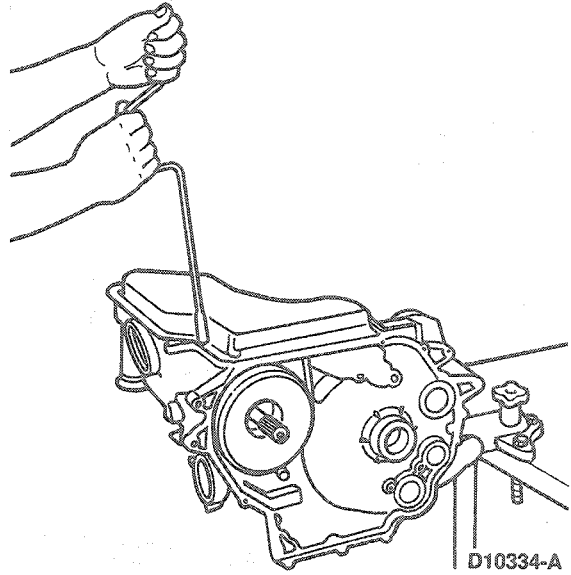


41. Remove overdrive band. Remove screen filter and clean with compressed air.

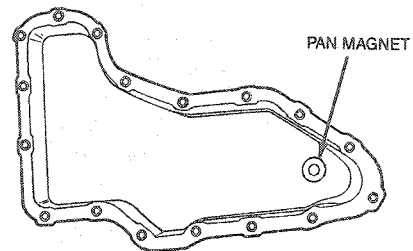


42. Rotate transaxle to horizontal position with oil pan up.

43. Remove 17 8mm oil pan cover bolts. Remove cover and discard gasket.



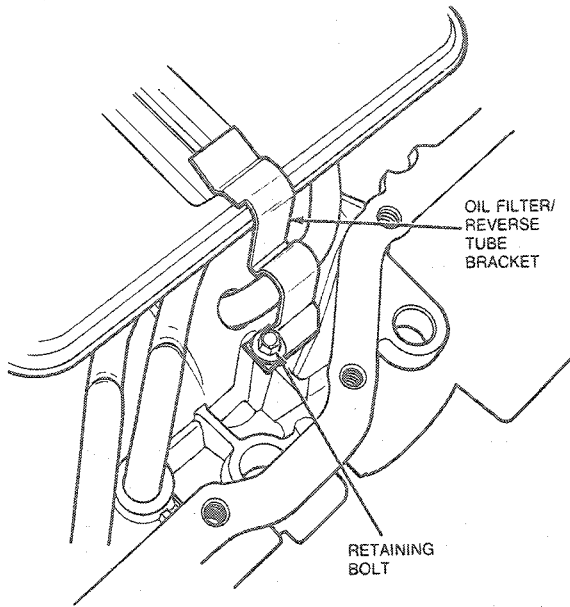
44. Remove magnet from oil pan.



D6926-A

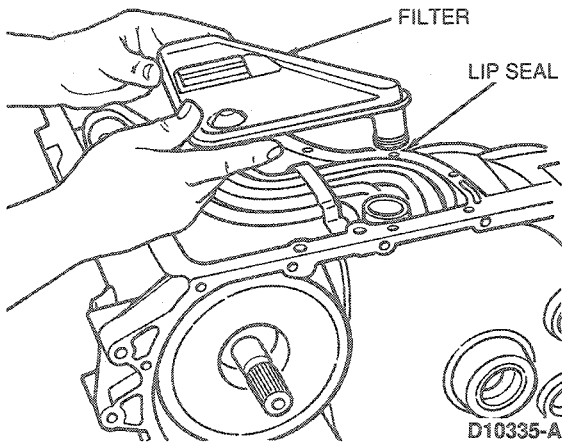
DISASSEMBLY AND ASSEMBLY (Continued)

- 45. Remove 8mm reverse apply tube / oil filter bracket bolt and bracket.



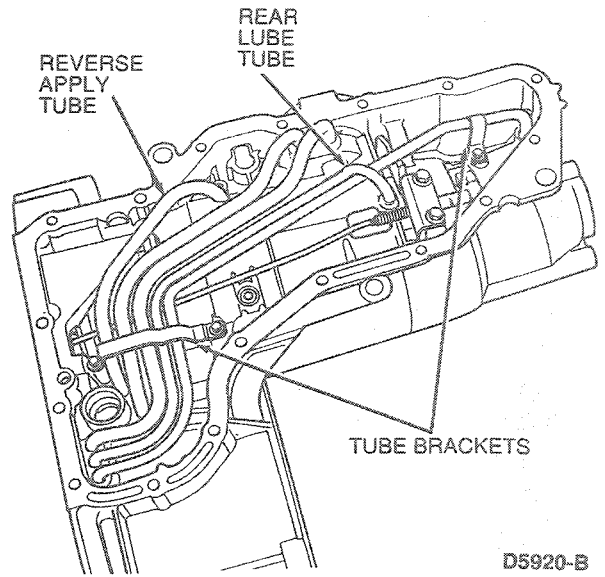
NOTE: Lip seal may stick inside case.

- 46. Remove oil filter screen and discard lip seal.

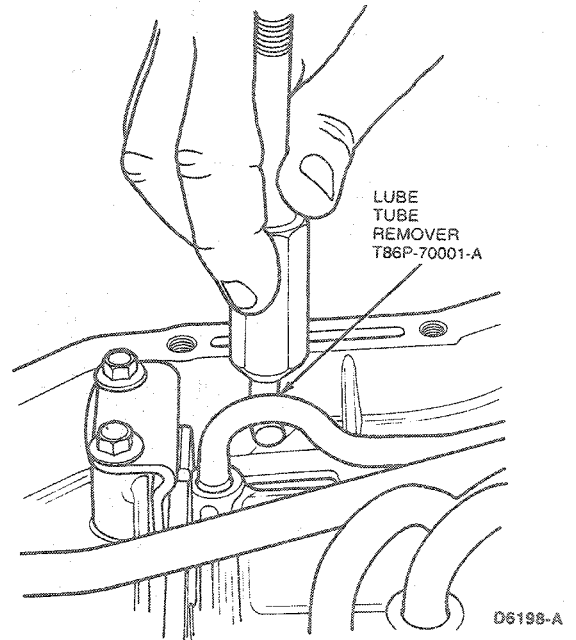


NOTE: For complete transaxle disassembly, the reverse apply tube and rear lube tube must be removed prior to removing the reverse clutch, or the differential.

- 47. Remove 8mm tube bracket bolts and brackets.

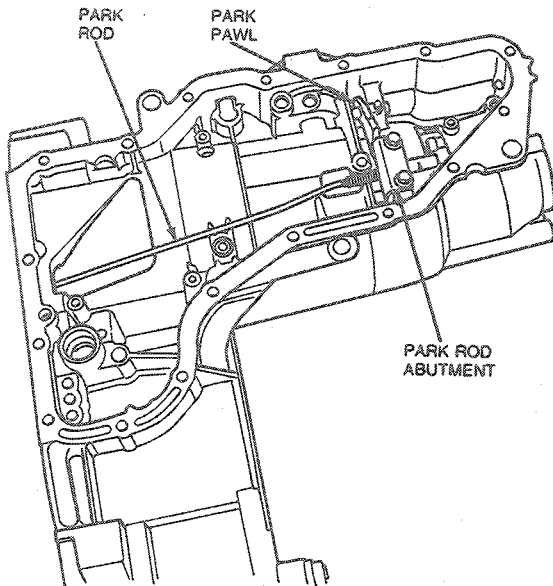


- 48. Remove lube tubes using Lube Tube Remove T86P-70001-A and Impact Slide Hammer T59L-100-B.



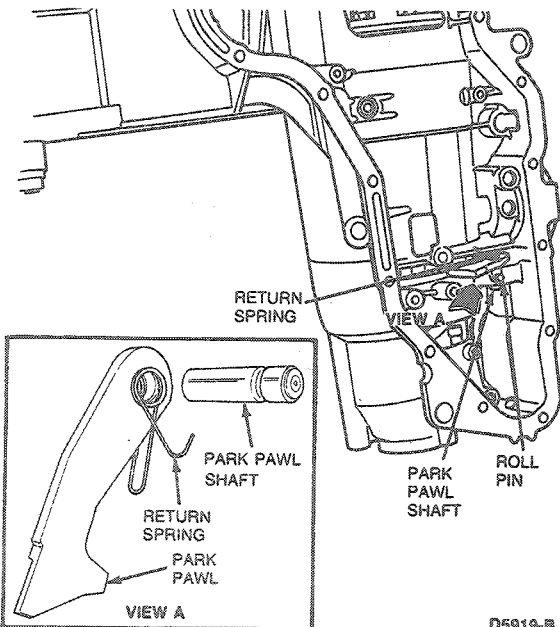
DISASSEMBLY AND ASSEMBLY (Continued)

49. Remove two 8mm park rod abutment bolts. Remove abutment. Remove park rod.



D6117-A

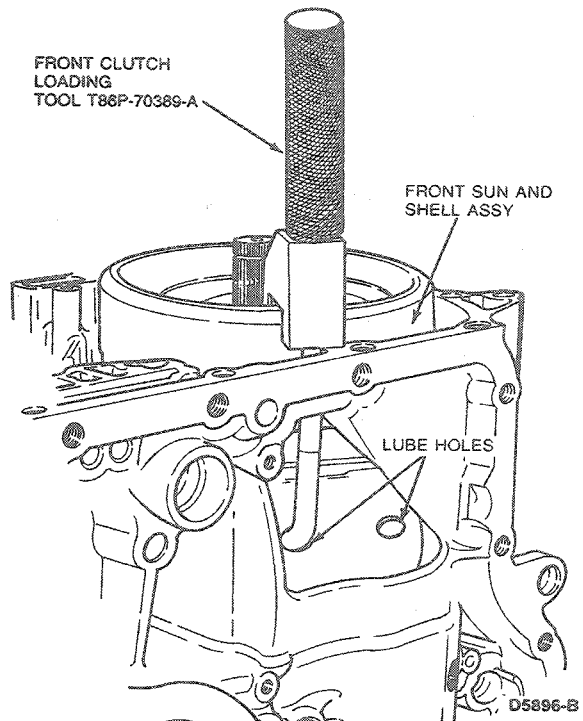
50. Using Locknut Pin Remover D81P-3504-N or equivalent, remove park pawl shaft roll pin.
51. Use magnet to remove park pawl shaft, and remove park pawl and return spring.



D5919-B

52. Rotate transaxle to vertical position. Using Front Clutch Loading Tool T86P-70389-A, install hook end of tool into one of the six lube holes in front sun and shell assembly. Position notched block over edge of assembly and tighten handle. Do not over-tighten handle. Lift assembly out of case.

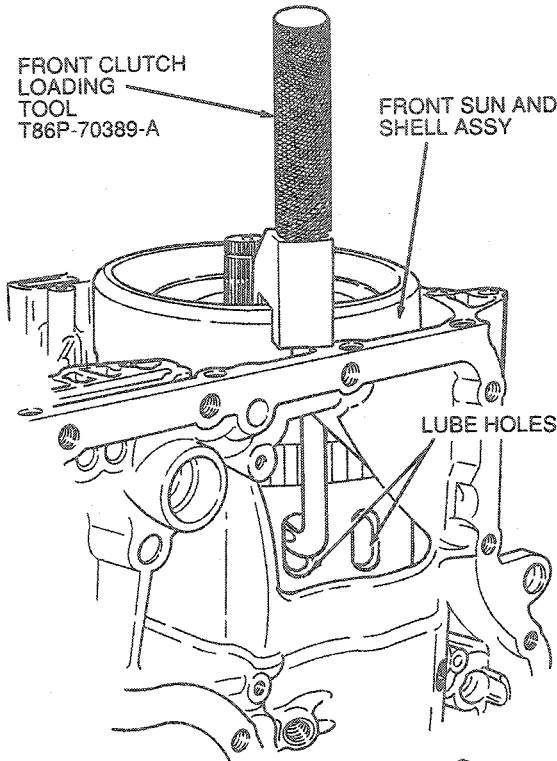
All Except SHO



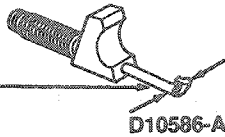
D5896-B

DISASSEMBLY AND ASSEMBLY (Continued)

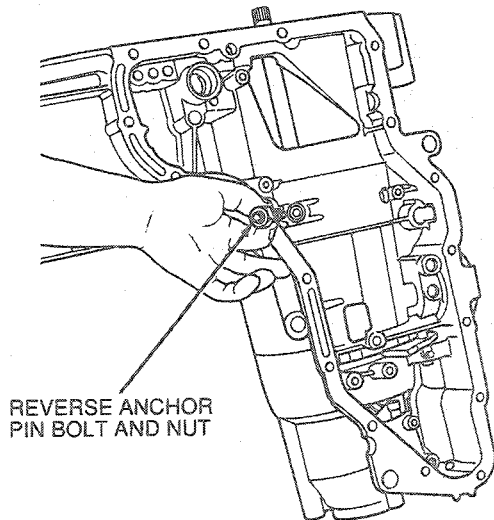
SHO



NOTE: MODIFY CLUTCH LOADING TOOL TO FIT LUBE HOLES BY REMOVING 0.50mm (0.02 INCH) OF MATERIAL OFF EACH SIDE OF TOOL.

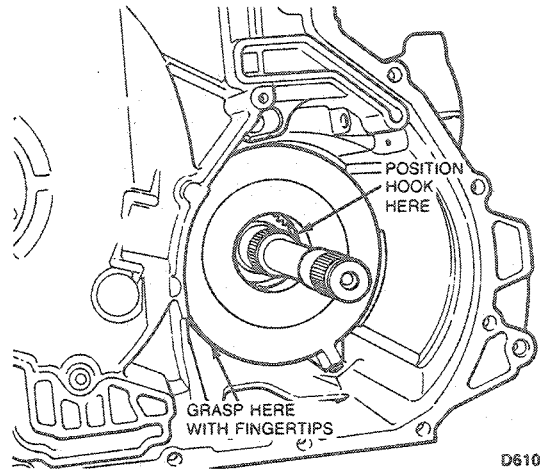


53. Loosen 19mm reverse clutch anchor pin nut and remove 6mm Allen head bolt.



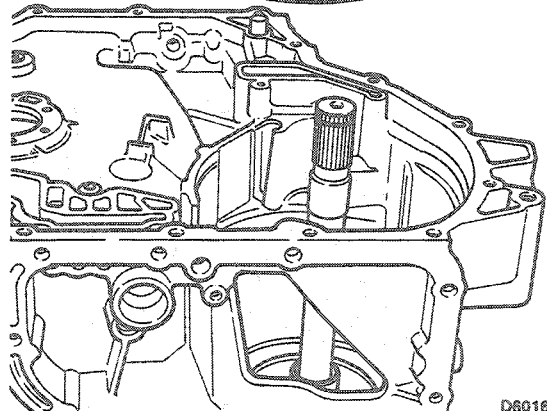
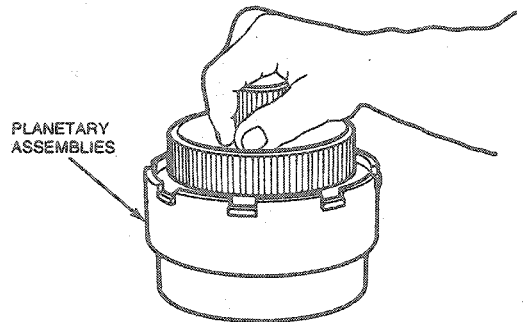
D5902-B

54. Locate hook portion of Front Clutch Loading Tool T86P-70389-A on inner diameter of reverse clutch cylinder. Grasp outer diameter of cylinder with fingertips and slide clutch assembly out of case.



D6107-A

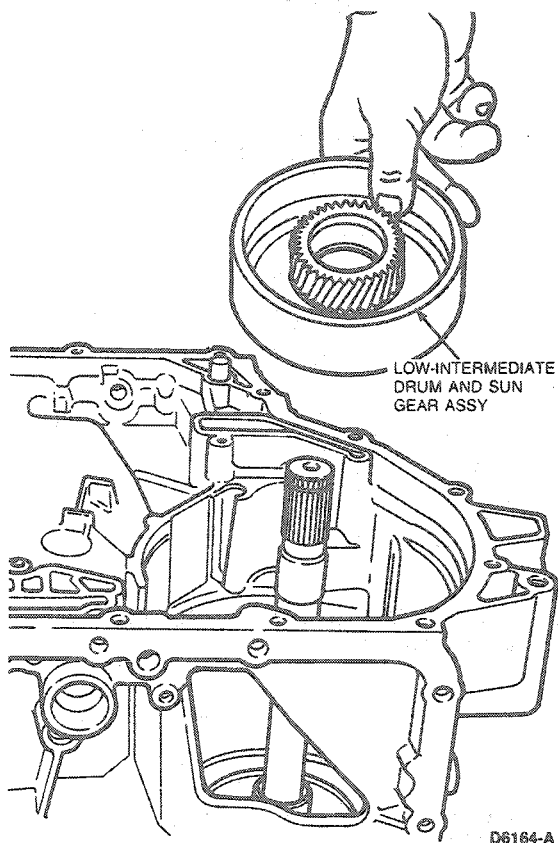
55. Holding the front planetary shaft, lift out both front and rear planetary assembly.



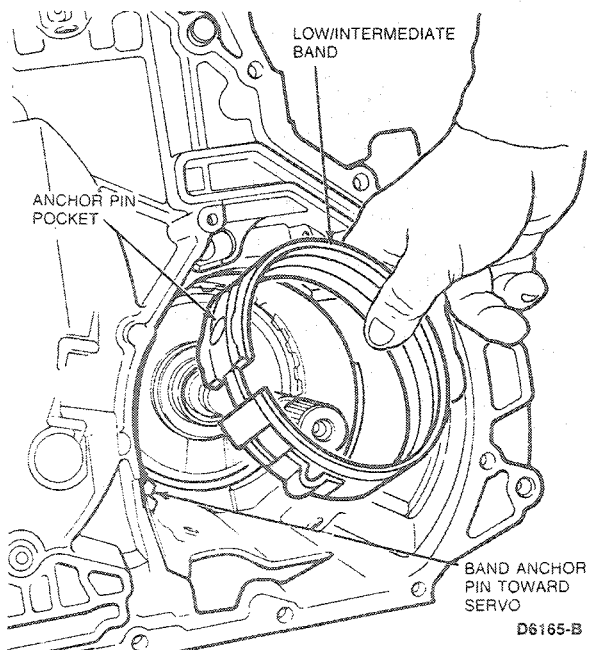
D6016-A

DISASSEMBLY AND ASSEMBLY (Continued)

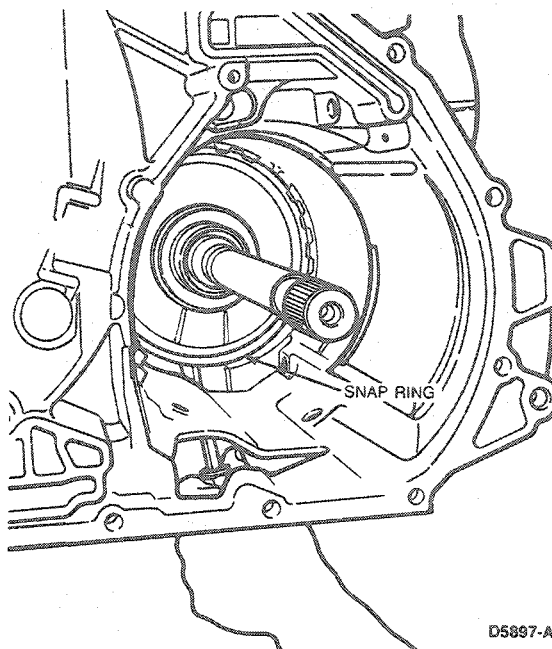
56. Lift out low-intermediate drum and sun gear assembly.



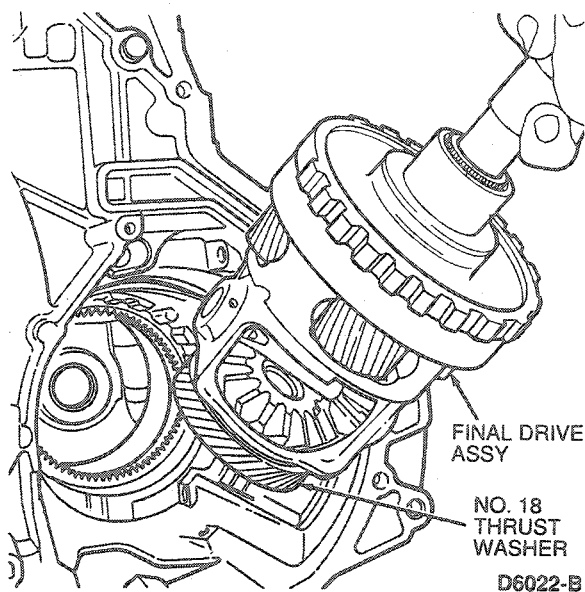
57. Remove low-intermediate band.



58. Remove final drive gear assembly snap ring from case using a screwdriver inserted through side of case.



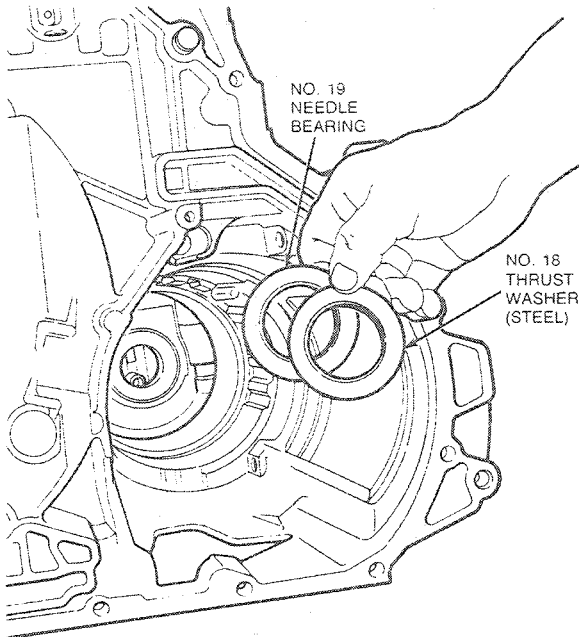
59. Lift out final drive assembly using output shaft.



NOTE: No. 18 thrust washer may remain on the final drive assembly next to speedometer drive gear.

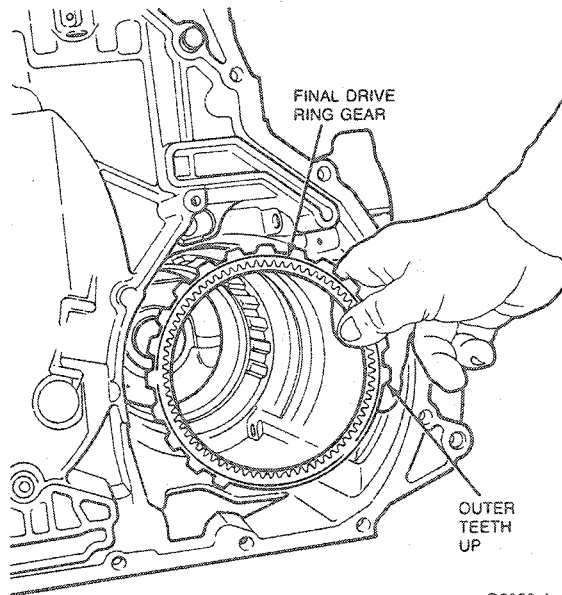
DISASSEMBLY AND ASSEMBLY (Continued)

60. Remove No. 18 thrust washer and No. 19 needle bearing.



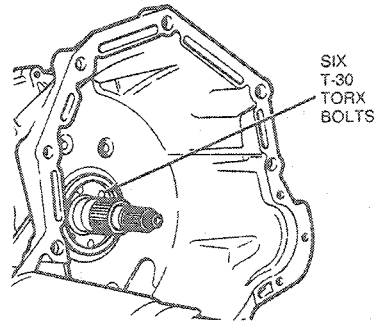
D5899-B

61. Remove final drive ring gear from case.



D6023-A

62. If case replacement is necessary, rotate case 180 degrees and remove six T-30 Torx® bolts attaching support to case.



D6234-A

Subassemblies

Chain Cover

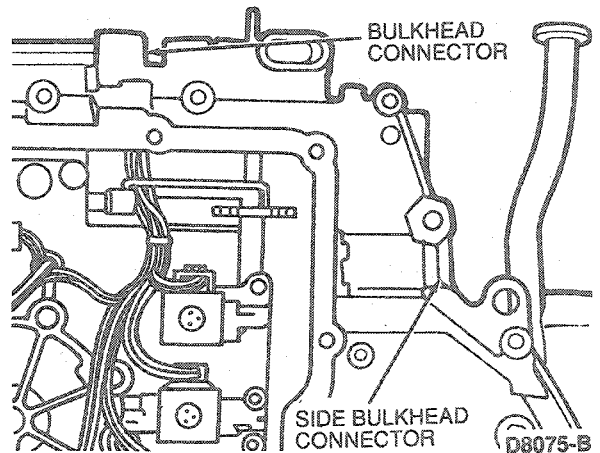
Tools Required:

- Locknut Pin Remover T78P-3504-N
- Lock Ring Pliers T81P-77060-A
- Bimetal Height Gauge T86P-70422-A

Disassembly

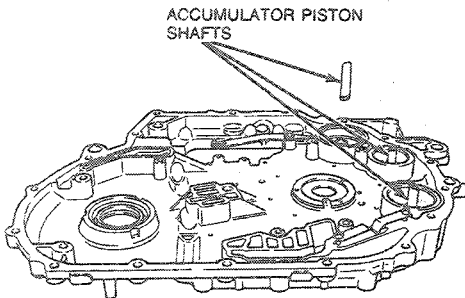
CAUTION: Do not pull on wiring. Pull on connector.

