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**BD Diesel Ford Exhaust Up-Pipe Kit  
Install Instructions**







2008 – 2010 Ford 6.4L Power Stroke F250-550

**1043909**

**Exhaust Up-Pipe Kit**

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## Kit Contents

1403130	1403133	B32256
		
<i>Up Pipe Passenger Side</i>	<i>Up Pipe Driver Side</i>	Gasket (Turbo Up-Pipe)
<b>Qty: 1</b>	<b>Qty: 1</b>	<b>Qty: 4</b>
FT-11116245	1900054	FT-11141221
		
<i>Bolt M8-1.25 x Flange CZP</i>	<i>EGR Flange Gasket</i>	Nut; M8-1.25 Top Lock
<b>Qty: 6</b>	<b>Qty: 1</b>	<b>Qty: 6</b>

## Optional Parts

Description	Part #
Turbo Up Pipe Gasket (4)	B32256
EGR Cooler Coolant Outlet Hose Clamp	8287
EGR Cooler Outlet Studs (2)	W302633
Horizontal EGR Cooler Outlet Nuts (2)	W300050
EGR Coolant Supply Tube Assembly O-Ring Seal	W301924
EGR Coolant Supply Tube Bolt	W300002
EGR Coolant Supply Tube Bolt	W300009
EGR Coolant Supply Tube Clamp	8287
Oil Level Indicator Tube O-Ring Seal	6754
Oil Level Indicator Tube Nut	W300050
Horizontal EGR Cooler Outlet Gasket	9H454
Manifold Bolts (8)	W302675
Horizontal EGR Cooler Bolts (4)	W302550
Manifold Stud Bolts (4)	W302647
Exhaust Manifold	1401482
Exhaust Manifold Gasket	MS19312
Exhaust Manifold Outlet Stud	FT-11508416

## Tools Required for Installation

- 10 - 16mm Socket & Wrench
- 7/16" , 9/16" Deep Socket
- Half-moon Wrench 10mm/12mm & 11mm/13mm
- 11 and 12mm Allen Sockets
- Pry Bar
- Torque Wrench
- Scraper
- Side Cutter

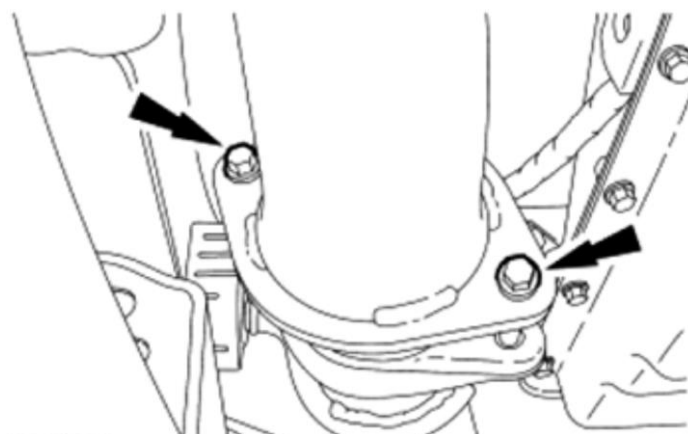
## Installation

Disconnect both vehicle batteries for safety.

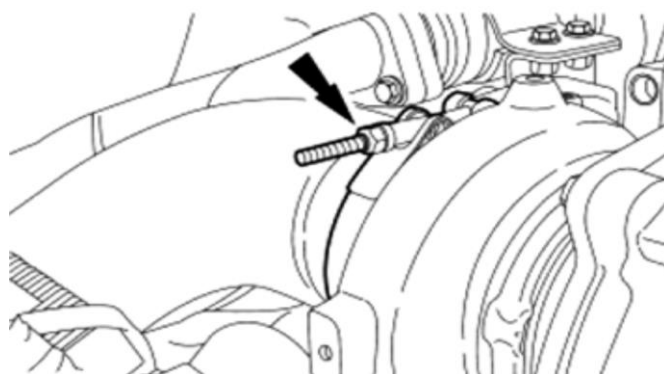
### Exhaust Up-Pipe

#### Removal

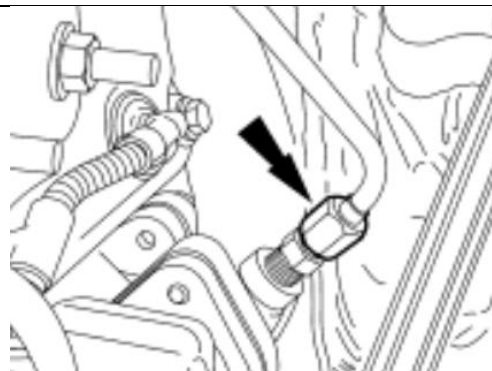
Remove the two exhaust downpipe-to-oxidation catalytic converter (OC) pipe bolts.



