
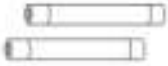





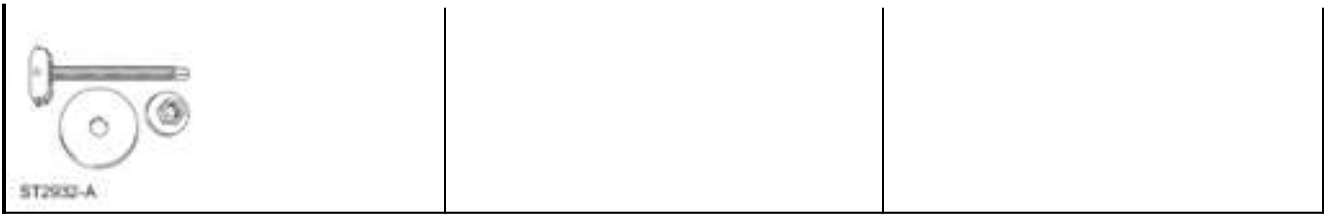


DISASSEMBLY

TRANSMISSION

Special Tools

Illustration	Tool Name	Tool Number
 ST1185-A	Slide Hammer	100-001 (T50T-100-A)
 ST1631-A	Handle, Torque Converter	307-091 (T81P-7902-C)
 ST2381-A	Remover, Input Shaft Oil Seal	308-375
 ST1104-B	Retaining Ring Pliers	307-343 (T95P-77001-AHR)
 ST1608-A	Collet, 1-1/4 to 1-1/24 Inch	303-D022 (D80L-100T) or equivalent
 ST1605-A	Actuator Pin	303-D012 (D80L-100-H) or equivalent
 ST2891-A	Remover, Front Pump	307-553
	Remover, Needle Bearing	307-562 (includes 307-562/1 and 307-562/2)



All vehicles

1. Using the special tools, remove the torque converter.

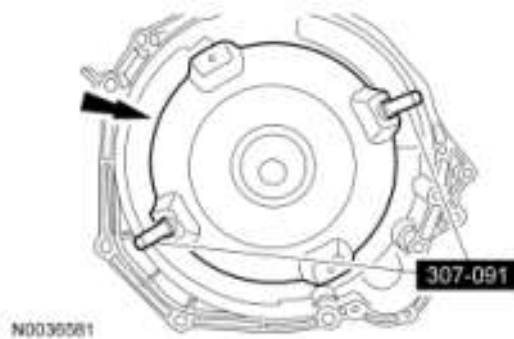


Fig. 163: Removing Torque Converter Using Special Tool (307-091)
Courtesy of FORD MOTOR CO.

2. Remove the transmission fluid pan.

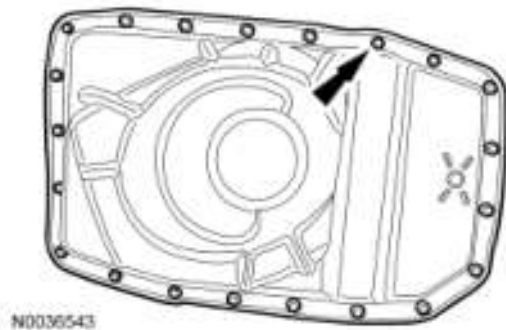


Fig. 164: Locating Transmission Fluid Pan Bolts
Courtesy of FORD MOTOR CO.

3. Remove the fluid pan gasket.

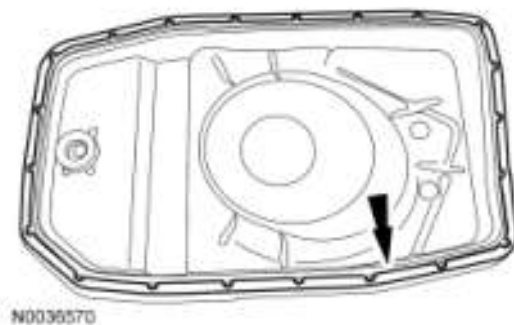


Fig. 165: Locating Transmission Fluid Pan Gasket

Courtesy of FORD MOTOR CO.

4. Remove and discard the transmission fluid filter.

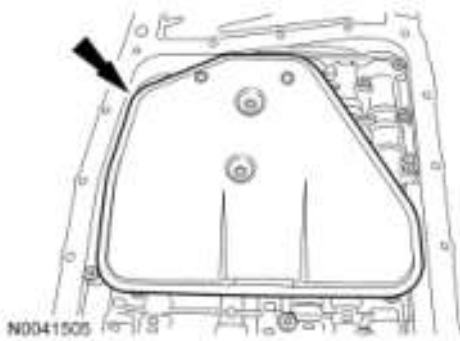


Fig. 166: Locating Transmission Fluid Filter
Courtesy of FORD MOTOR CO.