1. If wiring or chain cover replacement is necessary, compress tabs on both sides of connector from inside of chain cover. Remove connector and wiring from chain cover.



DISASSEMBLY AND ASSEMBLY (Continued)

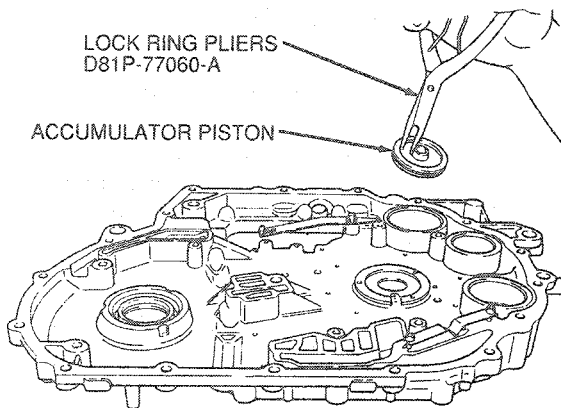
2. Remove three accumulator piston shafts.



D5950-A

CAUTION: Do not use any objects in piston shaft bore for removal or damage to bore may result.

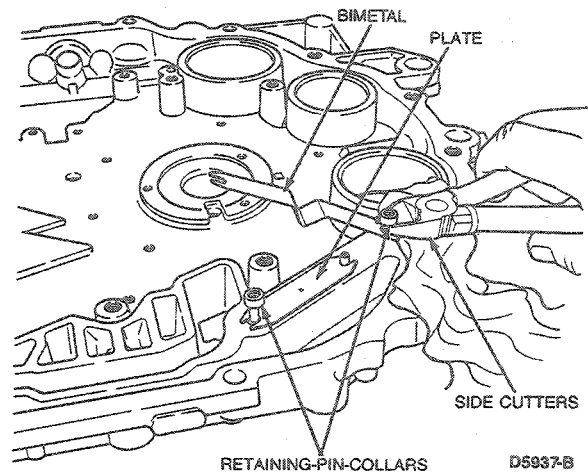
3. Using Lock Ring Pliers D81P-77060-A or equivalent, remove three accumulator pistons. Remove seals and O-Ring from pistons.



D5939-B

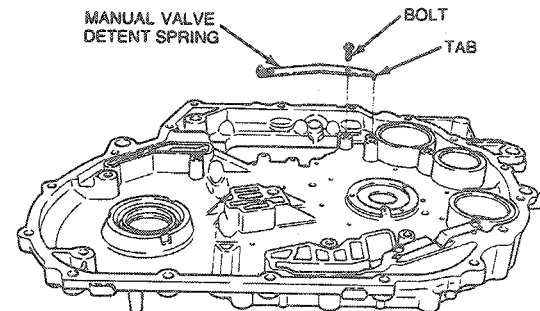
CAUTION: Use care not to damage machined case surfaces or bimetallic strips.

4. Using side cutters, carefully remove bimetal retaining pin collars and remove bimetal and plate.
5. Pull retaining pins from cover, using Locknut Pin Remover T78P-3504-N.



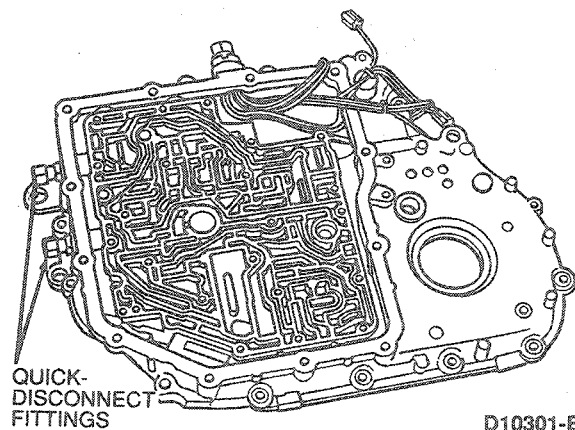
D5937-B

6. Remove 8mm manual valve detent spring bolt and spring.



D5933-A

7. Remove quick-connect oil cooler fittings.

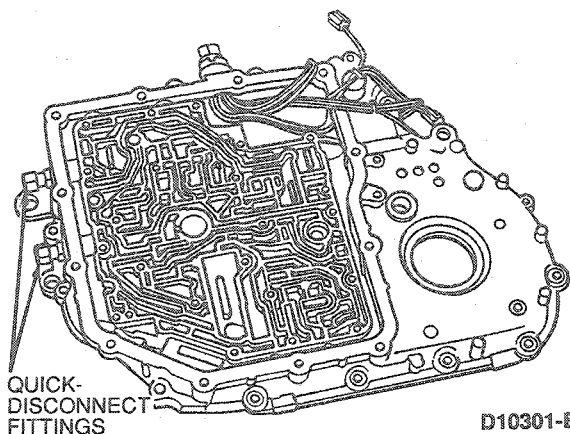


D10301-B

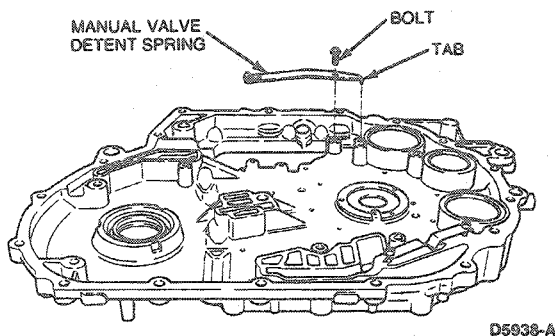
DISASSEMBLY AND ASSEMBLY (Continued)

Assembly

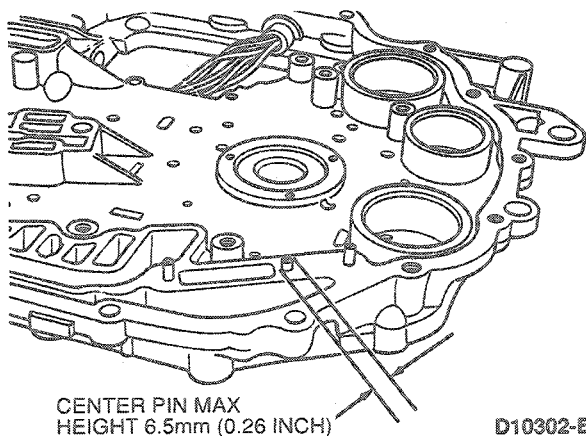
1. Install quick-connect oil cooler fittings.
NOTE: Use a sealing compound on threads.



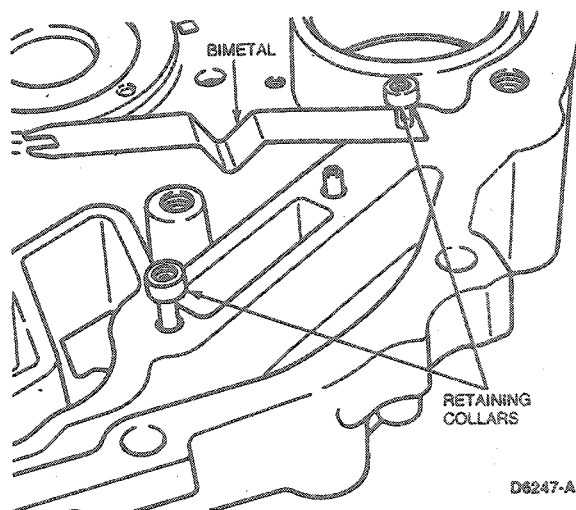
2. Install manual valve detent spring and position tab in locator hole. Tighten bolt to 9-12 N·m (7-9 lb-ft).



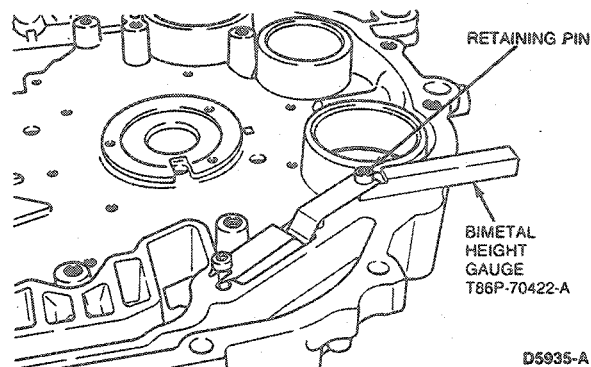
3. Start bimetal retaining pins in cover. Gently tap center pin to bottom of hole.



4. Place end of bimetal with hole over front retaining pin. Install bimetal retaining collars.



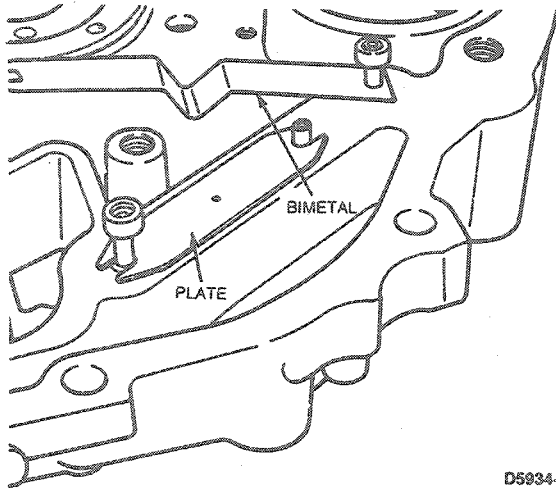
5. Place Bimetal Height Gauge T86P-70422-A against retaining pin and under bimetal.
6. Gently tap retaining collar onto pin until it seats against tool edge.



7. Engage slotted end of bimetal under rear retaining pin and retaining collar and then repeat Steps 5 and 6 for slotted end of bimetal.

DISASSEMBLY AND ASSEMBLY (Continued)

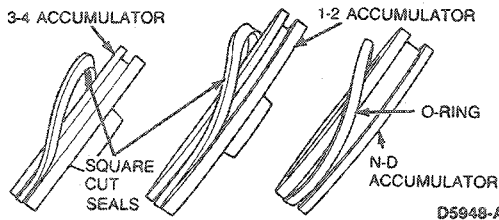
8. Remove slotted end of bimetal from its pin. Position plate slotted ends onto rear and middle retaining pins. Install slotted end of bimetal under retaining collar.



D5934-A

NOTE: Lube seals and O-ring with a light coating of petroleum jelly.

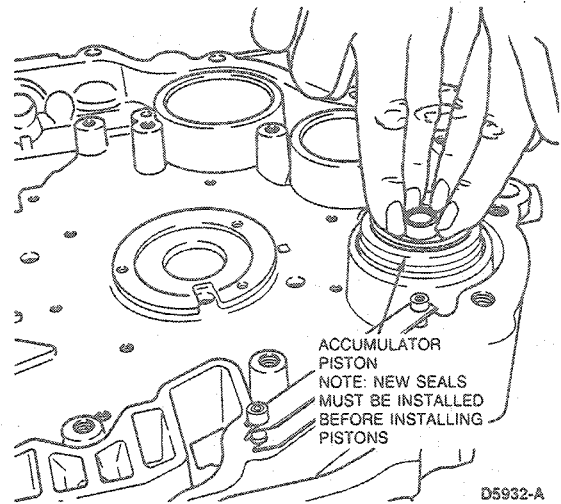
9. Install new seals and O-ring on accumulator pistons.



D5949-A

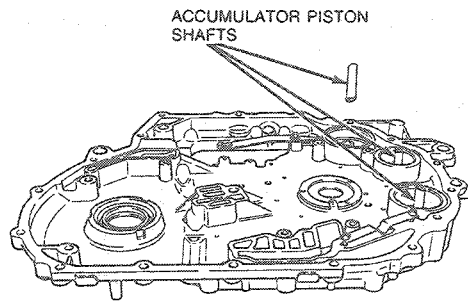
CAUTION: Do not allow pistons to cock in their bores. Seal and bore damage may result.

10. Install accumulator pistons into their proper cylinder.



D5932-A

11. Install three accumulator piston shafts.



D5950-A

12. Install new O-ring on connector.

13. Install new connector by pushing into bore from the outside until a "click" is heard.

Oil Pump and Valve Body Assembly

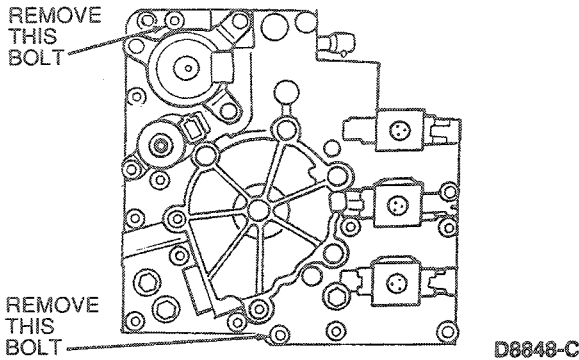
Disassembly and Assembly

Tools Required:

- Valve Body Guide Pin Set T86P-70 100-A
- Valve Body Guide Pin T86P-70 100-B
- Valve Body Guide Pin T86P-70 100-C
- Pump Body Guide Pins T86P-70370-A

DISASSEMBLY AND ASSEMBLY (Continued)

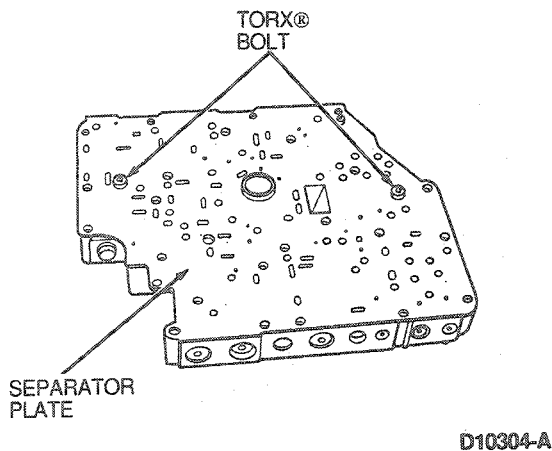
1. Remove two 8mm bolts retaining oil pump to valve body and separate valve body from oil pump. Remove gasket and discard.



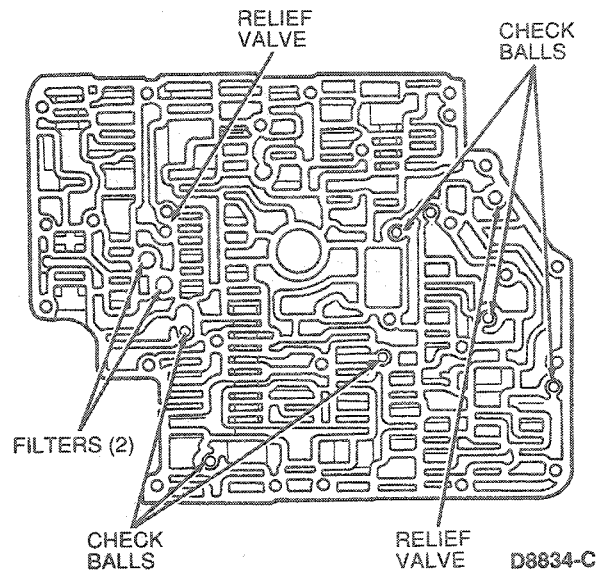
Valve Body

Disassembly

1. Place valve body on bench with separator plate up, and remove two Torx® bolts retaining separator plate to valve body.



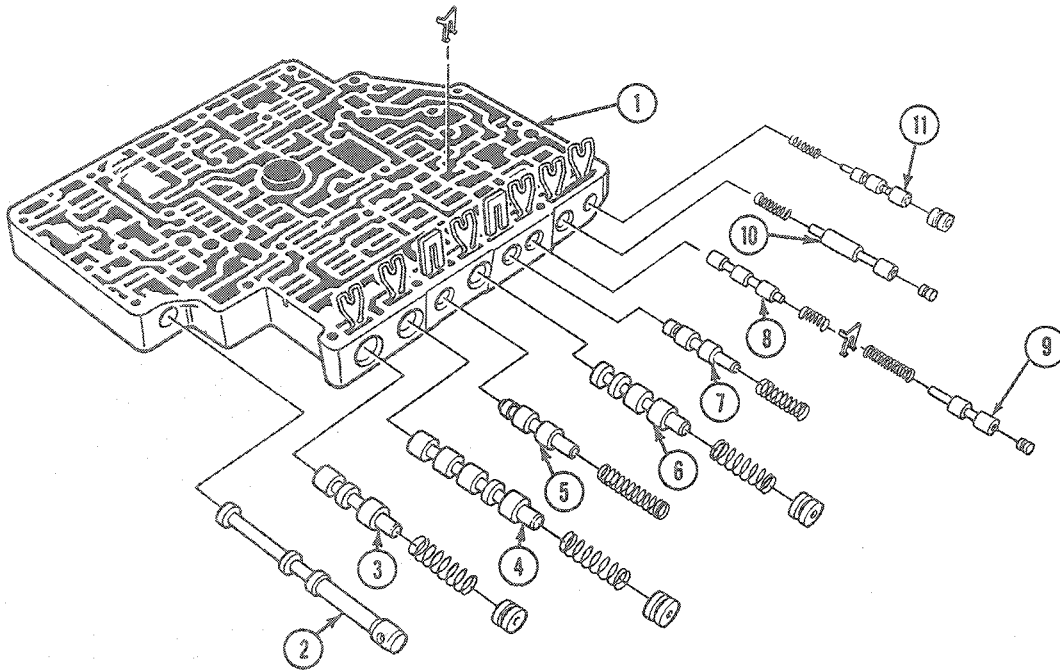
2. Remove separator plate and gasket.
3. Remove six ball checks, two relief valves and two filter screens. Clean filter.



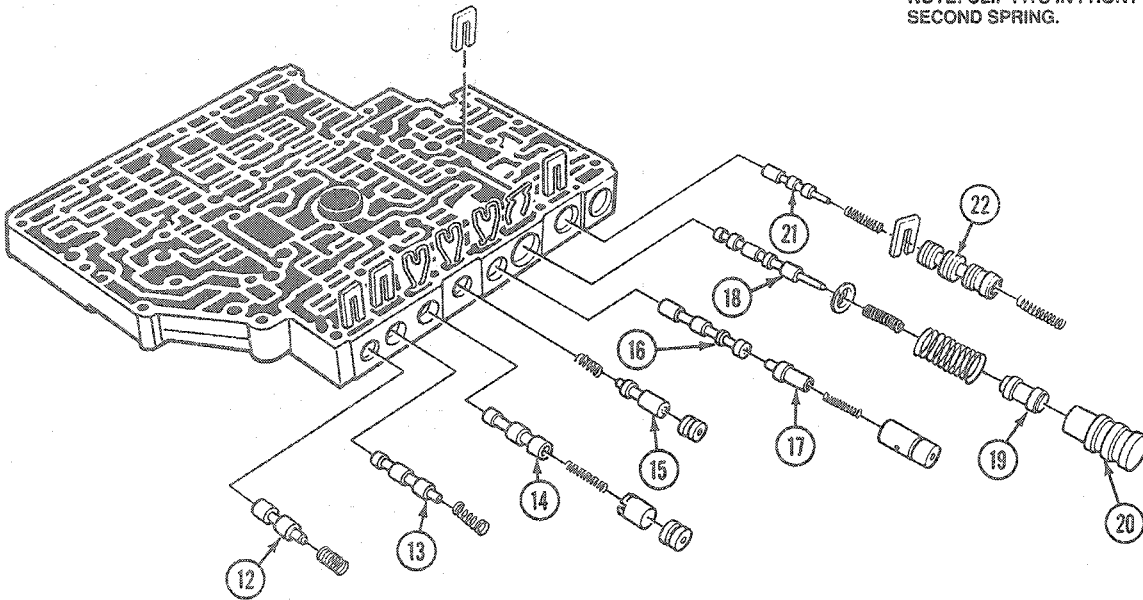
CAUTION: Most valves are aluminum and cannot be removed using a magnet. Remove valves by tapping valve body on palm of hand to slide valves out of bores. It may be necessary to remove valves and springs using a pick. If it is necessary to use a pick, use extreme caution to prevent damaging valves or valve bores.

4. The individual valves and springs are removed by removing retaining clips and bore plugs. Refer to the following illustrations for valve and spring locations. Clean valves, springs and valve body as necessary.
5. Thoroughly clean all parts, except check balls, in clean solvent and blow dry with moisture-free compressed air.
6. Inspect all valve and plug bores for scores. Check all fluid passages for obstructions. Inspect all mating surfaces for burrs and scores. If needed, use crocus cloth to polish valves and plugs. Avoid rounding the sharp edges of the valves and plugs with the crocus cloth.
7. Inspect all springs for distortion. Check all valves and plugs for free movement in their respective bores. Valves and plugs, when dry, must fall from their own weight in their respective bores.
8. Roll manual valve on a flat surface to check for bent condition.

DISASSEMBLY AND ASSEMBLY (Continued)



*NOTE: CLIP FITS IN FRONT OF SECOND SPRING.



D8847-C

Item	Part Number	Description
1	7A100	Valve Body
2	7C389	Manual Valve Control
3	7D053	2-3 Shift Valve
4	7G182	1-2 Shift Valve
5	7H142	Pull In Valve

(Continued)

Item	Part Number	Description
6	7F259	3-4 Shift Valve
7	7H146	Forward Clutch Valve
8	7D059	3-2 Shift Timing
9	7G482	Pull In Control Valve
10	7G317	Engagement Valve

(Continued)

DISASSEMBLY AND ASSEMBLY (Continued)

Item	Part Number	Description
11	7G180	2-3 Servo Regulator Valve
12	7H166	Pressure Failsafe Valve
13	7G202	Backout Valve
14	7G321	Accumulator Regulator
15	7F185	Capacity Modulator
16	7G179	Bypass Clutch Control Valve

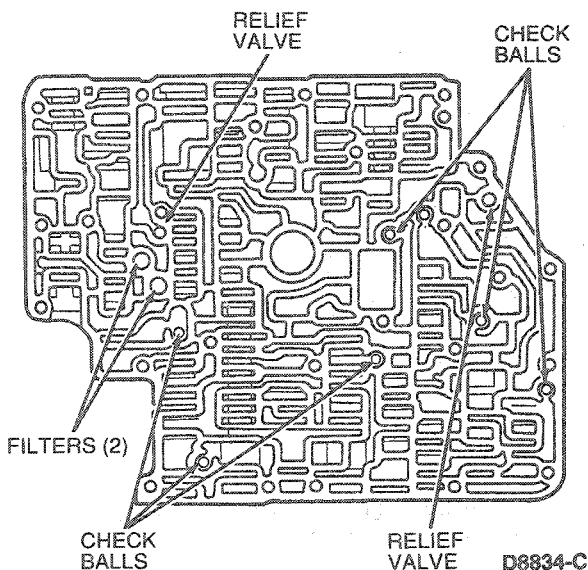
(Continued)

Item	Part Number	Description
17	7G320	Bypass Clutch Control Valve Plunger
18	7C388	Main Regulator
19	7000-26A	Main Regulator Boost
20	7000-26A	Main Regulator Boost
21	7G473	Solenoid Regulator Valve
22	7G307	Converter Regulator Valve

TD8847C

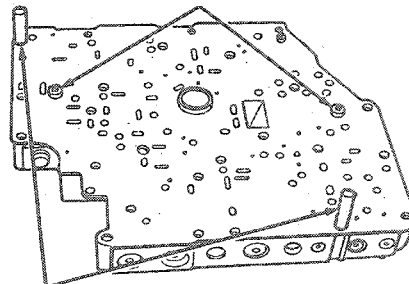
Assembly

1. Assemble valves and springs into valve body.
2. Install checks ball, relief valves and filter screens.



3. Install separator plate with new gasket on valve body.
4. Install Valve Body Guide Pin T86P-70100-A as shown. Install two Torx® bolts in valve body and tighten to 9-12 N·m (7-9 lb-ft). Remove alignment pins.

