

2010 Ford Truck Escape 4WD L4-2.5L

Vehicle > Engine, Cooling and Exhaust > Engine > Service and Repair > Removal and Replacement

ENGINE REMOVAL - AUTOMATIC TRANSAXLE

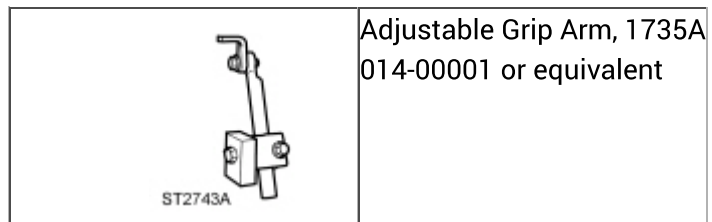
303-01A Engine – 2.5L
REMOVAL

2010 Escape, Mariner, Escape Hybrid, Mariner Hybrid

Engine – Automatic Transaxle

Special Tool(s)

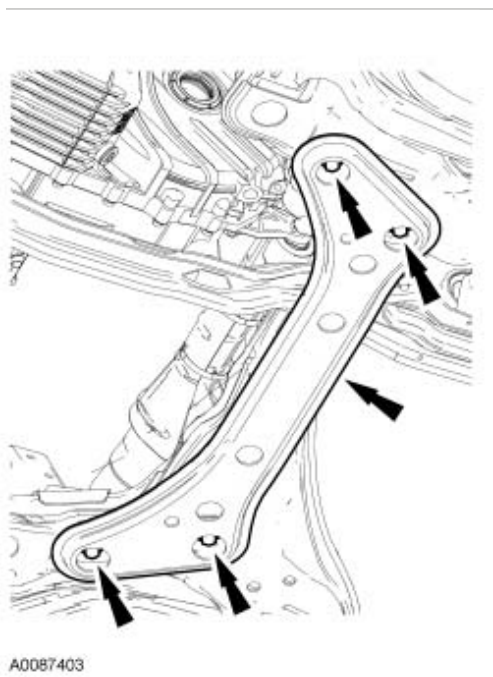
 <p>ST2870-A</p>	Disconnect Tool, Transmission Cooler Line 307-569
 <p>ST1341-A</p>	2,200# Floor Crane, Fold Away 300-OTC1819E or equivalent
 <p>ST1293-A</p>	Powertrain Lift 014-00765 or equivalent
 <p>ST2569-A</p>	Remover, Halfshaft Oil Seal 308-428
 <p>ST1605-A</p>	Slide Hammer 100-001 (T50T-100-A)
 <p>ST1602-A</p>	Spreader Bar 303-D089 (D93P-6001-A3) or equivalent



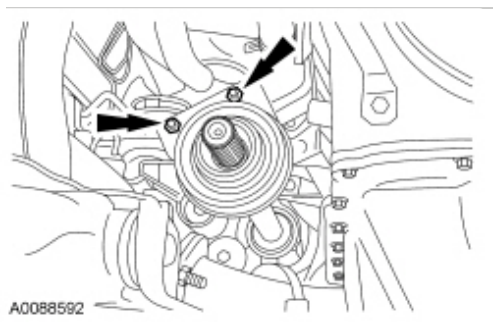
⚠ WARNING: Do not smoke, carry lighted tobacco or have an open flame of any type when working on or near any fuel-related component. Highly flammable mixtures are always present and may be ignited. Failure to follow these instructions may result in serious personal injury.

All vehicles

1. With the vehicle in NEUTRAL, position it on a hoist. For additional information, refer to Section 100-02 .
2. Release the fuel system pressure. For additional information, refer to Section 310-00 .
3. Remove the engine Air Cleaner (ACL) and ACL outlet pipe. For additional information, refer to Section 303-12A .
4. Remove the battery tray. For additional information, refer to Section 414-01 .
5. Drain the engine oil.
 - Install the drain plug.
 - To install, tighten to 28 Nm (21 lb-ft).
6. Remove the RH and LH halfshafts. For additional information, refer to Section 205-04 .
7. Drain the cooling system. For additional information, refer to Section 303-03A .
8. Remove the bolts and the lateral support crossmember.

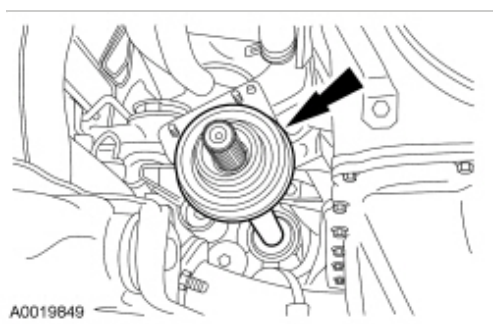


9. Remove the exhaust downpipe and exhaust intermediate pipe. For additional information, refer to Section 309-00 .
10. Remove the 2 intermediate shaft bearing retainer nuts.