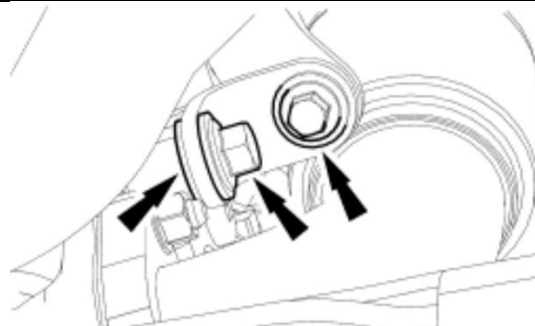
Remove the upper exhaust downpipe clamp. Position aside the exhaust downpipe. Remove the exhaust downpipe gasket.



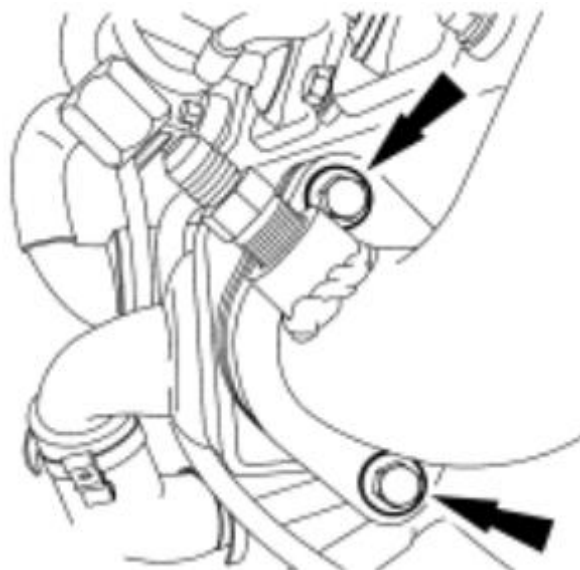
Disconnect the exhaust pressure (EP) sensor tube fitting.



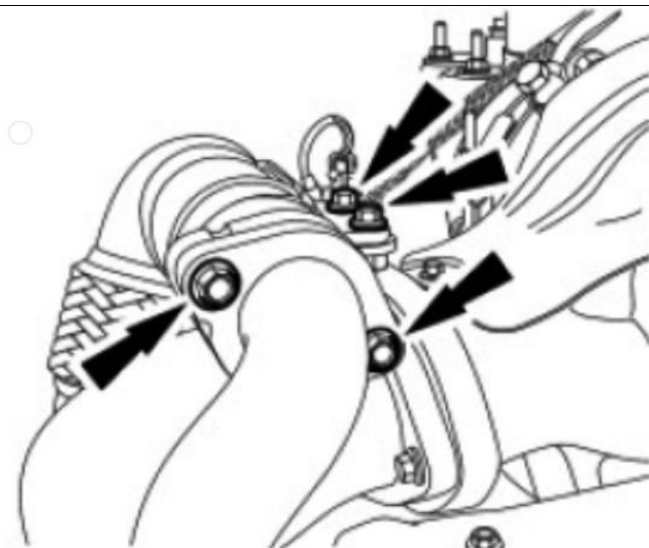
Remove the EGR-oxidation catalytic converter (OC) pipe bracket-to-cylinder head bracket bolt and washer. Remove the EGR-OC pipe bracket-to-LH cylinder head bolt, washer and the bracket.