TORX® BOLTS
TIGHTEN TO
9-12 N·m (7-9 LB-FT)



INSTALL VALVE
BODY GUIDE
PIN SET T86P-70100-A HERE

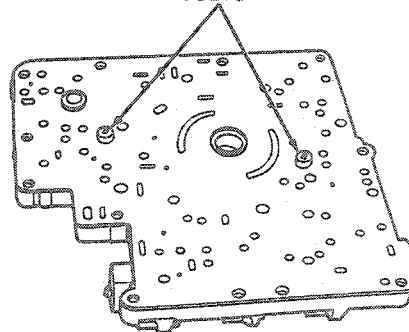
D10305-B

Oil Pump

Disassembly

1. Remove two Torx® bolts retaining separator plate to oil pump housing. Remove separator plate and discard gasket.

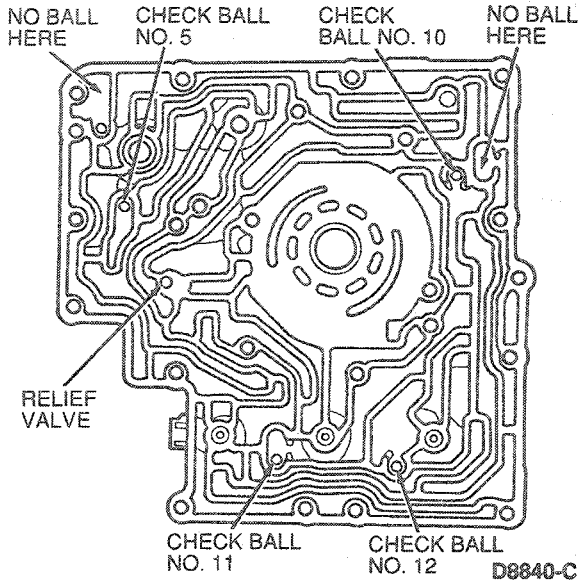
TORX®
BOLTS



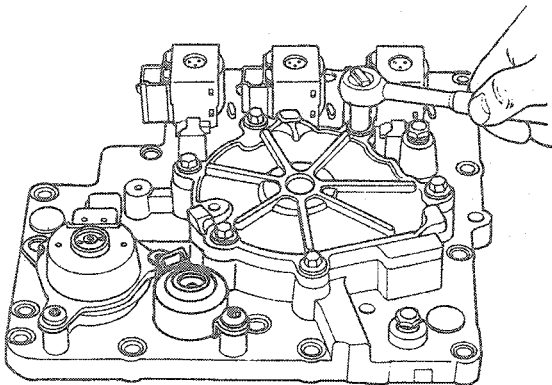
D10306-A

DISASSEMBLY AND ASSEMBLY (Continued)

2. Remove four check balls and one relief valve.



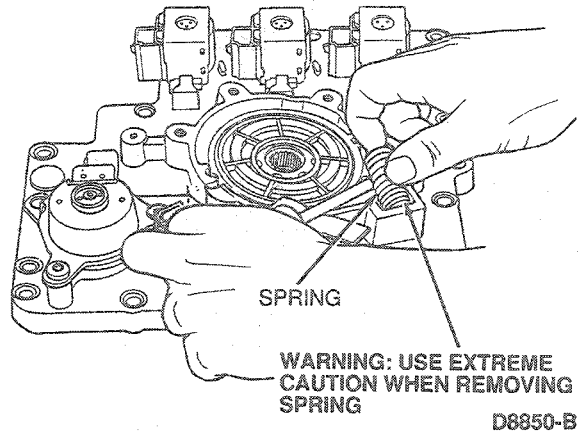
3. Remove six bolts retaining pump cover to pump housing and remove cover.



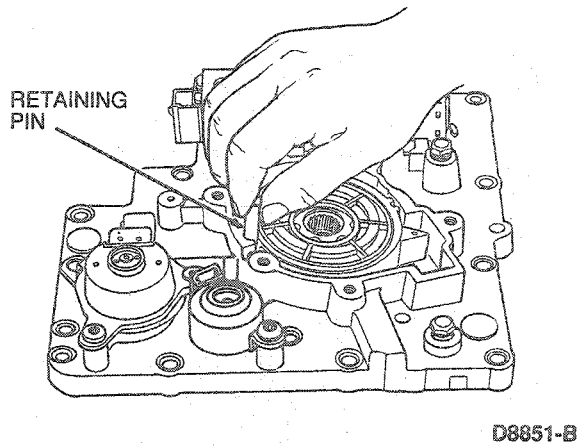
WARNING: USE EXTREME CAUTION WHEN REMOVING SPRING TO PREVENT PERSONAL INJURY.

CAUTION: Place a piece of cardboard or suitable material under screwdriver to prevent damage to housing gasket surface.

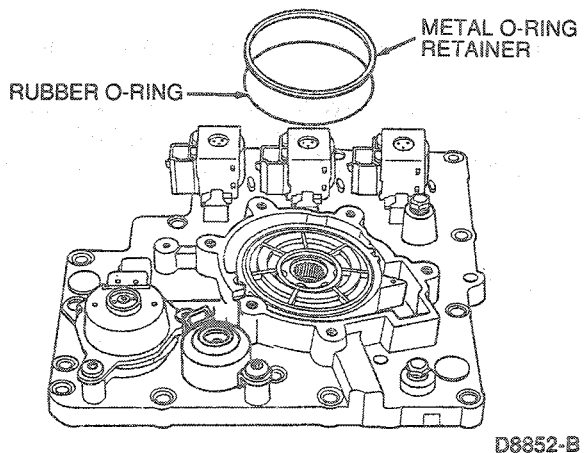
4. Remove bore spring by prying spring out of housing.



5. Remove outside vane support retaining pin.

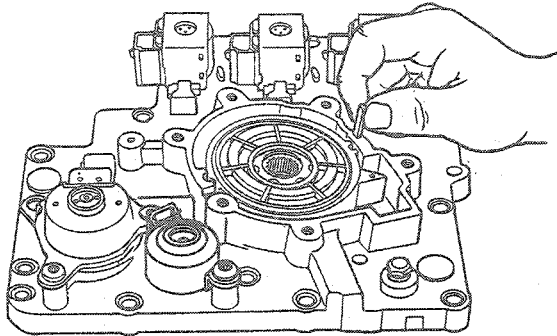


6. Remove metal O-ring retainer and O-ring from outer vane support. Discard O-ring.



DISASSEMBLY AND ASSEMBLY (Continued)

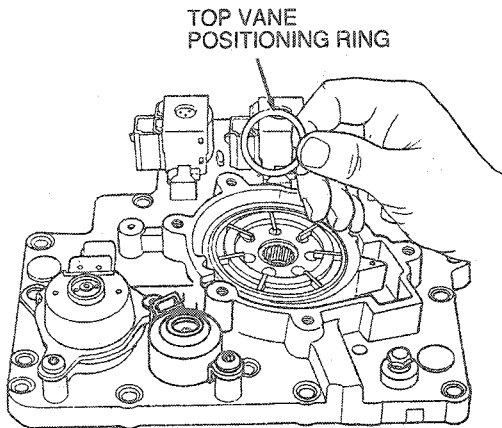
7. Remove and discard side seal.



D8853-B

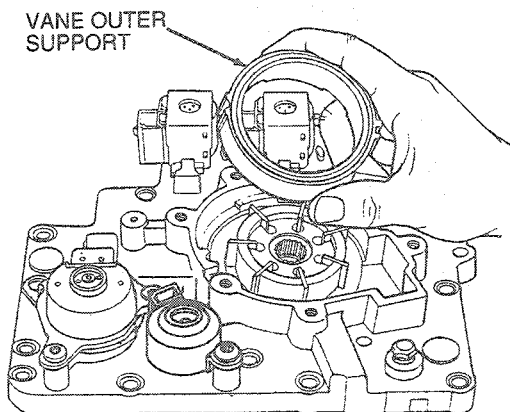
8. Remove side seal support.

9. Remove top vane positioning ring.



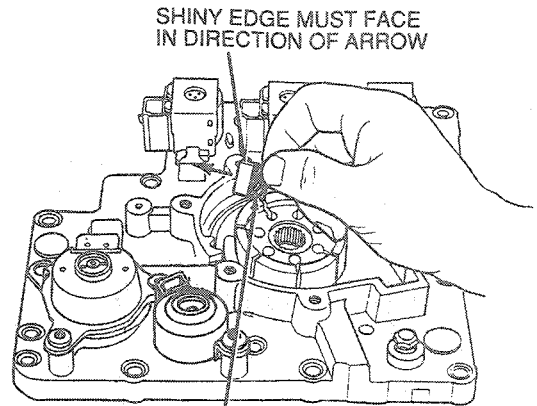
D8855-B

10. Remove outer vane support.



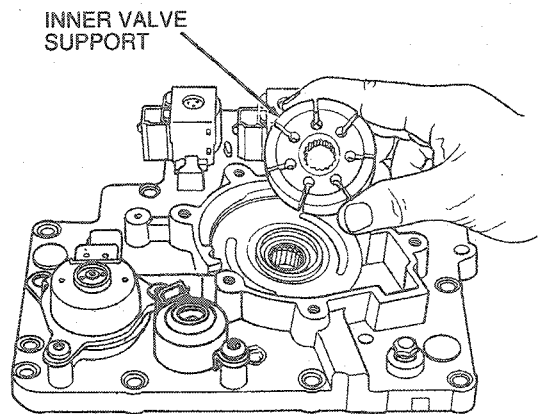
D8856-B

11. Remove seven vanes from rotor.



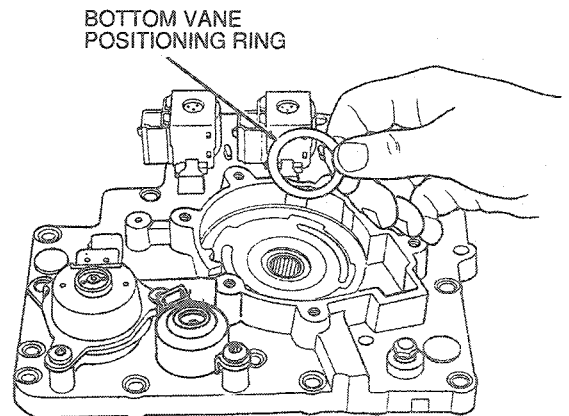
D8857-B

12. Remove inner vane support.



D8858-B

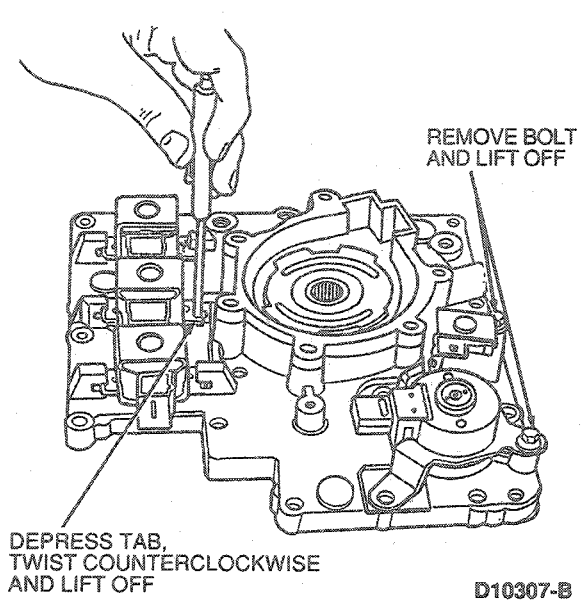
13. Remove bottom vane positioning ring.



D8859-B

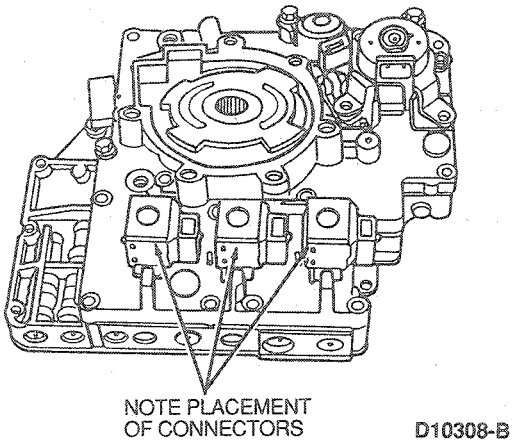
DISASSEMBLY AND ASSEMBLY (Continued)

14. Remove solenoids, one remaining bolt-EPC and one bolt-lock-up. Depress tab and twist off shift solenoids.



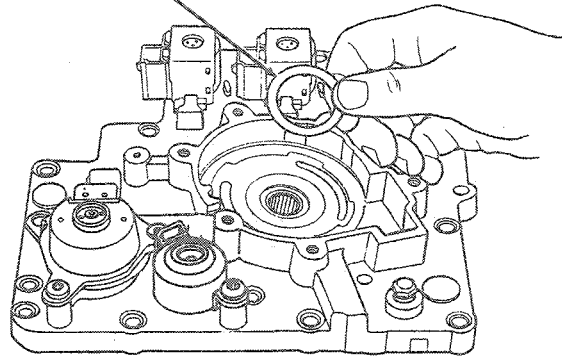
Assembly

1. Install solenoids. Refer to illustration for proper orientation of shift solenoids.



2. Install bottom vane positioning ring.

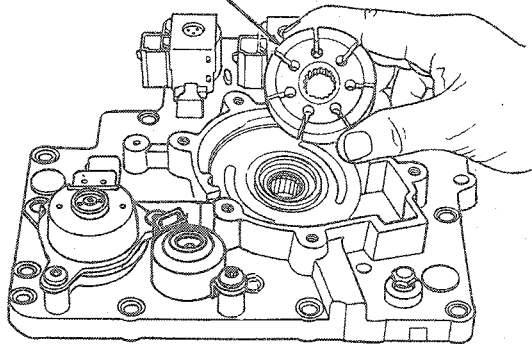
BOTTOM VANE POSITIONING RING



D8859-B

3. Install inner vane support with small inside diameter counter bore facing up.

INNER VALVE SUPPORT

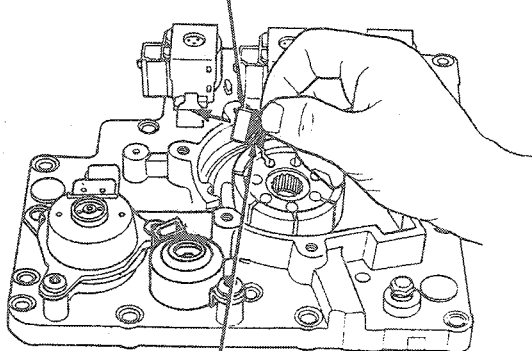


D8858-B

NOTE: Shiny portion of vane blade is installed toward outer vane support.

4. Install seven vanes in inner vane support.

SHINY EDGE MUST FACE IN DIRECTION OF ARROW

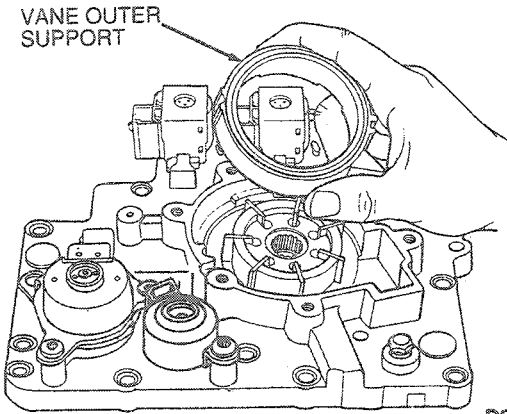


PUMP VANES

D8857-B

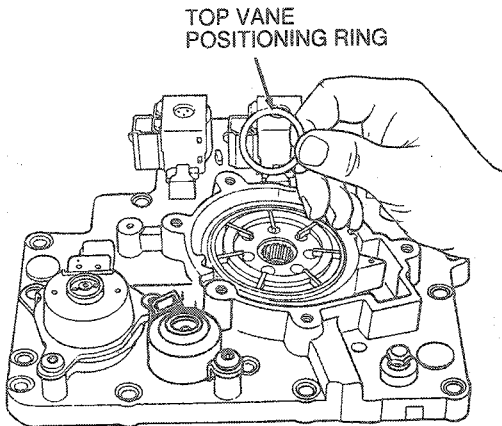
DISASSEMBLY AND ASSEMBLY (Continued)

- 5. Install outer vane support.



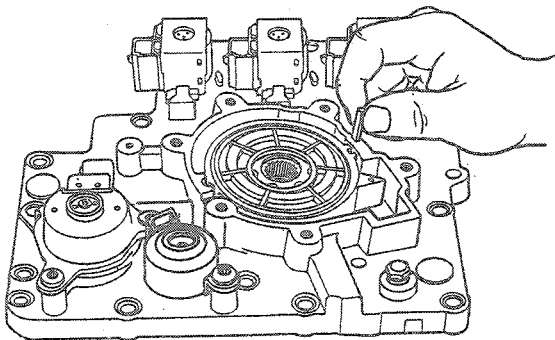
D8856-B

- 6. Install top vane positioning ring.



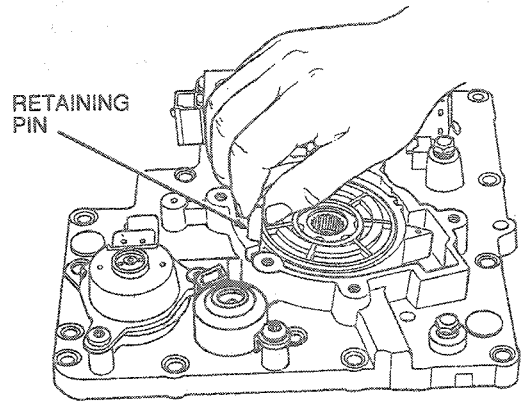
D8855-B

- 7. Install new side seal support.



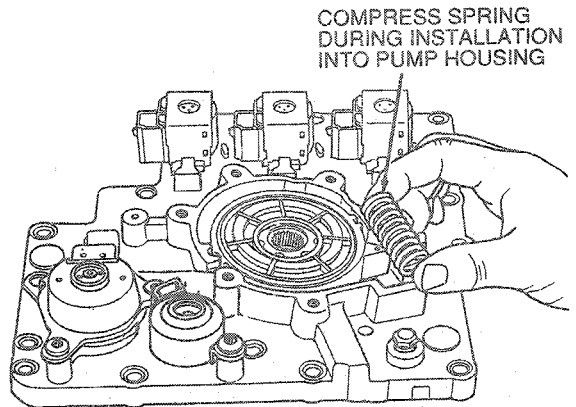
D8853-B

- 8. Install new side seal.
- 9. Install outer vane support retaining pin.



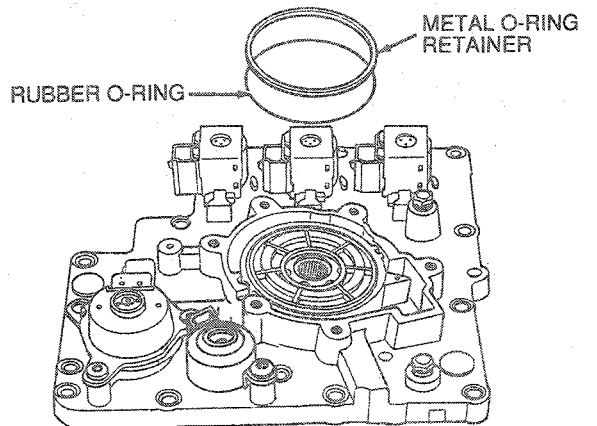
D8851-B

- 10. Install bore spring between case and tab on outer vane support.



D8860-B

- 11. Install new O-ring in groove in outer vane support. Then, install metal O-ring retainer.



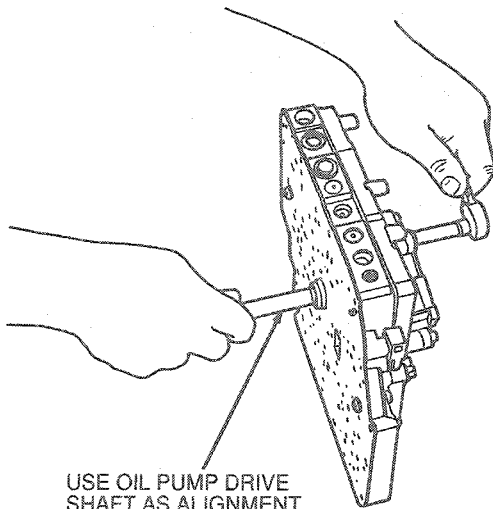
D8852-B

NOTE: Use the oil pump drive shaft to align the pump gears while installing the pump cover.

DISASSEMBLY AND ASSEMBLY (Continued)

NOTE: Ensure that pivot pin is flush with or below the surface of the valve body side of the oil pump.

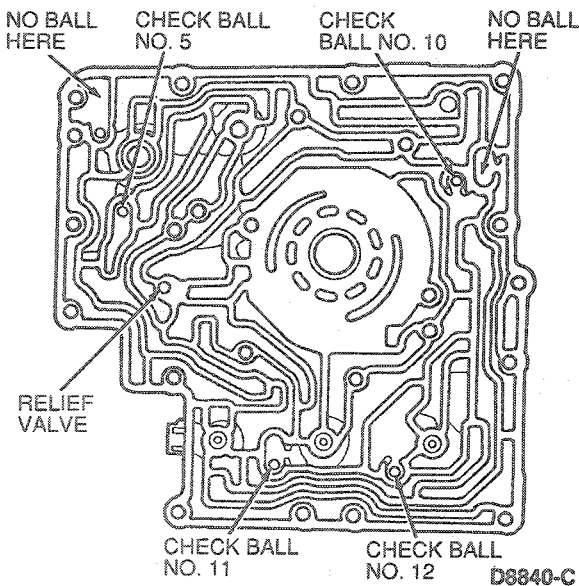
12. Install oil pump cover on oil pump housing and install six retaining bolts. Tighten bolts evenly to 9-12 N·m (7-9 lb-ft).



USE OIL PUMP DRIVE SHAFT AS ALIGNMENT TOOL WHEN INSTALLING PUMP COVER

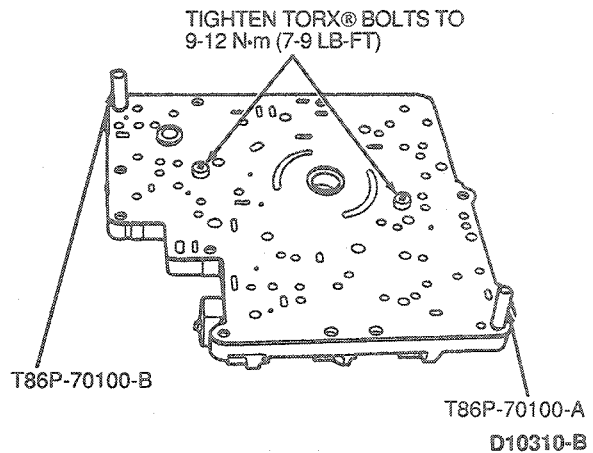
D10309-A

13. Install ball checks and relief valve.

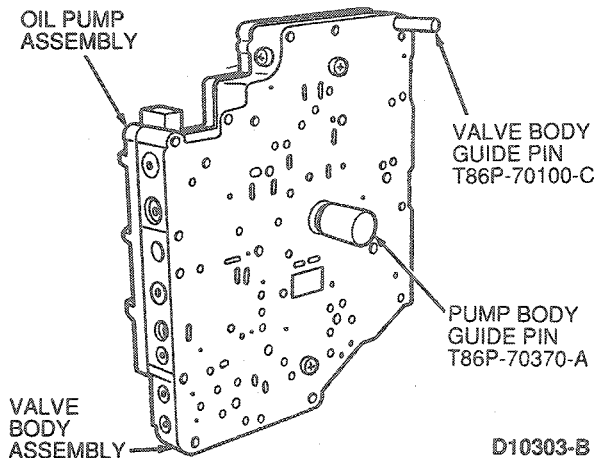


D8840-C

14. Position separator plate on pump housing using a new gasket. Insert Valve Body Guide Pin Set T86P-70100-A and Valve Body Guide Pin T86P-70100-B. Then, install two Torx® bolts. Tighten bolts to 9-12 N·m (7-9 lb-ft). Remove guide pins.



