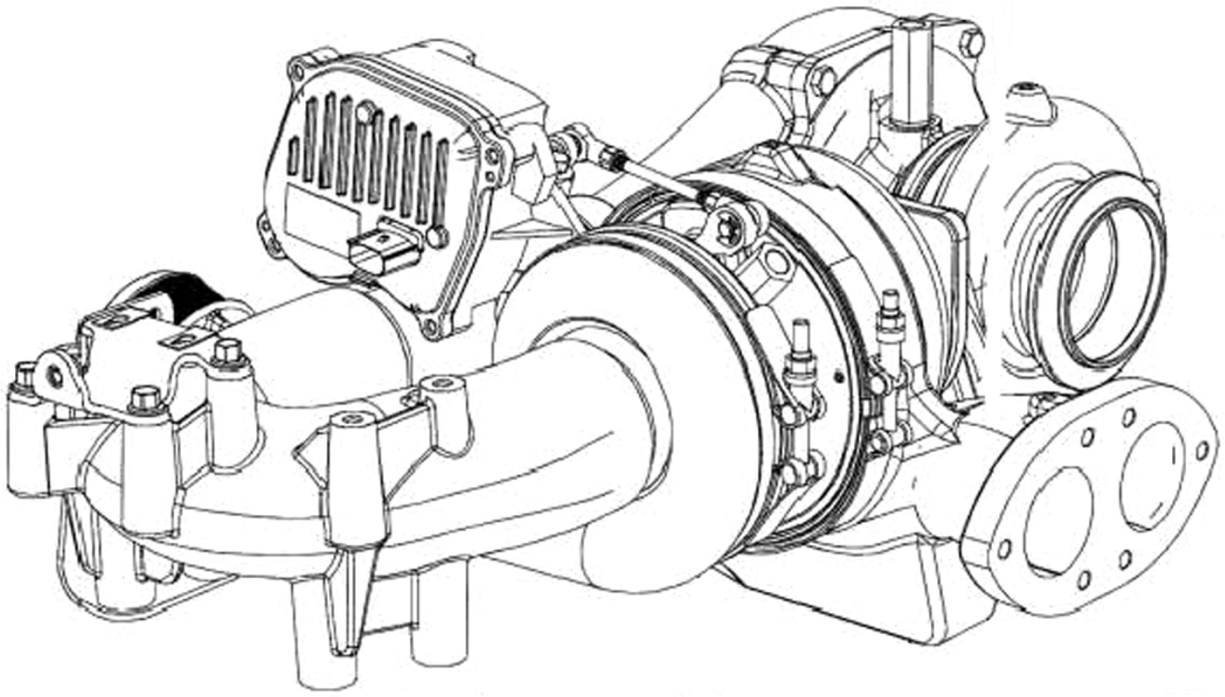
DOWNLOAD COLOUR INSTALL MANUALS AT www.bddiesel.com



BD Diesel Screamer Turbos

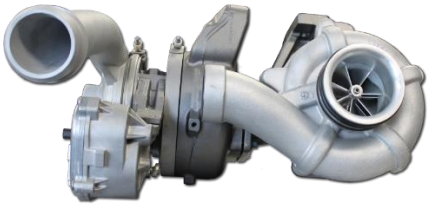
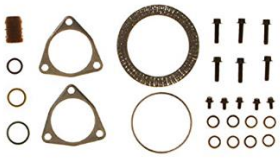
Performance Turbocharger for 2008-2010 6.4L Ford

1047080	**6.4 Screamer C/W AFE 51-81262 Intake***
1047081	**6.4 Screamer (Requires AFE 51-81262)***
1047082	**6.4 Screamer C/W AFE 53-10016D Intake**
1047083	**6.4 Screamer (Requires AFE 53-10016D)**

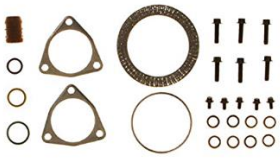
*AFE 51-81262 intakes are now discontinued. Suggest using 1047082/1047083

PLEASE READ ALL INSTRUCTIONS BEFORE INSTALLATION

1047080 – Kit Contents	
1047081	**54-81262**
	
Turbo 6.4L Screamer V1 w/ Gaskets	*Cold air Intake Kit*
Qty: 1	**Qty: 1**

1047081 – Kit Contents ***(intake kit required, OEM intake not compatible)***		
1407159/60	**GS33566 / 8C3Z9T514C**	**B32256**
		
Turbo 6.4L Screamer V1	*Gasket Kit*	*Gasket*
Qty: 1	**Qty: 1**	**Qty: 2**

1047082 – Kit Contents	
1047083	**AFE53-10016D**
	
Turbo 6.4L Screamer V2 w/ Gaskets	*Cold air Intake Kit*
Qty: 1	**Qty: 1**

1047083 – Kit Contents ***(intake kit required, OEM intake not compatible)***		
	GS33566 / 8C3Z9T514C	**B32256**
		
Turbo 6.4L Screamer V2	*Gasket Kit*	*Gasket*
Qty: 1	**Qty: 1**	**Qty: 2**

1047083 – Kit Contents continued		
1405858	**FT-0427642**	**FT-0427640**
		
Silicone Boot 4”x3.35”	*Hose Clamp*	*Hose Clamp*
Qty: 1	**Qty: 1**	**Qty: 1**

Pre-Installation Notes

This turbocharger works best for a 6.4L operating up to 3500RPM. Fueling should be for 500 H.P. & less to keep exhaust temp within operating temperatures of 1200-1400°F.

Installation should occur on a cold vehicle, as turbo and exhaust components become very hot with use.

Note: It is recommended that this component be serviced with the body removed. If the body can be removed, refer to the Turbocharger – Body off section in this manual.

Pre-Installation Procedures

When replacing a turbocharger BD recommends the following precautions are taken:

- Replace or clean the air filter.
- Change the engine oil and filter.
- Inspect Intake and CAC passages for debris, and clean if necessary.

In the case of a previous failure also include the following steps:

- Inspect CAC for debris and cleanout if necessary.
- Inspect engine oil for debris. Flush system if debris was present.

Ensuring that these steps are followed will prolong the life of your new turbocharger.

Replacement Filter Part Numbers

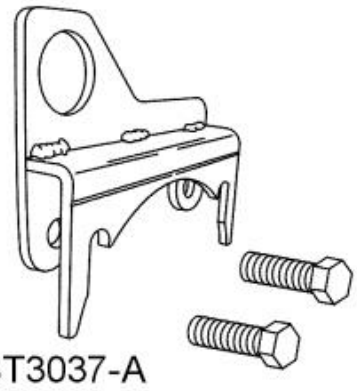
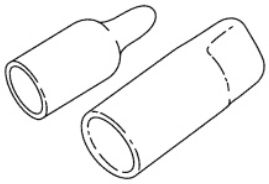
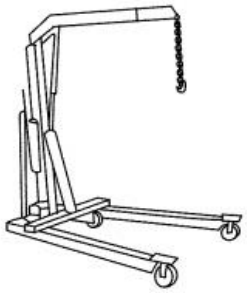
AFE 51-81262 intake replacement filter part number is AFE 24-90015

AFE 53-10016D intake replacement filter part number is AFE 23-91129

Material

Item	Specification
Motorcraft® SAE 15W-40 Super Duty Diesel Motor Oil (US); Motorcraft® SAE 15W-40 Super Duty Diesel Motor Oil (Canada); XO-15W40-QSD (US); CXO-15W40-LSD12 (Canada)	WSS-M2C171-E

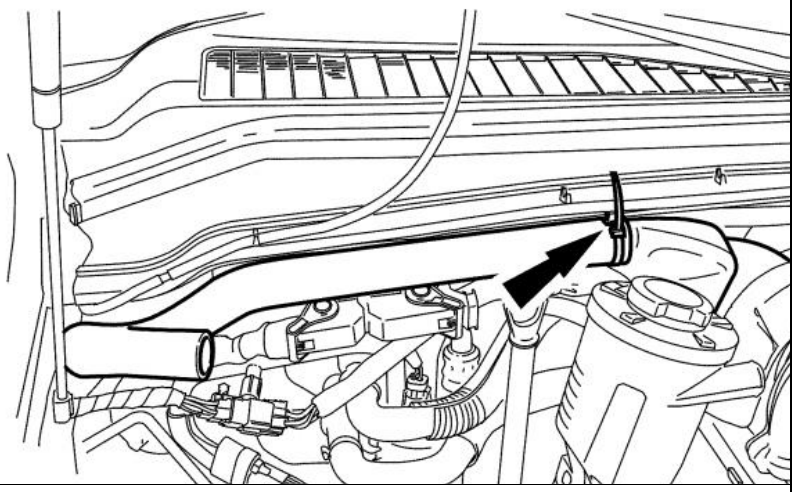
Special Tool(s)

 ST3037-A	Bracket, turbocharger lifting 303-1266 Or equivalent.
 ST3023A	Caps, Fuel System 310-158 Or equivalent.
 ST1341-A	Heavy Duty Floor Crane 014-00072 or equivalent
• Suction gun for fuel filter. • Fuel line disconnect tool. • 3/8” Drive torque wrench.	• 10mm/12mm Half moon wrench. • 12mm Allen wrench.

Removal – Body On/Off

Block wheels to ensure vehicle does not roll during installation. Record radio settings and disconnect the negative terminals on both batteries. Drain coolant from vehicle ***CAUTION*** coolant may be hot, use of protective gear is recommended.

1. With the vehicle in NEUTRAL, position vehicle on a hoist. Remove degas bottle, air box and intake tube.



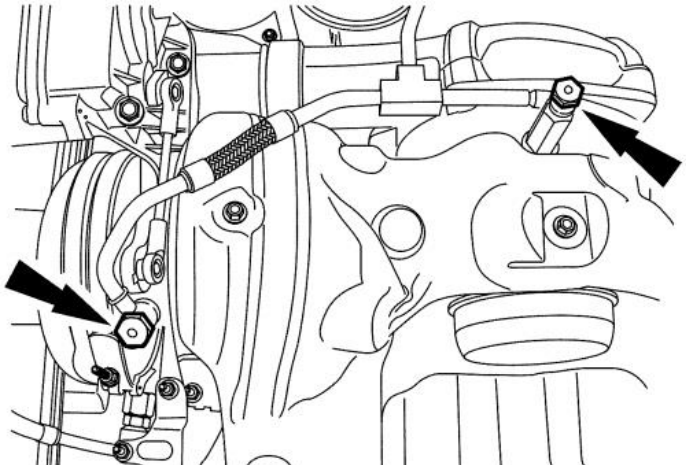
2. Remove air cleaner (ACL) assembly and ACL outlet pipe. Remove the auxiliary air intake hose.

NOTICE: Do not lean on, pull on or use the turbocharger oil supply tube as a handle or damage to the turbocharger oil supply tube may occur.

NOTE: Use a secondary wrench to prevent the fittings from turning.

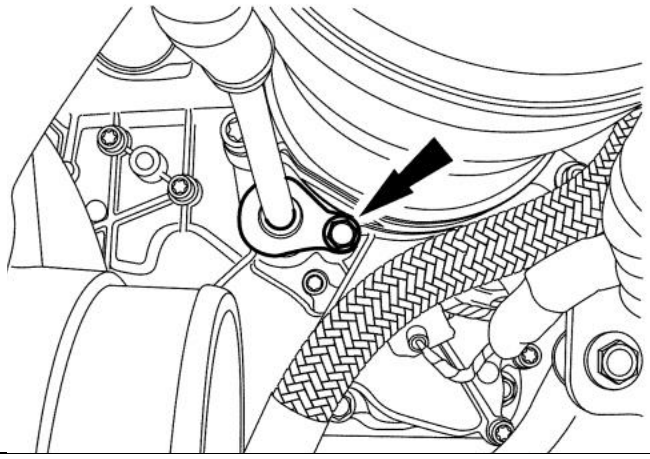
3. Remove the 2 turbocharger oil supply tube banjo bolts and sealing washers.

- Discard the sealing washers.



4. Remove the bolt and the turbocharger oil supply tube.

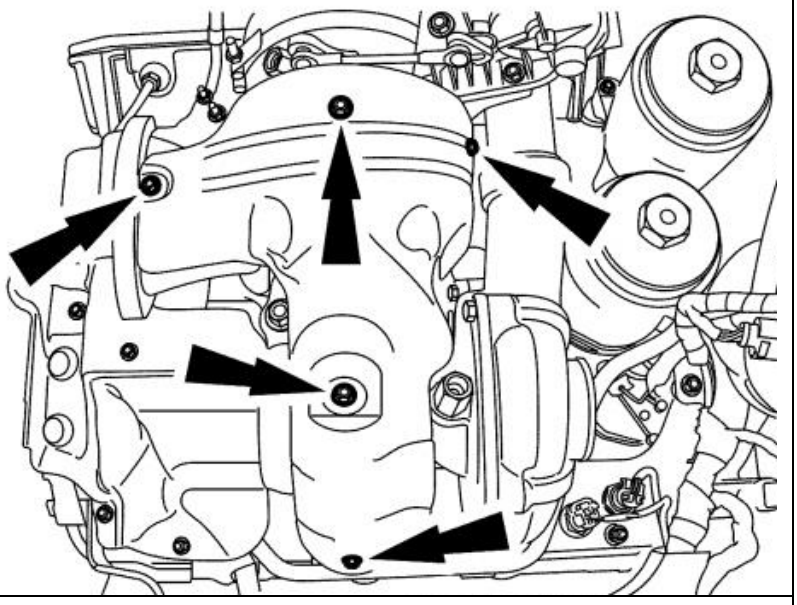
- Remove and discard the o-ring seal
- Plug or cap the openings as needed.



5. Remove the 5 bolts and the turbocharger heat shield.

NOTE: Roll the heat shield towards the cowl, then lift up in the front and remove forward.