5. Press the release tab and lift up on the bulkhead connector retainer.

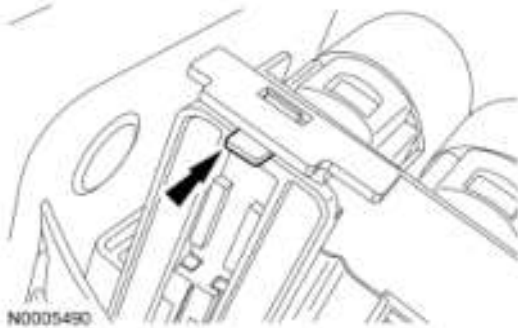


Fig. 167: Locating Release Tab
Courtesy of FORD MOTOR CO.

6. With the release tab up, pull the outer shell of the bulkhead electrical connector.

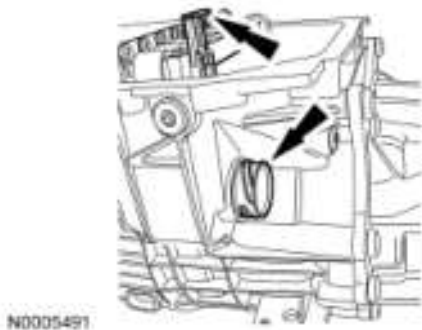


Fig. 168: Locating Outer Shell Of Bulkhead Electrical Connector And Release Tab
Courtesy of FORD MOTOR CO.

CAUTION: Do not touch the electrical connector pins or the exposed solenoid tabs on the transmission control module (TCM). Electrostatic discharge may occur and may cause damage to the mechatronic unit.

7. Pull the outer shell of the bulkhead electrical connector out of the transmission.



Fig. 169: Locating Outer Shell Of Bulkhead Electrical Connector
Courtesy of FORD MOTOR CO.

8. Remove the 11 bolts from the mechatronic assembly.

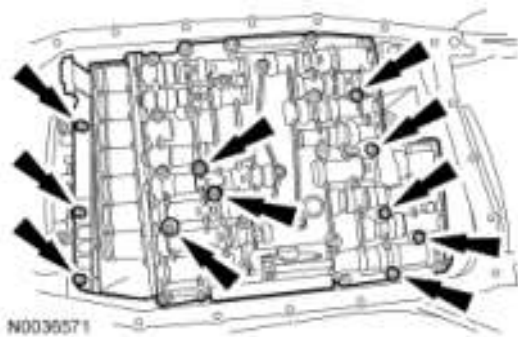


Fig. 170: Locating Mechatronic Assembly Bolts
Courtesy of FORD MOTOR CO.

9. Remove the mechatronic assembly.

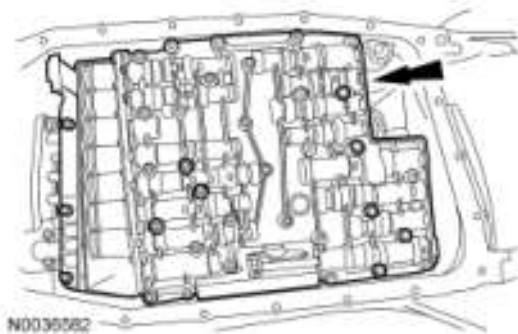


Fig. 171: Locating Mechatronic Assembly
Courtesy of FORD MOTOR CO.

10. Remove the rubber adapter and the fluid filter seal.



Fig. 172: Locating Rubber Adapter
Courtesy of FORD MOTOR CO.

11. Remove and discard the 4 rubber feed tubes for the center support. Note the size and location while removing for correct installation.
 1. Black feed tube
 2. Green feed tube
 3. Blue feed tube

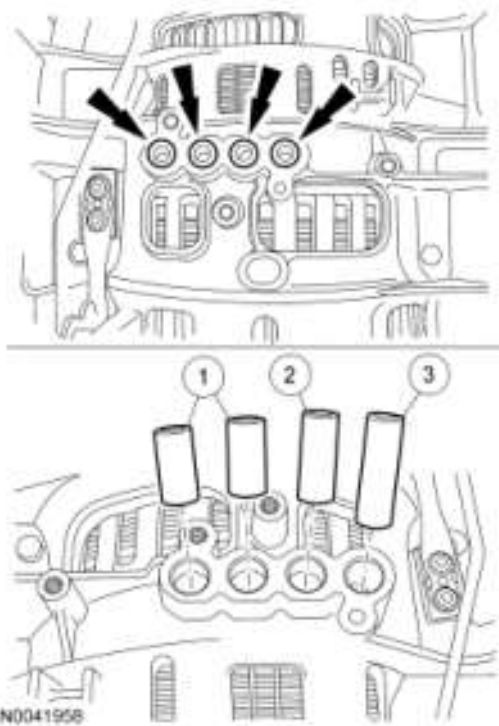


Fig. 173: Locating Rubber Feed Tubes
Courtesy of FORD MOTOR CO.