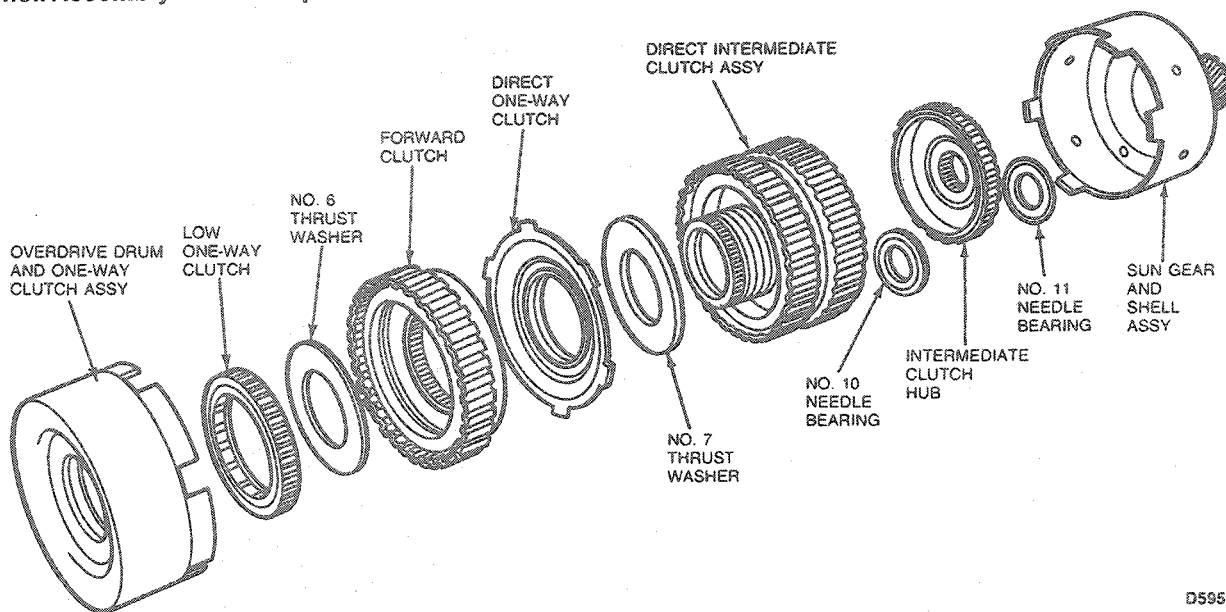
15. Position valve body on oil pump using a new gasket.
16. Insert Pump Body Guide Pins T86P-70370-A and Valve Body Guide Pin T86P-70100-C, as shown. Install two valve body-to-oil pump retaining bolts and tighten to 9-12 N·m (7-9 lb-ft). Remove guide pins.



D10303-B

DISASSEMBLY AND ASSEMBLY (Continued)

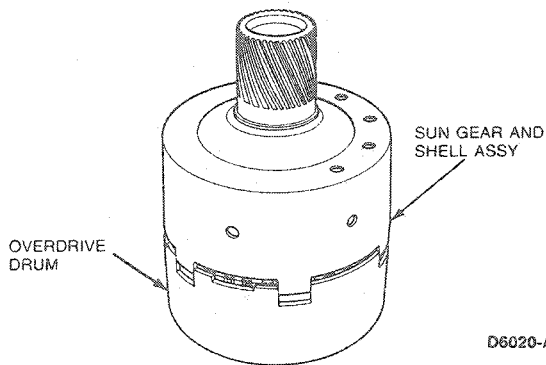
Shell Assembly—All Except 3.2L SHO



D5951-A

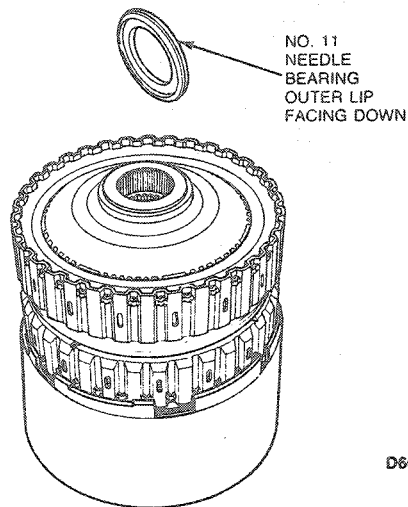
Disassembly

1. Set assembly on overdrive drum.
2. Remove sun gear and shell assembly.



D6020-A

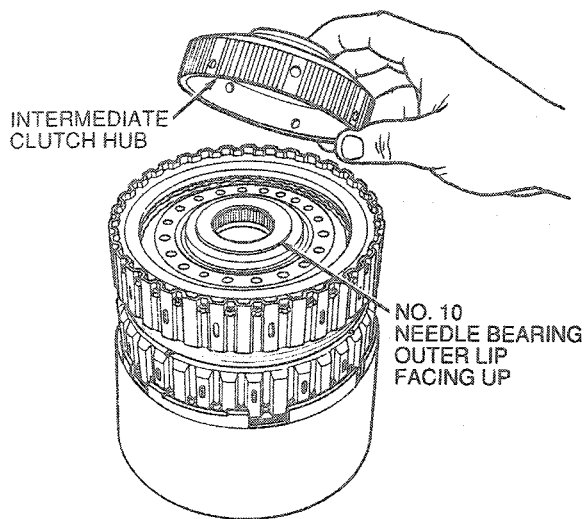
3. Remove No. 11 needle bearing.



D6021-A

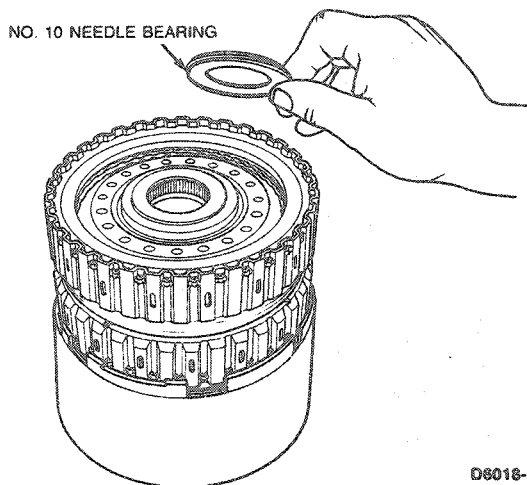
DISASSEMBLY AND ASSEMBLY (Continued)

4. Remove intermediate clutch hub.



D6019-B

5. Remove No. 10 needle bearing.

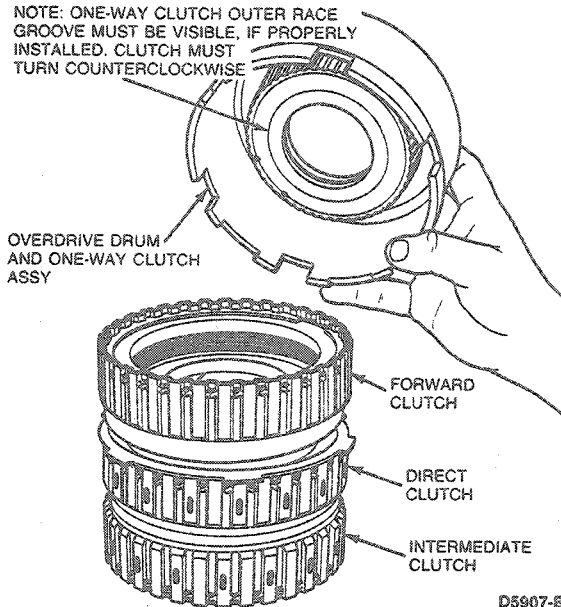


D6018-B

6. Turn assembly onto intermediate cylinder hub.

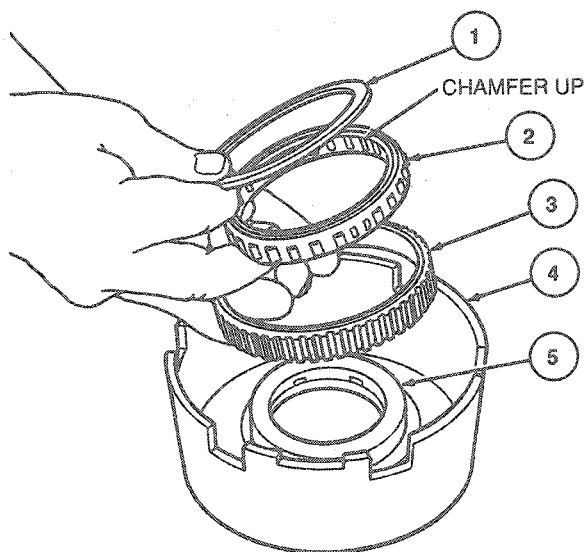
7. Remove overdrive drum and one-way clutch assembly.

NOTE: ONE-WAY CLUTCH OUTER RACE GROOVE MUST BE VISIBLE, IF PROPERLY INSTALLED. CLUTCH MUST TURN COUNTERCLOCKWISE



D5907-B

8. Remove one-way clutch outer race, top cap, one-way clutch and bottom cap from drum.

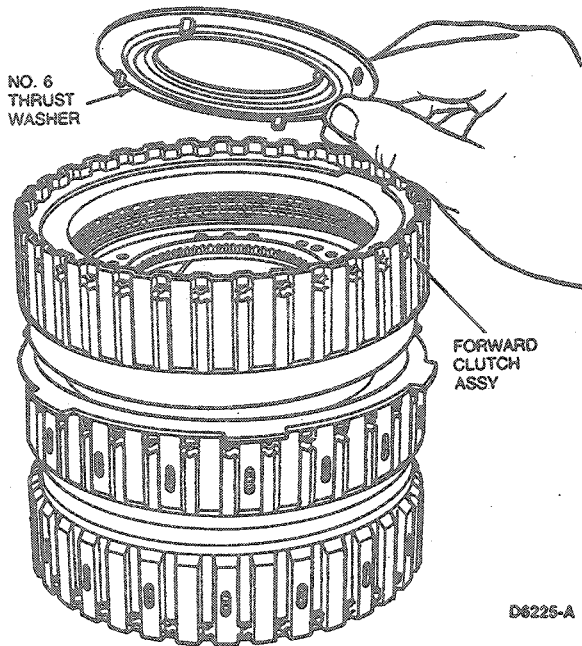


D10311-A

Item	Part Number	Description
1	—	Top Cap
2	—	Overdrive One-Way Clutch
3	—	Outer Race
4	—	Overdrive Drum
5	—	Bottom Cap

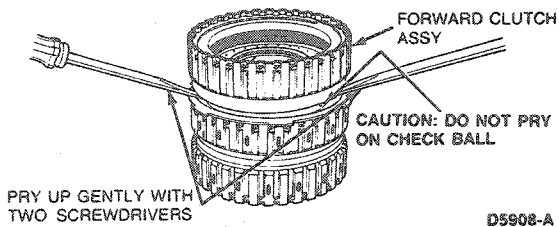
DISASSEMBLY AND ASSEMBLY (Continued)

9. Remove No. 6 thrust washer.

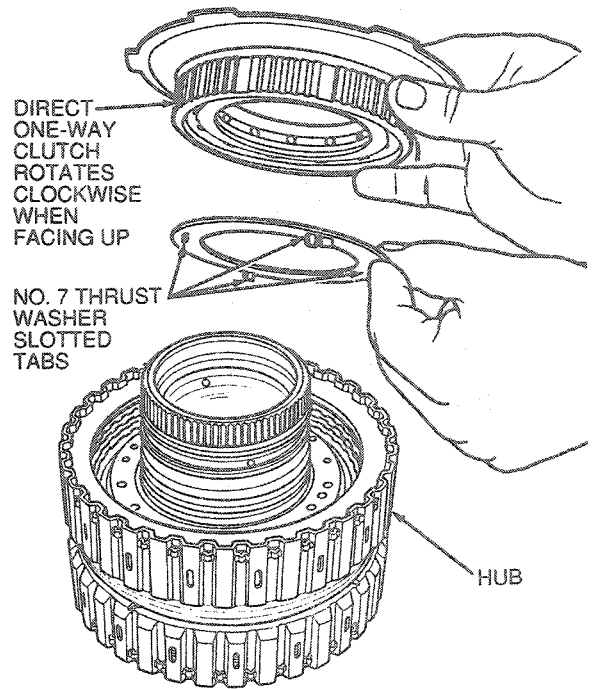


NOTE: Direct clutch hub O-ring seals retain forward clutch on hub. Pry evenly and do not locate screwdriver ends on or near forward clutch check ball.

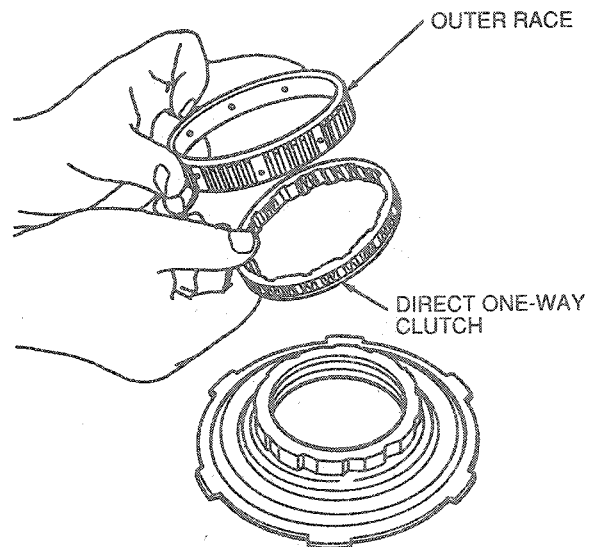
10. Remove forward clutch assembly by prying up on each side with two screwdrivers.



11. Remove direct one-way clutch and No. 7 thrust washer.

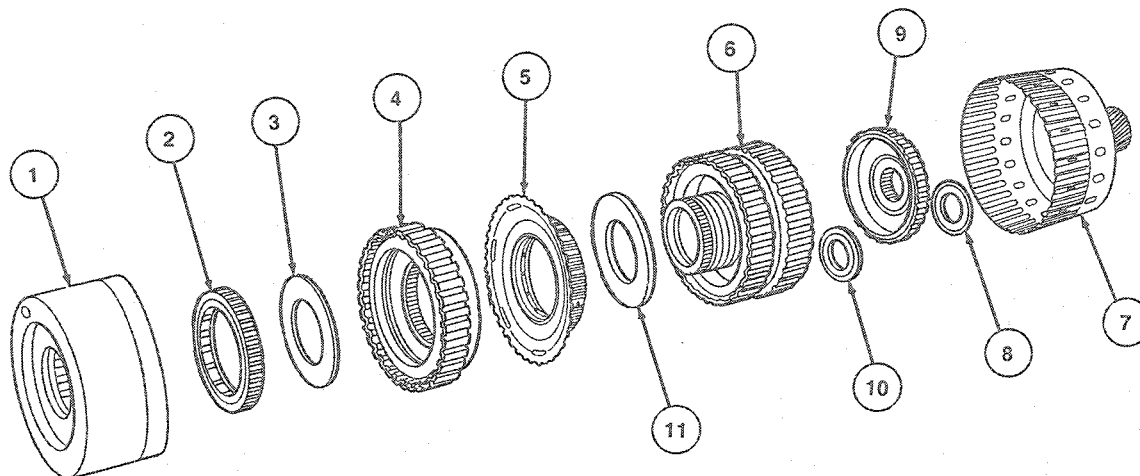


12. Remove direct one-way clutch outer race and one-way clutch.



DISASSEMBLY AND ASSEMBLY (Continued)

Shell Assembly—3.2L SHO



D10589-A

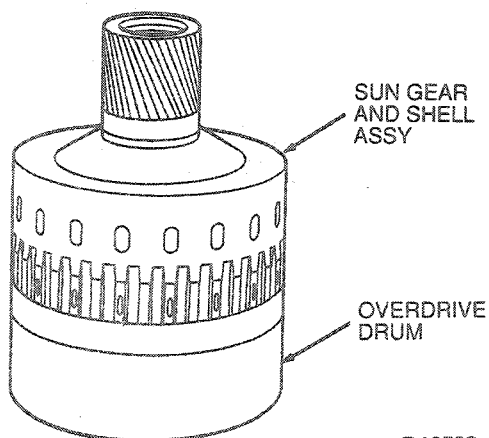
Item	Part Number	Description
1	7L669	Overdrive One-Way Clutch
2	7D171	Low One-Way Clutch
3	7A166	No. 6 Thrust Washer
4	7A360	Forward Clutch
5	7G156	Direct One-Way Clutch

Item	Part Number	Description
6	7G120	Direct Intermediate Clutch Assy
7	7D064	Sun Gear and Shell Assy
8	7C096	No. 11 Needle Bearings
9	7B067	Intermediate Clutch Hub
10	7C096	No. 10 Needle Bearing
11	7F369	No. 7 Thrust Washer

(Continued)

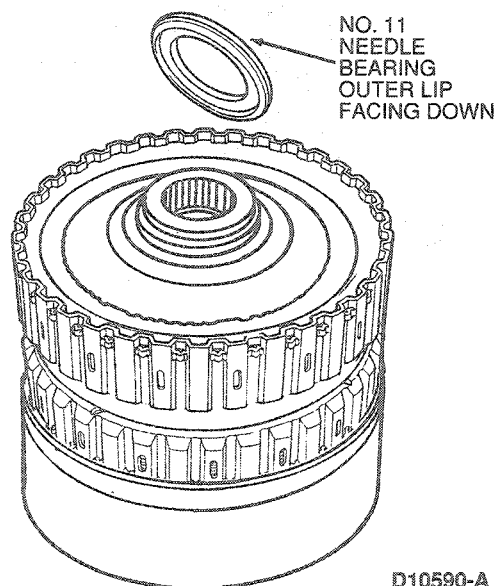
Disassembly

1. Set assembly on overdrive drum.
2. Remove sun gear and shell assembly.



D10588-A

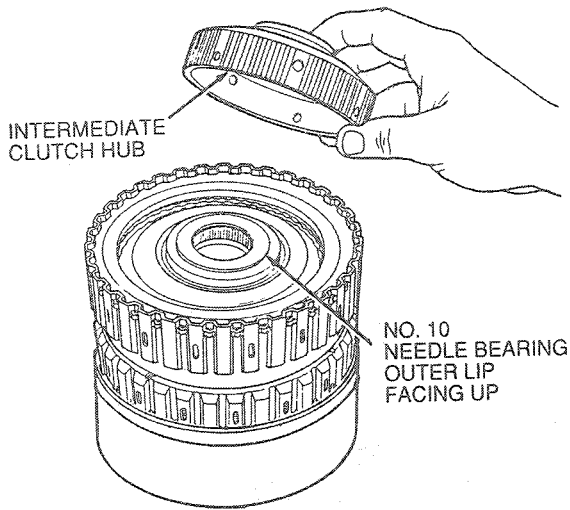
3. Remove No. 11 needle bearing.



D10590-A

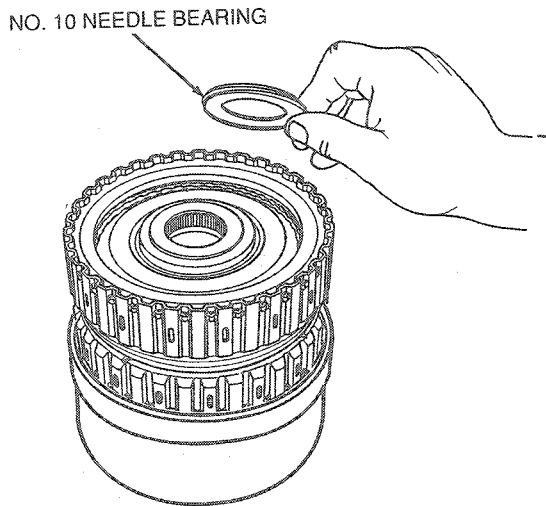
DISASSEMBLY AND ASSEMBLY (Continued)

4. Remove intermediate clutch hub.



D10591-A

5. Remove No. 10 needle bearing.

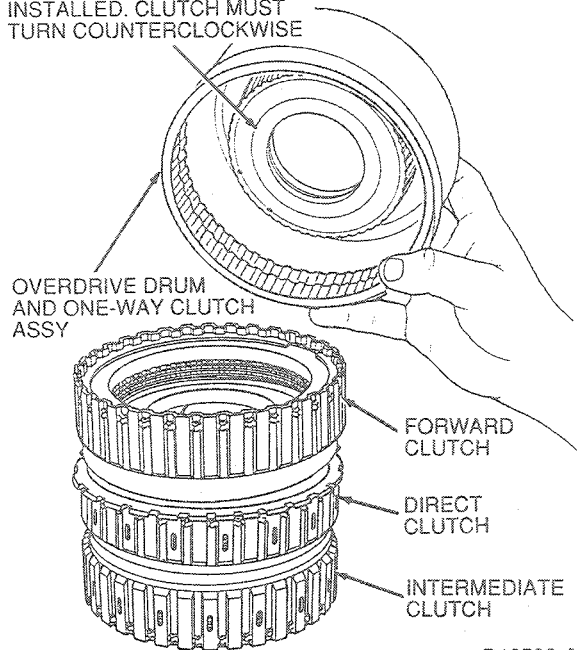


D10592-A

6. Turn assembly onto intermediate cylinder hub.

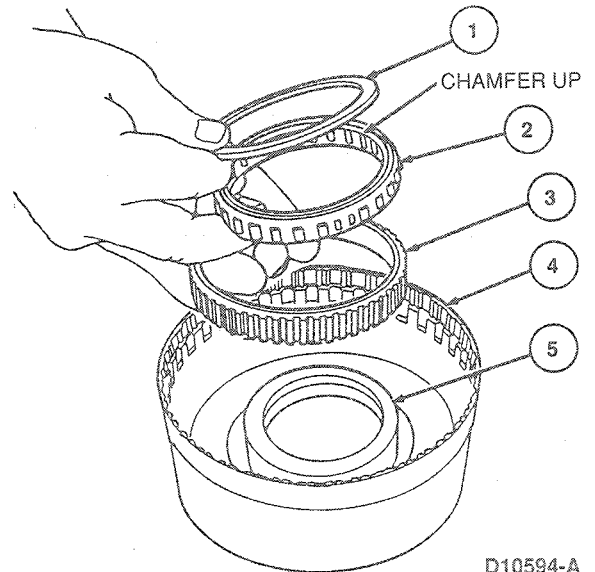
7. Remove overdrive drum and one-way clutch assembly.

