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Dodge 6.7L Drop-in Turbocharger

1045775	2007-2012 Dodge 6.7L ISBe	Stock Replacement
1045778	2013-2018 Dodge 6.7L ISBe	Stock Replacement
1045770	2007-2012 Dodge 6.7L ISBe	Screamer Turbo*
1045771	2013-2018 Dodge 6.7L ISBe	Screamer Turbo*

*Meets CARB Requirements for the following Models (EO D-553-5): 2009: 3500 2013-2018: 2500,3500 *Meets SEMA Certified Emissions for the following Models (SC-BDD01-0018): 2007-2010, 2012 2500

PLEASE READ ALL INSTRUCTIONS BEFORE INSTALLATION

PRE-INSTALLATION

A new turbocharger will not solve any of the following failures:

- Oil contamination
- Restrictive oil drain and/or oil supply
- Overspeed due to boost leaks
- Exhaust leaks due to faulty seals and/or clamps

Turbo overspeed will lead to premature turbo failure. Boost pressure can be used to <u>estimate</u> turbo speed. The table shows maximum allowable turbo speed at 3200RPM. A restrictive intake or a boost leak will lead to increase in turbo speed and cause an overspeed failure.

Max Turbo Speed	Max Boost (psi)
121,000 RPM	38

Pre-Installation Inspection

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.

Kit Contents								
		4891288		5260648				
Dodge 6.7L Turbo Screamer/Stock	Oil [Oil Drain Gasket		Turbine Housing Gasket				
Qty: 1		Qty: 1		Qty: 1				
1	406853	1462430						
	0							
	l; Bonded 6.7mm	M10-1.5x30 – M10-1.5x42 Stud						
	Qty: 4	Qty: 3						

REMOVAL

- 1. Disconnect and isolate both of the negative battery cables.
- 2. Remove the right battery tray.
- 3. Remove the engine oil dip stick (2).
- 4. Remove the bolts (1) and the engine cover (3).



- 5. Remove the air cleaner body.
- 6. Disconnect the breather hose (3).
- 7. Loosen the clamp (1) and remove the air tube (2) from the turbocharger.

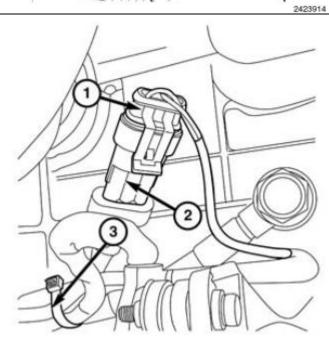
- 8. Remove the right-side wheelhouse splash shield.
- 9. Loosen the clamp (1) and remove the right Charge Air Cooler (CAC) tube (2).



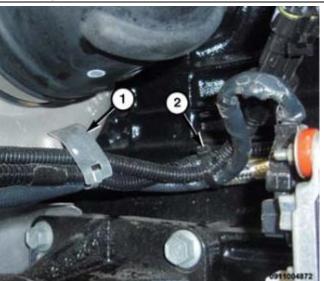
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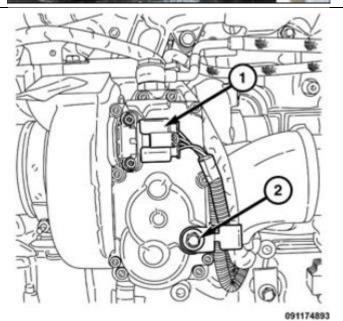
10.Drain the coolant system.

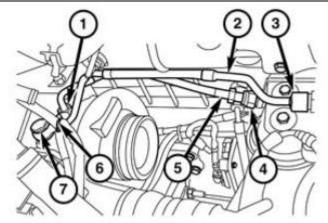
- 11.Remove the pressurized coolant bottle and position aside.
- 12.Disconnect the turbocharger speed sensor wire harness connector (1).



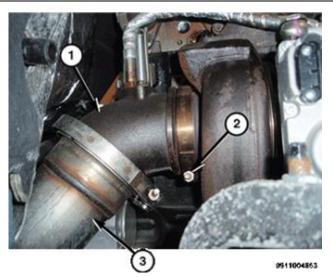
- 13. Cut the cable tie (2) securing the speed sensor wire harness to the turbocharger speed sensor wire harness.
- 14.Open clip (1) securing the wire harness and the turbocharger speed sensor wire harness.
- 15.Remove bolt (2) and separate the retainer clip securing the wire harness and the turbocharger speed sensor wire harness to the turbocharger actuator.
- 16. Disconnect turbocharger actuator wire harness connector (1) from the turbocharger by cleaning the connector to remove debris, pulling the light grey release lever away from the locked position with your thumbnail until it clicks into the unlocked position, then holding the light grey release lever down while pulling the connect apart.
- 17.Remove the turbocharger oil pressure line (1).
- 18.Remove banjo bolt (7) and the turbocharger coolant line (2).





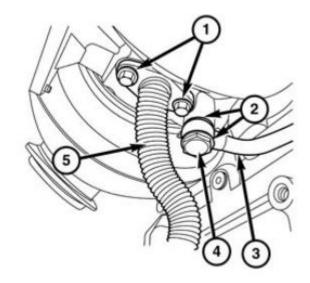


- 19.Remove the right-side engine mount. (**NOTE**: engine mount does not need to fully removed, just repositioned).
- 20. Raise and support the vehicle.
- 21.Remove the exhaust steady bracket from the transmission.
- 22.Remove the V-band clamp (2) from the turbocharger and position aside the elbow and exhaust pipe (3).