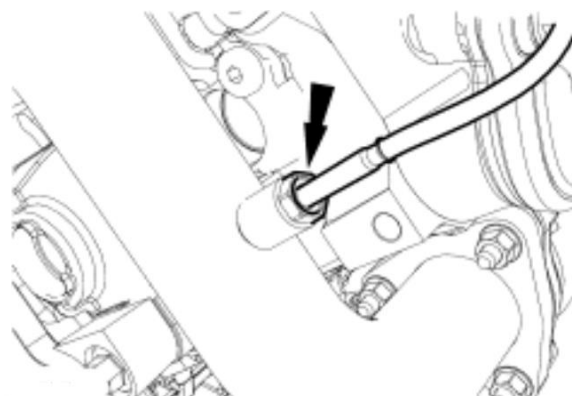
Remove the EGR-OC to EGR cooler bolts and position the EGR-OC pipe to the left side of the vehicle aside



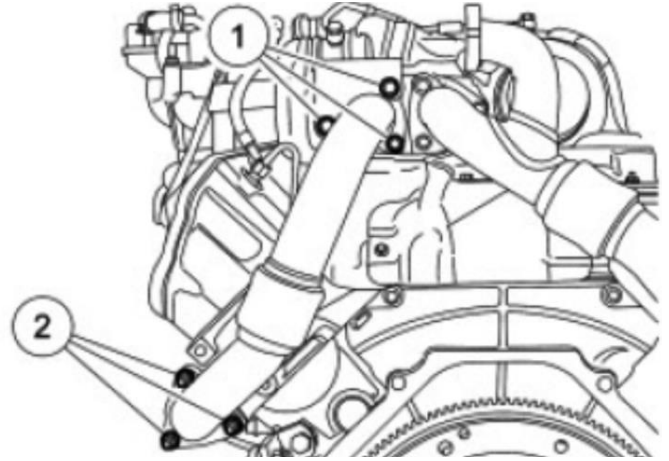
Remove the 2 EGR-OC pipe bolts and the 2 EGR-OC-to-turbo bracket bolts. Position the EGR-OC pipe aside



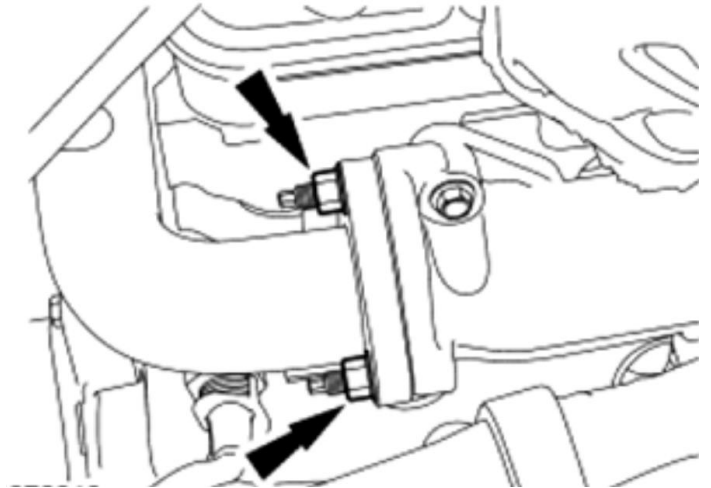
Remove exhaust gas temperature sensor from passenger side up-pipe and position aside.



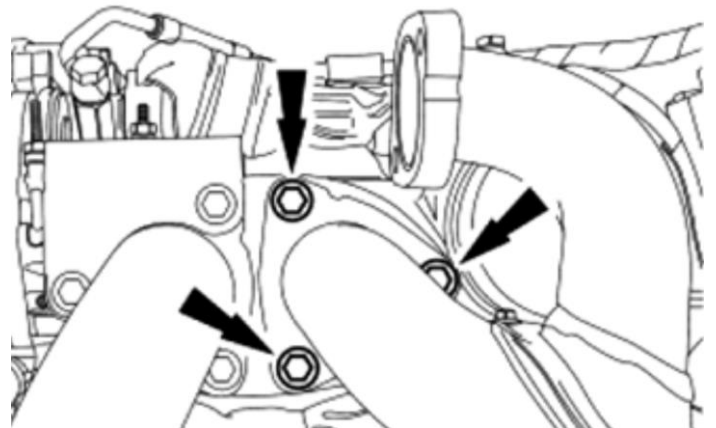
Remove three driver side up-pipe to turbo inlet port bolts (1) and the three up-pipe to exhaust manifold port nuts(2) and discard the driver side up pipe



Remove three passenger side up-pipe to exhaust manifold port nuts.