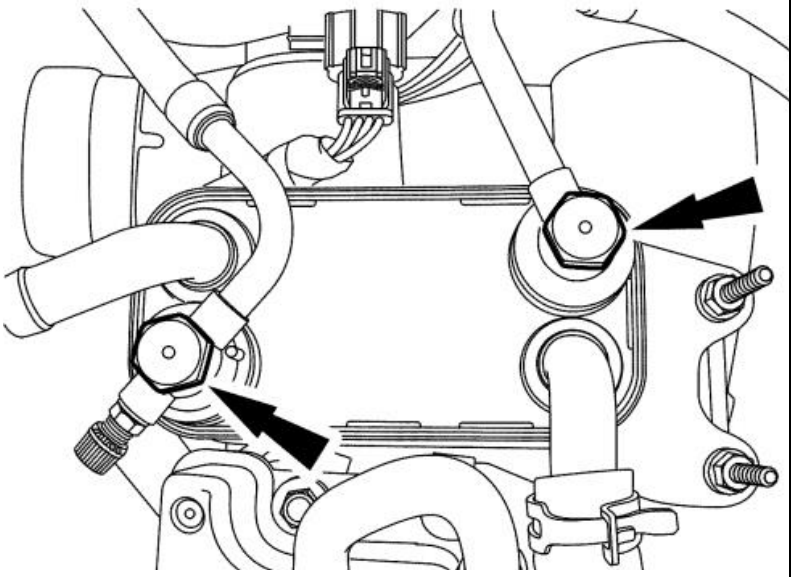
IF BODY IS REMOVED SKIP TO STEP #32



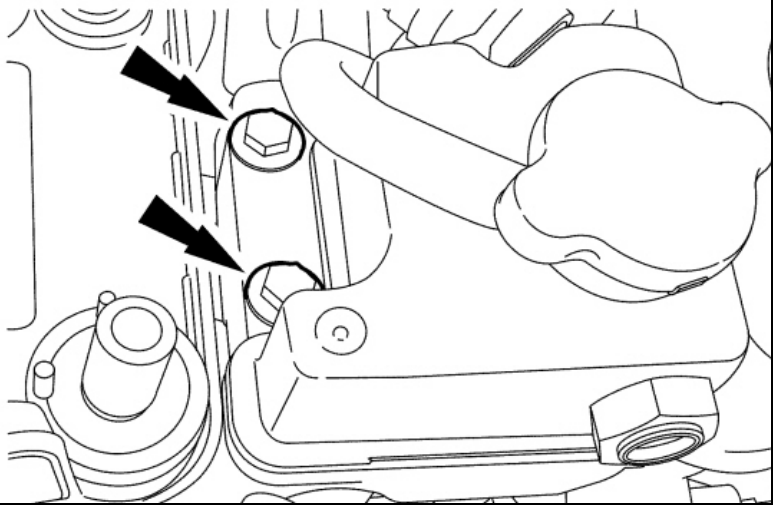
NOTICE: Fuel injection equipment is manufactured to very precise tolerances and fine clearances. To prevent fuel system damage, it is essential that absolute cleanliness is observed when working with these components. Always install fuel system caps to any open orifices or tubes.

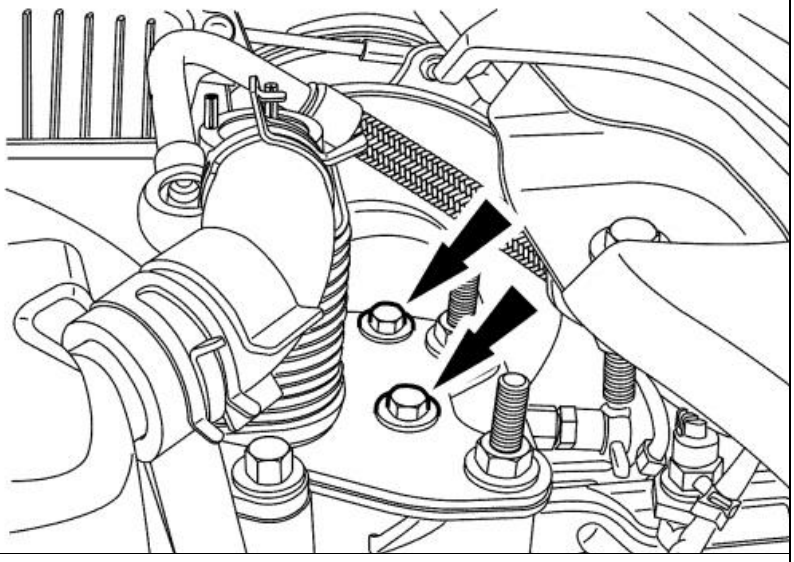
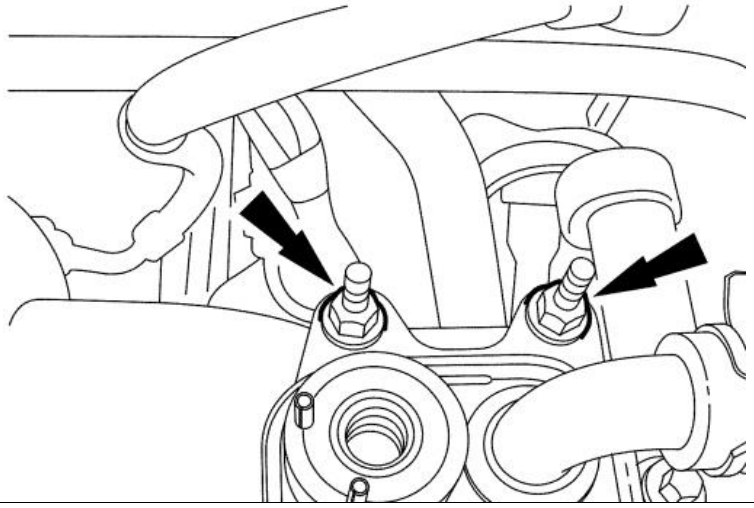
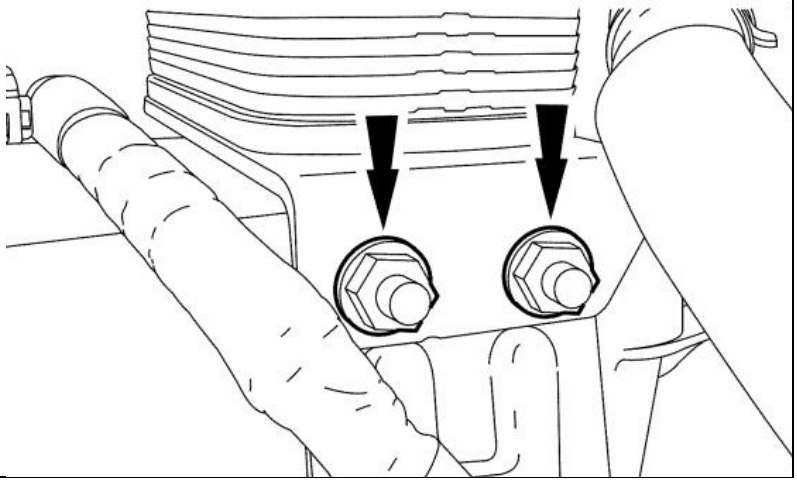
6. Remove the 2 banjo bolts and the sealing washers at the fuel cooler.

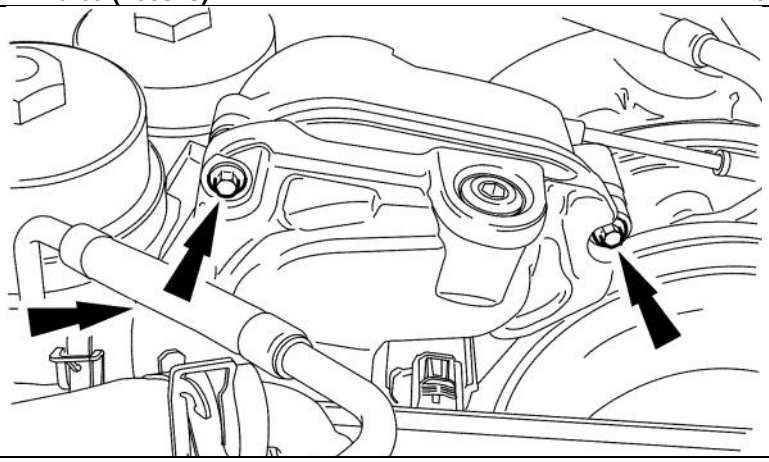
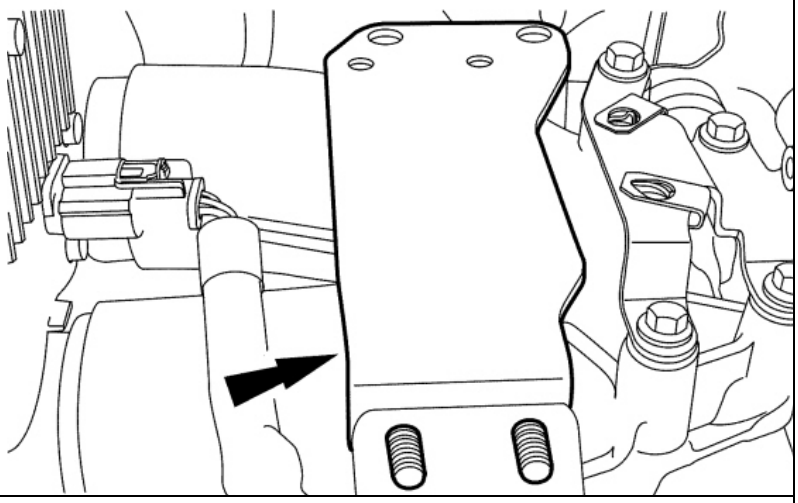
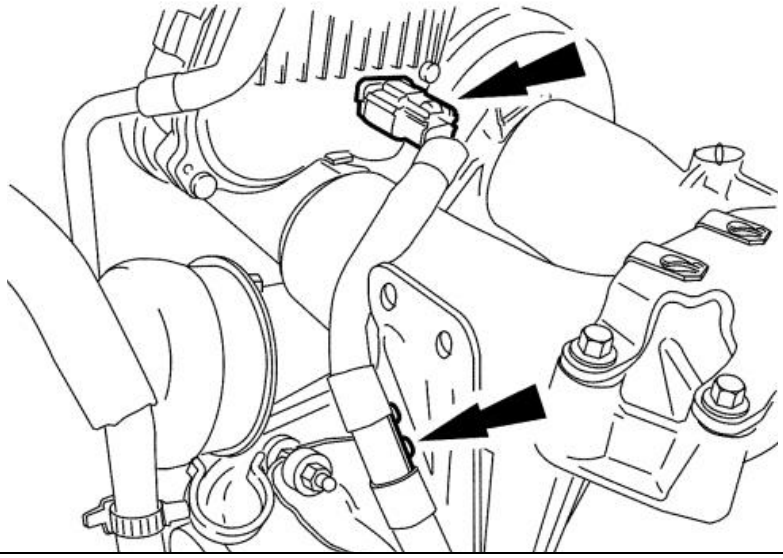
- Discard the sealing washers.



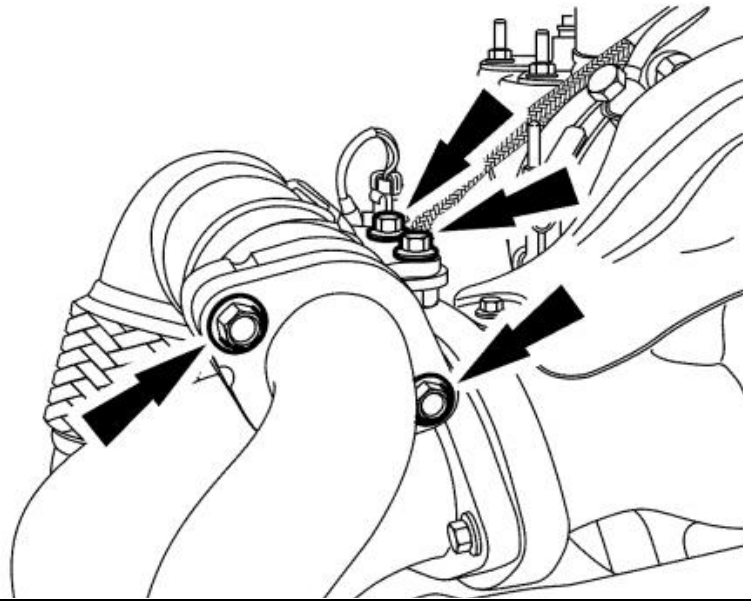
7. Remove the 3 bolts for the fuel cooling system expansion tank.



8. Remove the 2 bolts for the fuel cooler.	
9. Remove the 2 stud bolts for the fuel cooler.	
10. Remove the 2 nuts for the fuel cooler.	

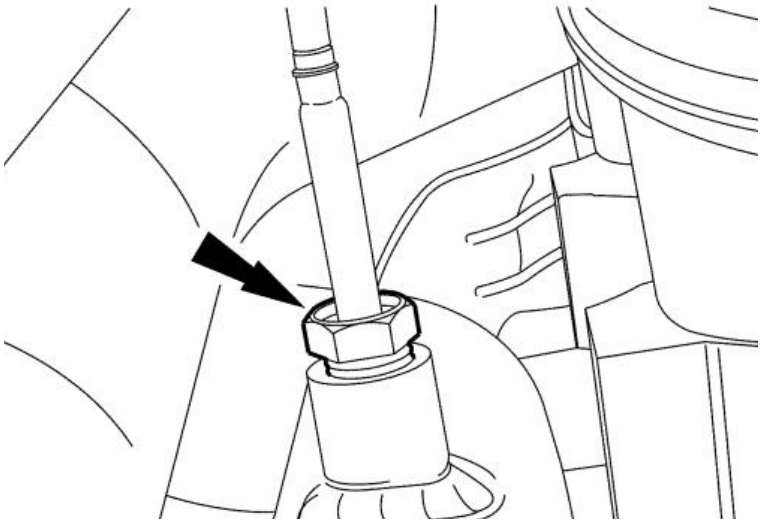
11. Remove the 3 bolts for the turbocharger actuator cooler. Position the fuel cooler, fuel cooling system expansion tank and turbocharger actuator cooler aside.	
12. Remove the fuel cooler bracket.	
13. Disconnect the turbocharger actuator electrical connector and pin-type retainer.	

14. Remove the 2 RH turbocharger inlet pipe-to-EGR-oxidation Catalytic converter (OC) pipe bolts and the 2 EGR-OC-to-turbocharger



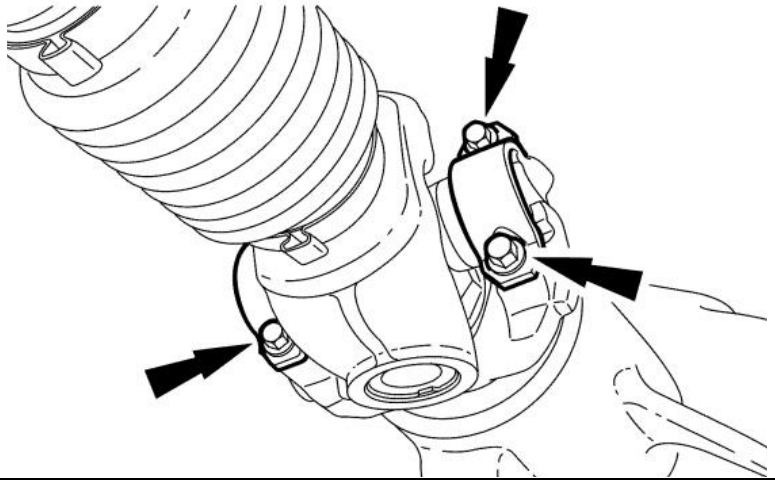
15. Remove the RH splash shield.