NOTE: ONE-WAY CLUTCH OUTER RACE GROOVE MUST BE VISIBLE, IF PROPERLY INSTALLED. CLUTCH MUST TURN COUNTERCLOCKWISE



D10593-A

8. Remove one-way clutch outer race, top cap, one-way clutch and bottom cap from drum.

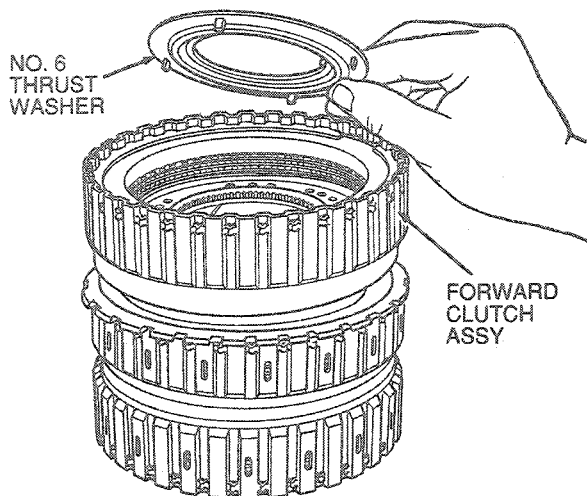


D10594-A

Item	Part Number	Description
1	—	Top Oil Cap (Part of 7D171)
2	7D171	Overdrive One-Way Clutch
3	—	Outer Race (Part of 7D171)
4	7L669	Overdrive Drum
5	—	Bottom Oil Cap (Part of 7D171)

DISASSEMBLY AND ASSEMBLY (Continued)

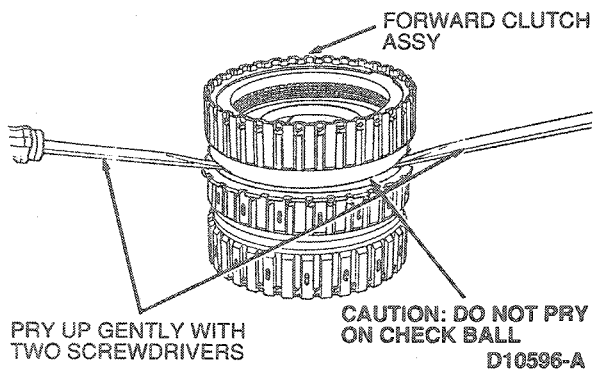
9. Remove No. 6 thrust washer.



D10595-A

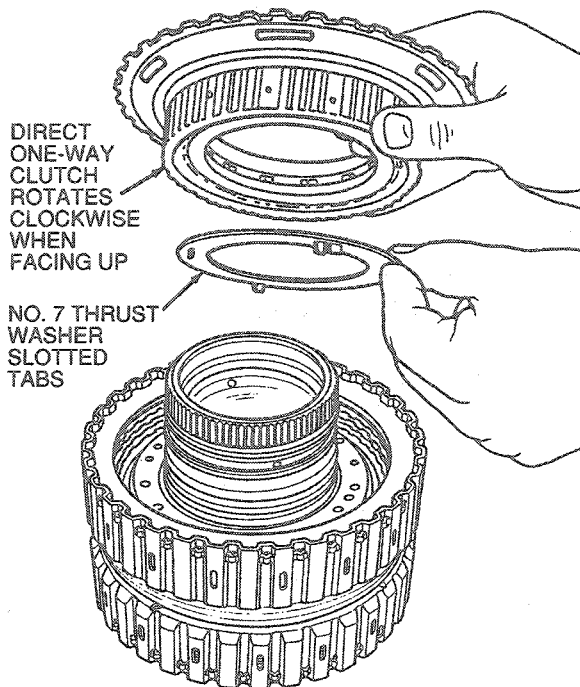
NOTE: Direct clutch hub O-ring seals retain forward clutch on hub. Pry evenly and do not locate screwdriver ends on or near forward clutch check ball.

10. Remove forward clutch assembly by prying up on each side with two screwdrivers.



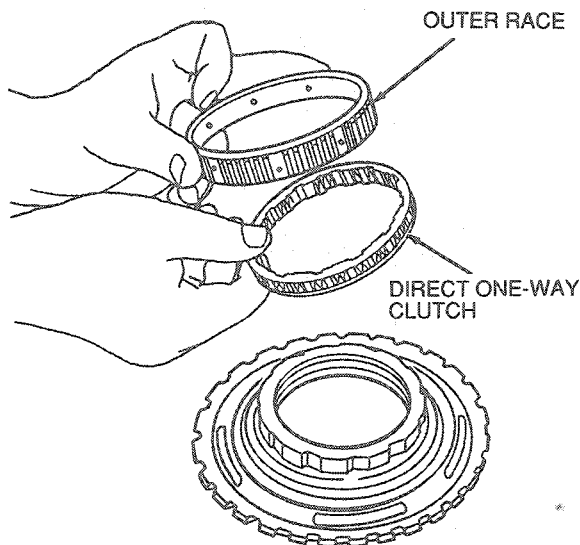
D10596-A

11. Remove direct one-way clutch and No. 7 thrust washer.



D10597-A

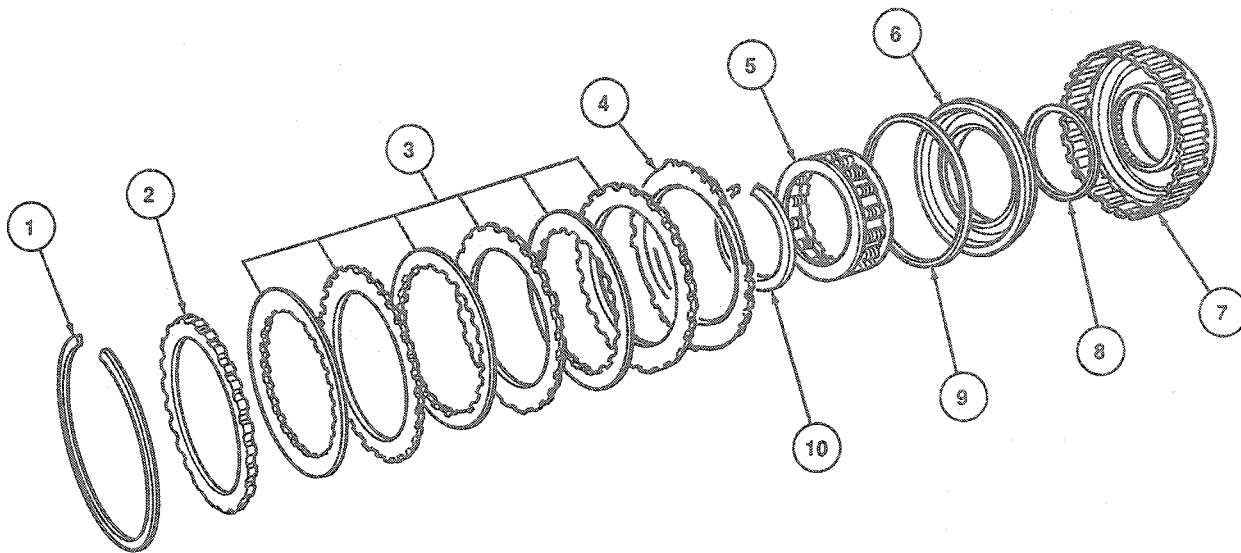
12. Remove direct one-way clutch outer race and one-way clutch.



D11458-A

DISASSEMBLY AND ASSEMBLY (Continued)

Forward Clutch



D8046-A

Item	Part Number	Description
1	7D483	Snap Ring
2	7B066	Pressure Plate
3	—	Clutch Pack
4	7E085	Wave Spring (All Except 3.2L SHO)
5	7G299	Return Spring

Item	Part Number	Description
6	7A262	Piston
7	7A360	Clutch Hub Cylinder
8	7A548	Piston Inner Seal
9	7F224	Piston Outer Seal
10	N803053-S	Snap Ring

TD8046A

(Continued)

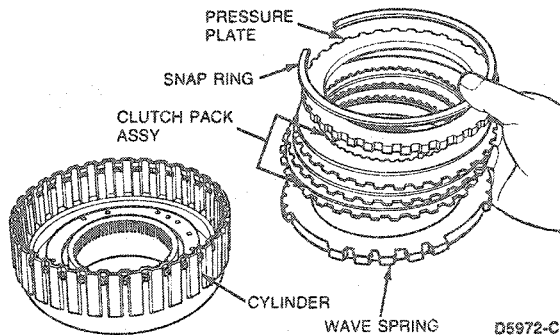
Disassembly

Tools Required:

- Clutch Spring Compressor T65L-77515-A
- Lock Ring Plier D81P-77060-A
- Forward / Intermediate Clutch Seal Outer Lip Protector T86P-70548-A
- Dial Indicator with Bracketry TOOL-4201-C

NOTE: The number of components in clutch pack will vary with application.

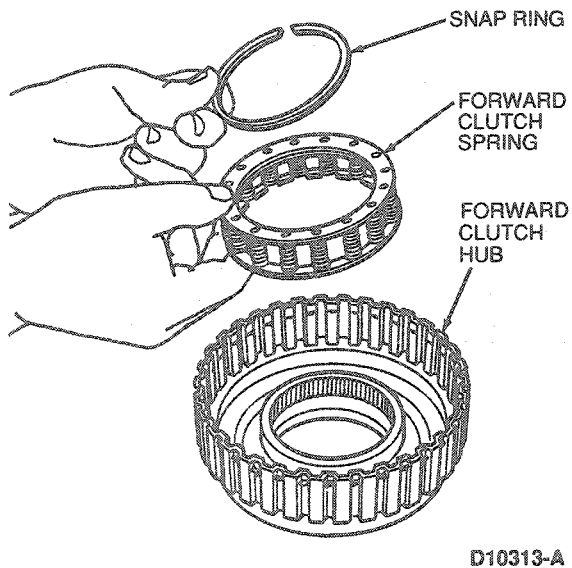
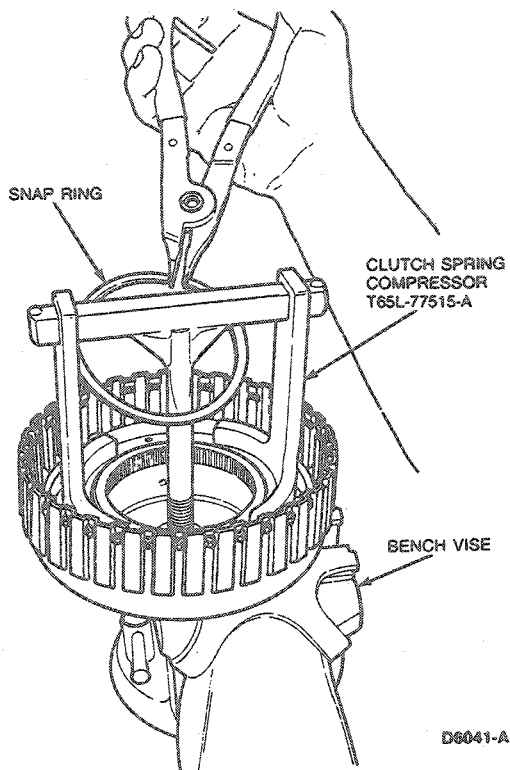
1. Remove snap ring, pressure plate, clutch pack and wave spring (all except 3.2L SHO).



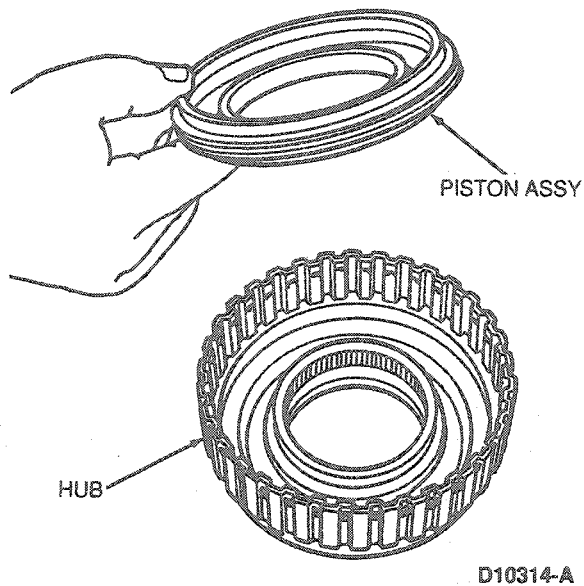
D5972-C

DISASSEMBLY AND ASSEMBLY (Continued)

- 2. Remove snap ring using Lock Ring Plier D81P-77060-A or equivalent and return spring using Clutch Spring Compressor T65L-77515-A.

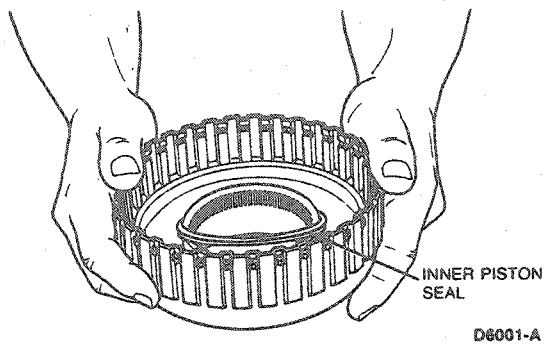


- 3. Remove piston assembly from hub.

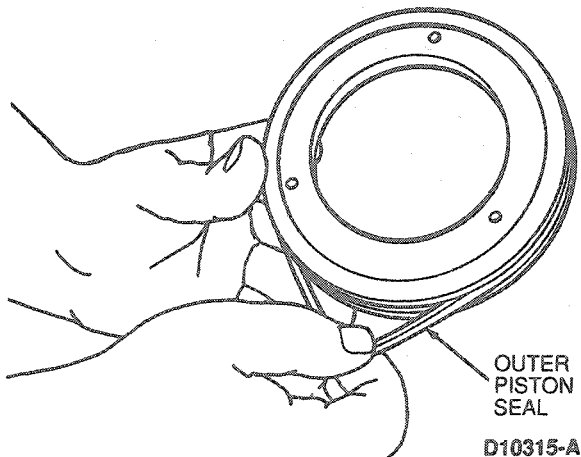


- 4. Remove piston inner and outer seals.

Inner Piston Seal



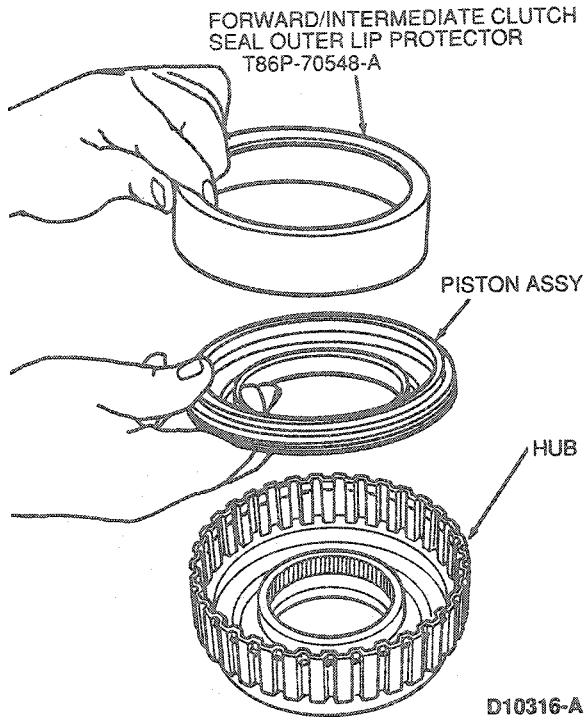
Outer Piston Seal



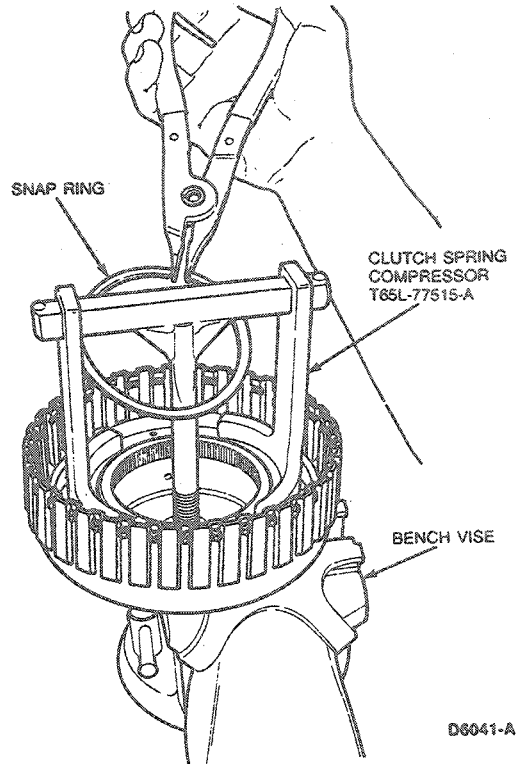
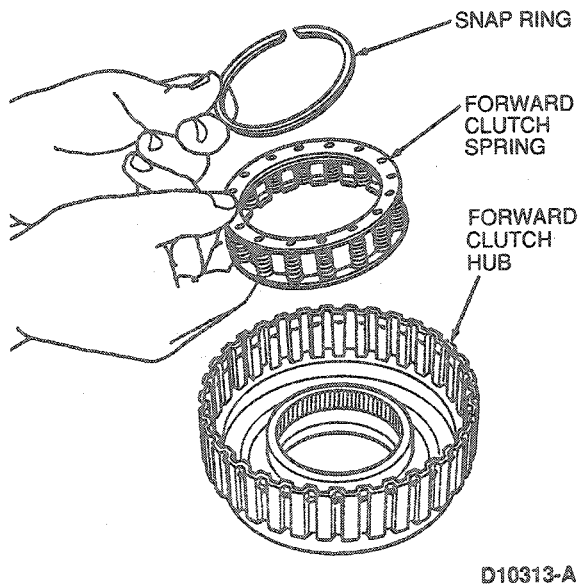
DISASSEMBLY AND ASSEMBLY (Continued)

Assembly

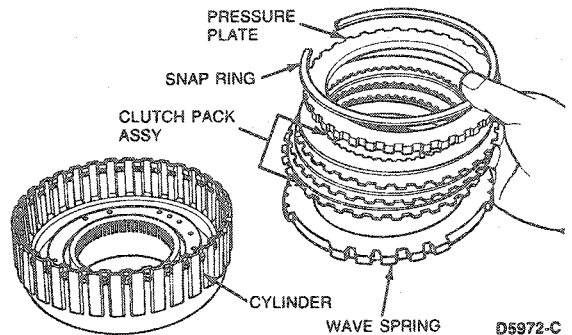
1. Install inner and outer piston seals (lip seal facing toward bottom of cylinder) and install piston assembly using Forward / Intermediate Clutch Seal Outer Lip Protector T86P-70548-A.



2. Install return spring and snap ring using Clutch Spring Compressor T65L-77515-A.



3. Install wave spring (all except 3.2L SHO), clutch pack, pressure plate and snap ring.

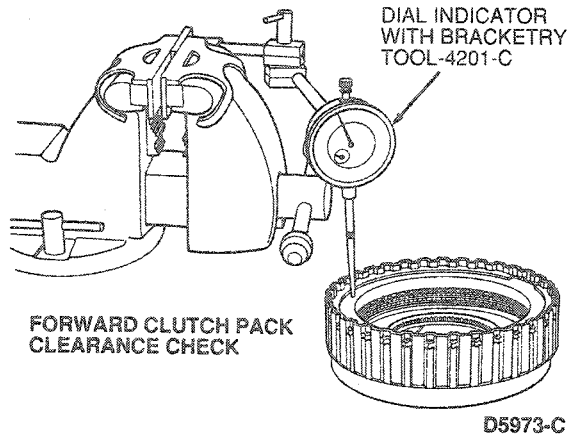


4. Check clutch pack clearance using feeler gauge or Dial Indicator with Bracketry TOOL-4201-C or equivalent. Push downward on the clutch pack firmly. Release pressure and zero dial indicator. Lift pressure plate to the bottom of the snap ring. Note dial indicator reading. Take two readings, 180 degrees apart, and determine the average of the two readings. The clearance should be 1.82-1.37mm (0.072-0.052 inch). If the clearance is not within specification, selective snap rings are available in the following thicknesses:

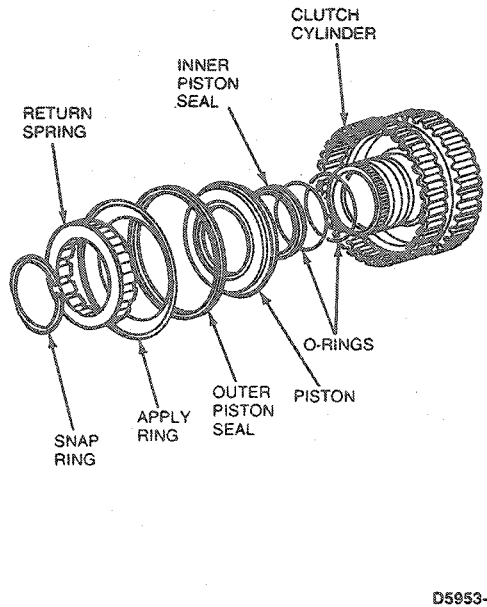
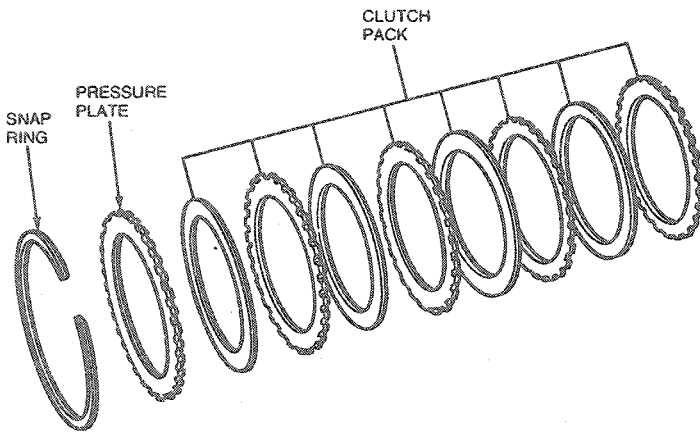
DISASSEMBLY AND ASSEMBLY (Continued)

Selective Snap Rings
1.24-1.34mm (0.049-0.053 inch)
1.60-1.70mm (0.063-0.067 inch)
1.95-2.05mm (0.077-0.081 inch)
2.30-2.40mm (0.091-0.094 inch)
2.65-2.75mm (0.104-0.108 inch)

After installing the correct snap ring, check the clearance.



Direct Clutch—All Except 3.2L SHO

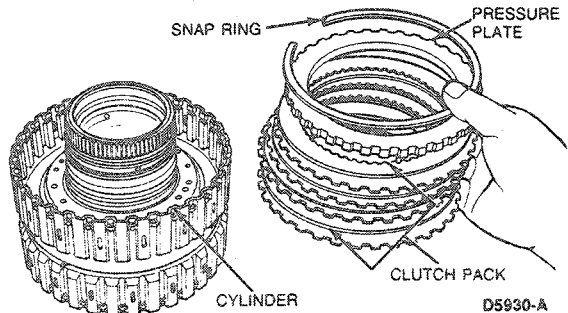


Disassembly

Tools Required:

- Clutch Spring Compressor T65L-77515-A
- Direct Clutch Lip Seal Protector T86P-70234-A
- Dial Indicator with Bracketry TOOL-4201-C

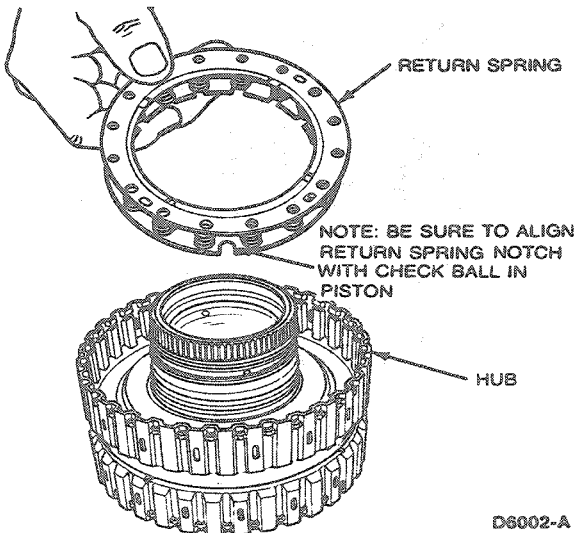
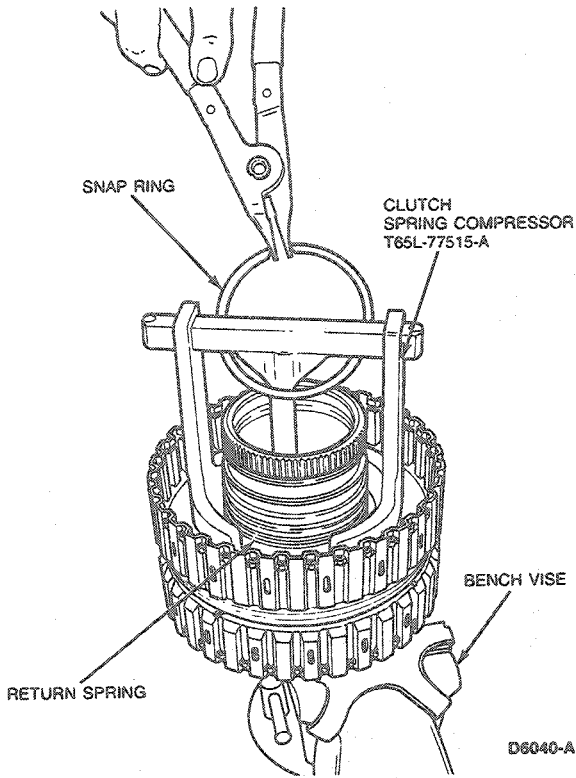
1. Remove O-ring seals.
NOTE: Number of components in clutch pack will vary with application.
2. Remove snap ring, pressure plate and clutch pack.