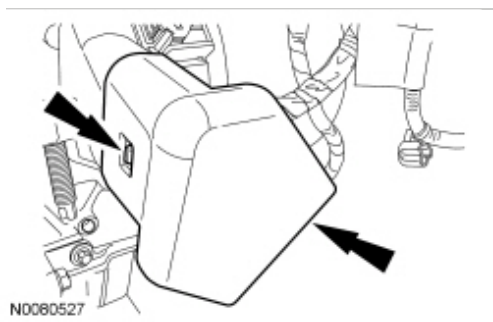
11. **NOTE:** *On All-Wheel Drive (AWD) vehicles, the Power Transfer Unit (PTU) seal must be replaced every time the intermediate shaft is removed.*

Remove the intermediate shaft.



12. Remove the accessory drive belt. For additional information, refer to Section 303-05A .

13. Press the locking tab to release the generator air duct and remove.

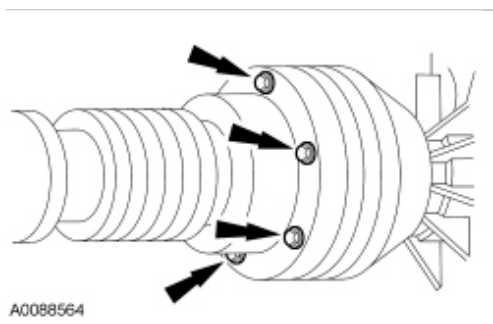


14. Remove the drain plug and drain the transmission fluid. For additional information, refer to Section 307-01A .

All-Wheel Drive (AWD) vehicles

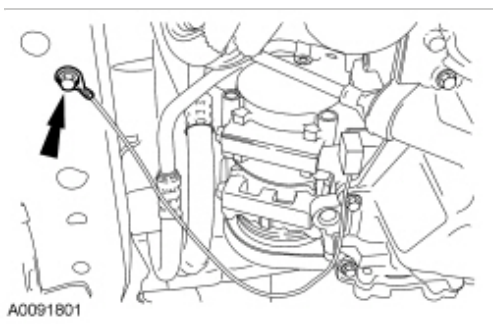
15. Drain the PTU . For additional information, refer to Section 308-07B .

16. Index-mark the driveshaft to the yoke and remove the 6 bolts holding the driveshaft to the PTU and position aside with mechanic's wire.

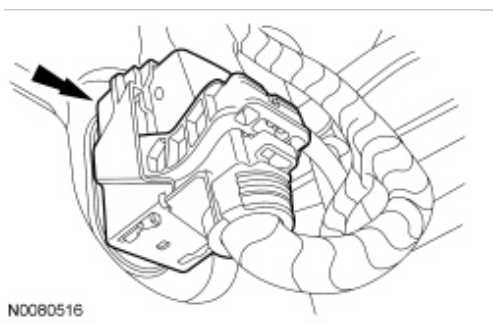


All vehicles

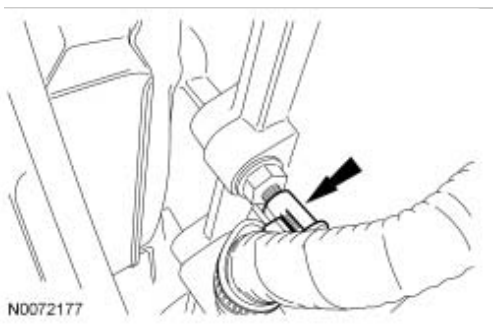
17. If equipped, remove the bolt and ground eyelet.



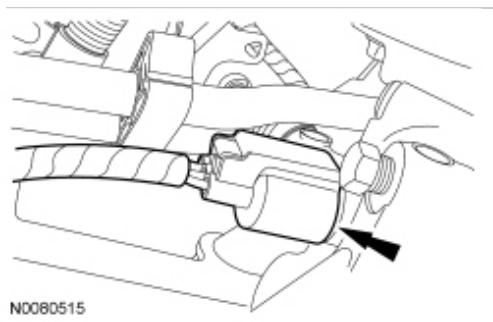
18. Disconnect the transaxle electrical connector.