16. Remove the exhaust gas recirculation temperature (EGRT) sensor from the RH turbocharger inlet pipe.

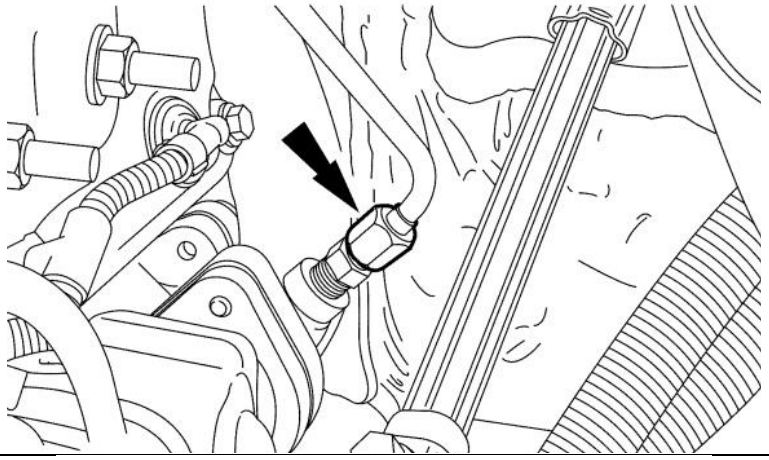


NOTE: Index-mark the drive shaft prior to disconnecting from the axle.

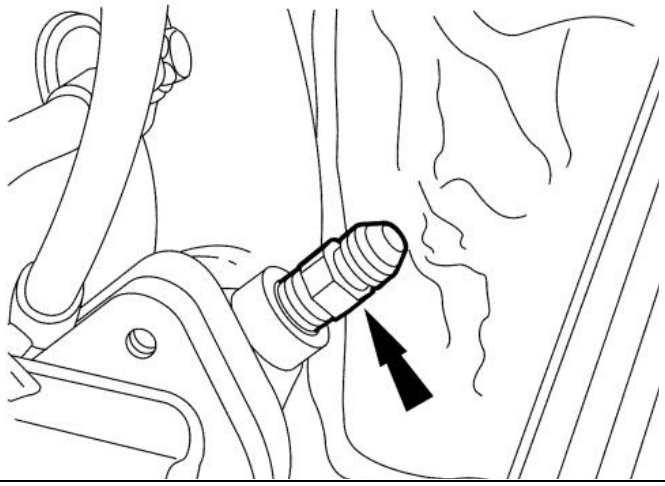
17. If equipped, remove the 4 bolts, 2 straps and position aside the front drive shaft.



18. Disconnect the exhaust pressure (EP) sensor tube from the EGR-OC pipe.

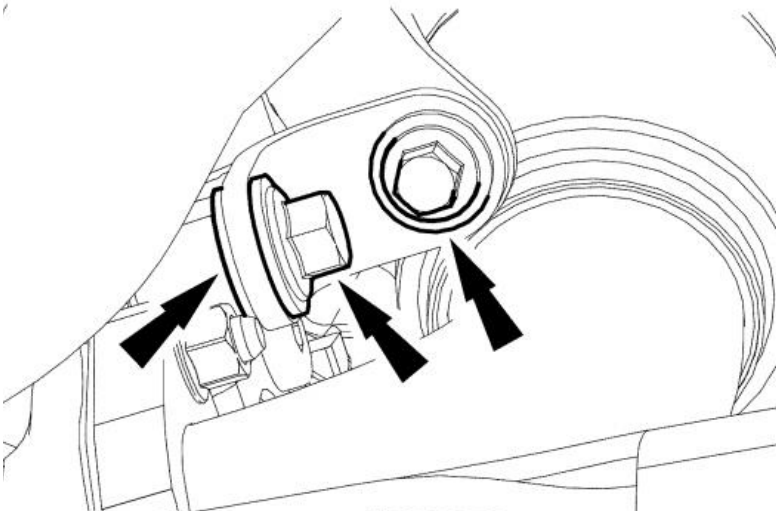


19. Remove the EP sensor tube fitting from the EGR-OC pipe.



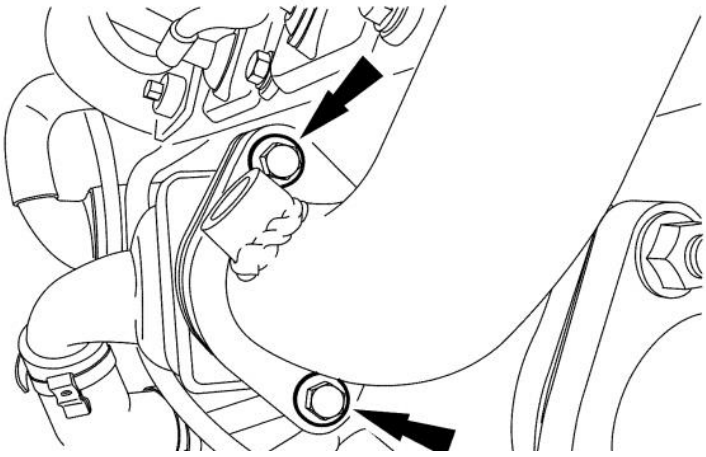
20. Remove the EGR-OC pipe bracket-to-bracket bolt and washer. Remove the cylinder head bracket-to-cylinder head bolt, washers and the bracket.

    - Discard the bolts

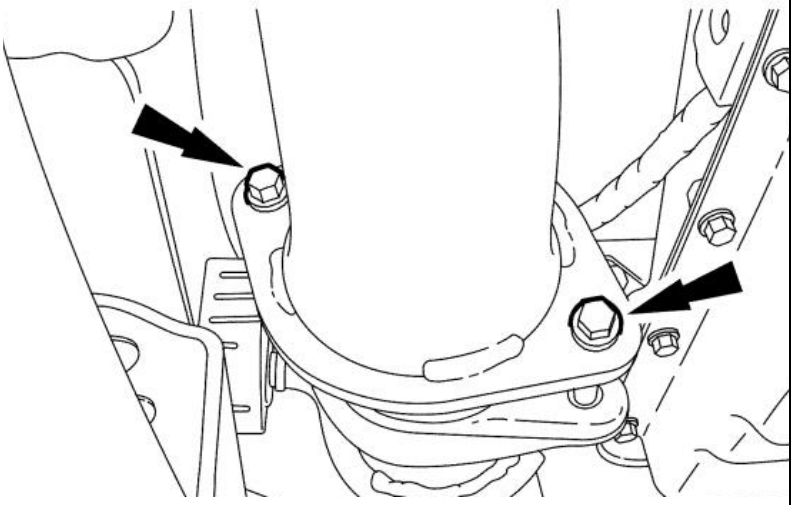


21. Remove the 2 EGR-OC-to-EGR cooler bolts.

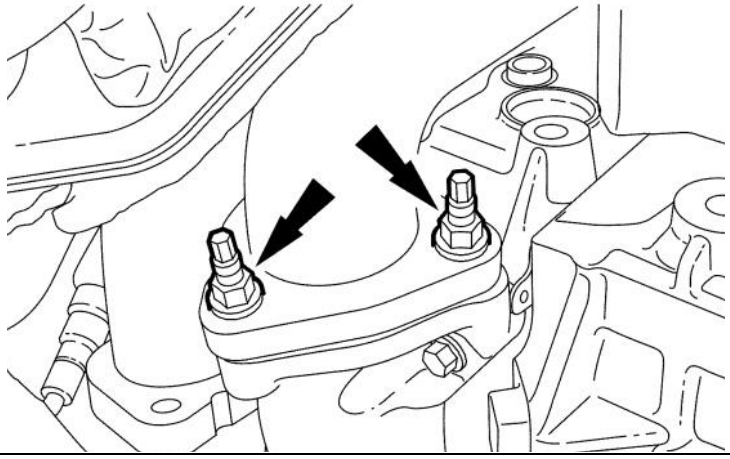
    - Discard the bolts and gasket.



22. Loosen the 2 exhaust downpipe-to-OC pipe bolts.

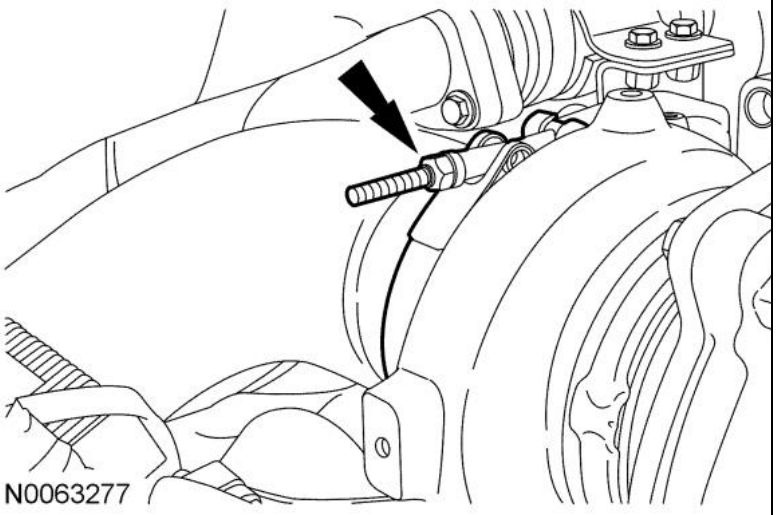


23. *NOTE:* LH Shown, RH Similar. Remove and discard the 6LH and RH turbocharger inlet pipes-to-exhaust manifold nuts.



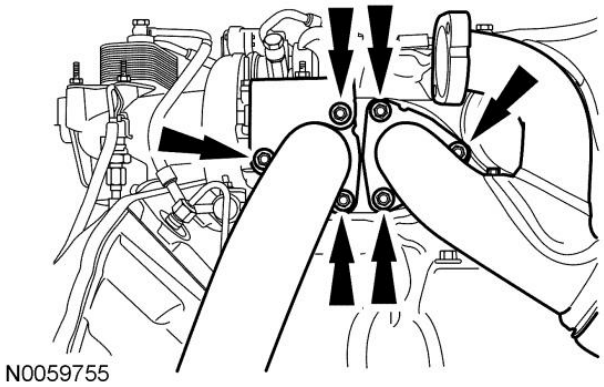
24. Remove and discard the exhaust downpipe clamp. Position aside the exhaust downpipe.

    - Remove and discard the exhaust downpipe gasket.



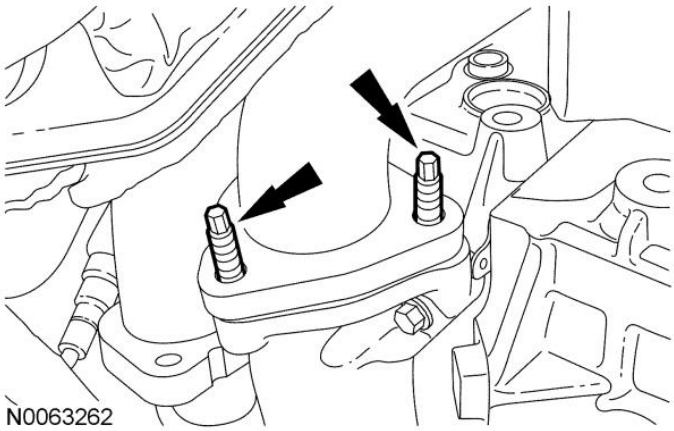
25. Remove the 6 turbocharger inlet pipe bolts and EGR-OC-to-turbocharger bracket.

    - Discard the bolts and gaskets.



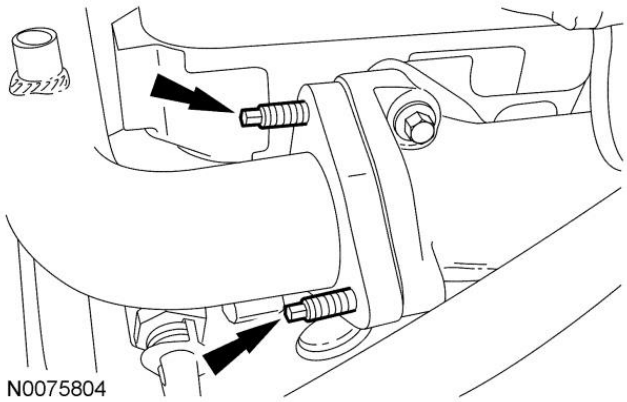
26. Remove the 3 LH turbocharger inlet pipes-to-exhaust manifold studs and gasket. Remove the LH turbocharger inlet pipe.

    - Discard the studs and gasket.

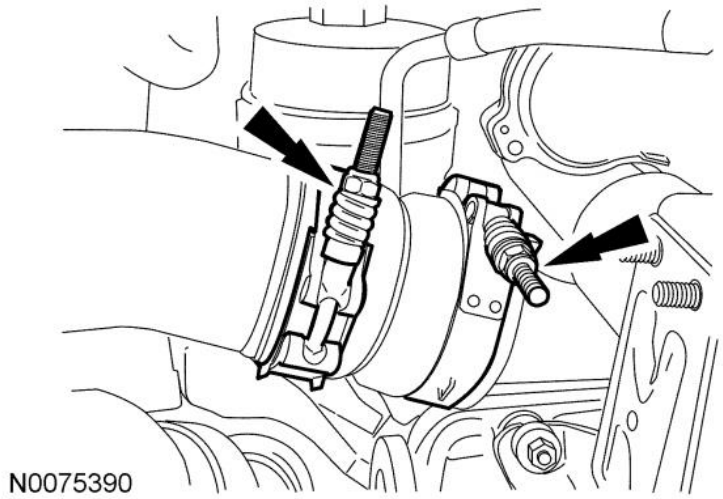


27. Remove the 2 outer RH turbocharger inlet pipes-to-exhaust manifold studs.

    - Discard the studs.