12. Remove the thermal bypass valve from the case.

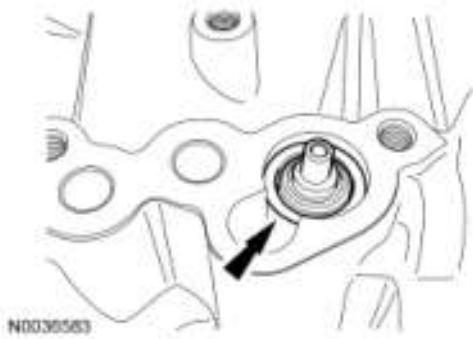


Fig. 174: Locating Thermal Bypass Valve
 Courtesy of FORD MOTOR CO.

13. Inspect the thermal bypass valve for damage, install a new valve if damage is indicated.

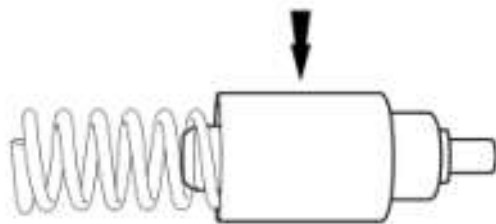


Fig. 175: Locating Thermal Bypass Valve
 Courtesy of FORD MOTOR CO.

14. Using the special tools, remove and discard the front pump seal.

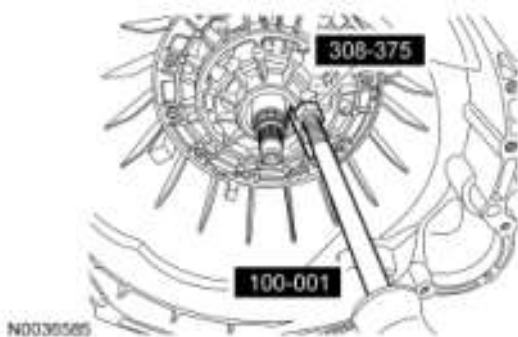


Fig. 176: Removing Front Pump Seal Using Special Tools (100-001, 308-375)
 Courtesy of FORD MOTOR CO.

15. Remove and discard the front pump bolts.

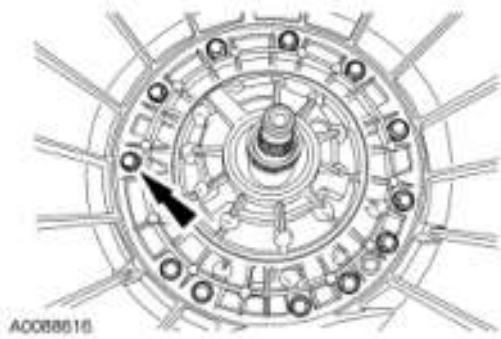


Fig. 177: Locating Front Pump Bolts
 Courtesy of FORD MOTOR CO.

16. Using the special tools, remove the front pump support. Make sure that the selective shim is on the back side of the pump.

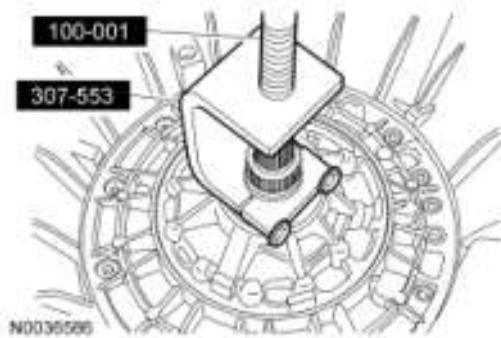


Fig. 178: Removing Front Pump Support Using Special Tools (100-001, 307-553)
 Courtesy of FORD MOTOR CO.

17. Remove the forward (clutch A)/overdrive (clutch E) clutch assembly.

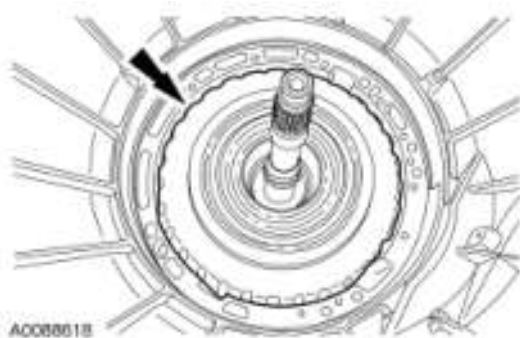


Fig. 179: Locating Forward (Clutch A)/Overdrive (Clutch E) Clutch Assembly
 Courtesy of FORD MOTOR CO.

18. Remove the caged roller bearing.

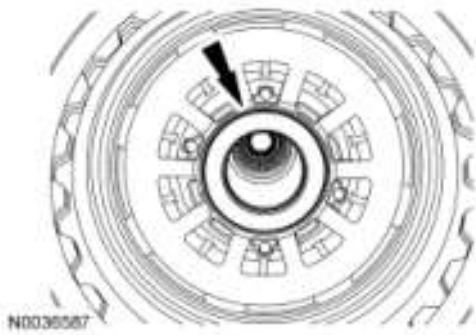


Fig. 180: Locating Caged Roller Bearing
Courtesy of FORD MOTOR CO.