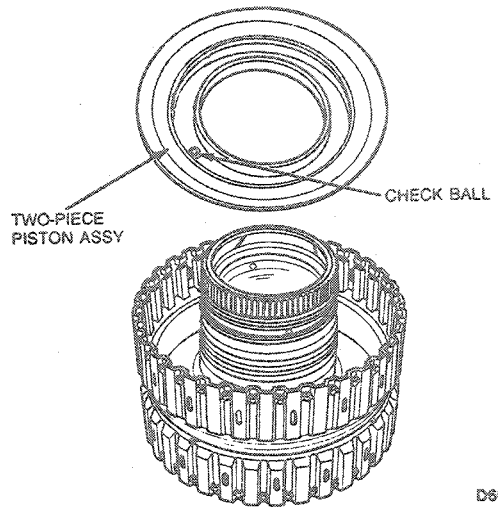
CAUTION: Do not allow tool to bottom out on piston assembly.

DISASSEMBLY AND ASSEMBLY (Continued)

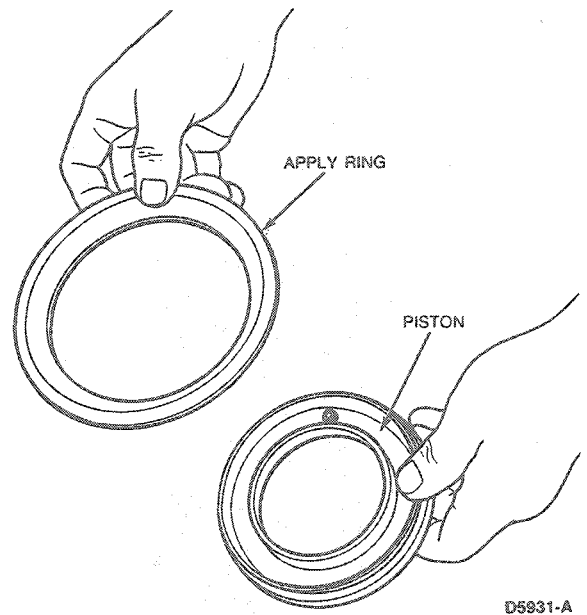
- 3. Remove snap ring and return spring using Clutch Spring Compressor T65L-77515-A.



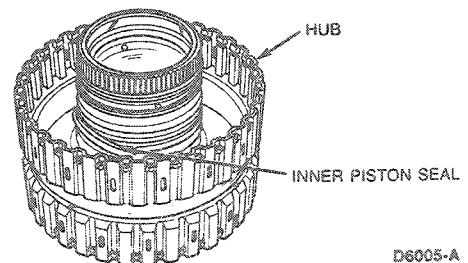
- 4. Remove two-piece piston assembly.



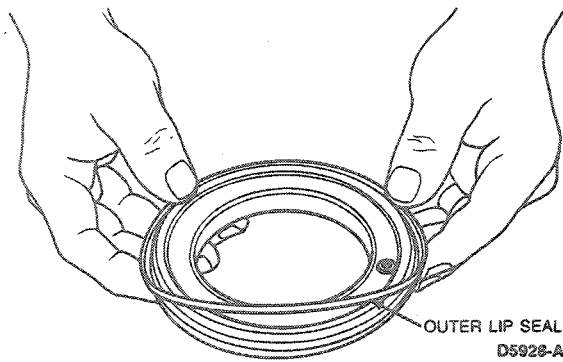
- 5. Disassemble two-piece piston.



- 6. Remove piston inner and outer lip seals.



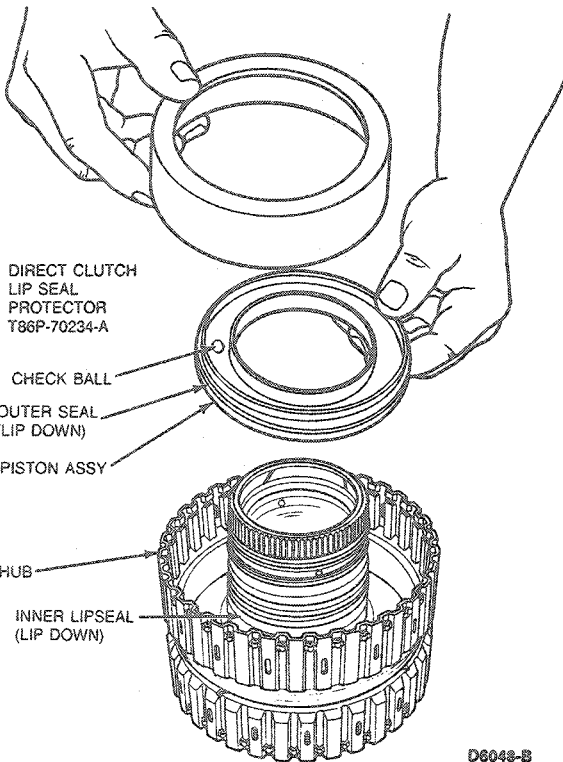
DISASSEMBLY AND ASSEMBLY (Continued)



OUTER LIP SEAL
D5929-A

Assembly

1. Install inner and outer piston lip seals (lip seals facing toward bottom of cylinder) and install into hub using Direct Clutch Lip Seal Protector T86P-70234-A. Be sure piston is seated fully.



DIRECT CLUTCH
LIP SEAL
PROTECTOR
T86P-70234-A

CHECK BALL

OUTER SEAL
(LIP DOWN)

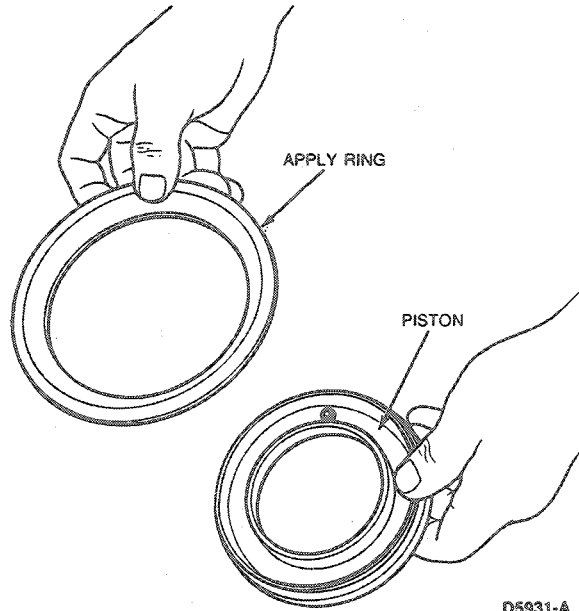
PISTON ASSY

HUB

INNER LIPSEAL
(LIP DOWN)

D6049-B

2. Install piston apply ring.

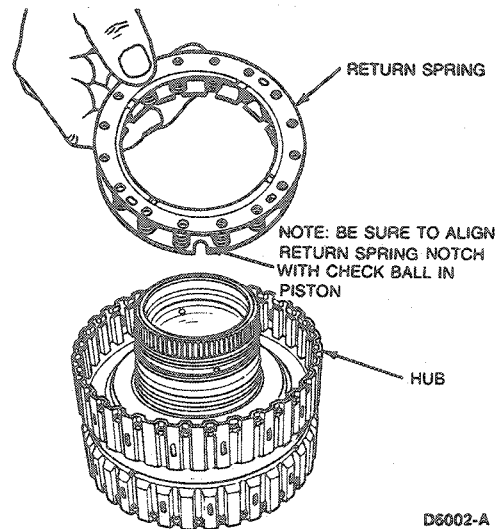


APPLY RING

PISTON

D5931-A

3. Verify free movement of check ball.
4. Install return spring in cylinder aligning return spring notch with check ball in piston.



RETURN SPRING

NOTE: BE SURE TO ALIGN
RETURN SPRING NOTCH
WITH CHECK BALL IN
PISTON

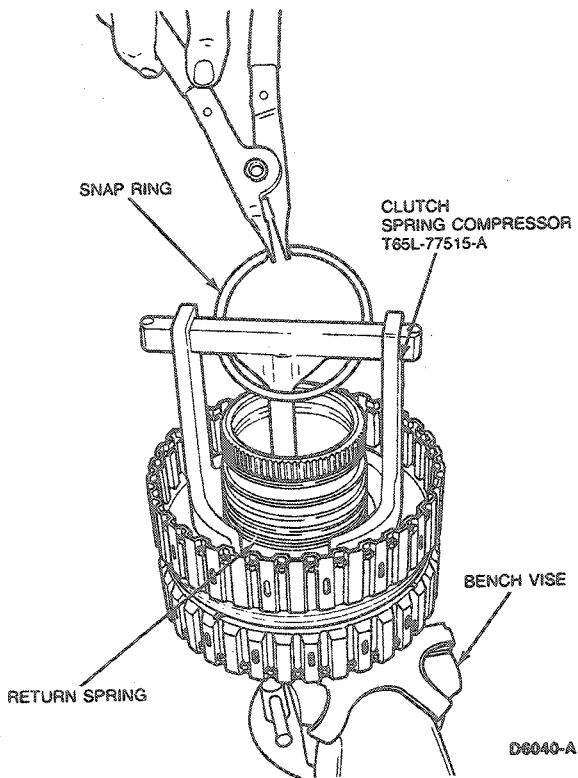
HUB

D6002-A

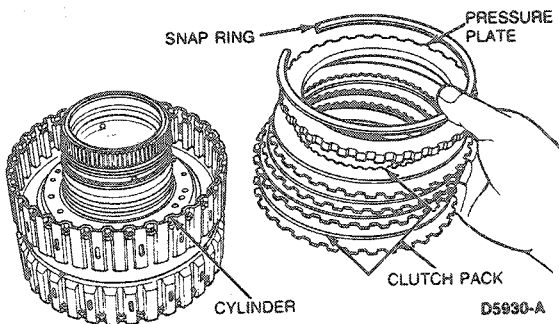
CAUTION: Do not allow tool to bottom out on piston assembly.

DISASSEMBLY AND ASSEMBLY (Continued)

5. Install snap ring using Clutch Spring Compressor T65L-77515-A.



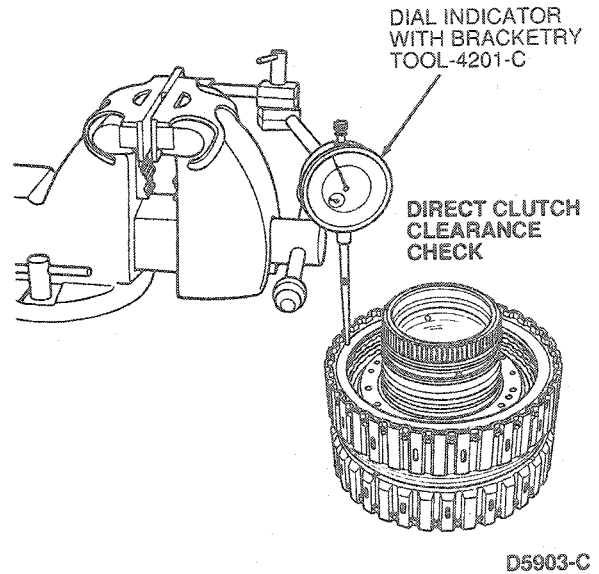
6. Install clutch pack, pressure plate and snap ring into cylinder.



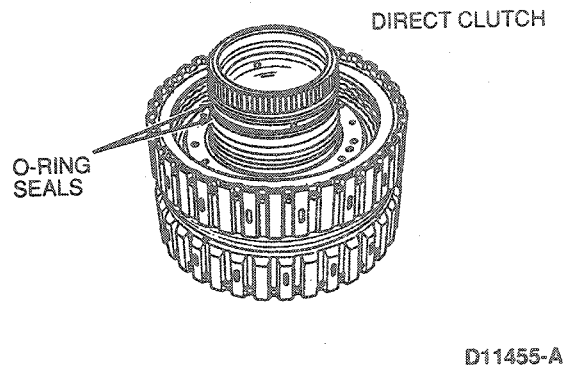
7. Check clutch pack clearance using feeler gauge or Dial Indicator with Bracketry TOOL-4201-C or equivalent. Push firmly downward on the clutch pack. Release pressure and zero dial indicator. Lift pressure plate to the bottom of the snap ring. Note dial indicator reading. Take two readings, 180 degrees apart, and determine the average of the two readings. The clearance should be: 0.78-1.29mm (0.031-0.051 inch). If the clearance is not within specification, selective snap rings are available in the following thicknesses:

Selective Snap Rings
1.24-1.34mm (0.049-0.053 inch)
1.66-1.76mm (0.065-0.069 inch)
2.08-2.18mm (0.082-0.086 inch)
2.50-2.60mm (0.098-0.102 inch)
2.92-3.02mm (0.115-0.119 inch)

After installing the correct snap ring, check the clearance.

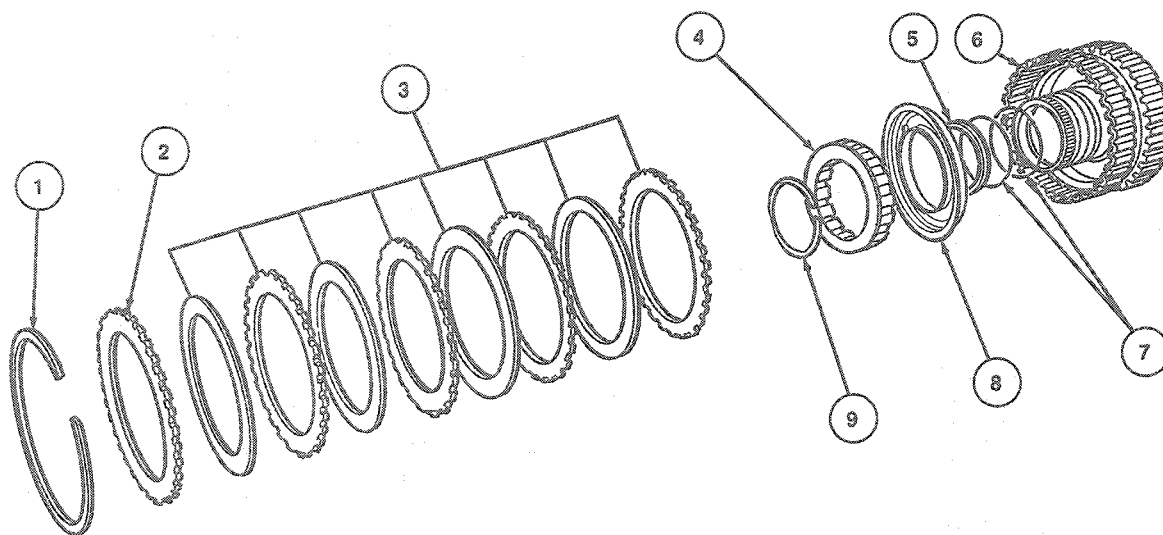


8. Install O-rings.



DISASSEMBLY AND ASSEMBLY (Continued)

Direct Clutch—3.2L SHO



D10599-A

Item	Part Number	Description
1	7D483	Snap Ring
2	7B066	Pressure Plate
3	—	Clutch Pack
4	7F235	Return Spring

(Continued)

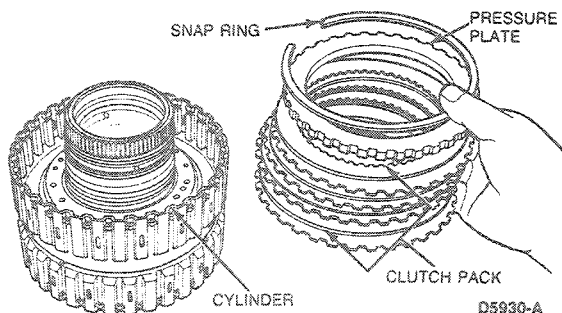
Item	Part Number	Description
5	7F225	Inner Piston Seal
6	7G120	Clutch Cylinder
7	7G102	O-Rings
8	7A262	Piston
9	7C122	Snap Ring

Disassembly

Tools Required:

- Clutch Spring Compressor T65L-775 15-A
- Dial Indicator with Bracketry TOOL-4201-C

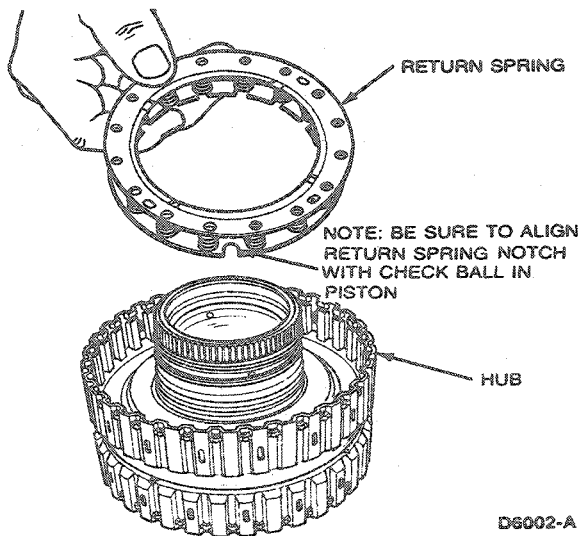
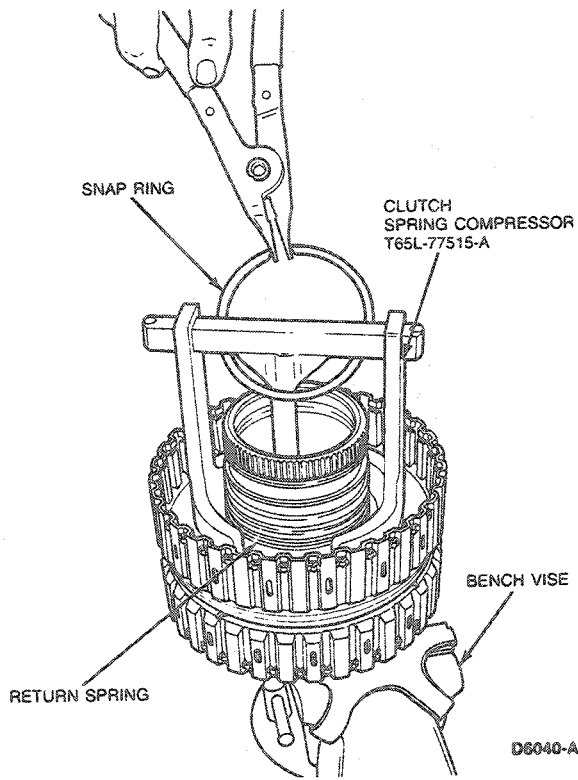
1. Remove O-ring seals.
NOTE: Number of components in clutch pack will vary with application.
2. Remove snap ring, pressure plate and clutch pack.



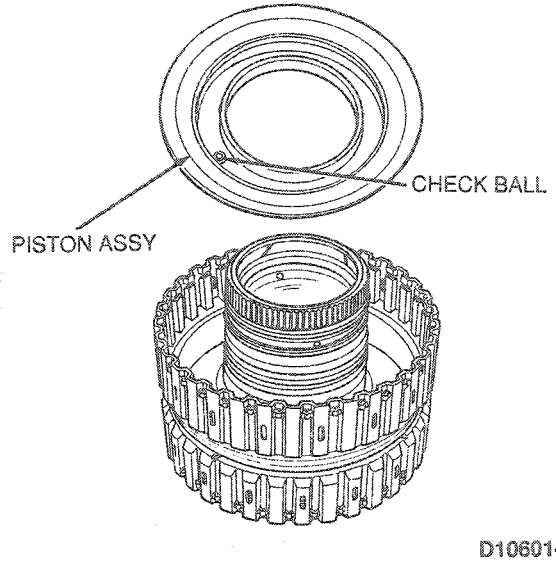
CAUTION: Do not allow tool to bottom out on piston assembly.

DISASSEMBLY AND ASSEMBLY (Continued)

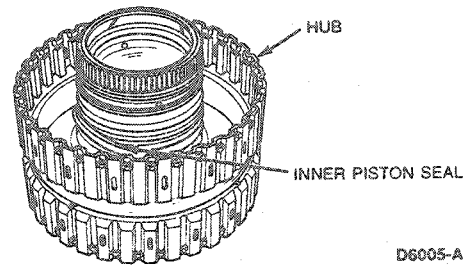
3. Remove snap ring and return spring using Clutch Spring Compressor T65L-77515-A.



4. Remove two-piece piston assembly.



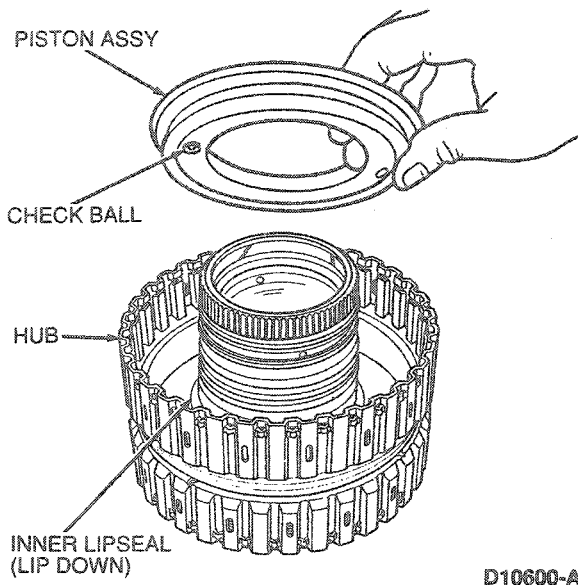
5. Remove piston inner seal.



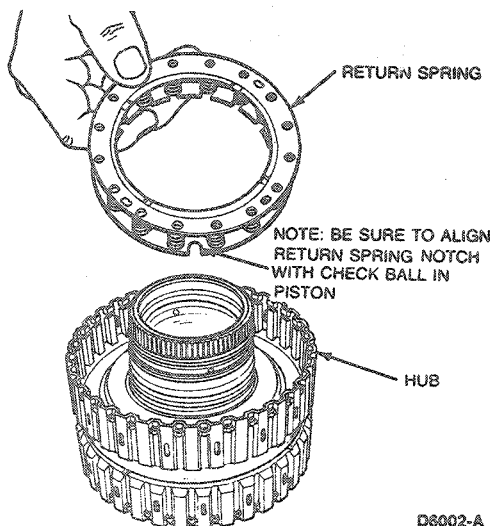
DISASSEMBLY AND ASSEMBLY (Continued)

Assembly

1. Install inner seal (lip seal faces toward bottom of cylinder) and install piston into hub. Be sure piston is seated fully.

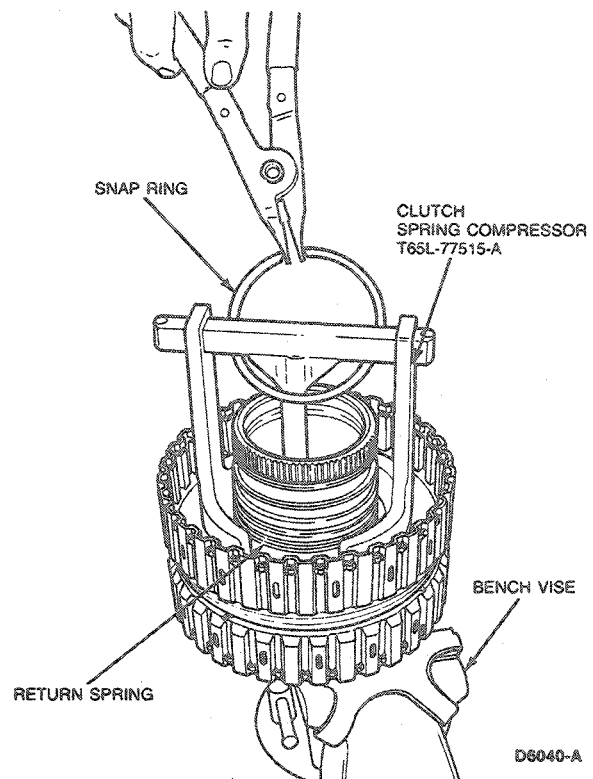


2. Verify free movement of check ball.
3. Install return spring in cylinder aligning return spring notch with check ball in piston.