28. Loosen the clamps and remove the Charge Air Cooler (CAC) tube flex coupling.

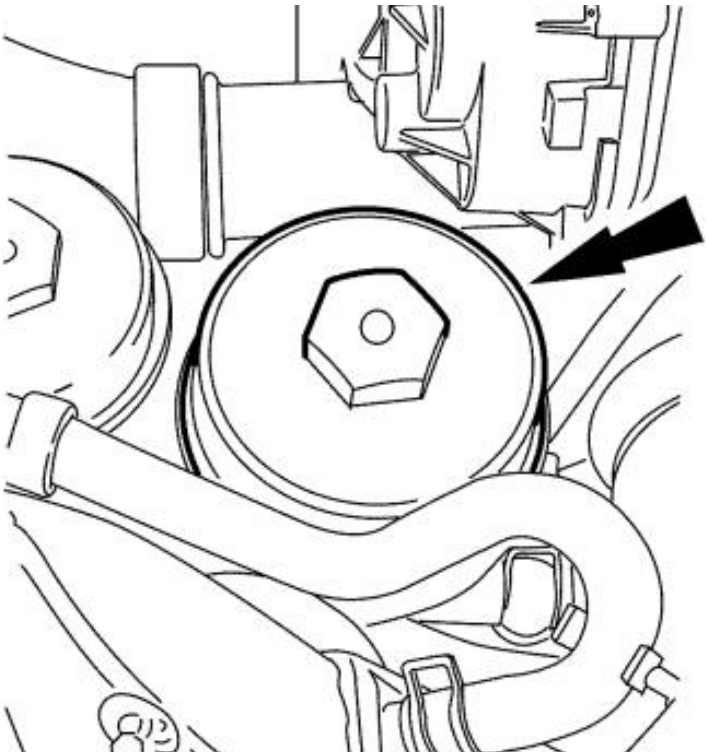


29. Fuel injection equipment is manufactured to a very precise tolerances and fine clearances.

    To prevent fuel system damage, it is essential that absolute cleanliness is observed when working with these components. Always install fuel system caps to any open orifices or tubes.

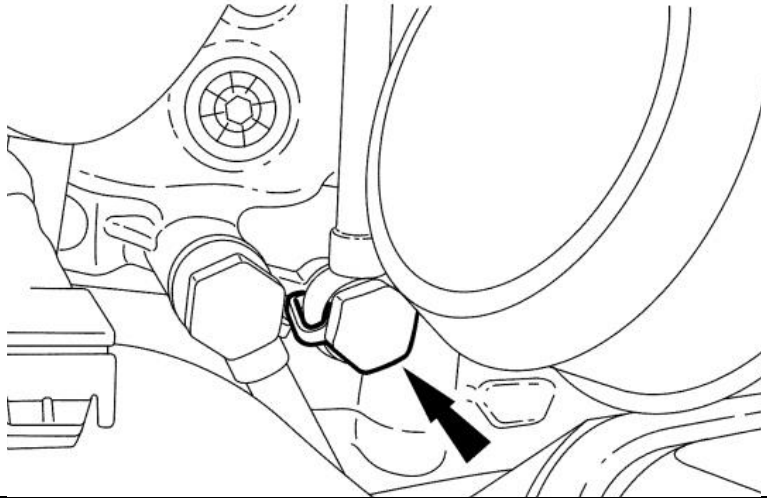
    Remove the fuel filter module cover, fuel filter and, using a suitable suction device, remove the fuel from the fuel filter module.

    - Cover the fuel filter housing with a covering to prevent foreign material from entering the fuel system.

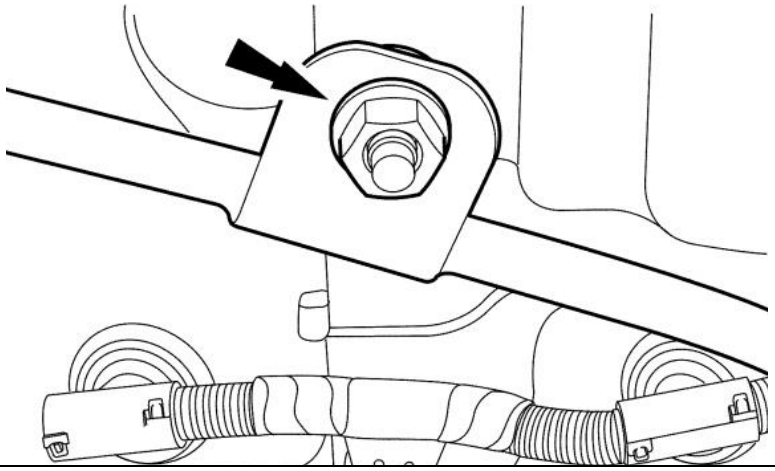


30. Remove the banjo bolt, sealing washer(s) and fuel cooler to fuel filter module tube.

    - Discard the sealing washer(s)



31. Remove the nut and position the oil level indicator and tube aside.

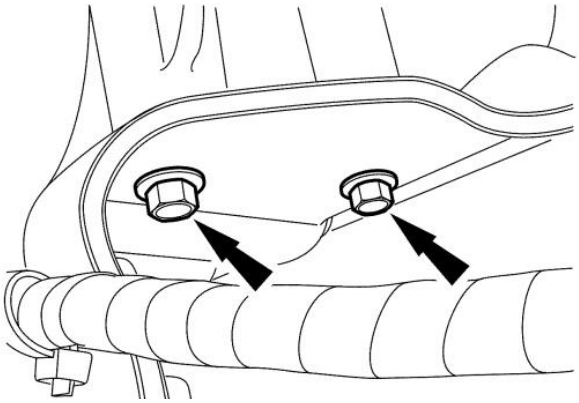


NOTE: Rear bolts shown, front bolts similar.

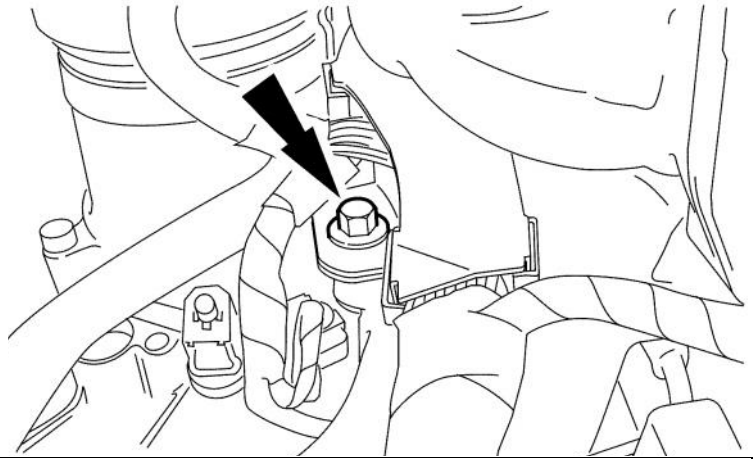
32. Remove the 4 bolts for the turbocharger crossover tube.

    - Remove the front fuel cooler bracket.

IF BODY IS REMOVED SKIP TO STEP #40

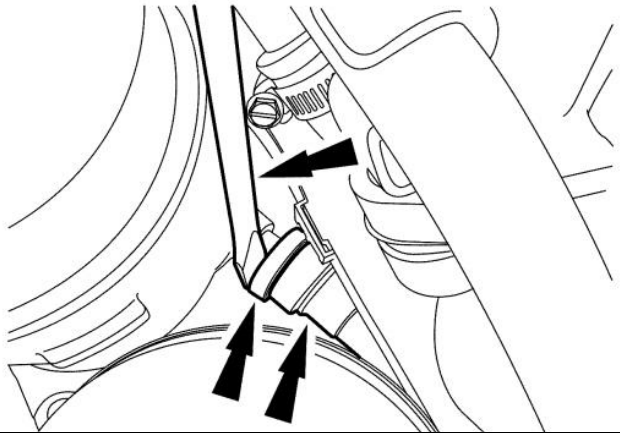


33. Remove the bolt for the engine wiring harness.

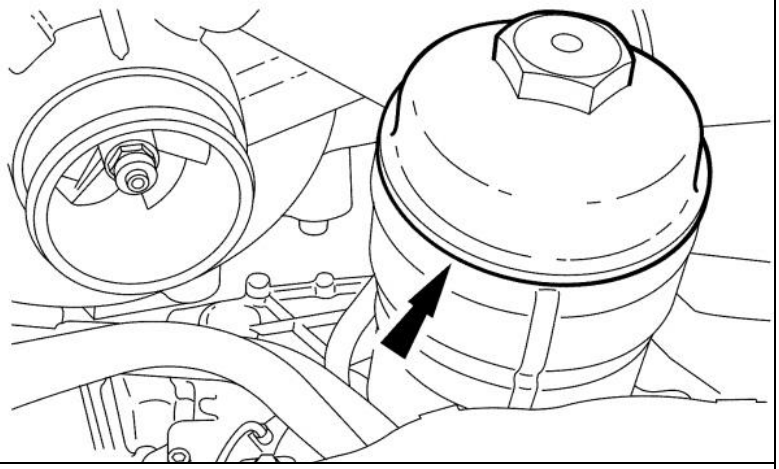


34. Use a commercially available disconnect tool and a screwdriver to release the fuel tube.

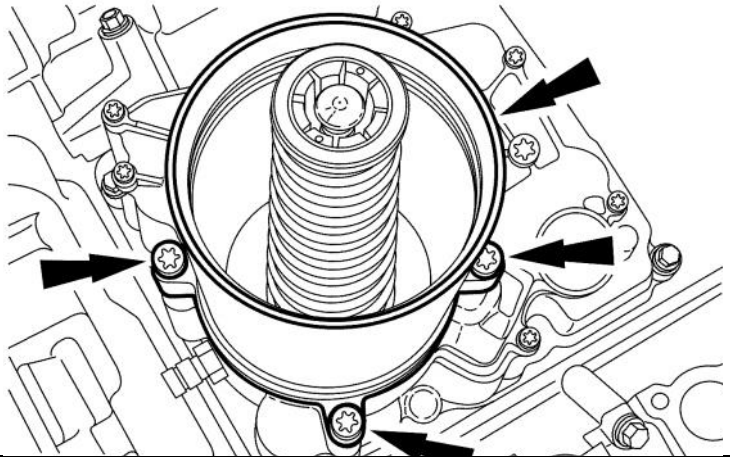
    Disconnect the fuel injection pump supply tube at the fuel filter module.



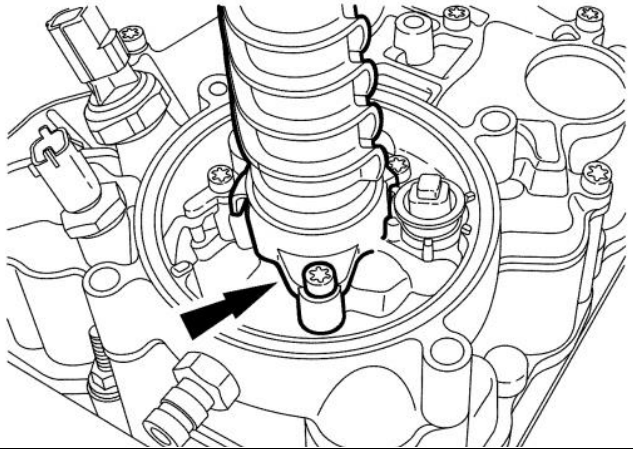
35. Remove and discard the oil filter element and O-ring seal.



36. Remove the 4 torx bolts and the oil filter housing.

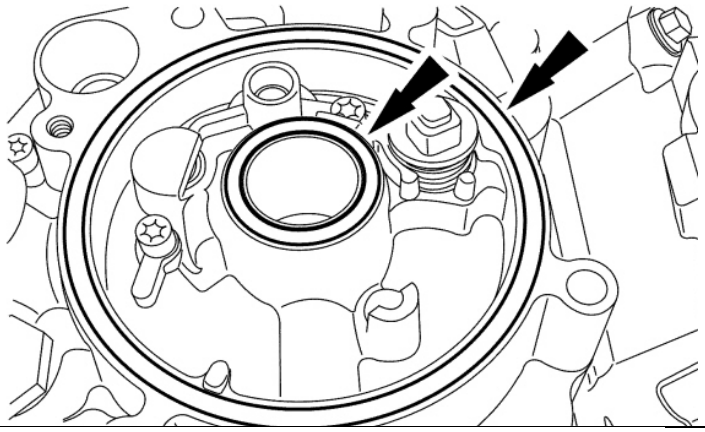


37. Remove the screw and the oil filter return tube assembly.

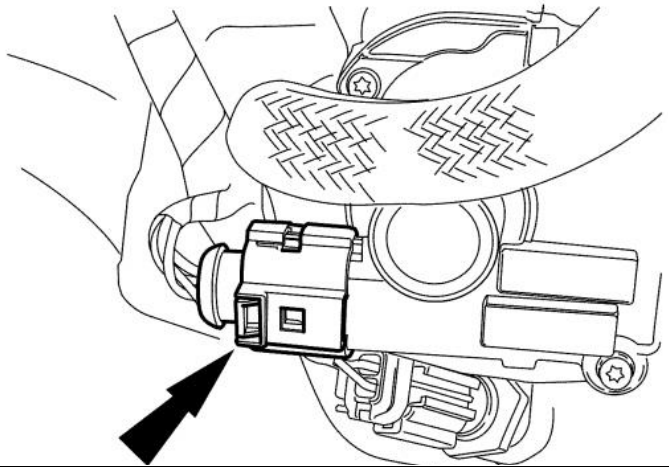


38. Remove and discard the oil filter base gasket and seal.

    - Cover the oil cooler to prevent foreign material from entering.

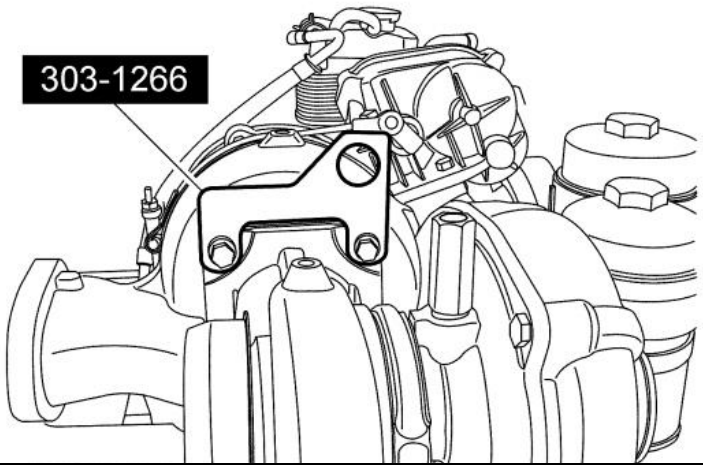


39. Disconnect the EGR valve electrical connector.



40. Remove the 2 bolts and the hold downs for the turbocharger.

41. Install the turbocharger lifting bracket and 2 bolts.
    Tighten to 177 in/lbs



NOTICE: Failure to use the turbocharger lifting bracket during removal, handling or installation of the turbocharger could result in a low pressure to high pressure turbocharger seal failure.