19. Remove the direct clutch assembly.

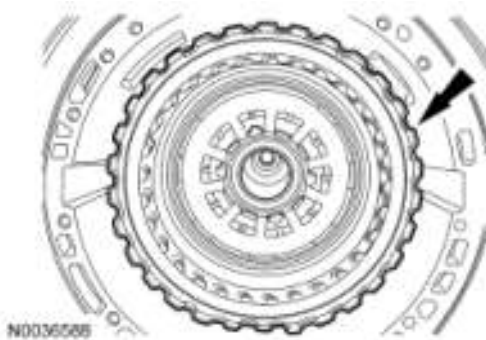


Fig. 181: Locating Direct Clutch Assembly
Courtesy of FORD MOTOR CO.

20. Using the special tool, remove the center support snap ring.

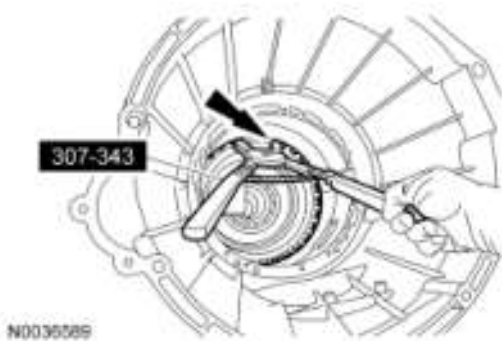


Fig. 182: Removing Center Support Snap Ring Using Special Tool (307-343)
Courtesy of FORD MOTOR CO.

21. Remove the center support.

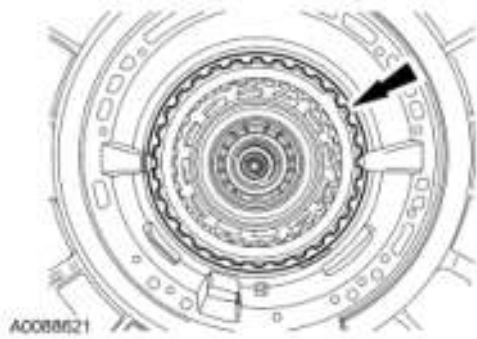


Fig. 183: Locating Center Support
 Courtesy of FORD MOTOR CO.

NOTE: During the removal the bearing may be on the back of the center support.

22. Remove the bearing from the back of the center support if it is there.

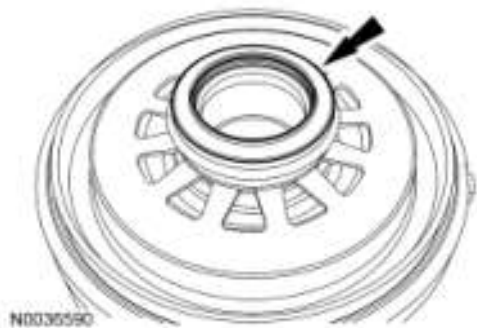


Fig. 184: Locating Bearing From Back Of Center Support
 Courtesy of FORD MOTOR CO.

NOTE: When removing the planet carrier and the low/reverse clutch pack some of the clutch plates may stay in the case. Try to keep all the clutches together.

23. Remove the planet carrier and the low/reverse clutch pack as an assembly.



Fig. 185: Locating Low/Reverse Clutch Pack
 Courtesy of FORD MOTOR CO.

24. Remove the low/reverse bearing race.

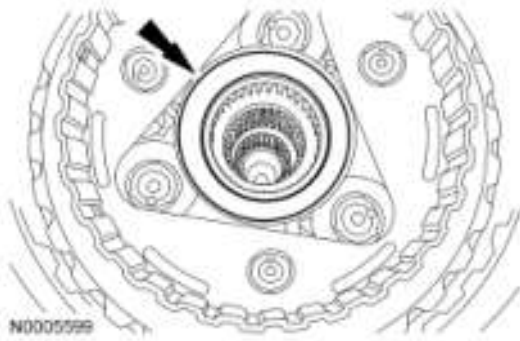


Fig. 186: Locating Low/Reverse Bearing Race
Courtesy of FORD MOTOR CO.

25. Remove the low/reverse sun gear.



Fig. 187: Locating Low/Reverse Sun Gear
Courtesy of FORD MOTOR CO.

NOTE: When removing the sun gear, take note that the taper edge is facing up toward the torque converter housing.

26. Remove the sun gear into the planet assembly.



Fig. 188: Locating Sun Gear Into Planet Assembly
Courtesy of FORD MOTOR CO.

27. Remove the top and the bottom roller bearings from the sun gear.

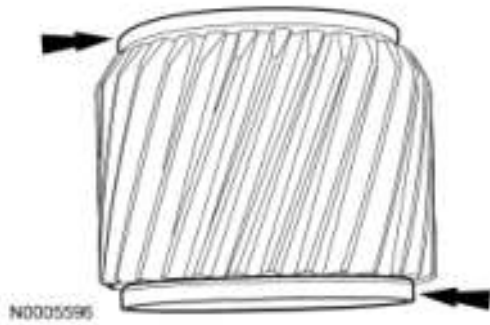


Fig. 189: Locating Roller Bearings From Sun Gear
Courtesy of FORD MOTOR CO.