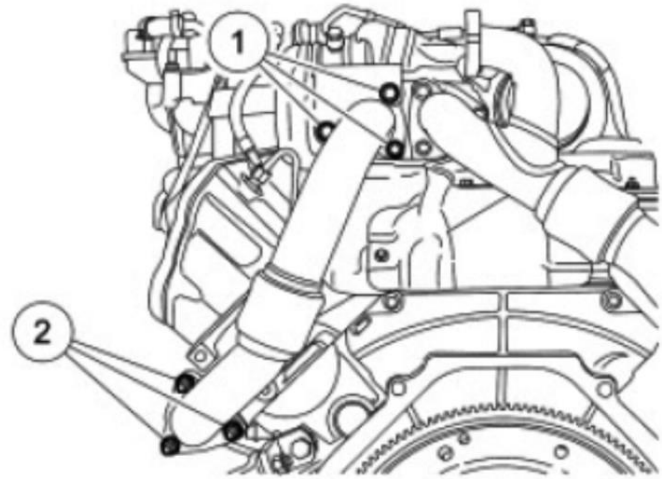
Remove three passenger side up-pipe bolts. Discard the passenger side up-pipe.



## Installation of Driver side Up-Pipe

Install the BD driver side up-pipe (1403133) to turbo inlet port using bolts(1) and to exhaust manifold outlet port using nuts(2).

- Tighten the top 2 bolts on the turbo inlet port to 24Nm (18lb-ft)
- Tighten the bottom 2 nuts on the exhaust manifold outlet port to 31Nm (23lb-ft)
- Refer to the next pages for the steps to tighten the remaining bolt and nut.



### Turbo Inlet Port Bottom Bolt:

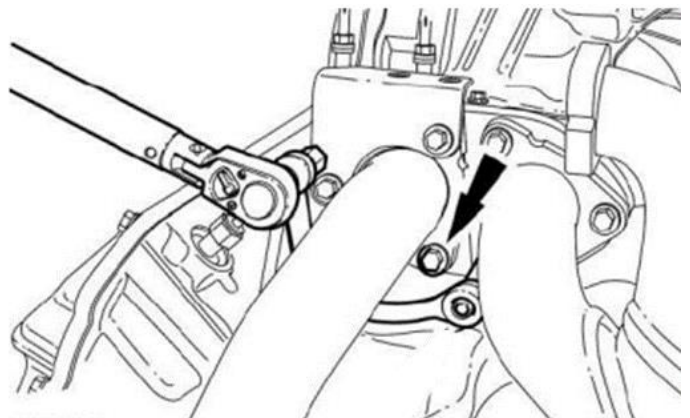
Due to limited access, one of the specific Half-moon wrenches and other tools described must be used to correctly tighten the fasteners in this step. Failure to follow this instruction may result in engine failure.

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

- A 3/8-in drive torque wrench that is 241 mm (9.5 in) or 368 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 24 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 pipe-to-turbocharger bottom bolt.



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

<i>Torque Chart - Turbocharger Inlet Pipe-to-Turbocharger, Bottom Bolt</i>					
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
<b>NOTE:</b> To achieve 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.					



### **Exhaust Manifold Outlet Port Top Nut:**

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.

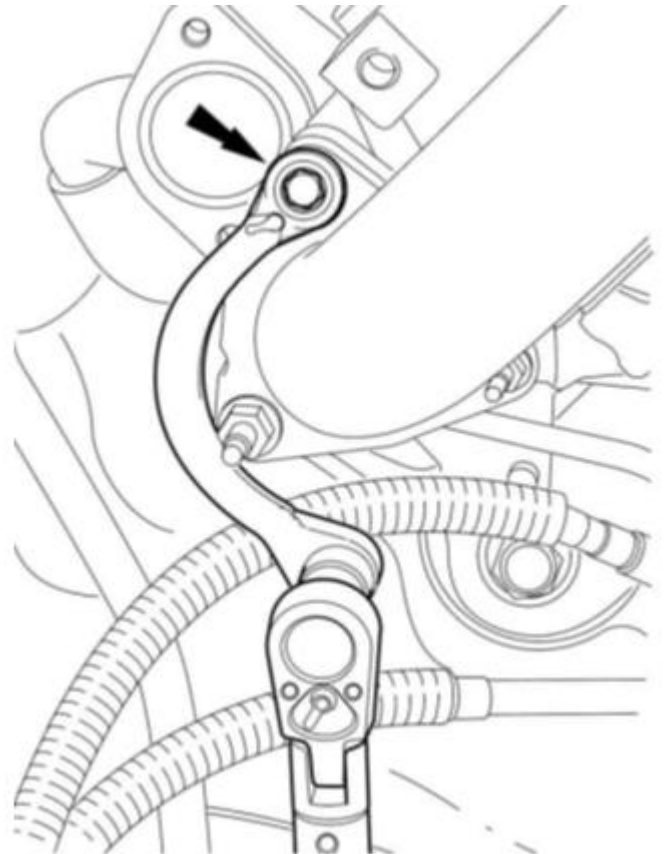
**Note:** To complete this step, it will be necessary to use the following tools:

- A 3/8-in drive torque wrench that is 368 mm (14.5 in) or 381 mm (15.0 in) from the center of the handle to the center of the square drive.
- One of the 11-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 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 driver side up-pipe (1403133) to exhaust manifold outlet port nut.

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

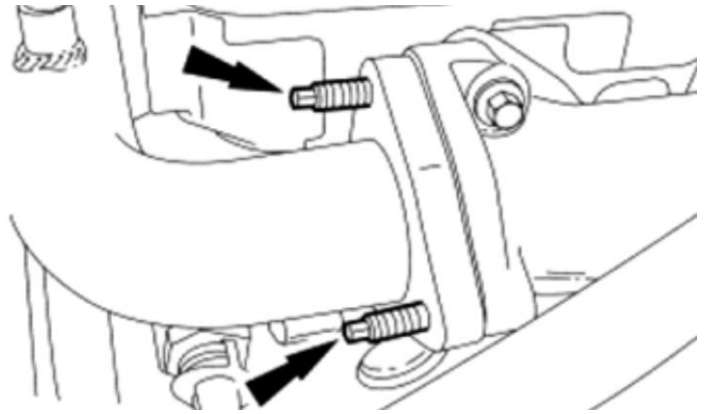


**Note:** Driver side shown, Passenger side is similar

<i>Torque Chart – EGR Pipe Bracket Bolt</i>					
Half-Moon Wrench Brand	Wrench Part Number	Wrench Size	Torque Wrench Length	Torque Wrench Setting	
				Nm	lb-ft
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
<b>NOTE:</b> To achieve 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.					

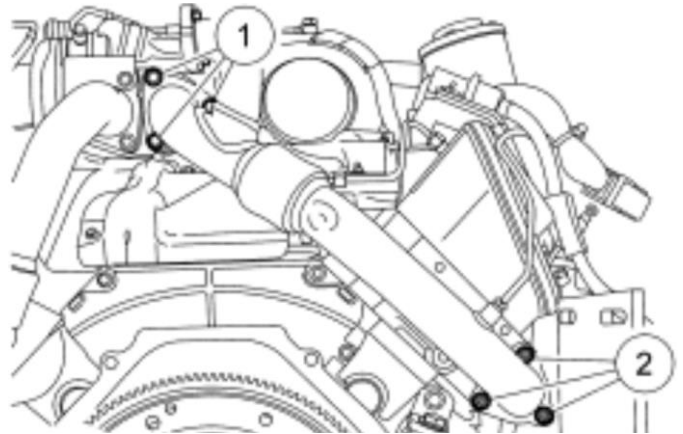
## Installation of Passenger side Up-Pipe

Place gasket (B32256) on exhaust manifold port stud then align and place passenger side up-pipe (1403130) on right side exhaust manifold outlet port stud as shown.

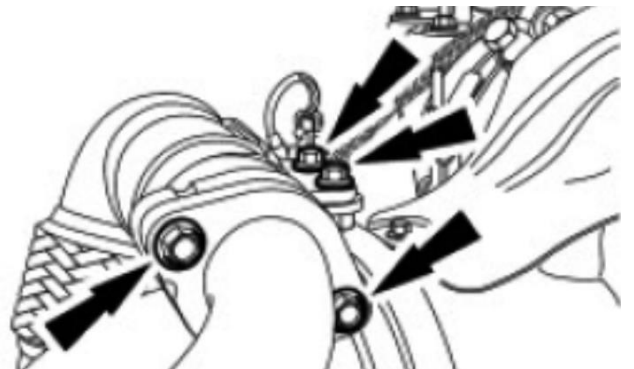


Place gasket(B32256) and install the passenger side up-pipe to turbo inlet port using bolts then put nuts on exhaust manifold port stud.