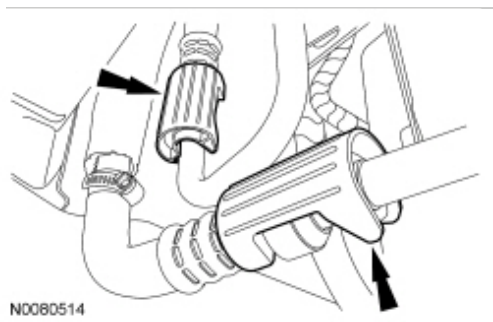
19. Detach the wiring harness retainer from the transaxle stud bolt.



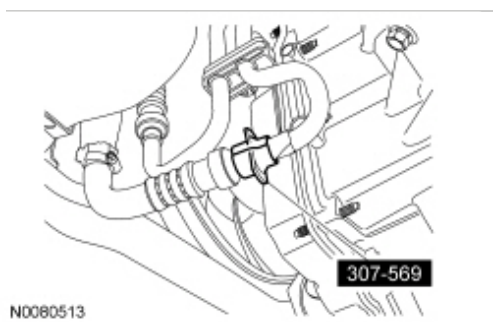
20. Disconnect the Turbine Shaft Speed (TSS) sensor electrical connector.



21. Remove the 2 secondary latches from the transaxle fluid cooler tubes.



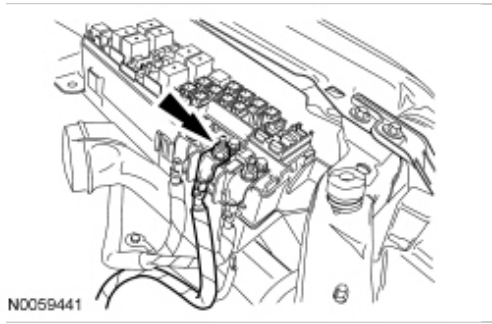
22. Using the Transmission Cooler Line Disconnect Tool, disconnect the 2 transaxle fluid cooler tubes (1 shown).



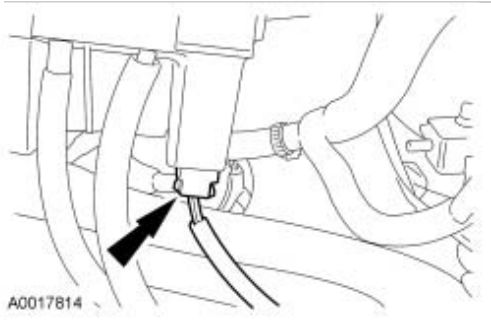
23. Remove the Power Distribution Box (PDB) cover.



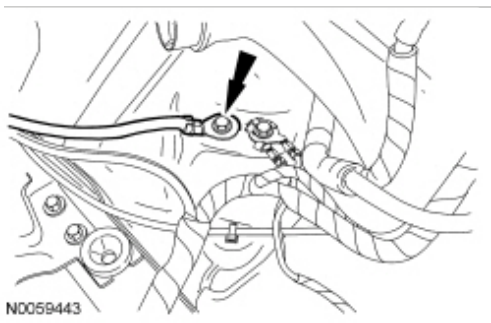
24. Remove the nut and disconnect the cable from the PDB .



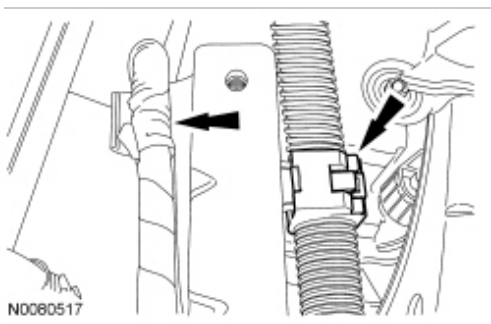
25. Disconnect the electrical connector from the PDB .



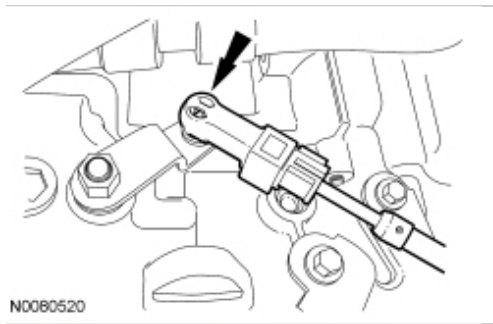
26. Remove the bolt and the ground strap.



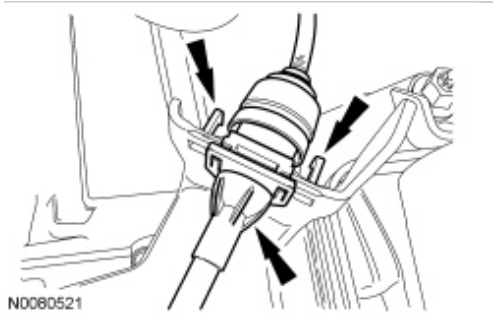
27. Detach the 2 wiring harness - retainers from the battery tray bracket and position the wiring harness aside.