28. Remove the roller bearing race in the bottom of the carrier.

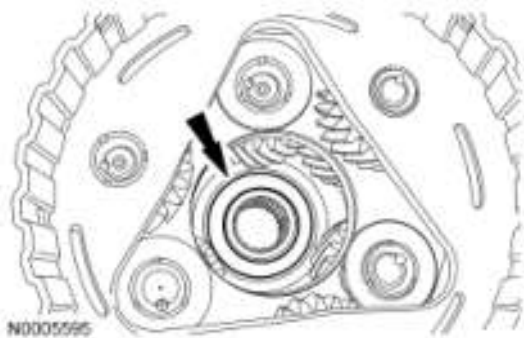


Fig. 190: Locating Roller Bearing Race
Courtesy of FORD MOTOR CO.

29. Remove the washer.

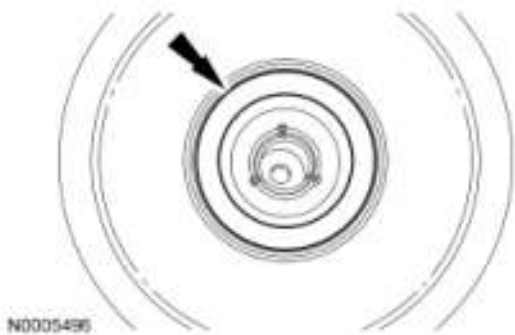


Fig. 191: Locating Washer
Courtesy of FORD MOTOR CO.

Rear wheel drive (RWD) vehicles

30. Remove the 4 bolts and the transmission support bracket.

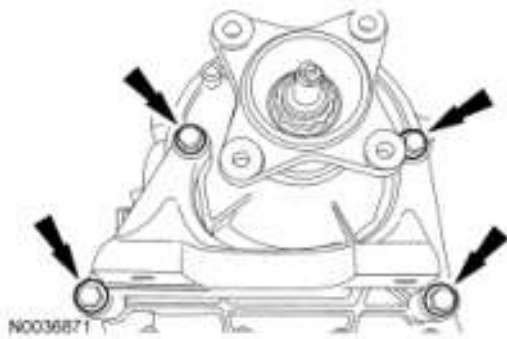


Fig. 192: Locating Transmission Mount Bracket Bolts
 Courtesy of FORD MOTOR CO.

NOTE: The output shaft flange nut has been staked to prevent it from coming loose. Prior to removing the nut, remove the stake to prevent damage to the output shaft.

31. Remove and discard the output shaft flange nut.

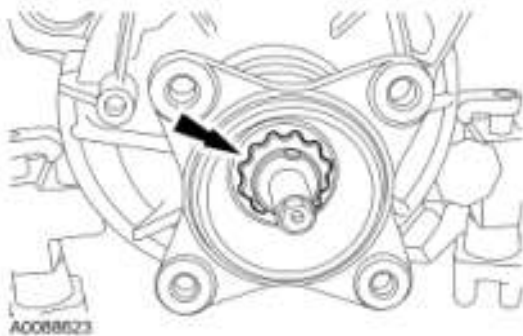


Fig. 193: Locating Output Shaft Flange Nut
 Courtesy of FORD MOTOR CO.

32. Remove the output shaft flange.

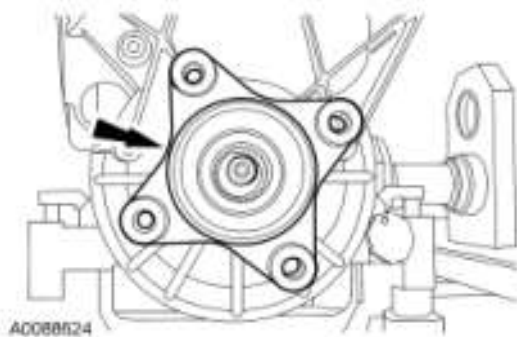


Fig. 194: Locating Output Shaft Flange
 Courtesy of FORD MOTOR CO.

33. Remove the planet carrier hub and output shaft assembly.

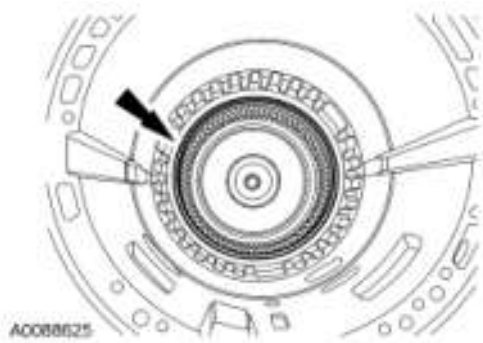


Fig. 195: Locating Planet Carrier Hub & Output Shaft Assembly
Courtesy of FORD MOTOR CO.