- Tighten the top 2 bolts on the turbo inlet port to 25Nm( 18lb-ft)
- Use a half moon wrench for the bottom bolt. Refer to driver side procedure for steps/specification.
- Tighten the bottom 2 nuts on the exhaust manifold end to 31Nm (23lb-ft)
- Use a half moon wrench for the top nut. Refer to driver side procedure for steps/specifications (pg # 9).

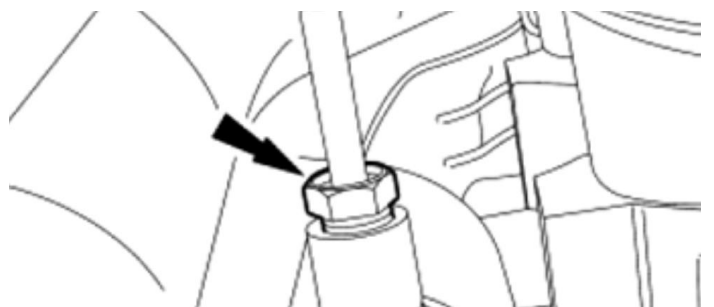


Position the EGR-OC pipe and loosely install the 2 bracket bolts. Install a gasket and loosely install the 2 bolts.

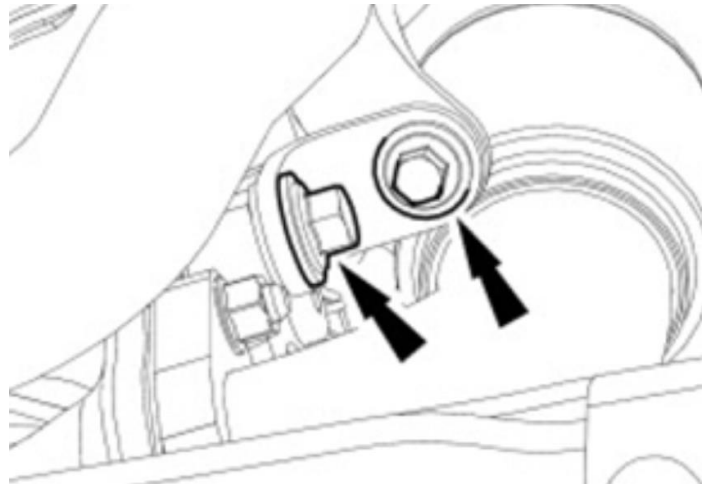


Install the EGT sensor into the RH turbo inlet pipe.

- Tighten to 44Nm (32lb-ft)



Install the bracket, washers and loosely install the 2 bolts for the EGR-OC pipe bracket.



Install the gasket and the 2 bolts for the EGR cooler.

- Tighten to 31Nm (23lb-ft)



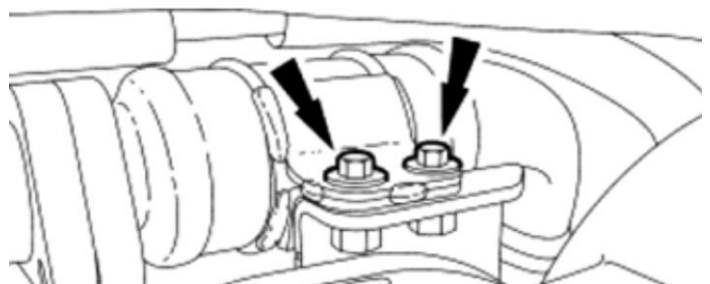
Tighten the 2 EGR-OC pipe bolts at the passenger side up-pipe EGR port.