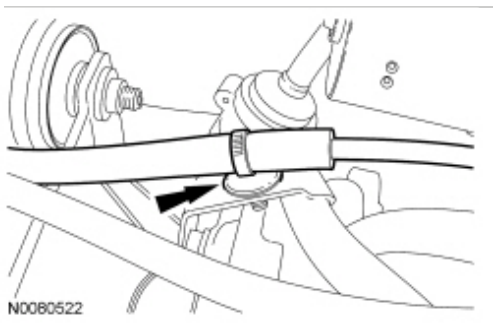
28. Disconnect the shift cable from the transaxle manual lever.



29. Pinch the 2 tabs and remove the transmission shift cable from the bracket.



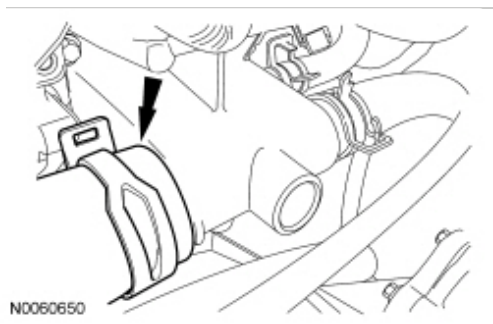
30. Detach the shift cable pin-type retainer and position the shift cable aside.



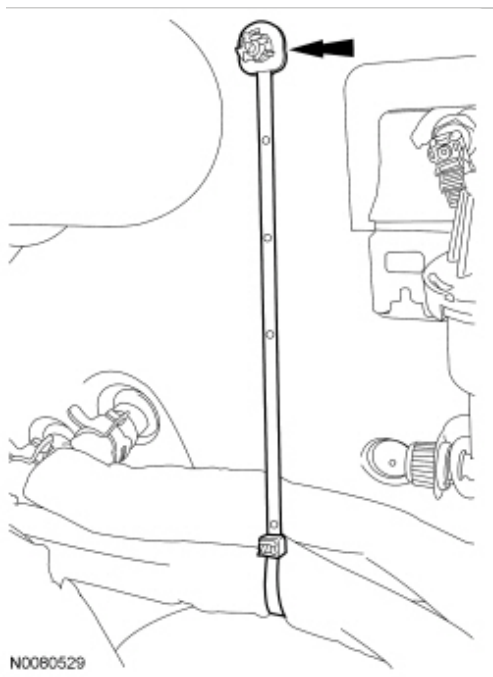
31. If equipped, disconnect the block heater electrical connector. Detach all the block heater wiring harness retainers and position the wiring harness aside.



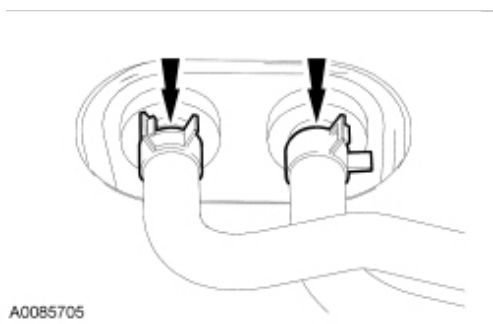
32. Disconnect the upper radiator hose.



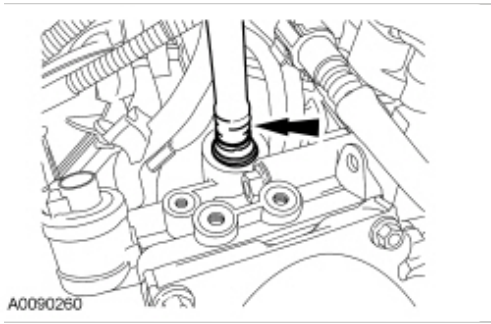
33. Detach the heater hose support strap from the stud.