NOTICE: Make sure the turbocharger assembly is kept level to the engine during removal or installation. Failure to follow these instructions may result in damage to the high pressure oil drain tube.

NOTE: Use care when removing the turbocharger. The crossover tube should not be removed. The seals in the crossover tube are one-time-use seals and must be installed new.

With the help of an assistant, using the heavy duty floor crane, remove the turbocharger assembly.

- Remove and discard the RH turbocharger inlet pipe gasket at the RH exhaust manifold.

42. Remove the turbocharger oil drain tubes.
    - Remove and discard the low-pressure drain tube.
    - Remove the high pressure oil drain tube.
    - Remove and discard the 2 O-ring seals.

Installation – Body On/Off

1. *NOTE*: Lubricate the low-pressure turbocharger oil drain tube with clean engine oil prior to installing.

   NOTE: Install the low-pressure turbocharger drain tube with the taper side down. Install the new low-pressure turbocharger drain tube in the turbocharger.

2. *NOTE*: Install 2 new O-rings seals and lubricate with clean engine oil prior to installing.

   Install the turbocharger high-pressure oil drain tube.

3. ***NOTICE****:* Failure to use the Turbocharger Lifting Bracket during removal, handling or installation of the turbocharger could result in a low-pressure to high-pressure seal failure.

   NOTICE*:* Make sure the turbocharger assembly is kept level to the engine during removal or installation. Failure to follow these instructions may result in damage to the high-pressure oil drain tube.

   NOTE: Make sure the turbocharger is positioned under the high-pressure fuel pump heat shield on the right side.

   NOTE: Install a new gasket for the RH turbocharger inlet pipe at the RH exhaust manifold prior to installing the turbocharger assembly.

   With the help of an assistant, using the Heavy Duty Floor Crane, install the turbocharger assembly.

4. *NOTE*: After removing the Turbocharger Lifting Bracket, the 2 bolt holes remain open on the turbocharger.

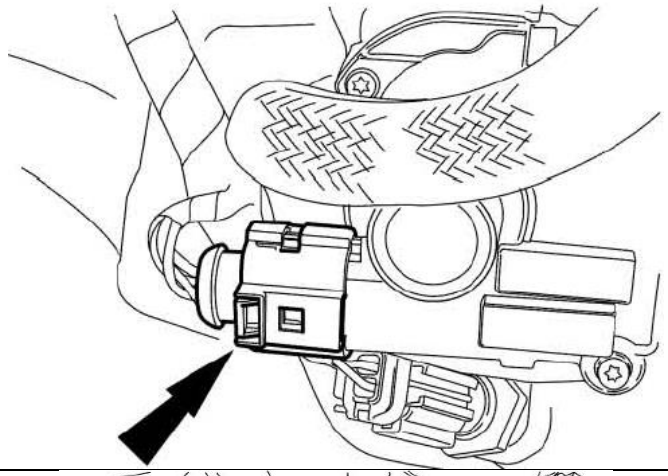
   Remove the 2 bolts and the Turbocharger Lifting Bracket.

5. Install the 2 turbocharger hold downs and bolts.

- Tighten to 201 Nm (148 ft/lbs).
-

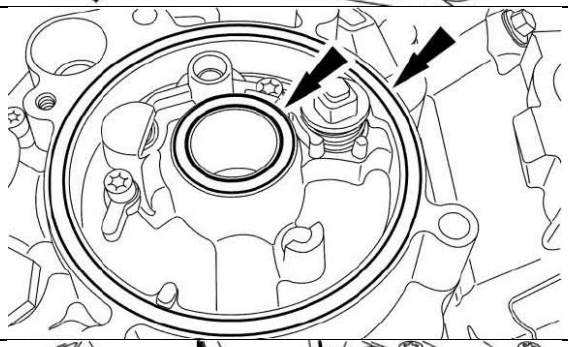
IF BODY IS REMOVED SKIP TO STEP #13

6. Connect the EGR valve electrical connector.

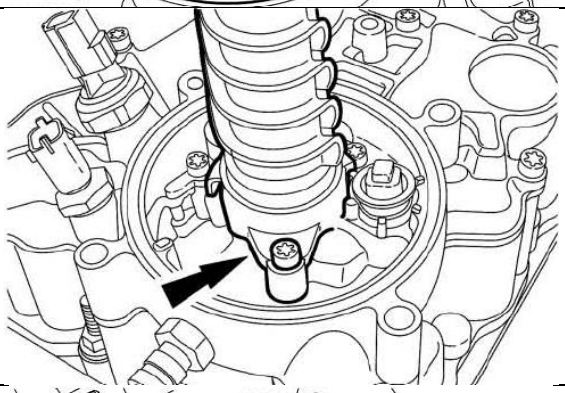


7. Install the new oil filter base gasket and O-ring seal.

- Apply clean engine oil to the oil filter base gasket and O-ring seal.

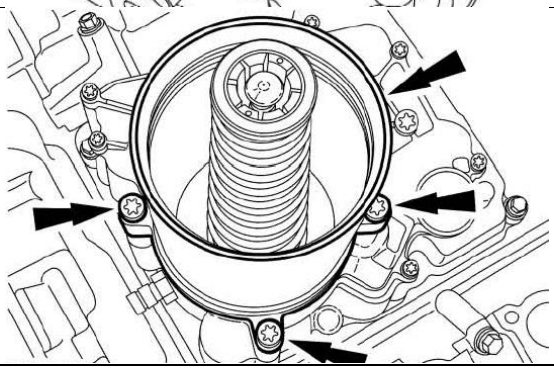


8. Install the oil filter return tube assembly and screw.
- On new oil return tubes, tighten to 7 Nm (62 in/lbs).
- On used oil return tubes, tighten to *5* Nm (44 in/lbs).



9. Install the oil filter housing and 4 Torx bolts.

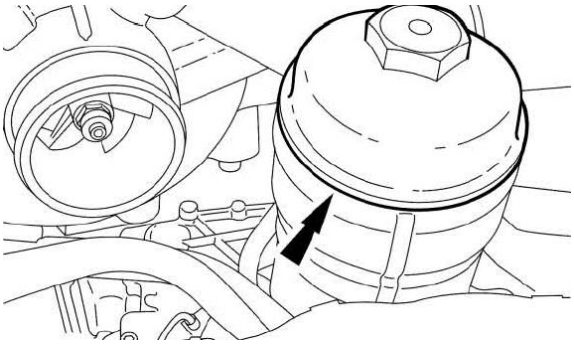
- Tighten to 22 Nm (16 ft/lbs).



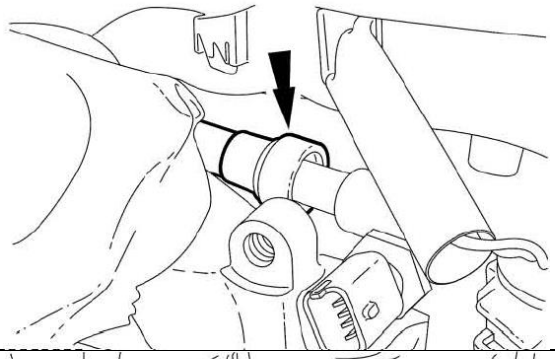
10. *NOTE*: Install a new O-ring seal on the oil filter cap and apply clean engine oil.

    Install a new oil filter element and the oil filter cap.

    - Tighten to 25 Nm (18 ft/lbs).

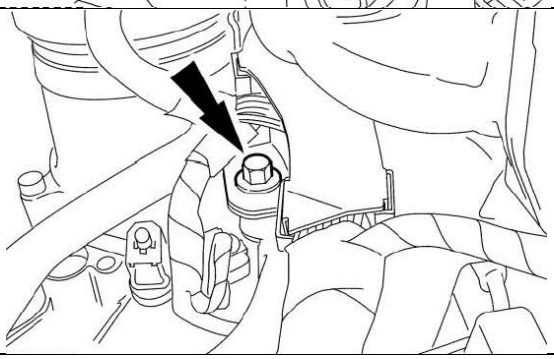


11. Connect the fuel injection pump supply tube at the fuel filter module.

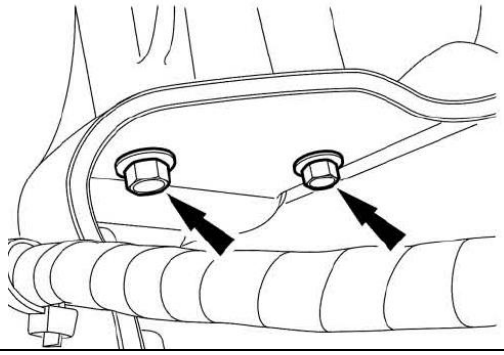


12. Install the bolt for the engine wiring harness.

    - Tighten to 8 Nm (71 in/lbs).

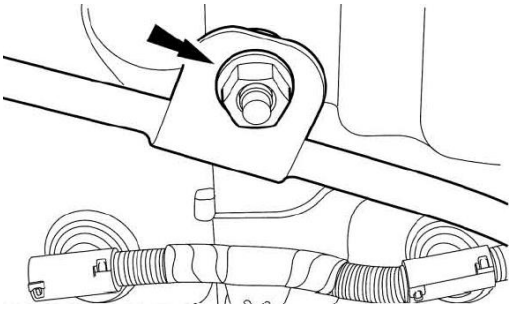


13. *NOTE*: Rear bolts shown, front bolts similar. Position the front fuel cooler bracket. Install the 4 bolts for the turbocharger crossover tube.
    - Tighten to 31 Nm (23 ft/lbs).



14. Position back the oil level indicator and tube and install the nut.
    - Tighten to 31 Nm (23 ft/lbs).

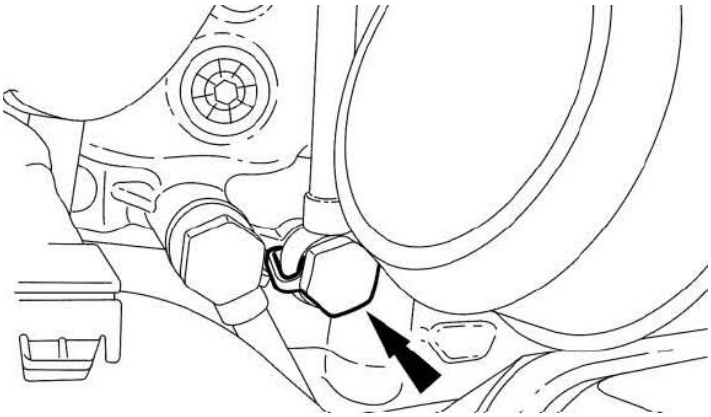
IF BODY IS REMOVED SKIP TO STEP #38



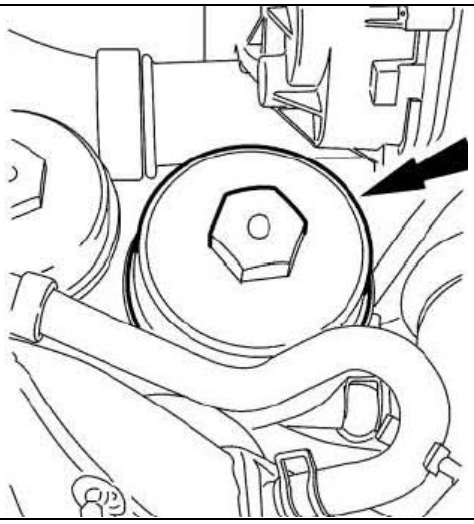
15. ***NOTICE**:* Use only banjo bolts with a green hex head. The green-headed bolts do not contain a check valve. When viewed from the inner end, the correct bolt will appear open. Failure to install the correct banjo bolt may result in damage to the fuel system.

    Install fuel cooler-to-fuel filter module tube, new sealing washer(s) and the banjo bolt.

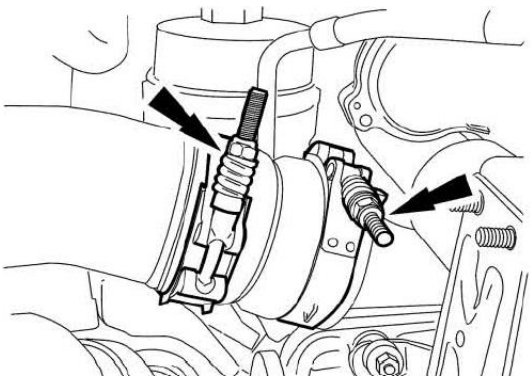
    - For Viton® sealing washers, tighten to 25 Nm (18 ft/lbs).
    - For a copper sealing washer, tighten to 38 Nm (28 ft/lbs).



16. Install the fuel filter element and cover.
    - Tighten to 27 Nm (20 ft/lbs).

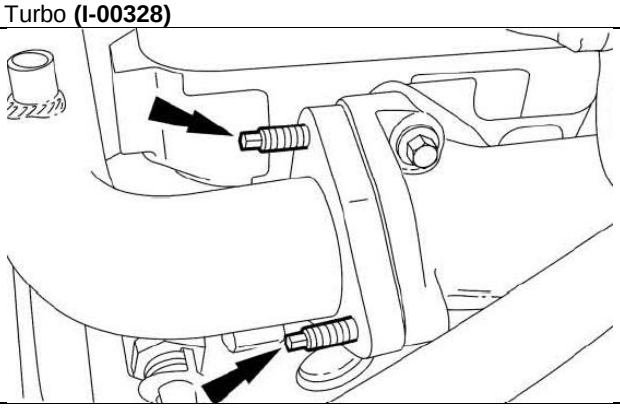


17. Install the CAC tube flex coupling and clamps.
    - Tighten the engine clamp to 12 Nm (106 in/lbs).
    - Tighten the tube clamp to 8 Nm (71 in/lbs).



18. Install the 2 new studs for the RH turbocharger inlet pipe.
- Tighten to 18 Nm (159 in/lbs).

Use supplied gaskets (B32256)



19. ***NOTICE****:* Do not bend or twist the turbocharger inlet pipe or damage to the turbocharger inlet pipe may occur.