- Tighten to 31Nm (23lb-ft)

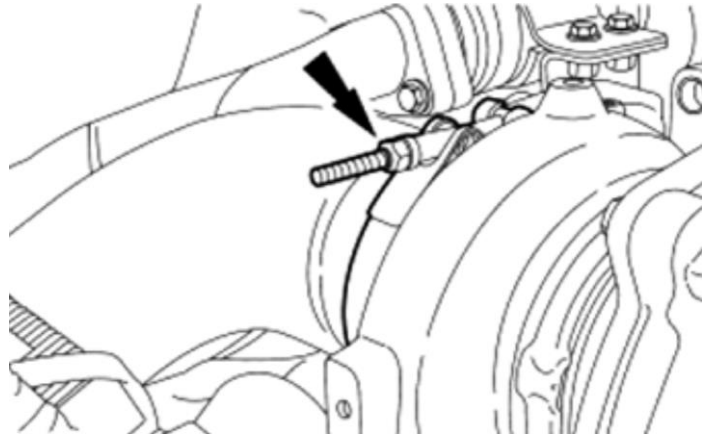


Tighten the 2 bolts for the EGR-OC pipe bracket at the turbocharger.

- Tighten to 31Nm (23lb-ft)



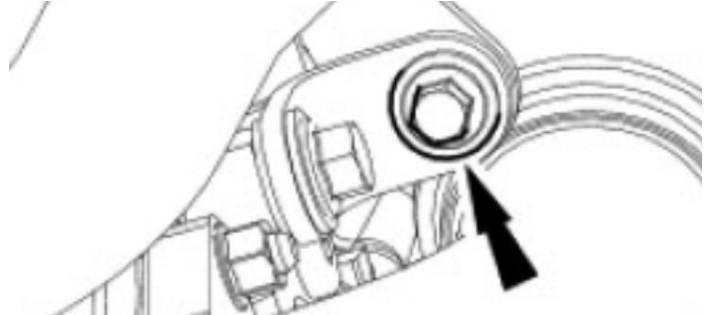
Install the gasket and loosely install the clamp for the exhaust downpipe. Align the exhaust downpipe-to-turbo-clamp so that the exhaust downpipe clip and the opening in the exhaust downpipe-to-turbo clamp are aligned and tightened to maintain position. Align the downpipe so that the area just above the flat in the pipe is approximately 20mm (0.787 in) from the frame.



Tighten the bolt for the EGR-OC pipe bracket.

- Tighten to 31Nm (23lf-ft)

To tighten the second bolt for the EGR-OC pipe bracket a Half-moon wrench is required, refer to the next step.



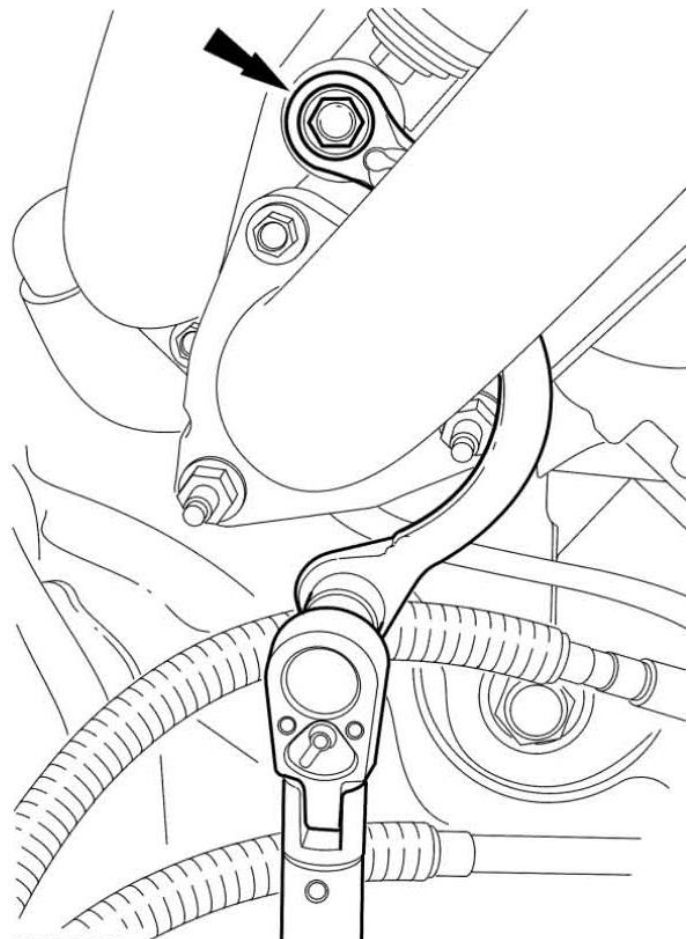
### ***EGR Pipe Bracket Bolt:***

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 mm (14.5 in) or 381 mm (15.0 in) from the center of the handle to the center of the square drive.
- One of the 11-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.