34. Disconnect the heater hoses from the heater core.

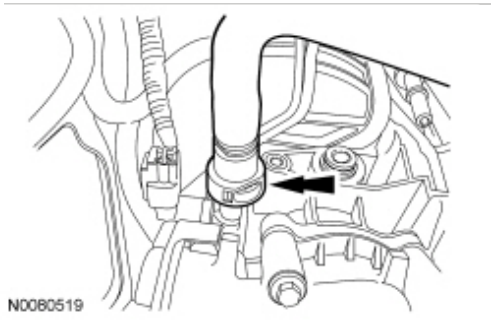


35. Disconnect the vacuum supply tube and position aside.

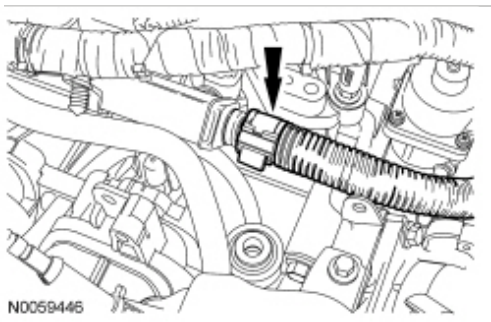


36. Disconnect the fuel vapor return tube.

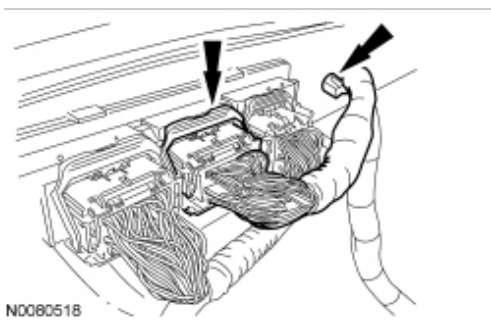
- Detach the fuel vapor tube retainer from the wire harness.



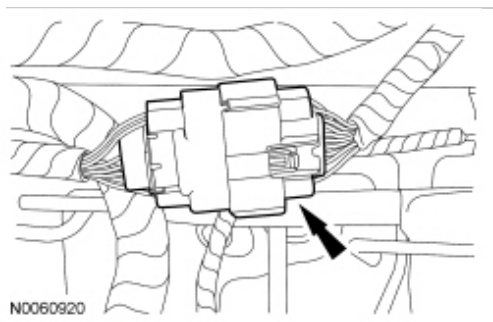
37. Disconnect the fuel supply tube quick connect coupling. For additional information, refer to Section 310-00 .



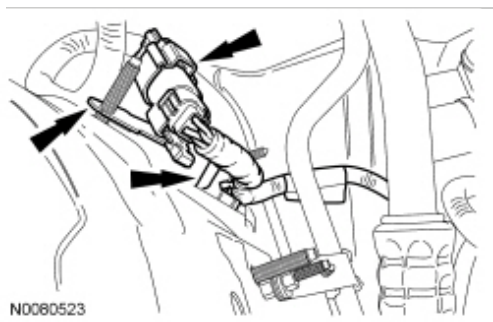
38. Disconnect the PCM electrical connector and the wire harness retainer.



39. Disconnect the engine control harness electrical connector.

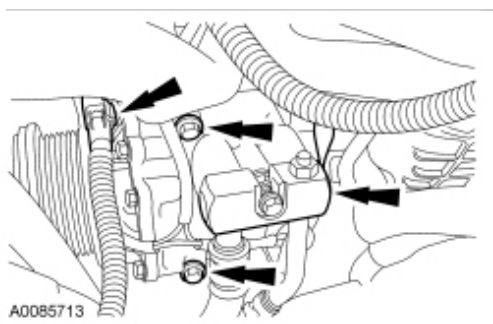


40. Disconnect the generator electrical connector and the 2 retainers.



41. Disconnect the A/C compressor electrical connector and remove the 3 bolts. Position the A/C compressor aside and support the compressor with a length of mechanic's wire.

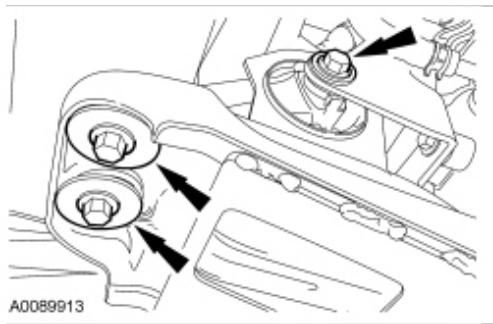
- Detach the wire harness retainer.



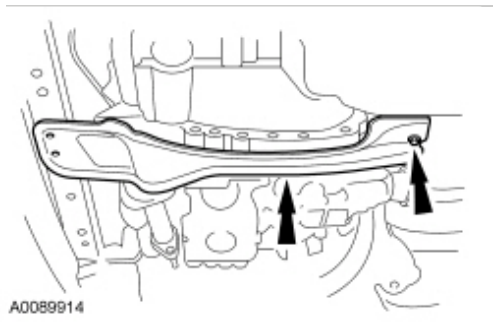
42. Disconnect the lower radiator hose from the radiator.