34. Remove the output shaft seal.

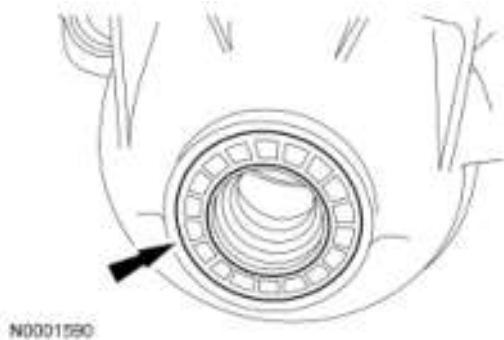


Fig. 196: Locating Output Shaft Seal
Courtesy of FORD MOTOR CO.

35. Remove the anti-click washer.

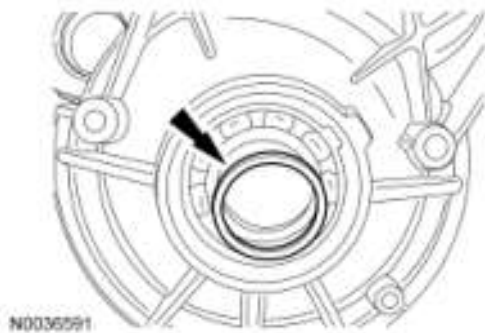


Fig. 197: Locating Anti-Click Washer
Courtesy of FORD MOTOR CO.

NOTE: Four wheel drive (4WD) case shown, RWD case similar.

36. Remove the snap ring from the case.

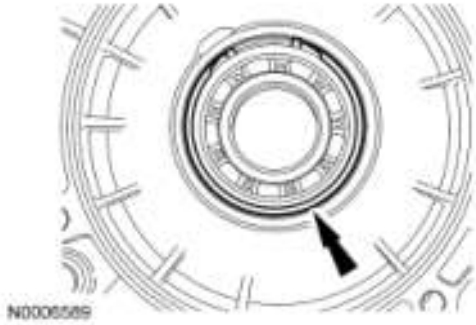


Fig. 198: Locating Snap Ring From Case
 Courtesy of FORD MOTOR CO.

NOTE: 4WD case shown, RWD case similar.

37. Using the special tools, remove the roller bearing.

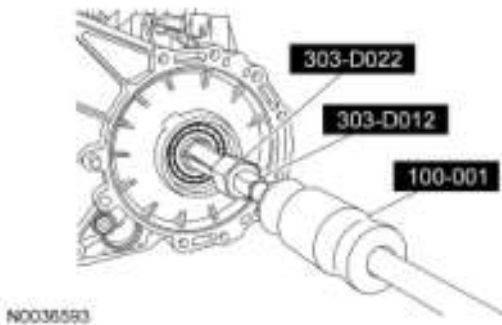


Fig. 199: Removing Roller Bearing Using Special Tools (100-001, 303-D012, 303-D022)
 Courtesy of FORD MOTOR CO.

38. Using a suitable tool, remove the inner bearing snap ring.

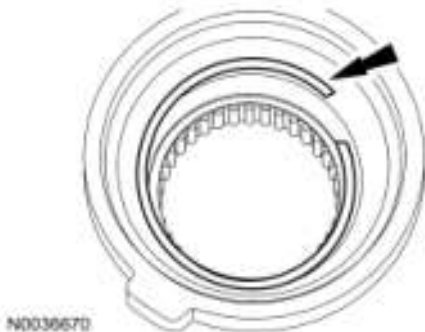


Fig. 200: Locating Inner Bearing Snap Ring
 Courtesy of FORD MOTOR CO.

CAUTION: Use care when installing the special tool. Look inside the transmission case to make sure that the tool contacts the bearing only and not the lip of the case, or damage to the case will occur.

39. Using the special tool, remove the bearing assembly.

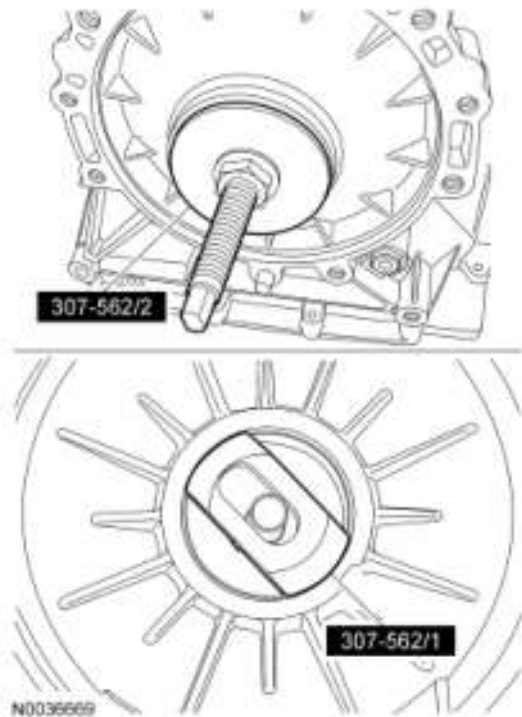


Fig. 201: Removing Bearing Assembly Using Special Tool (307-562/1, 307-562/2)
Courtesy of FORD MOTOR CO.