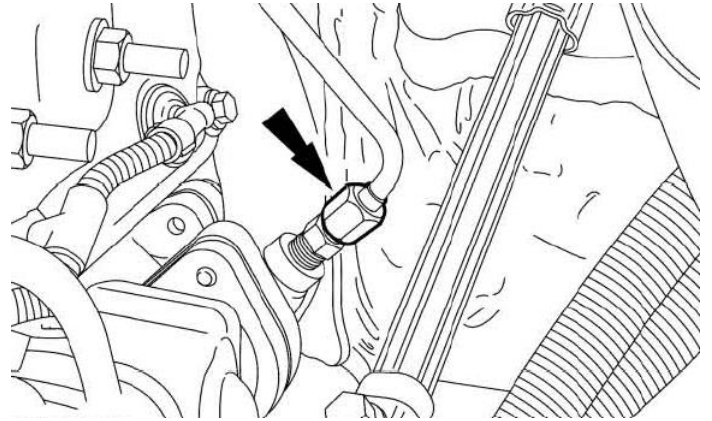


Refer to the following chart for torque wrench setting, based on the specific Half-moon wrench and torque wrench length being used.

<i>Torque Chart – EGR Pipe Bracket Bolt</i>					
Half-Moon Wrench Brand	Wrench Part Number	Wrench Size	Torque Wrench Length	Torque Wrench Setting	
				Nm	lb-ft
Comwell®	BWM-1113MM	11/13 mm	14.5 in	47	35
Gear Wrench®	9852	11/13 mm	14.5 in	46	34
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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
<b>NOTE:</b> To achieve 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.					

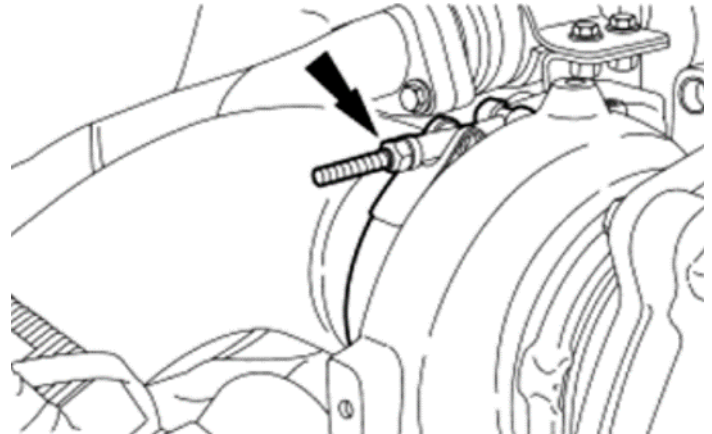
Connect the EP sensor tube to the EGR-OC pipe.

- Tighten to 20Nm (17lb-ft)



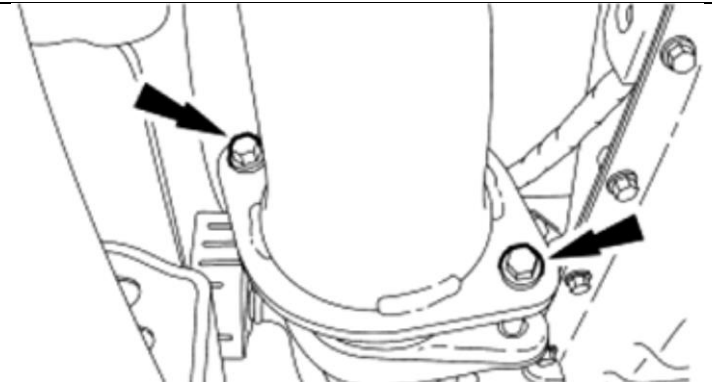
Tighten the clamp for the exhaust downpipe.

- Tighten to 15Nm (13lb-ft)



Install the 2 exhaust downpipe-to-OC pipe bolts.

- Tighten to 40Nm (30lb-ft)



Reconnect both vehicle batteries start up the vehicle and check for exhaust leaks.