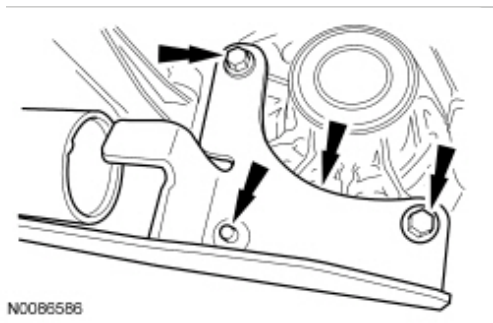
43. Remove the front roll restrictor bolt and the 2 bolts for the engine support crossmember.



44. Remove the rear nut and the engine support crossmember.
- Discard the nut.

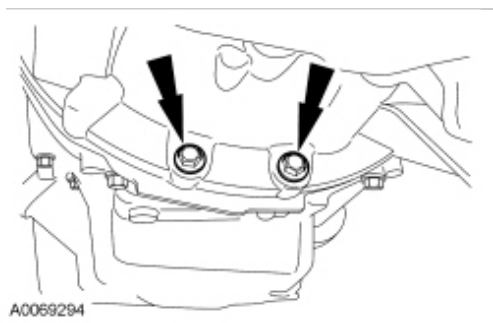


45. If equipped, remove the 3 bolts and the dampener.



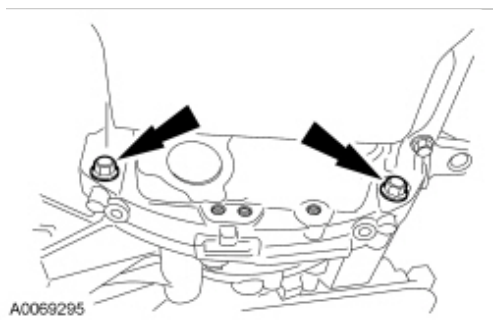
46. **NOTE:** *The transaxle-to-engine bolts differ in length. Mark the bolts for correct installation.*

Remove the 2 transaxle-to-engine bolts.



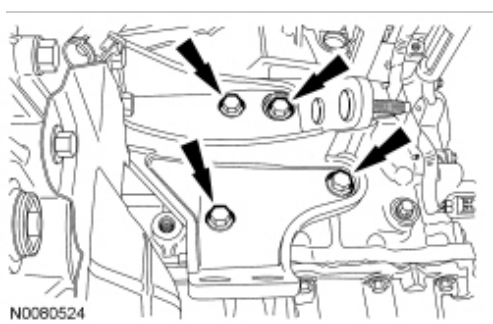
47. **NOTE:** *The transaxle-to-engine bolts differ in length. Mark the bolts for correct installation.*

Remove the 2 transaxle-to-engine bolts.

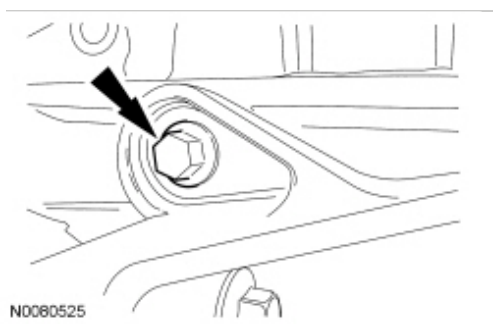


AWD vehicles

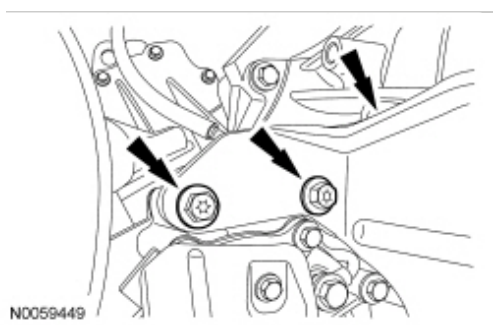
48. Remove the 4 PTU bracket-to-engine bolts.