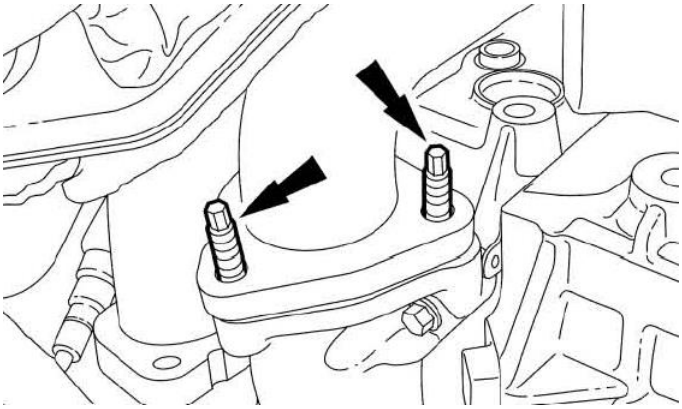
    NOTE: To aid in installation, replace the top stud with bolt part number W302649.

    NOTE: It will be necessary to position the EGR-OC pipe as needed.

    Position the LH turbocharger inlet pipe in the vehicle. Install the new gasket and 2 new studs for the LH turbocharger inlet pipe. Loosely install the bolt.

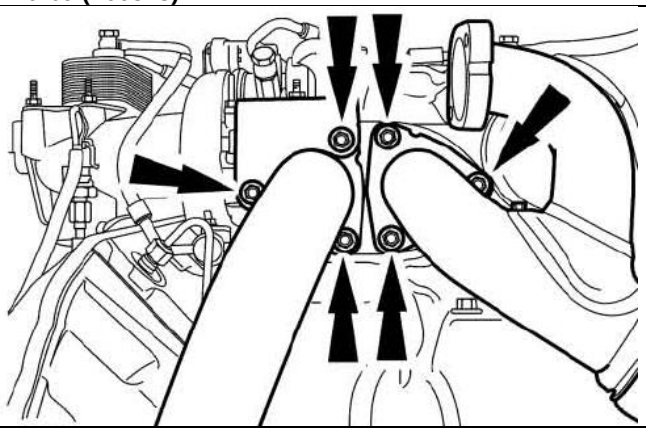
- Tighten the studs to 18 Nm (159 in/lbs).

    Use supplied gaskets (B32256)



20. Install the new turbocharger inlet pipe gaskets, bracket and loosely install the 6 new bolts.
    - Tighten the top 4 bolts to 25 Nm (18 ft/lbs).

Use gaskets from GS33566



21. ***NOTICE****:* Due to limited access, one of the specific Half-moon wrenches and other tools described must be used to correctly tighten the fasteners in this step. Failure to follow this instruction may result in engine failure.

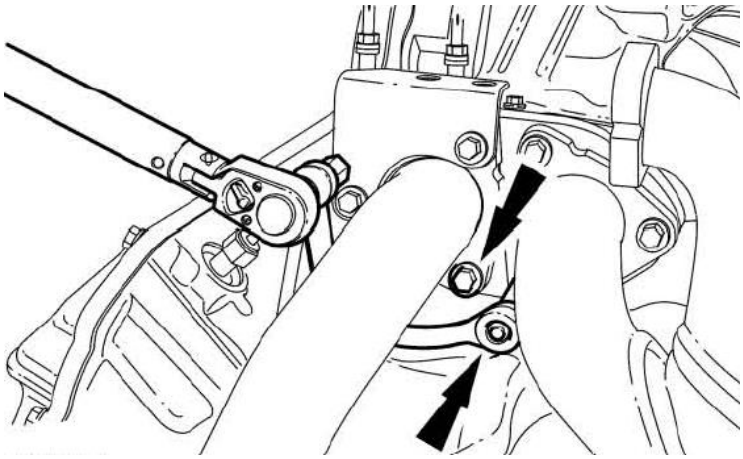
    NOTE:
    To complete this step, it will be necessary to use the following tools:

- A *3/8-in* drive torque wrench that is 241.3 mm (9.5 in) or 368.3 mm (14.5 in) from center of the handle to the center of the square drive.
- One of the 10-mm/12-mm Half-moon wrenches listed in the following chart.
- A 12-mm Allen socket (to drive the Half-moon wrench).

NOTE: To obtain the required torque value of 25 Nm (18 ft/lbs), it will be crucial to orient the Half-moon wrench in the direction shown and 180 degrees (Straight out) from the torque wrench. The torque wrench must be set to the value specified in the following chart for the Half-moon wrench and torque wrench length being used.

Tighten the turbocharger inlet pipes-to-turbocharger bottom 2 bolts.

Refer to the following chart for torque wrench setting, based on the specific Half-moon wrench and torque wrench length being used.

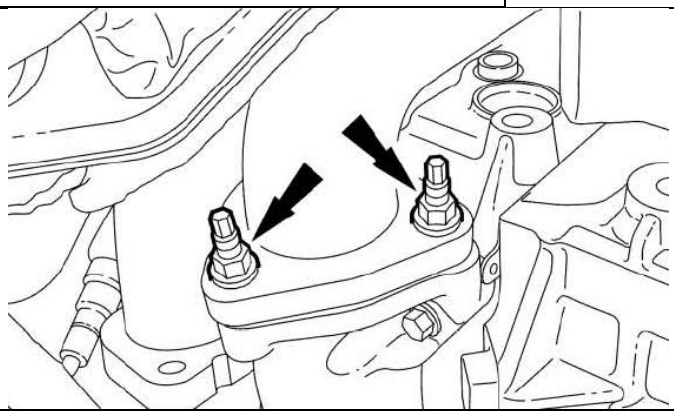


Torque Chart - Turbocharger Inlet Pipes-to-Turbocharger, Bottom 2 Bolts					
Half-Moon Wrench Brand	Wrench Part Number	Wrench Size	Torque Wrench Length	Torque Wrench Setting	
				Nm	lb-in
Comwell®	BWM-1012MM	10/12 mm	9.5 in	20	177
Gear Wrench®	9851	10/12 mm	9.5 in	18	159
Matco®	MHM1012	10/12 mm	9.5 in	18	159
Mac®	HMM1012R	10/12 mm	9.5 in	15	133
Snap-On®	CXM1012	10/12 mm	9.5 in	18	159
Cornwell®	BWM-1012MM	10/12 mm	14.5 in	19	168
Gear Wrench®	9851	10/12 mm	14.5 in	18	159
Matco®	MHM1012	10/12 mm	14.5 in	18	159
Mac®	HMM1012R	10/12 mm	14.5 in	16	142
Snap-On®	CXM1012	10/12 mm	14.5 in	18	159
NOTE: To achive the required torque of 25 Nm (18 lb-ft), the torque wrench must be set to the appropriate Torque Wrench Setting listed in this chart.					

22. *NOTE*: LH shown, RH similar.

    Install the 5 new lower turbocharger inlet pipe nuts.

    - Tighten to 31 Nm (23 ft/lbs).



23. ***NOTICE****:* Due to limited access, one of the specific Half-moon wrenches and other tools described must be used to correctly tighten the fasteners in this step. Failure to follow this instruction may result in engine failure.

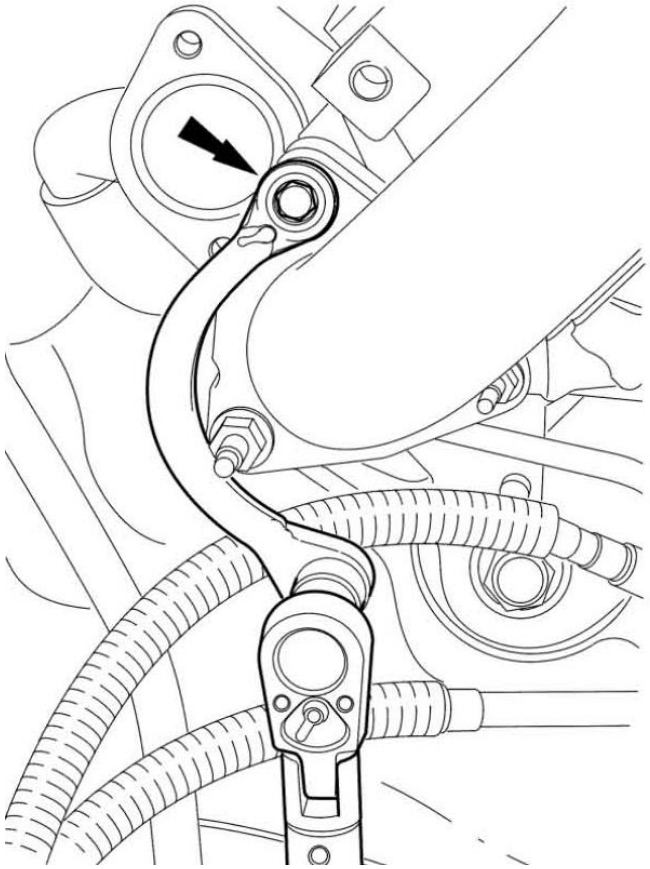
    NOTE: To complete this step, it will be necessary to use the following tools:

- A *3/8-in* drive torque wrench that is 368.3 mm (14.5 in) or 381.0 mm (15.0 in) from the center of the handle to the center of the square drive.
- One of the 10-mm/12-mm Half-moon wrenches listed in the following chart.
- A 12-mm Allen socket (to drive the Half-moon wrench).

    *NOTE**:*** To obtain the required torque value of 31 Nm (23 ft/lbs), it will be crucial to orient the Half-moon wrench in the direction shown and 180 degrees (straight out) from the torque wrench. The torque wrench must be set to the value specified in the following chart for the Half-moon wrench and torque wrench length being used.

    Tighten the LH turbocharger inlet pipe-to-LH exhaust manifold bolt.

    Refer to the following chart for torque wrench setting, based on the specific Half-moon wrench and torque wrench length being used.

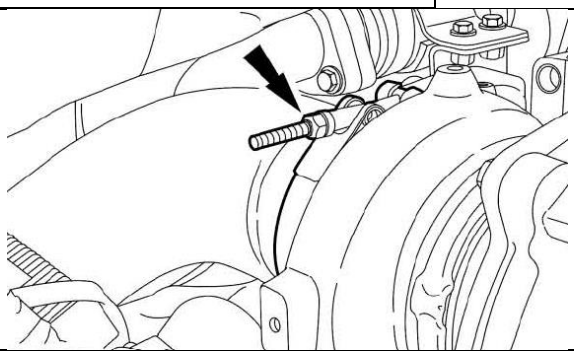


Torque Chart – LH Turbocharger Inlet Pipe-to-LH Exhaust Manifold, Upper Bolt

Half-Moon Wrench Brand	Wrench Part Number	Wrench Size	Torque Wrench Length	Torque Wrench Setting	
				Nm	lb-in
Comwell®	BWM-1012MM	10/12 mm	14.5 in	26	19
Gear Wrench®	9851	10/12 mm	14.5 in	23	17
Matco®	MHM1012	10/12 mm	14.5 in	22	16
Mac®	HMM1012R	10/12 mm	14.5 in	22	16
Snap-On®	CXM1012	10/12 mm	14.5 in	22	16
Cornwell®	BWM-1012MM	10/12 mm	15.0 in	27	20
Gear Wrench®	9851	10/12 mm	15.0 in	23	17
Matco®	MHM1012	10/12 mm	15.0 in	23	17
Mac®	HMM1012R	10/12 mm	15.0 in	23	17
Snap-On®	CXM1012	10/12 mm	15.0 in	23	17

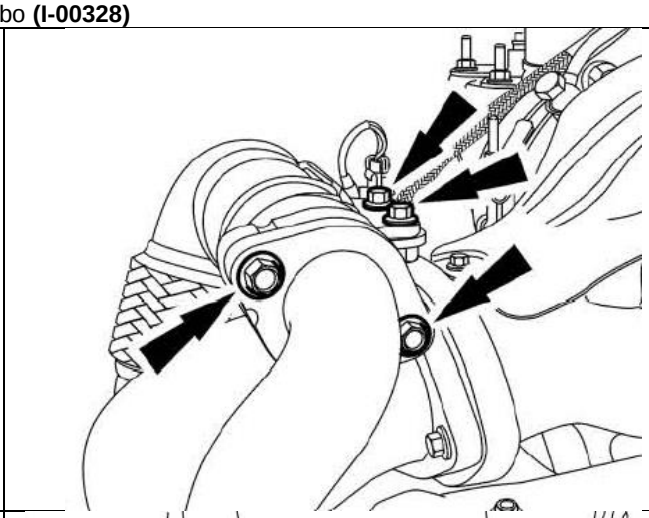
NOTE: To achive the required torque of 31 Nm (23 lb-ft), the torque wrench must be set to the appropriate Torque Wrench Setting listed in this chart.

24. Install the new gasket and clamp for the exhaust downpipe.
    - Tighten to 15 Nm (133 in/lbs).

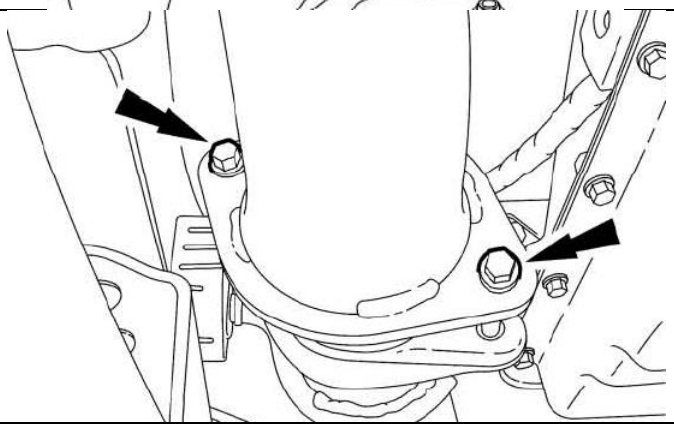


25. ***NOTICE**:* Make sure the correct bolts are installed in the bracket or damage to the bracket can occur.

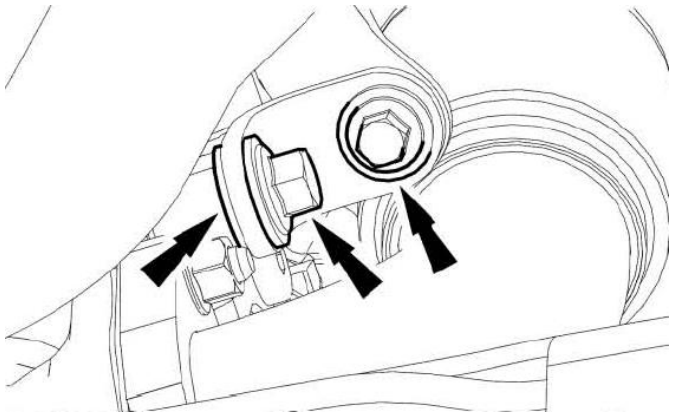
    Position the EGR-OC pipe and loosely install the 2 new bracket bolts. Install a new gasket and loosely install the 2 new bolts.