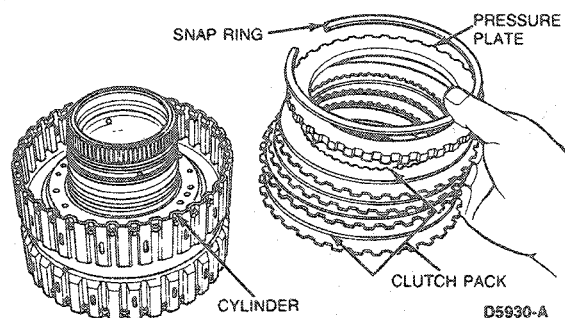


CAUTION: Do not allow tool to bottom out on piston assembly.

4. Install snap ring using Clutch Spring Compressor T65L-77515-A.



5. Install clutch pack, pressure plate and snap ring into cylinder.



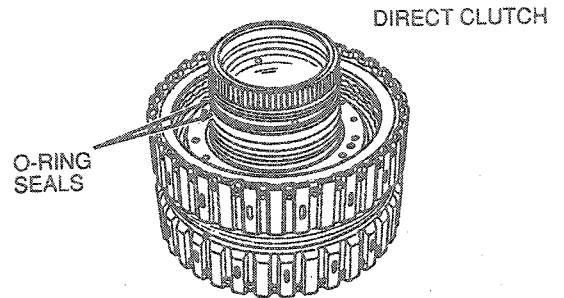
6. Check clutch pack clearance using feeler gauge or Dial Indicator with Bracketry TOOL-4201-C or equivalent. Push firmly downward on the clutch pack. Release pressure and zero dial indicator. Lift pressure plate to the bottom of the snap ring. Note dial indicator reading. Take two readings, 180 degrees apart, and determine the average of the two readings. The clearance should be: 0.78-1.29mm (0.031-0.051 inch). If the clearance is not within specification, selective snap rings are available in the following thicknesses:

DISASSEMBLY AND ASSEMBLY (Continued)

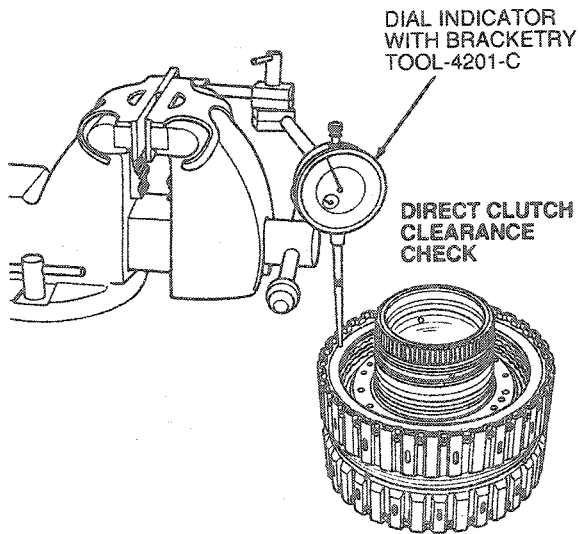
Selective Snap Rings
1.24-1.34mm (0.049-0.053 inch)
1.66-1.76mm (0.065-0.069 inch)
2.08-2.18mm (0.082-0.086 inch)
2.50-2.60mm (0.098-0.102 inch)
2.92-3.02mm (0.115-0.119 inch)

After installing the correct snap ring, check the clearance.

7. Install O-rings.



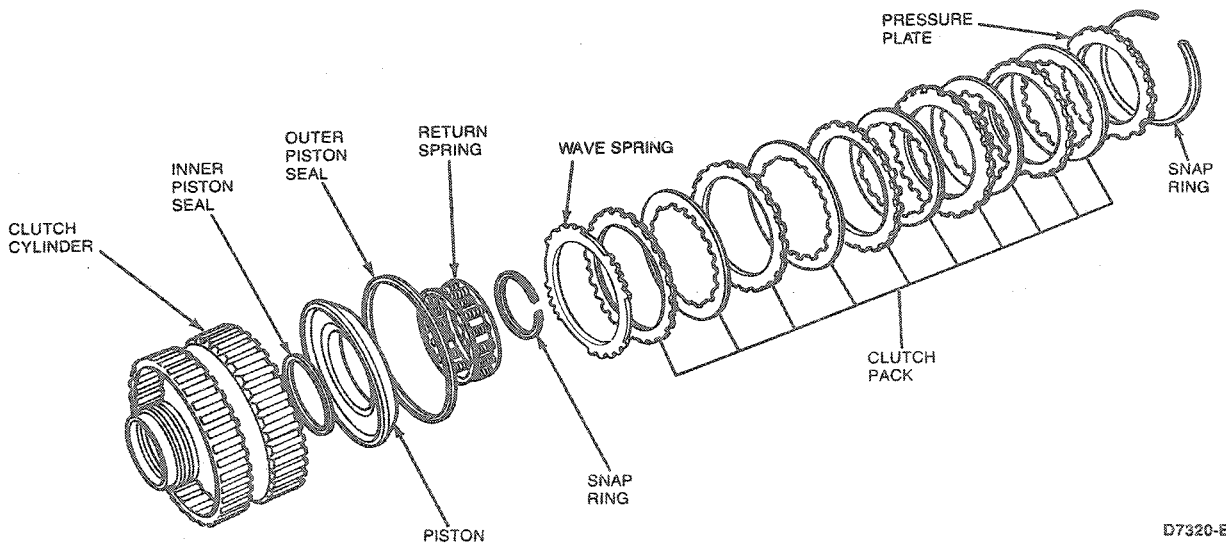
D11455-A



D5903-C

Intermediate Clutch

All Except 3.2L SHO



D7320-B

DISASSEMBLY AND ASSEMBLY (Continued)

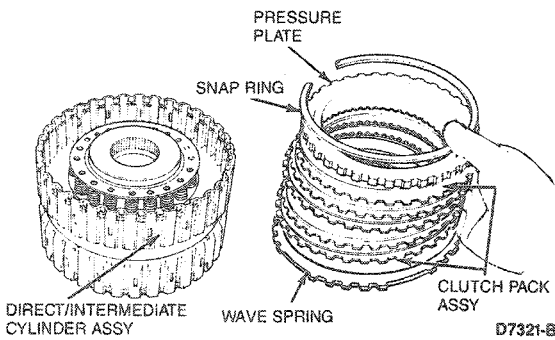
Disassembly

Tools Required:

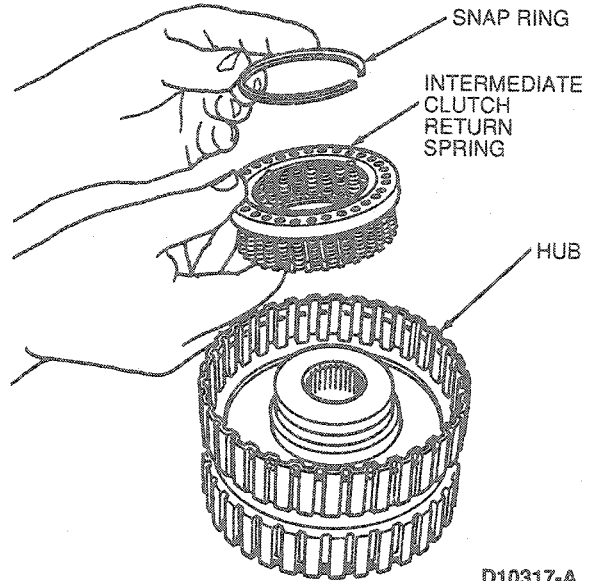
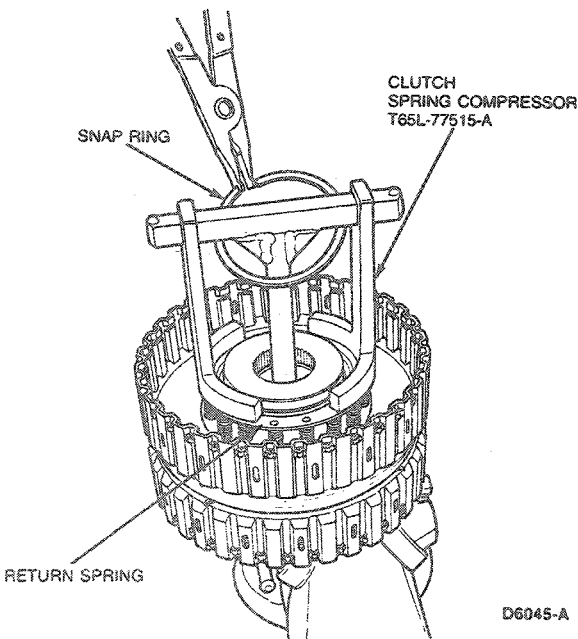
- Clutch Spring Compressor T65L-77515-A
- Forward Intermediate Clutch Seal Outer Lip Protector T86P-70548-A
- Dial Indicator with Bracketry TOOL-4201-C

NOTE: Number of components in the clutch pack will vary with application.

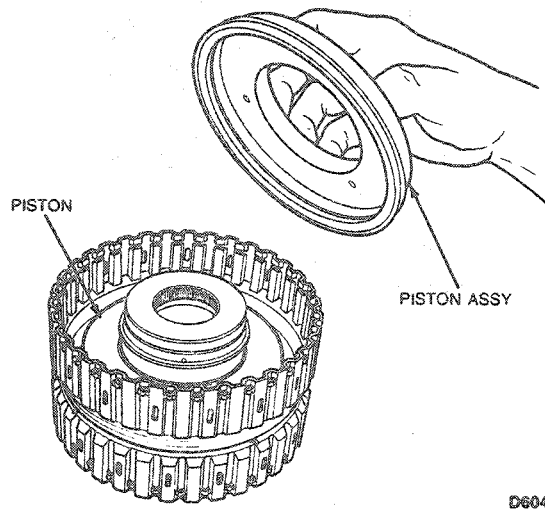
1. Remove snap ring, pressure plate and clutch pack assembly.



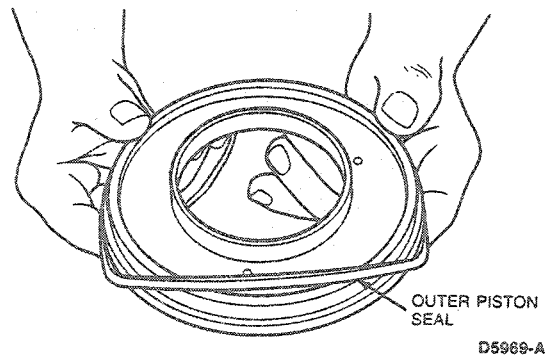
2. Remove snap ring and return spring, using Clutch Spring Compressor T65L-77515-A.



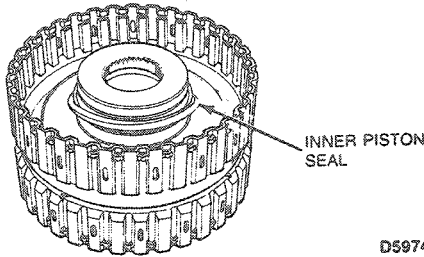
3. Remove piston assembly.



4. Remove piston inner and outer seals.

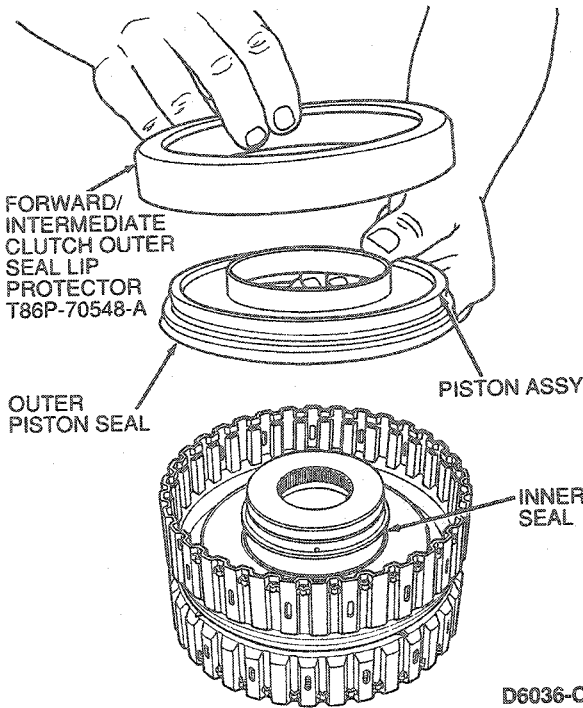


DISASSEMBLY AND ASSEMBLY (Continued)

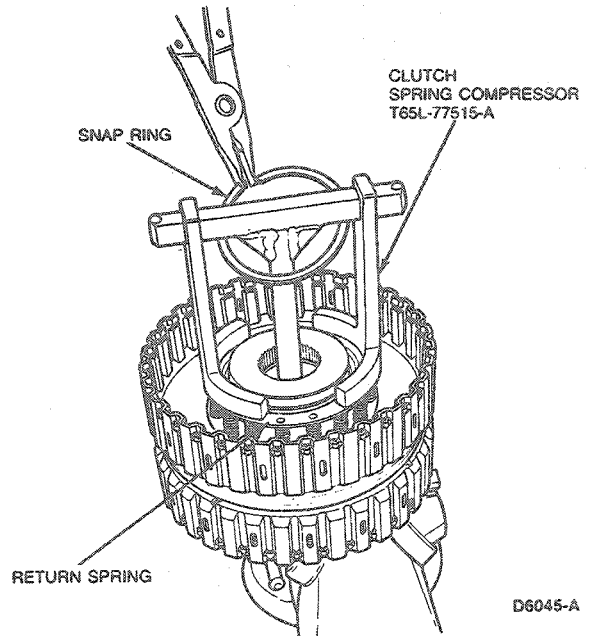
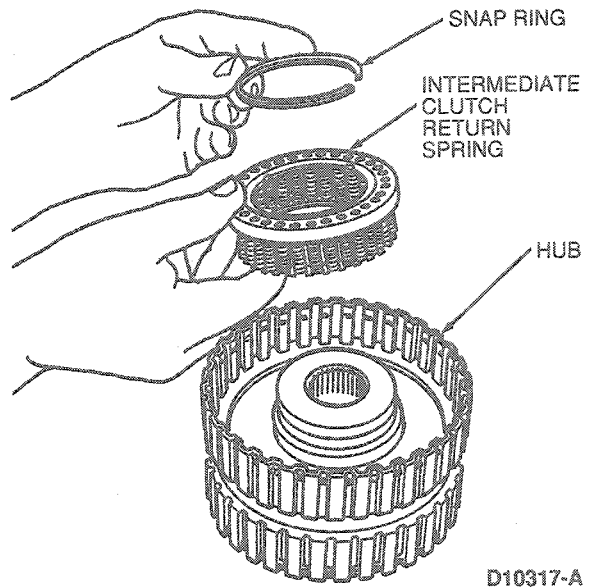


Assembly

1. Check for free movement of check ball in cylinder. Install inner lip seal on cylinder hub and outer piston lip seal (lips facing toward bottom of cylinder) on piston and install piston using Forward / Intermediate Clutch Seal Outer Lip Protector T86P-70548-A.



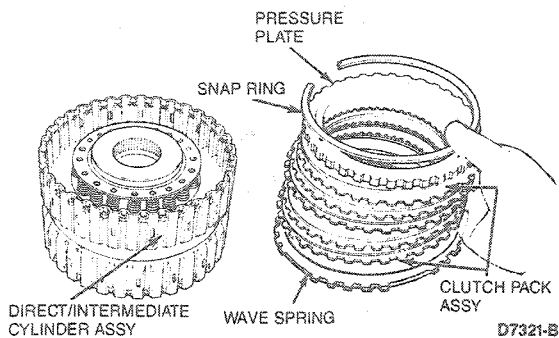
2. Install snap ring and return spring using Clutch Spring Compressor T65L-77515-A.



NOTE: Be sure step on pressure plate faces up.

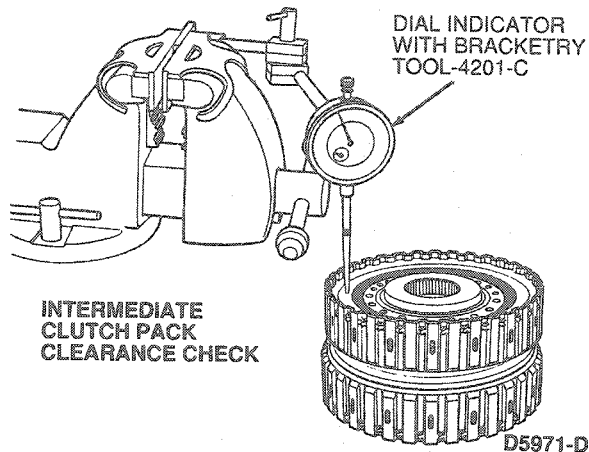
DISASSEMBLY AND ASSEMBLY (Continued)

3. Install clutch pack, pressure plate and snap ring.

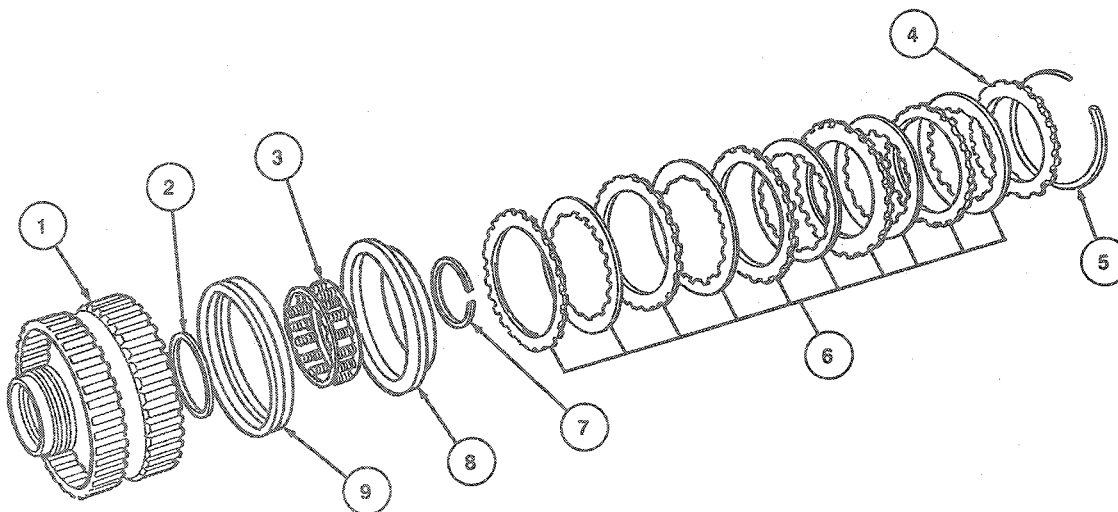


Selective Snap Rings	
1.20-1.30mm	(0.047-0.051 inch)
1.67-1.77mm	(0.066-0.070 inch)
2.14-2.24mm	(0.084-0.088 inch)
2.61-2.71mm	(0.103-0.107 inch)
3.04-3.14mm	(0.120-0.124 inch)

4. Check clutch pack clearance using Dial Indicator with Bracketry TOOL-4201-C or equivalent. Push firmly downward on the clutch pack. Release pressure and zero the dial indicator. Lift pressure plate to the bottom of the snap ring. Note dial indicator reading. Take two readings, 180 degrees apart, and determine the average of the two readings. The clearance should be: (4-Plate) 1.02-1.51mm (0.040-0.059 inch). If the clearance is not within specification, selective snap rings are available in the following thicknesses:



**Intermediate Clutch
3.2L SHO**



D10603-A

Item	Part Number	Description
1	7G120	Clutch Cylinder
2	7F225	Inner Piston Seal
3	7F222	Return Spring
4	7R066	Pressure Plate

Item	Part Number	Description
5	7D483	Snap Ring
6	—	Clutch Pack
7	7C122	Snap Ring
8	TH185	Return Piston
9	7E005	Piston

(Continued)

DISASSEMBLY AND ASSEMBLY (Continued)

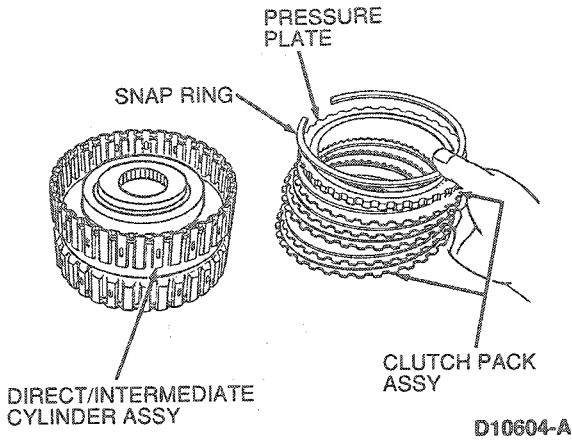
Disassembly

Tools Required:

- Clutch Spring Compressor T65L-77515-A
- Dial Indicator with Bracketry TOOL-4201-C

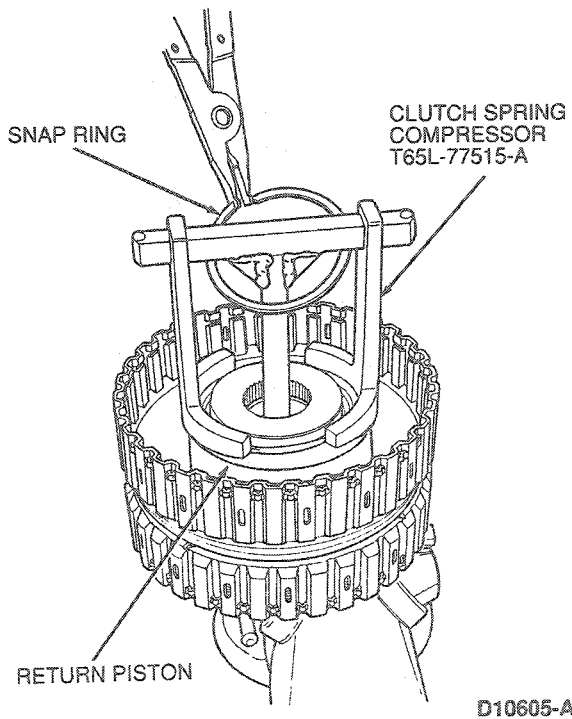
NOTE: Number of components in the clutch pack will vary with application.

1. Remove snap ring, pressure plate and clutch pack assembly.

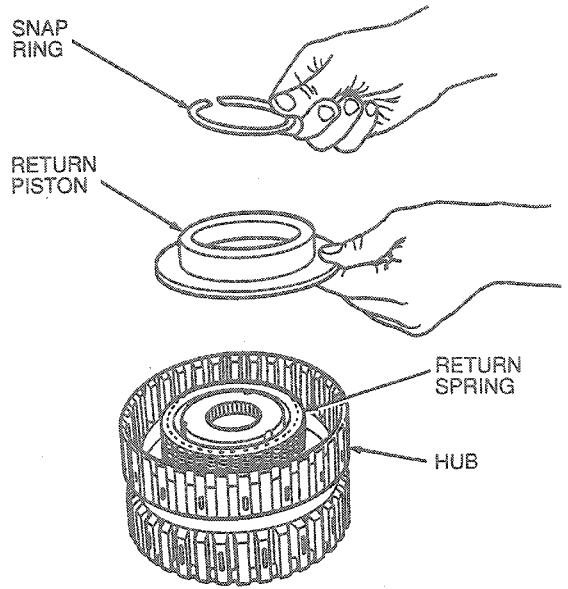


D10604-A

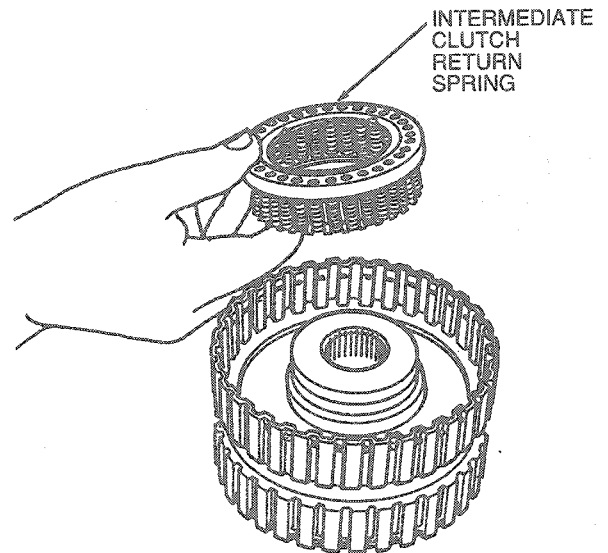
2. Remove snap ring return piston and return spring, using Clutch Spring Compressor T65L-77515-A.