49. Remove the PTU bracket-to-engine bolt.

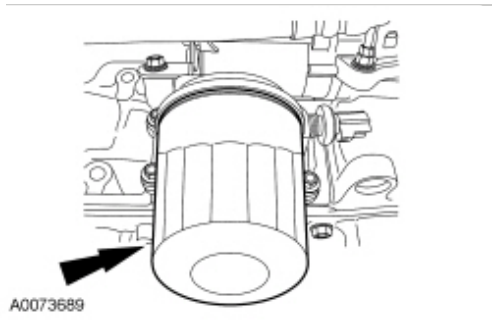


50. Remove the 2 PTU bracket-to-PTU bolts and remove the bracket.

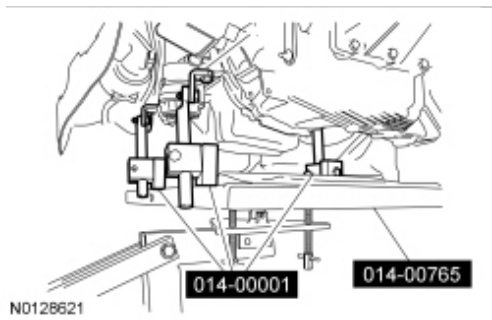


All vehicles

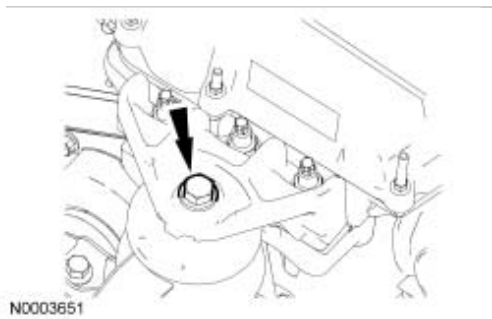
51. Remove the spin-on engine oil filter.



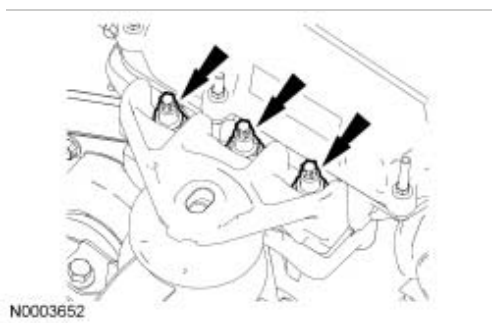
52. Using the Powertrain Lift and Adjustable Grip Arm, secure the engine to the lift table.



53. Remove the engine mount bracket bolt.

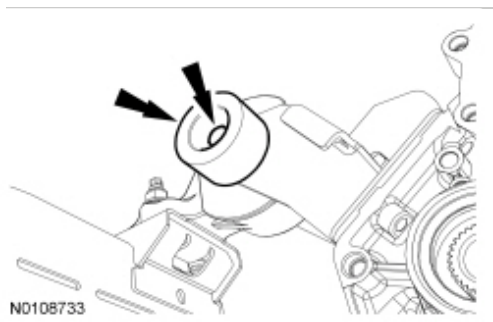


54. Remove the 3 nuts and the engine mount bracket.

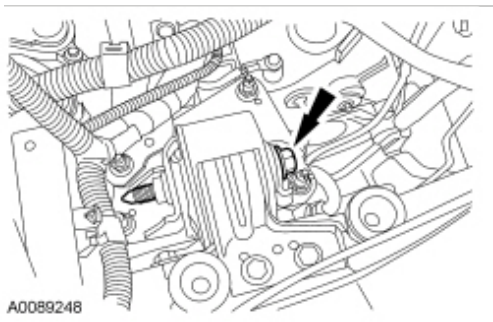


55. **NOTE:** Late build AWD vehicle equipped with a mass damper shown, other vehicles similar.

Remove the bolt from the transaxle rear mount and the mass damper (if equipped).



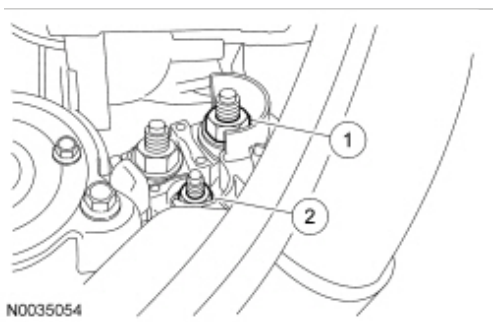
56. Remove the bolt from the LH transaxle mount.



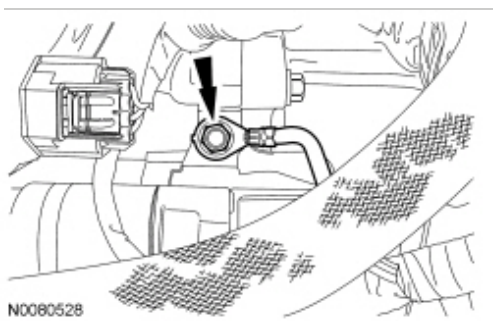
57. Lower the engine and transaxle from the vehicle.