4WD vehicles

40. Remove the planet carrier hub and output shaft assembly.

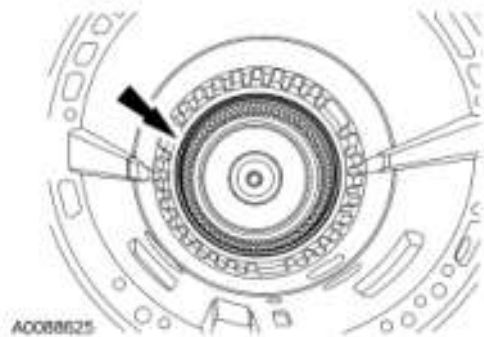


Fig. 202: Locating Planet Carrier Hub & Output Shaft Assembly
Courtesy of FORD MOTOR CO.

41. Remove and discard the output shaft seal.

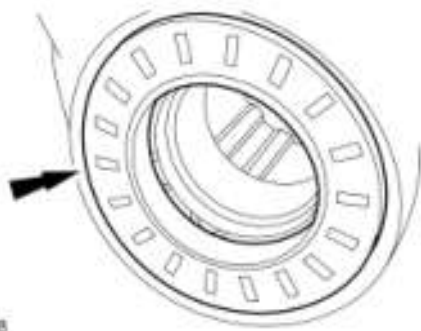


Fig. 203: Discarding Output Shaft Seal
Courtesy of FORD MOTOR CO.

42. Remove the snap ring from the case.

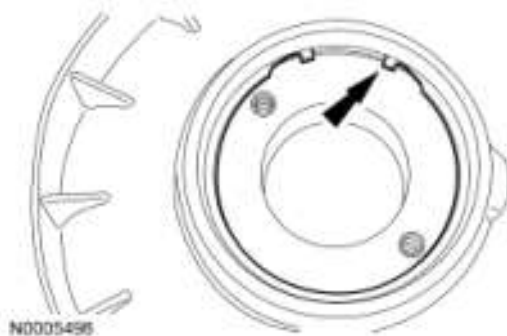


Fig. 204: Locating Snap Ring
Courtesy of FORD MOTOR CO.

43. Remove the bearing spacer.

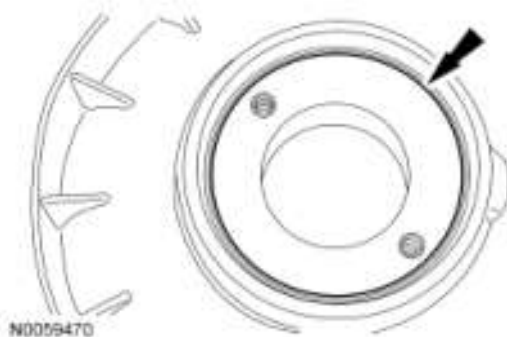


Fig. 205: Locating Bearing Spacer
Courtesy of FORD MOTOR CO.

44. Using a suitable tool, remove the inner bearing snap ring.

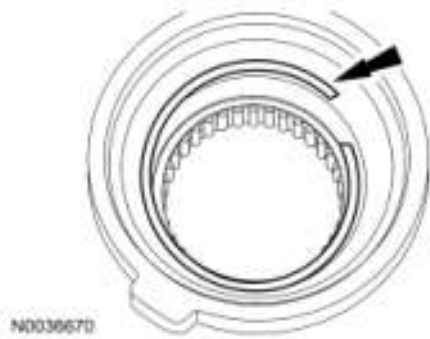


Fig. 206: Locating Inner Bearing Snap Ring
Courtesy of FORD MOTOR CO.

CAUTION: Use care when installing the special tool. Look inside the transmission case to make sure that the tool contacts the bearing only and not the lip of the case, or damage to the case will occur.

45. Using the special tool, remove the bearing assembly.

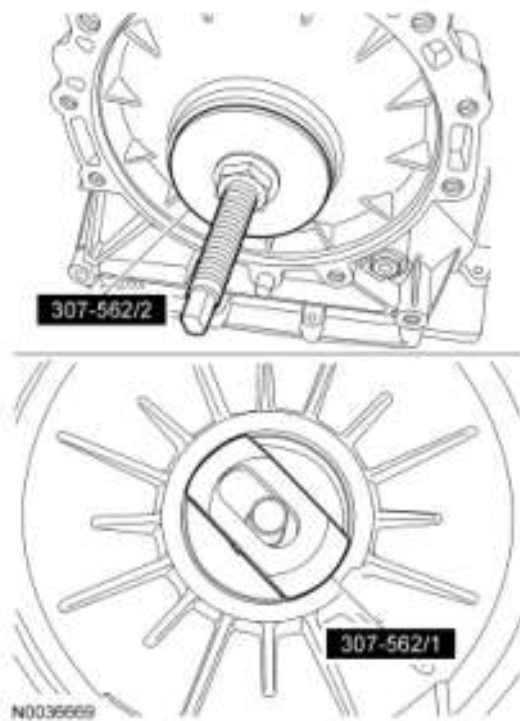


Fig. 207: Removing Bearing Assembly Using Special Tool (307-562/1, 307-562/2)
Courtesy of FORD MOTOR CO.

