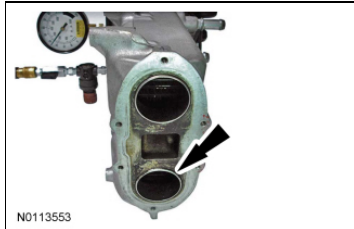
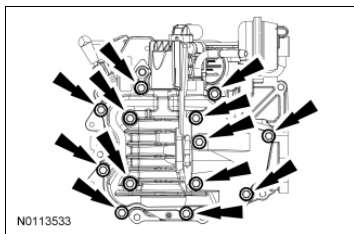


18. Using soap/water solution, test around the high temperature O-ring seal.



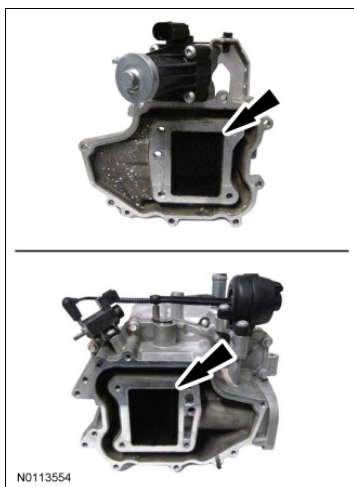
19. If the cooler is still losing pressure and no bubbles have been found in steps 14 through 18, remove the 13 bolts and the EGR valve from the bypass, keeping the bypass on the cooler.

- Discard the gasket and the 13 bolts.



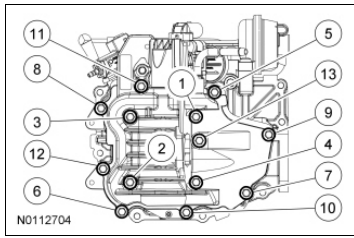
20. Inspect for coolant staining in the gas passages of the EGR valve and bypass. If visible signs of leaks are present, inspect sealing surfaces for imperfections.

- If the sealing surface is acceptable, reinstall the EGR valve with a new gasket and bolts and retest. Go to steps 19 through 21.
- If the sealing surface is unacceptable, replace the necessary parts. For additional information, refer to the disassembly and assembly of the Exhaust Gas Recirculation (EGR) Cooler - 6.7L Diesel in this section.
- If no visible signs of leakage are found go to step 24.

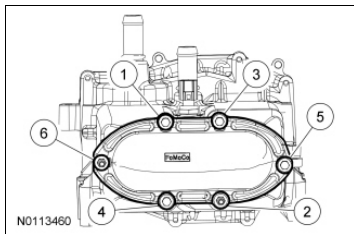


21. Using a new EGR valve gasket and the 13 new bolts, install the EGR valve and the bolts and tighten in 4 stages in the sequence shown:

- Stage 1: Tighten bolts 1 through 12 to 12 Nm (106 lb-in).
- Stage 2: Tighten bolts 1 through 12 to 16 Nm (142 lb-in).
- Stage 3: Tighten bolts 1 through 4 to 16 Nm (142 lb-in).
- Stage 4: Tighten bolt 13 to 12 Nm (106 lb-in), then an additional 90 degrees.

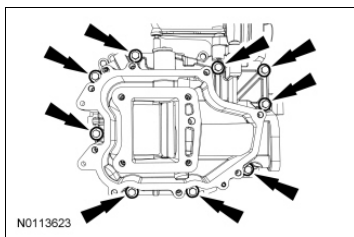


22. Using a new EGR cooler end tank gasket, install the EGR cooler end tank, 4 bolts and 2 stud bolts and tighten in 2 stages in the sequence shown:
- Stage 1: Tighten to 15 Nm (133 lb-in).
  - Stage 2: Tighten to 15 Nm (133 lb-in).

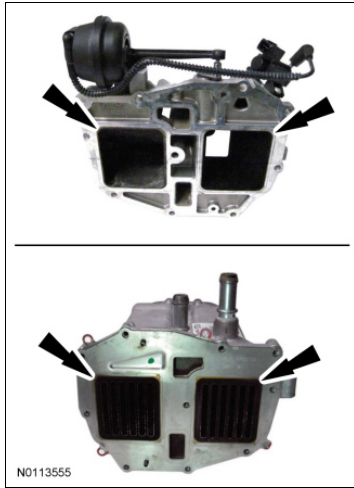


23. Adjust the air pressure until 248 kPa (36 psi) is reached, using soap/water solution, test the EGR valve-to-bypass gasket, all the way around the EGR valve.
- If the EGR cooler assembly passes, return to service.
  - If the EGR cooler assembly fails, go to step 24.

24. If no visible signs of leakage are found, remove the 9 bolts and the bypass from the cooler.



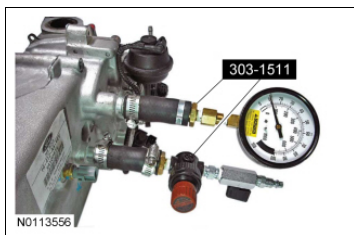
25. Inspect for coolant staining in the bypass and cooler core. Inspect sealing surfaces for imperfections, porosity or scratches.
- If visible signs of leakage are present replace all gaskets, O-ring seals and bypass as necessary. For additional information, refer to the disassembly and assembly of the Exhaust Gas Recirculation (EGR) Cooler - 6.7L Diesel in this section.
  - If no visible signs of leakage are found go to step 26.



26. If no staining is found replace the EGR cooler core and all gaskets and O-rings seals. For additional information, refer to the disassembly and assembly of the Exhaust Gas Recirculation (EGR) Cooler - 6.7L Diesel in this section.

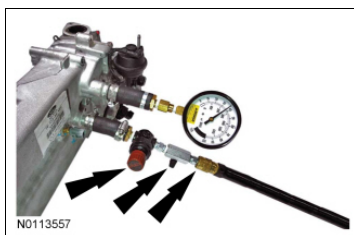
27. **NOTE:** Remove the EGR Cooler Tester from the high temperature side of the EGR cooler.

Install the EGR Cooler Tester on the low temperature side of the EGR cooler assembly.



28. **NOTICE:** Do not exceed 414 kPa (60 psi) at any time, excessive pressure can damage the EGR cooler assembly.

Connect a regulated air supply to the low temperature side and slowly adjust the air pressure until 248 kPa (36 psi) is reached, then shut off the air supply.



29. Observe the pressure gauge, there should be no more than 13.8 kPa (2 psi) drop over a 5 minute period.

- If pressure loss is greater than 13.8 kPa (2 psi) go to step 30.
- If pressure loss is less than 13.8 kPa (2 psi) go to step 36.