58. Disconnect the starter terminals.

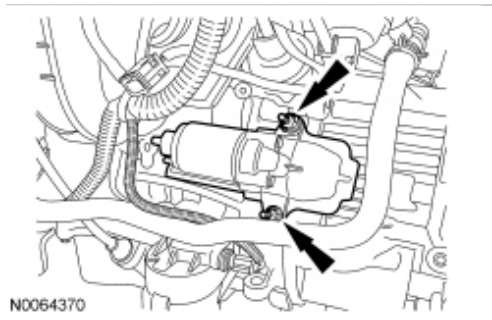
1. Remove the battery cable nut.
2. Remove the starter solenoid terminal nut.



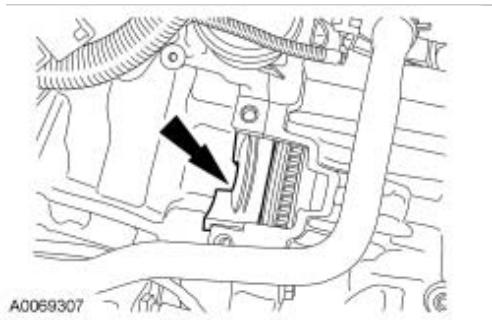
59. Remove the nut and the ground wire.



60. Remove the 2 stud bolts and remove the starter.



61. Remove the starter motor isolator.

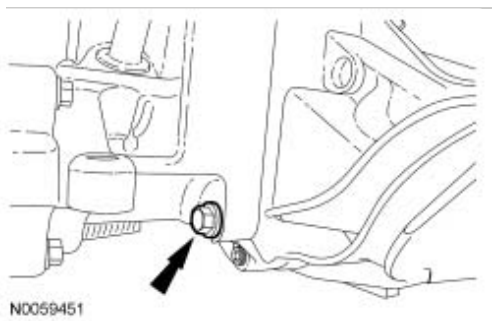


AWD vehicles

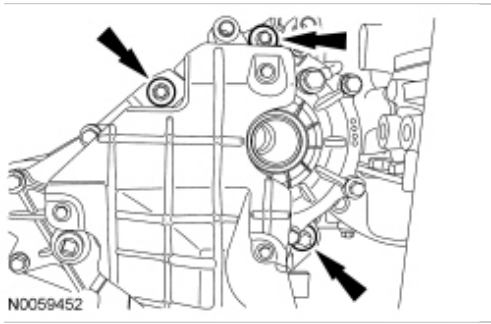
62. Detach the PTU vent hose retainer.



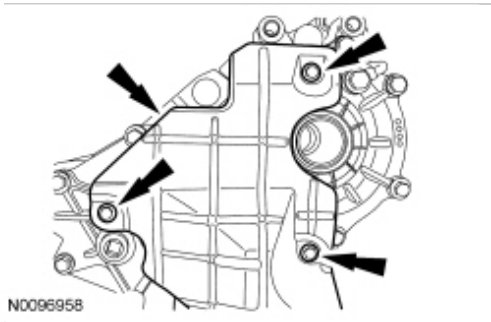
63. Remove the LH lower PTU bolt.



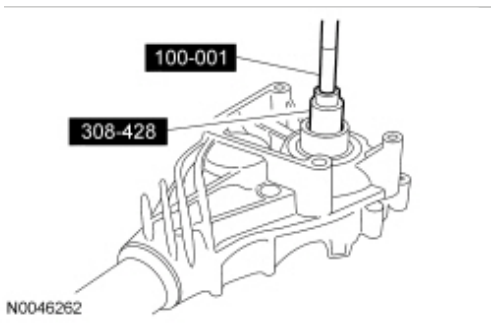
64. Remove the 3 RH PTU bolts and the PTU .



65. Remove the 3 bolts and the PTU heat shield.

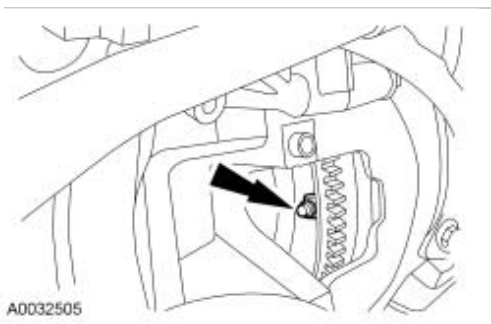


66. Using the Halfshaft Oil Seal Remover and Slide Hammer, remove the intermediate shaft seal.



All vehicles

67. Remove and discard the 4 torque converter nuts.



68. Using the Floor Crane and Spreader Bar, remove the engine and transaxle from the lift table.

69. **NOTE:** *The transaxle-to-engine bolts differ in length. Mark the bolts for correct installation.*

Remove the remaining 6 engine-to-transaxle bolts and separate the engine and transaxle.