All vehicles

46. Remove the park pawl abutment.

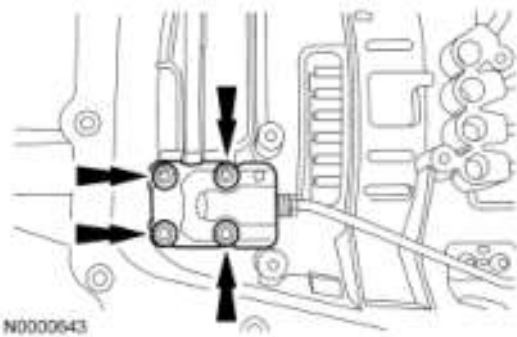


Fig. 208: Locating Park Pawl Abutment
Courtesy of FORD MOTOR CO.

47. Remove the manual control lever.
 1. Remove the roll pin.
 2. Slide the manual control lever shaft out of the case.
 3. Hold the spacer to keep from falling into the case.
 4. Remove the manual valve inner lever and the park rod as an assembly.

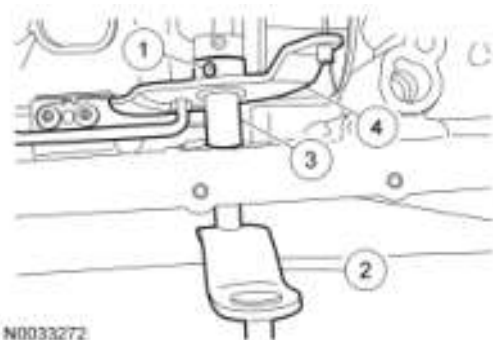


Fig. 209: Identifying Manual Control Lever Shaft & Roll Pin
Courtesy of FORD MOTOR CO.

48. Remove and discard the manual control lever seal.

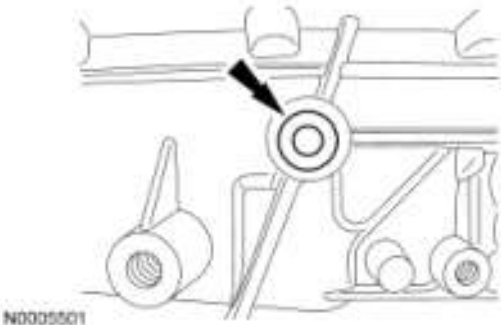
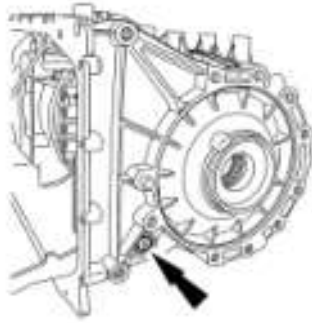


Fig. 210: Locating Manual Control Lever Seal
Courtesy of FORD MOTOR CO.

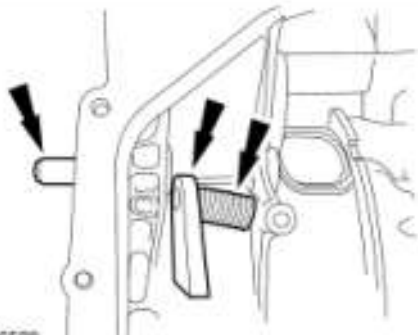
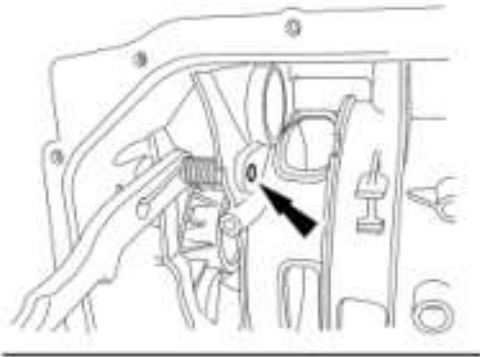
49. Remove the bolt from the back of the case to gain access to the park pawl pin.



N0005567

Fig. 211: Locating Park Pawl Pin Bolt
Courtesy of FORD MOTOR CO.

50. From the inside of the case, push the park pawl pin out toward the back side of the case while holding the spring and the park pawl. Remove the park pawl pin then remove the park pawl and spring.



N0005588

Fig. 212: Locating Park Pawl Pin, Park Pawl & Spring
Courtesy of FORD MOTOR CO.