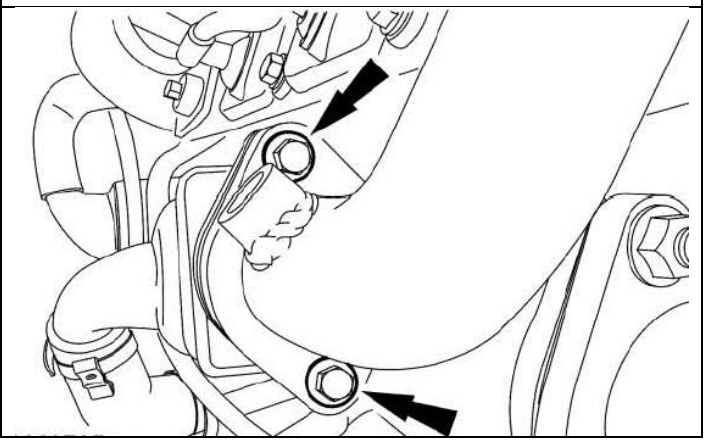
26. Tighten the 2 bolts for the exhaust downpipe at the OC.
- Tighten to 40 Nm (30 ft/lbs).



27. ***NOTICE**:* Failure to install and correctly tighten the Exhaust Gas Recirculation (EGR)-Oxidation Catalytic Converter (OC) pipe support bolts will result in damage to the horizontal EGR cooler and possible engine damage. Install the bracket, washers and loosely install the 2 new bolts for the EGR-OC pipe bracket.

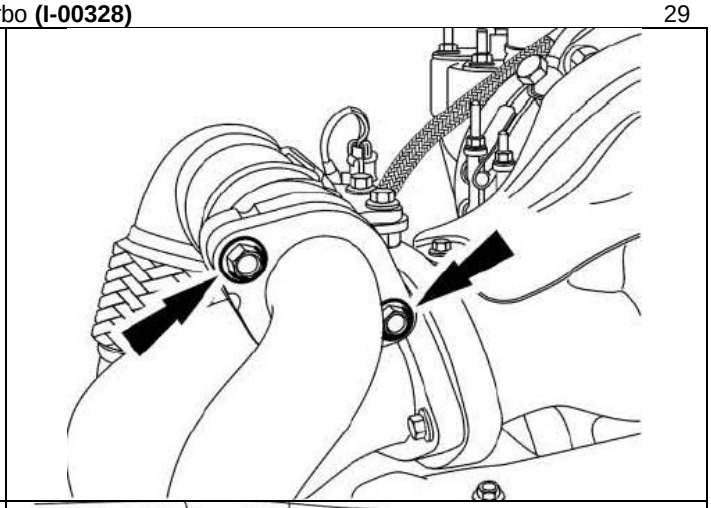


28. Install the new gasket and the 2 new bolts for the EOR-OC pipe at the EGR cooler.
- Tighten to 31 Nm (23 ft/lbs).



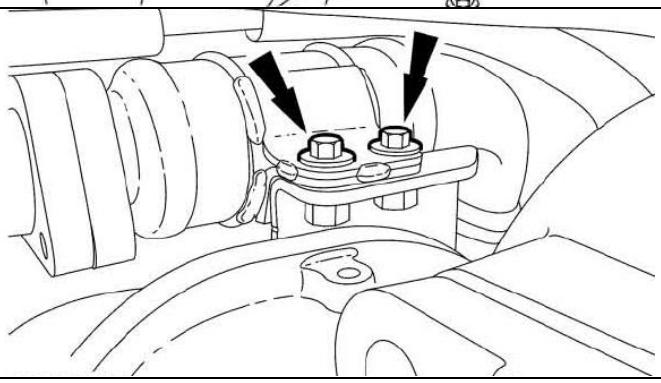
29. Tighten the 2 EOR-OC pipe bolts at the RH turbocharger inlet pipe.

    - Tighten to 31 Nm (23 ft/lbs).



30. Tighten the 2 bolts for the EOR-OC pipe bracket at the turbocharger.

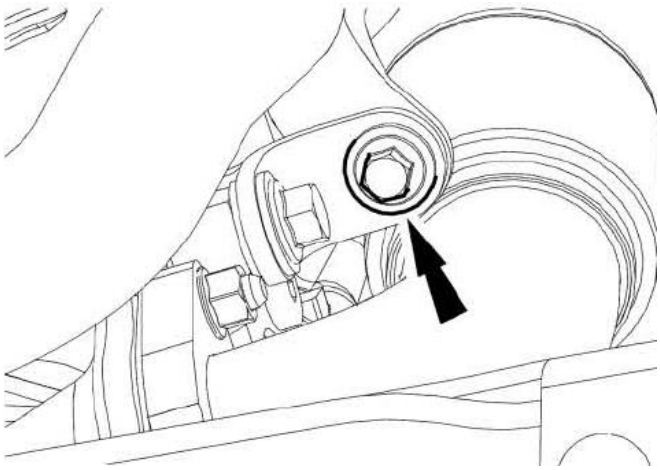
    - Tighten to 31 Nm (23 ft/lbs).



31. ***NOTICE***: Failure to install and correctly tighten the Exhaust Gas Recirculation (EGR)-Oxidation Catalytic Converter (OC) pipe support bolt will result in damage to the horizontal EGR cooler and possible engine damage.

    Tighten the bolt for the EGR-OC pipe bracket.

    - Tighten to 31 Nm (23 ft/lbs).



32. ***NOTICE:*** Failure to install and correctly tighten the Exhaust Gas Recirculation (EGR)-Oxidation Catalytic Converter (OC) pipe support bolt wiII result in damage to the horizontal EGR cooler and possible engine damage.

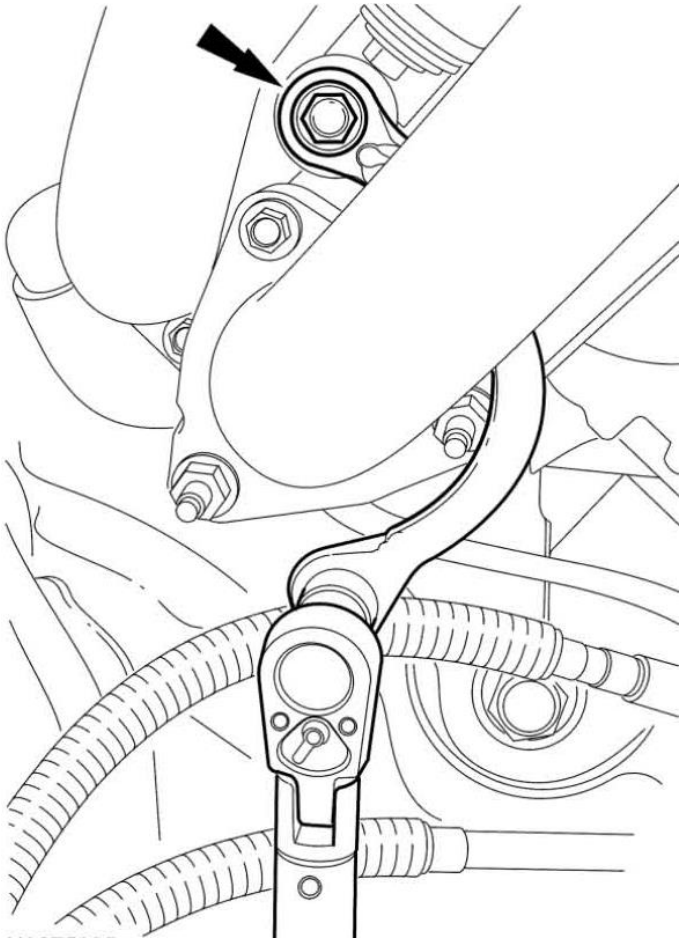
    NOTICE: Due to limited access, One of the specific Half-moon wrenches and other tools described must be used to correctly tighten the fasteners in this step. Failure to follow this instruction may result in engine failure.

    NOTE: To complete this step, it will be necessary to use the following tools:

- A *3/8-in* drive torque wrench that is 368.3 mm (14.5 in) or 381.0 mm (15.0 in) from the center of the handle to the center of the square drive.
- One of the II-mm/13-mm Half-moon wrenches listed in the following chart.
- A 11-mm Allen socket (to drive the Half-moon wrench).

    NOTE: To obtain the required torque value of 63 Nm (46 ft/lbs), it will be crucial to orient the Half-moon wrench in the direction shown and 180 degrees (straight out) from the torque wrench. The torque wrench must be set to the value specified in the following chart for the Half-moon wrench and torque wrench length being used.

    Tighten the EGR-OC pipe bracket-to-LH cylinder head bolt.

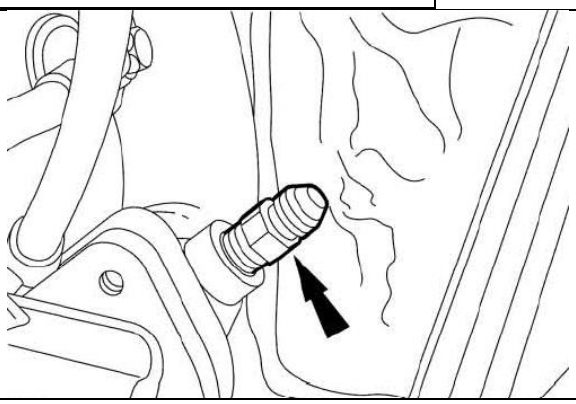


Refer to the following chart for torque wrench setting, based on the specific Half-moon wrench and torque wrench length being used.

Torque Chart - Turbocharger Inlet Pipes-to-Turbocharger, Bottom 2 Bolts					
Half-Moon Wrench Brand	Wrench Part Number	Wrench Size	Torque Wrench Length	Torque Wrench Setting	
				Nm	lb-in
Comwell®	BWM-1113MM	11/13 mm	14.5 in	47	35
Gear Wrench®	9852	11/13 mm	14.5 in	46	34
Matco®	MHM1113	11/13 mm	14.5 in	46	34
Mac®	HMM1113R	11/13 mm	14.5 in	46	34
Snap-On®	CXM1113	11/13 mm	14.5 in	46	34
Cornwell®	BWM-1113MM	11/13 mm	14.5 in	49	36
Gear Wrench®	9852	11/13 mm	14.5 in	47	35
Matco®	MHM1113	11/13 mm	14.5 in	47	35
Mac®	HMM1113R	11/13 mm	14.5 in	47	35
Snap-On®	CXM1113	11/13 mm	14.5 in	47	35
NOTE: To achive the required torque of 62 Nm (46 lb-ft), the torque wrench must be set to the appropriate Torque Wrench Setting listed in this chart.					

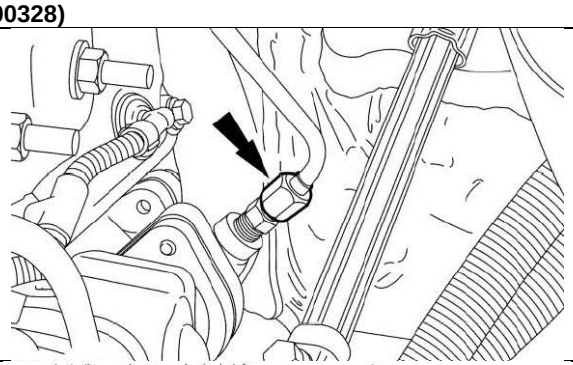
33. Install the EP sensor tube fitting into the EGR-OC pipe.

- Tighten to 27 Nm (20 ft/lbs).



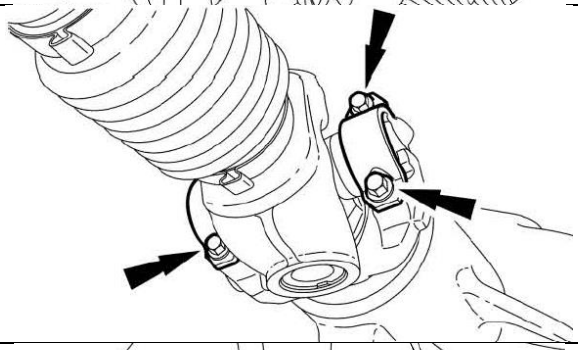
34. Connect the EP sensor tube to the EGR-OC pipe.

- Tighten to 20 Nm (177 in/lbs).



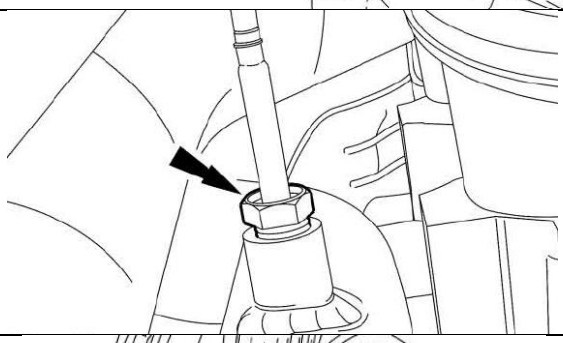
35. If equipped, position back the front driveshaft and install the 2 straps and 4 bolts.

- Tighten to 35 Nm (26 ft/lbs).



36. Install the EGRT sensor into the RH turbocharger inlet pipe.

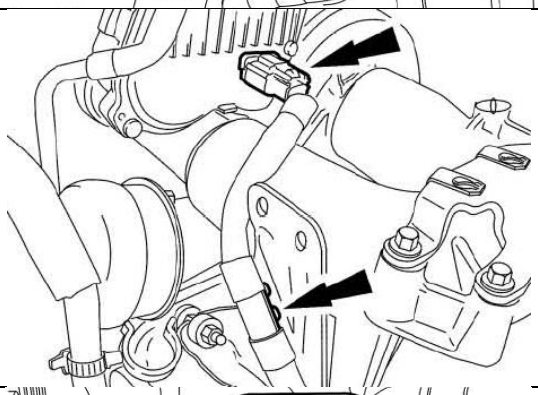
- Tighten to 44 Nm (32 ft/lbs).