D10605-A



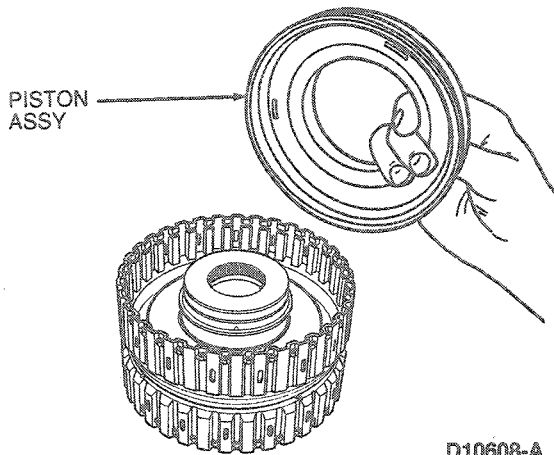
D10606-A



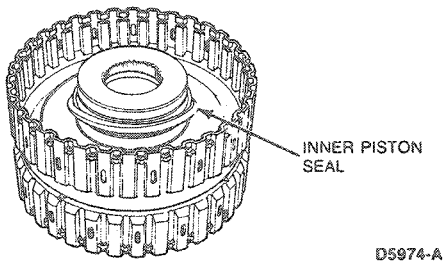
D10607-A

DISASSEMBLY AND ASSEMBLY (Continued)

3. Remove piston assembly.

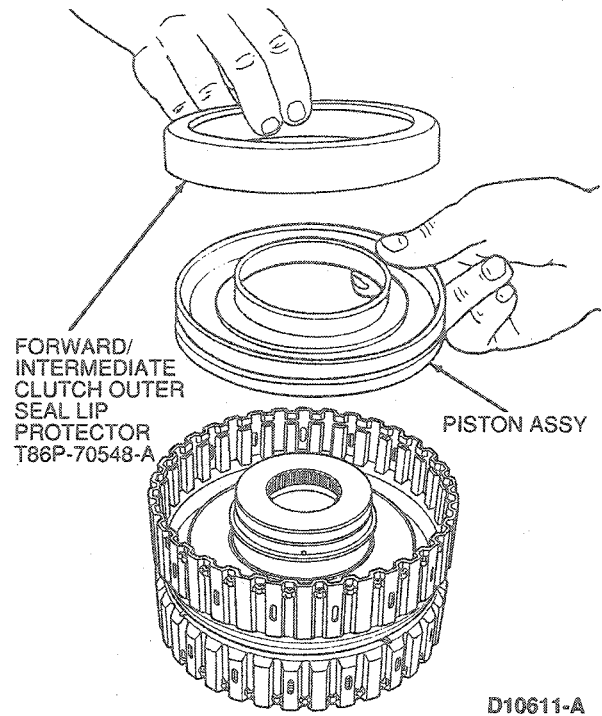


4. Remove piston inner seal.

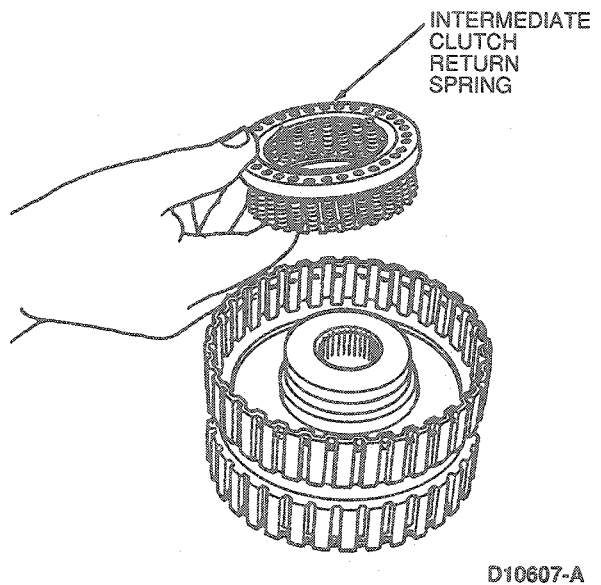


Assembly

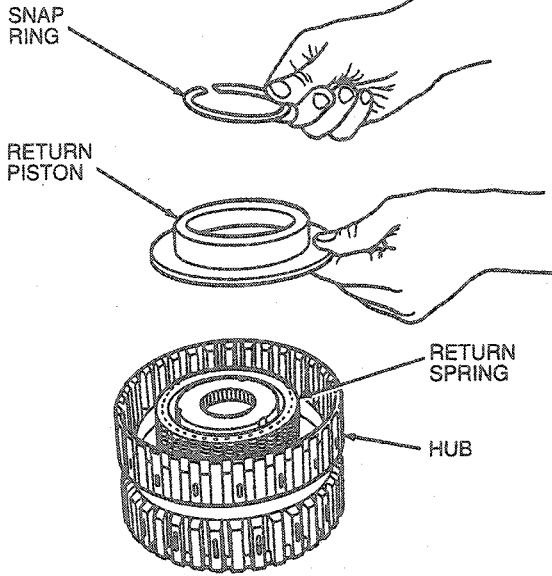
1. Install inner lip seal on cylinder hub (lip facing toward bottom of cylinder). Install piston.



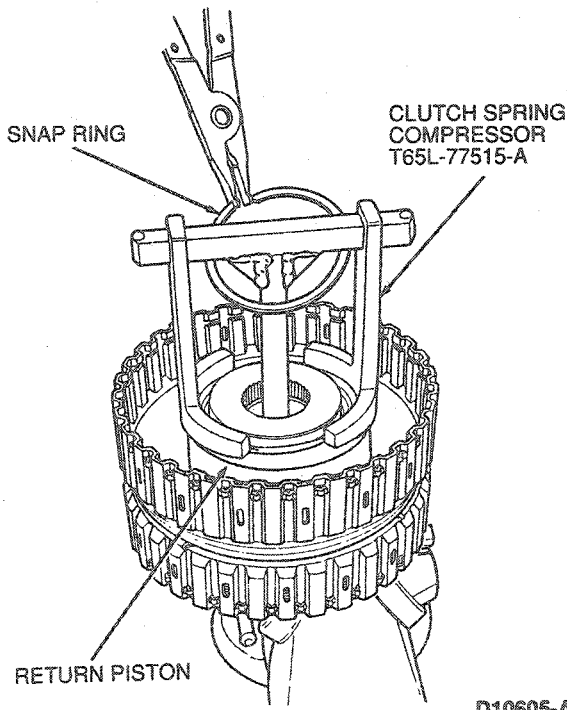
2. Install return spring, return piston and snap ring spring using Clutch Spring Compressor T65L-77515-A.



DISASSEMBLY AND ASSEMBLY (Continued)



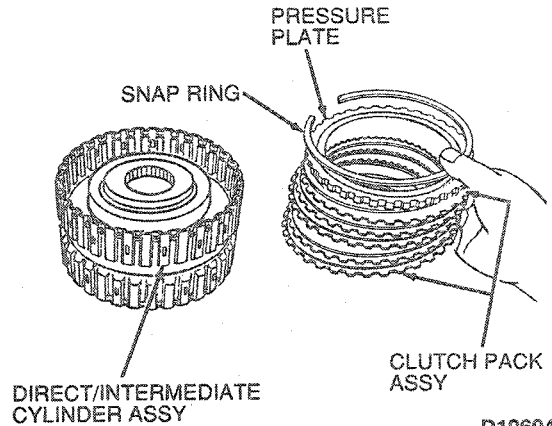
D10606-A



D10605-A

NOTE: Be sure step on pressure plate faces up.

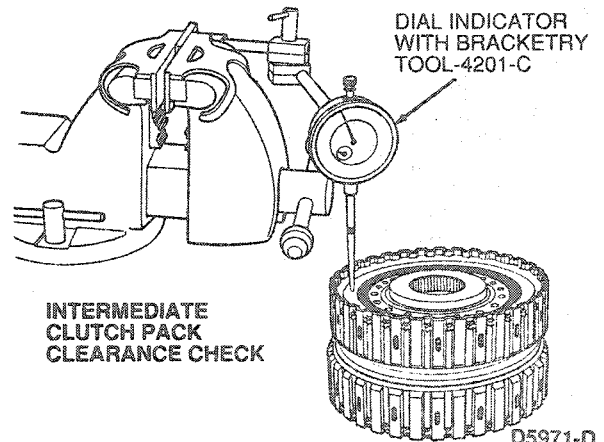
3. Install clutch pack, pressure plate and snap ring.



D10604-A

4. Check clutch pack clearance using Dial Indicator with Bracketry TOOL-4201-C or equivalent. Push firmly downward on the clutch pack. Release pressure and zero the dial indicator. Lift pressure plate to the bottom of the snap ring. Note dial indicator reading. Take two readings, 180 degrees apart, and determine the average of the two readings. The clearance should be: (4-Plate) 1.02-1.51mm (0.040-0.059 inch). If the clearance is not within specification, selective snap rings are available in the following thicknesses:

Selective Snap Rings
1.20-1.30mm (0.047-0.051 inch)
1.67-1.77mm (0.066-0.070 inch)
2.14-2.24mm (0.084-0.088 inch)
2.61-2.71mm (0.103-0.107 inch)
3.04-3.14mm (0.120-0.124 inch)



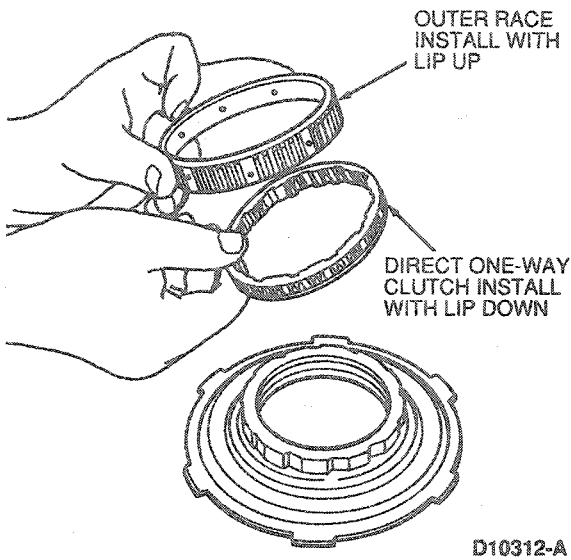
D5971-D

Shell Assembly—All Except 3.2L SHO Assembly

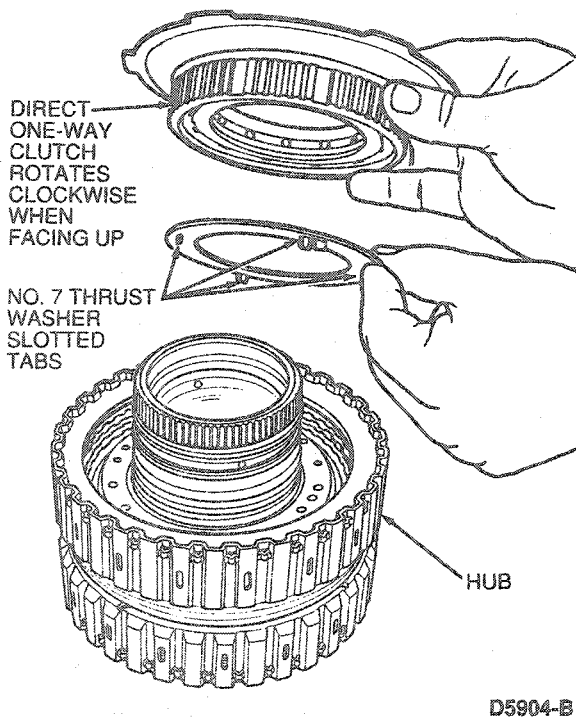
1. Set on intermediate clutch cylinder.
2. Install No. 7 thrust washer into direct clutch being sure tabs are aligned with slots in direct clutch.

DISASSEMBLY AND ASSEMBLY (Continued)

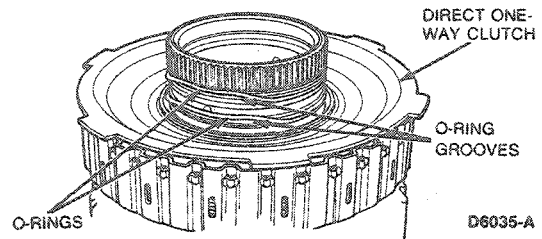
3. Install one-way clutch with lip down and race with lip up.



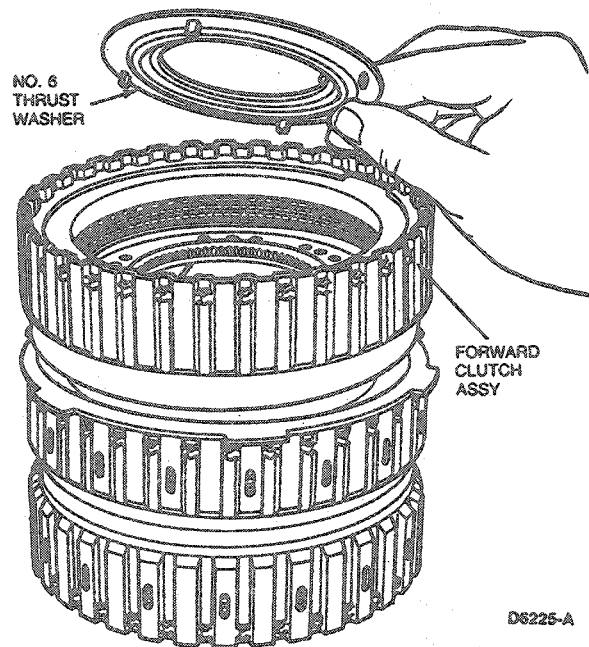
4. Install direct one-way clutch and align onto clutch pack spines.



5. Install two O-ring seals.

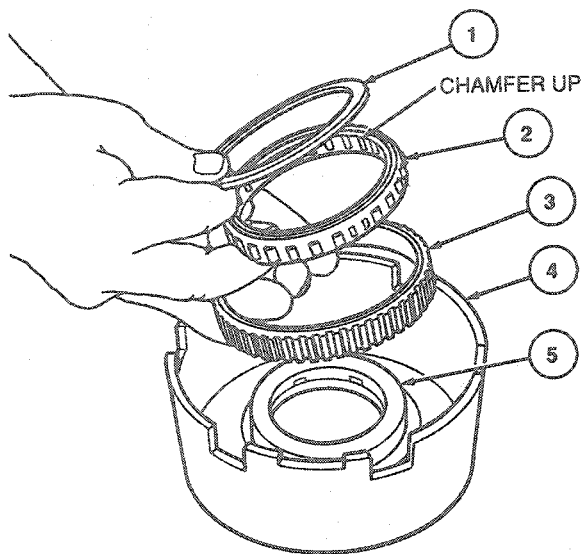


6. Install forward clutch assembly. Use caution not to damage the O-ring seals on direct clutch hub.
7. Install No. 6 thrust washer. Be sure oval pegs go into oval holes.



8. Install bottom cap, overdrive one-way clutch with chamfer up, outer race and top cap.

DISASSEMBLY AND ASSEMBLY (Continued)

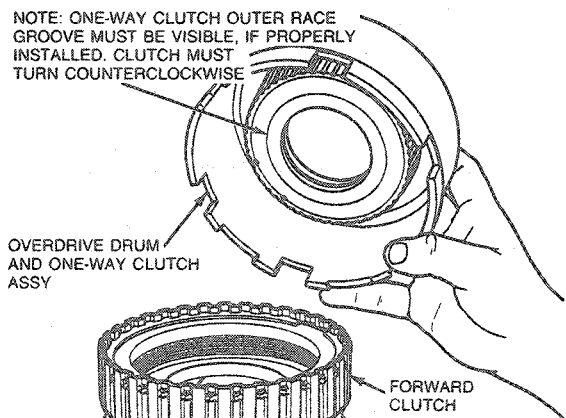


D10311-A

Item	Description
1	Top Cap
2	Overdrive One-Way Clutch
3	Outer Race
4	Overdrive Drum
5	Bottom Cap

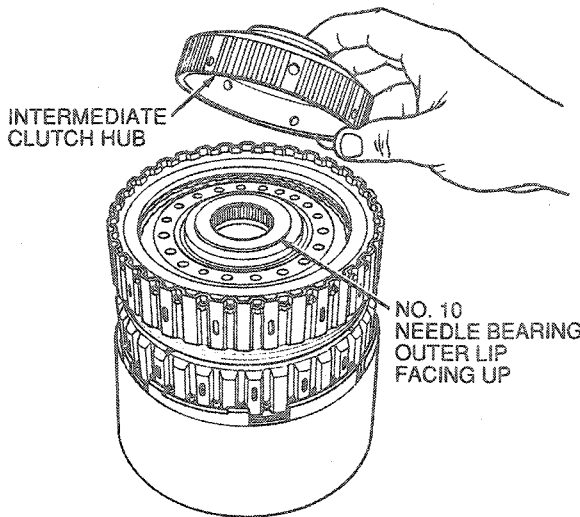
9. Install overdrive drum and one-way clutch assembly. Ensure drum is fully seated.

NOTE: ONE-WAY CLUTCH OUTER RACE GROOVE MUST BE VISIBLE, IF PROPERLY INSTALLED. CLUTCH MUST TURN COUNTERCLOCKWISE



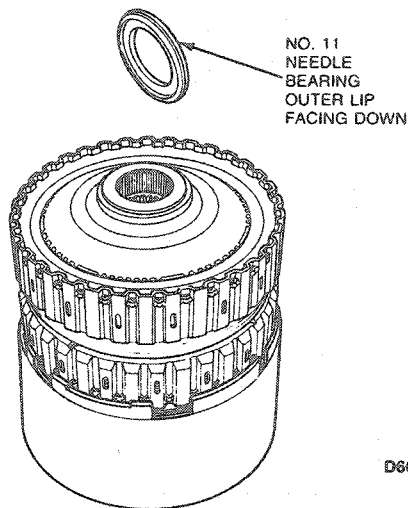
D5907-B

10. Turn assembly over and set on overdrive drum.
11. Install No. 10 needle bearing onto intermediate clutch hub using petroleum jelly to hold in place.
12. Install intermediate clutch hub with No. 10 needle bearing. Ensure hub is fully seated.



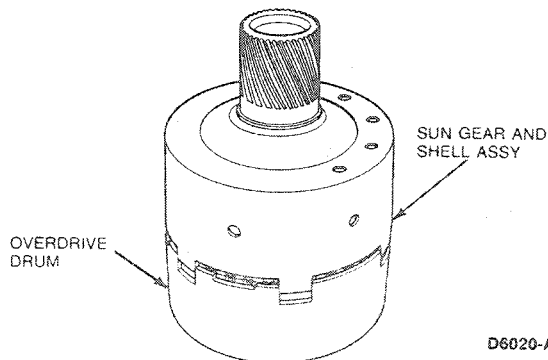
D6019-B

13. Install No. 11 needle bearing with outer lip facing down.



D6021-A

14. Install sun gear and shell assembly.



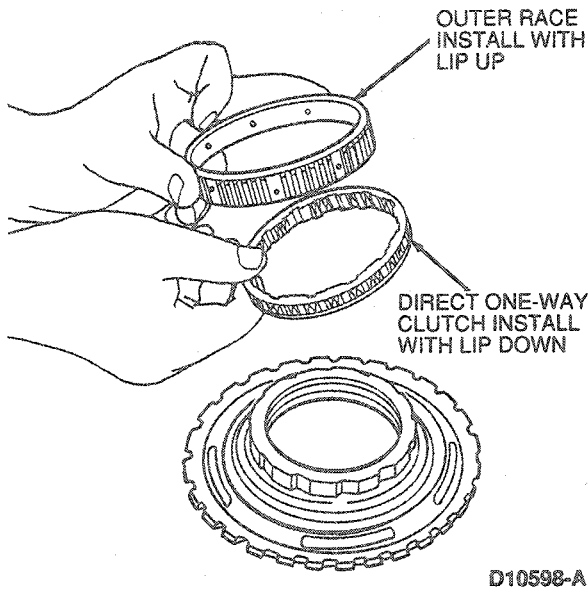
D6020-A

DISASSEMBLY AND ASSEMBLY (Continued)

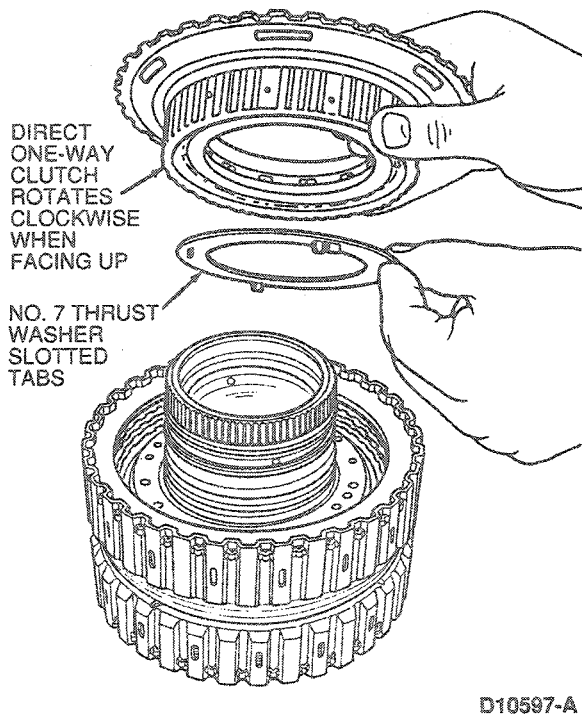
Shell Assembly—3.2L SHO

Assembly

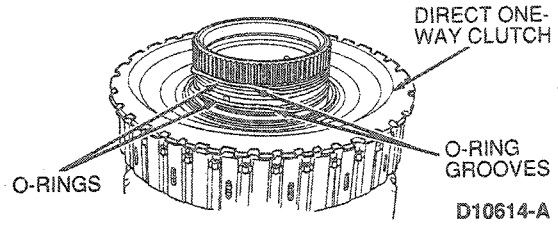
1. Set on intermediate clutch cylinder.
2. Install No. 7 thrust washer into direct clutch being sure tabs are aligned with slots in direct clutch.
3. Install one-way clutch with lip down and race with lip up.



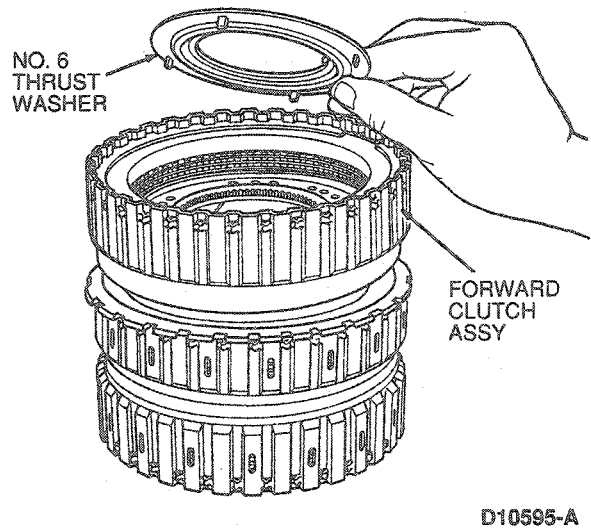
4. Install direct one-way clutch and align onto clutch pack splines.



5. Install two O-ring seals.



6. Install forward clutch assembly. Use caution not to damage the O-ring seals on direct clutch hub.
7. Install No. 6 thrust washer. Be sure oval pegs go into oval holes.



8. Install bottom cap, overdrive one-way clutch with chamfer up, outer race and top cap.