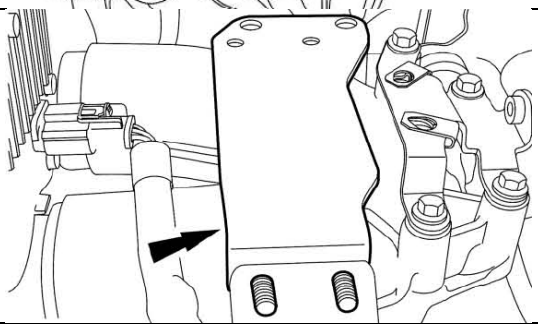
37. Install the RH splash shield.

38. Connect the turbocharger actuator electrical connector and pin-type retainer.

IF BODY IS REMOVED SKIP TO STEP #47

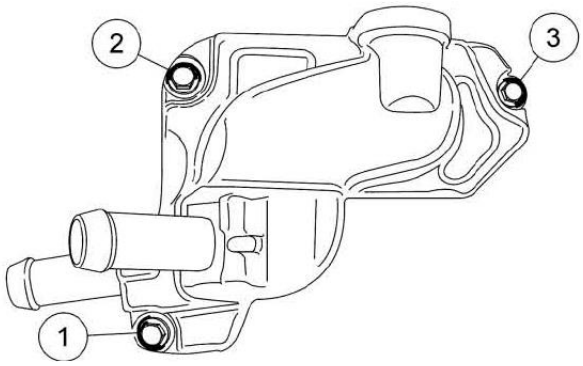


39. Position the fuel cooler bracket.



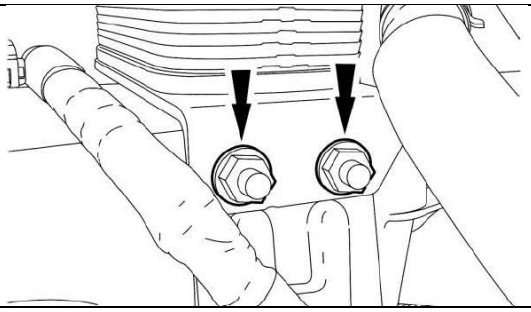
40. Position back the fuel cooler, fuel cooling system expansion tank and turbocharger actuator cooler. Install the 3 bolts for the turbocharger actuator cooler. Tighten the bolts in the sequence shown in 2 stages.

- Stage I: Finger-tighten the bolts.
- Stage 2: Tighten to 7 Nm (62 in/lbs).



41. Install the 2 nuts for the fuel cooler.

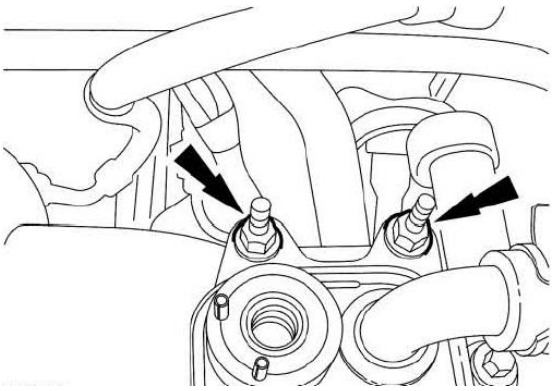
- Tighten to 19 Nm (168 in/lbs).



42. *NOTE*: It may be necessary to loosen the front bolts of the turbocharger crossover in order to get correct alignment of the holes for the fuel cooler.

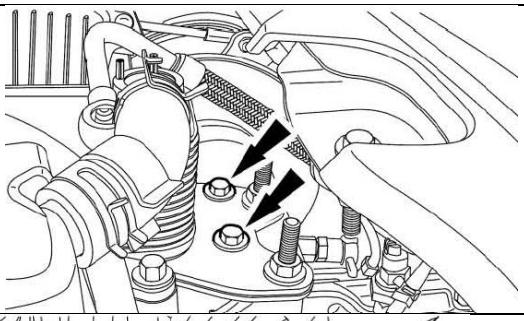
Install the 2 stud bolts for the fuel cooler.

- Tighten to 25 Nm (18 ft/lbs).



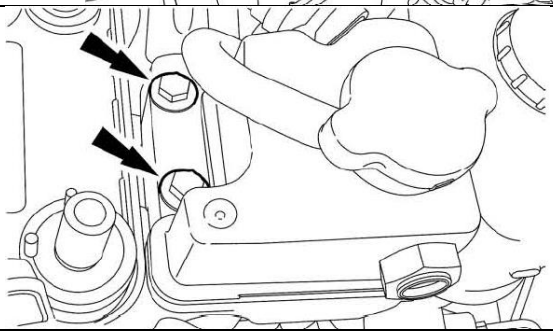
43. Install the 2 bolts for the fuel cooler.

- Tighten to 9 Nm (80 in/lbs).



44. Install the 3 bolts for the fuel cooling system expansion tank.

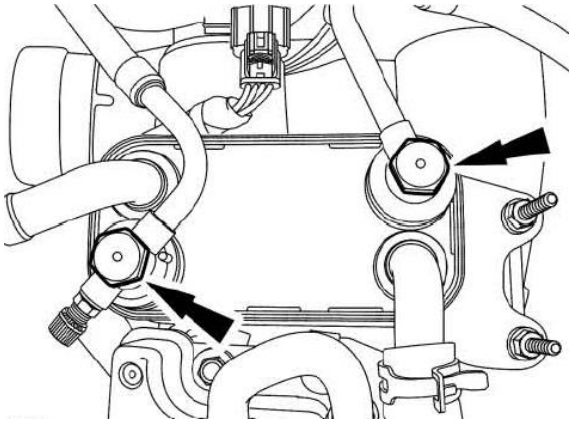
- Tighten to 9 Nm (80 in/lbs).



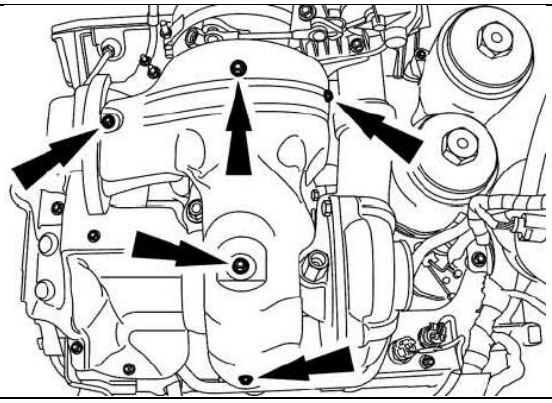
45. ***NOTICE****:* Use only banjo bolts with a green hex head. The green-headed bolts do not contain a check valve. When viewed from the inner end, the correct bolt will appear open. Failure to install the correct banjo bolt may result in damage to the fuel system.

    NOTICE*:* Make sure that the fuel tubes are not rubbing against the turbocharger actuator cooler or damage to the fuel tubes may occur.
    Install the new sealing washers and 2 banjo bolts at the fuel cooler.

    - Tighten to 25 Nm (18 ft/lbs).



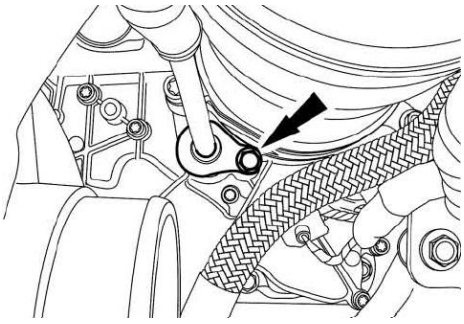
46. Position the turbocharger heat shield and install the 5 bolts.
    - Tighten to 11 Nm (97 in/lbs).



47. *NOTE*: Install a new O-ring seal and apply clean engine oil.

    Position the turbocharger oil supply tube and install the bolt.

    - Tighten to 13 Nm (115 in/lbs).



48. Prelubricate the oil inlet holes of the turbocharger assembly with clean engine oil and spin the compressor wheel several times to coat the bearings with oil.

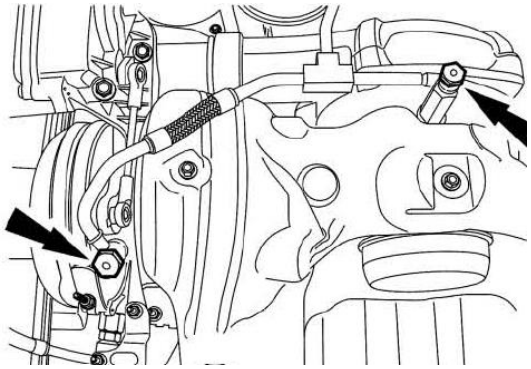
    ***NOTICE**:* Use only banjo bolts with a green hex head. The green-headed bolts do not contain a check valve. When viewed from the inner end, the correct bolt will appear open. Failure to install the correct banjo bolt may result in damage to the turbocharger.

    ***NOTICE**:* Do not lean on, pull on or use the turbocharger oil supply tube as a handle or damage to the turbocharger oil supply tube may occur.

    NOTE: Use a back-up wrench to prevent the fittings from turning.

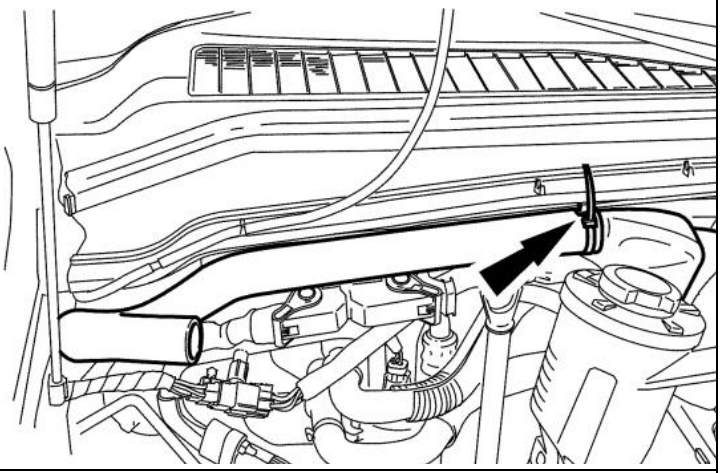
    NOTE: The back banjo bolt will require a torque adapter to be tightened properly.

    Install new sealing washers and the 2 turbocharger oil supply tube banjo bolts.



- Calculate the correct torque wrench setting for the following torque. Refer to the Torque Wrench Adapter Formulas in the Appendix.
- For Viton® sealing washers, using a torque adapter, tighten to 25 Nm (18 ft/lbs).
- For copper sealing washer, using a torque adapter, tighten to 38 Nm (28 ft/lbs).
- Verify that the turbocharger oil supply tube does not contact the turbocharger actuator linkage.

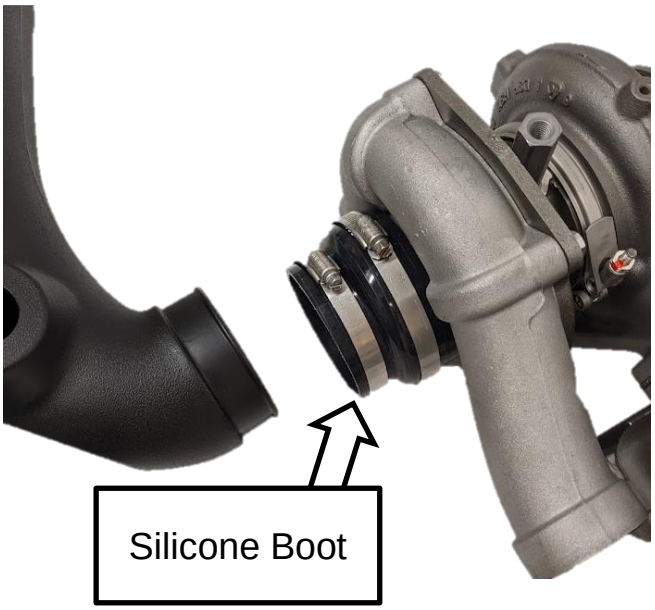
49. Position the auxiliary air intake (ACL) hose in the vehicle.
50. Install the ACL assembly and ACL outlet pipe.



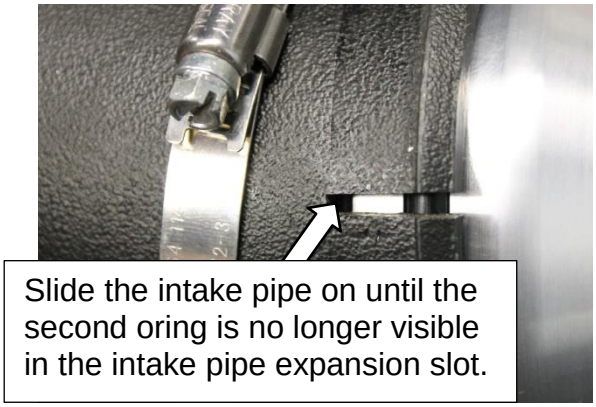
51. Install the degas bottle.

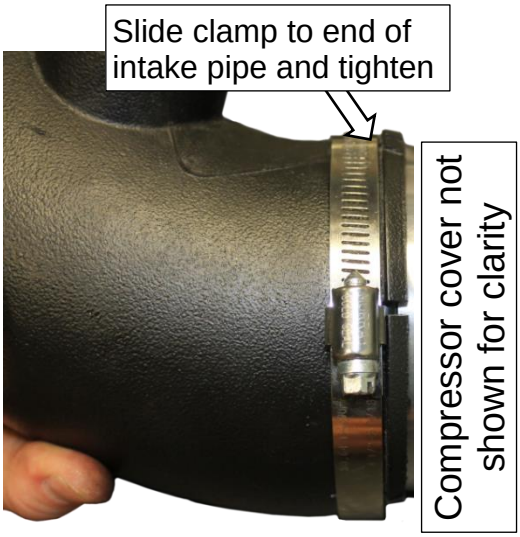
52. Install AFE cold air intake.

1047082/83 ONLY – Use supplied silicone boot and hose clamps to adapt the AFE intake to the BD Screamer turbo.



1047080/81 ONLY - Do not use reducer bushing from kit. Disregard step 9 from the AFE intake manual.





IF BODY IS NOT REMOVED SKIP TO STEP #55

53. Reinstall the Exhaust Gas Recirculation (EGR) Oxidation Catalytic Converter (OC).

54. Lower the cab back onto the frame by following the manufacturer procedure.

55. Bleed the low pressure fuel system.

**IMPORTANT* When idled for any length of time some oil may leak from the turbo. If the performance/boost is satisfactory and the wheel is not touching the housing (There will be some small movement), the excess oil is not a concern. Simply wipe with a clean cotton cloth and continue use.*