23.Remove the turbocharger speed sensor(2) and set it aside to reuse later.

- 24.Remove the bolts (1) and turbocharger drain tube (5) from the turbocharger.
- 25.Remove the turbocharger oil drain tube (5) from the cylinder block.
- 26.Remove the banjo bolt (4) and the coolant tube (3) from the turbocharger.
- 27.Remove the support and lower the vehicle.
- 28.Remove the turbocharger to exhaust manifold mounting nuts.
- 29.Remove the turbocharger from the vehicle coming through the right-side wheel.



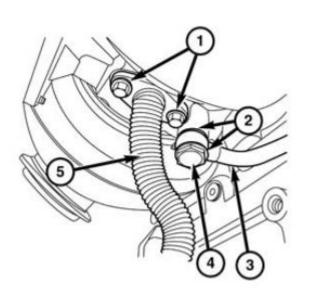
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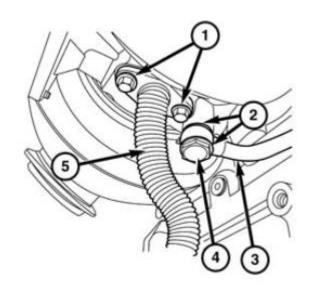
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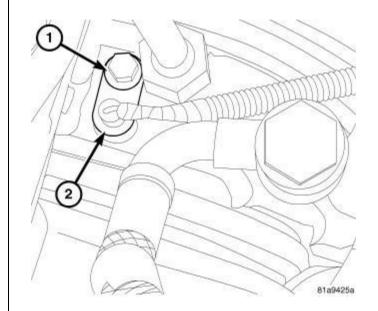
INSTALLATION

Note: Verify that turbocharger and Charger Air Cooler are free of excess oil and debris. Do not allot any water or solvents to enter the turbocharger inlet or outlet. If necessary, clean the turbocharger and the charge air cooler.

- 1. Clean the turbocharger mating surfaces.
- Pre-lube the turbocharger with 29.9-59.4ml (1-2oz) of clean engine oil.
- Install the three new studs into the turbine inlet that are supplied with the turbo.
- Using a new gasket, install the turbocharger onto the exhaust manifold stud by coming through the wheel well and tighten the nuts finger tight.
- Torque the nuts to 43Nm (32ft.lbs) using a cross pattern.
 Important! Improper flange toque can lead to exhaust leak, Gasket failure and flange damage.
- 6. Raise and support the vehicle.
- Inspect the oil drain tube O-rings for nicks or cuts. Replace if necessary. Lubricate the O-rings seals with clean oil.
- 8. Install the turbocharger drain tube (5) into engine block.
- Using a new gasket, install the turbocharger drain tube bolts (1) and tighten to 24Nm (18ft.lbs).
- 10.Using new sealing washers (2), install the lower turbocharger coolant line (3) and tighten the banjo bolt (4) to 24Nm (18ft.lbs).

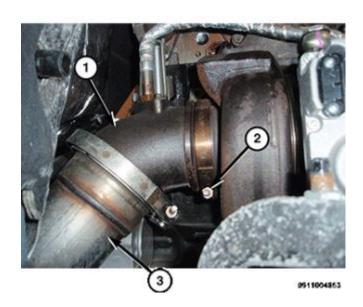




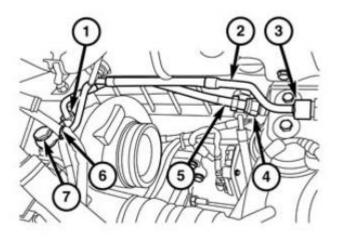


11.Install the old turbocharger speed sensor (2) and tighten bolt (1) to 10Nm (89in.lbs).

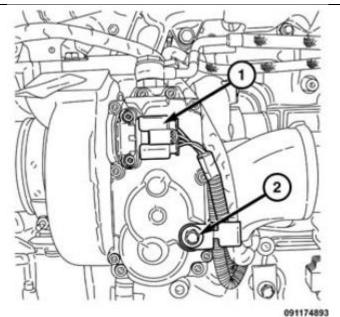
- 12. Use the V-band clamp (2) to connect the exhaust pipe (3) with the elbow (1) to the turbocharger exhaust outlet with clamp facing as shown. Tighten the clamp (2) to **17Nm (13ft.lbs)**. using a rubber mallet, hit the exhaust pipe to turbocharger clamp three times around the perimeter of the clamp (2) and tighten the clamp (2) to **17Nm (13ft.lbs)**.
- 13.Install the exhaust steady bracket to the transmission and tighten the bolt 43Nm (32ft.lbs).
- 14.Install the right engine mount.
- 15. Remove support and lower the vehicle.



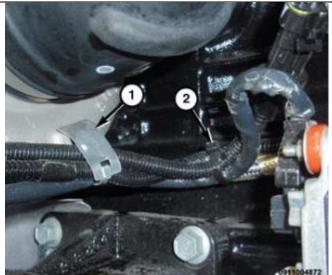
- 16.Using new sealing washer, install the coolant line (2) to the turbocharger and tighten the banjo bolt (7) and fitting (3) to 24Nm (18ft.lbs).
- 17.Install the turbocharger oil pressure line(5) and tighten the fitting (1,4) to 24Nm(18ft.lbs).



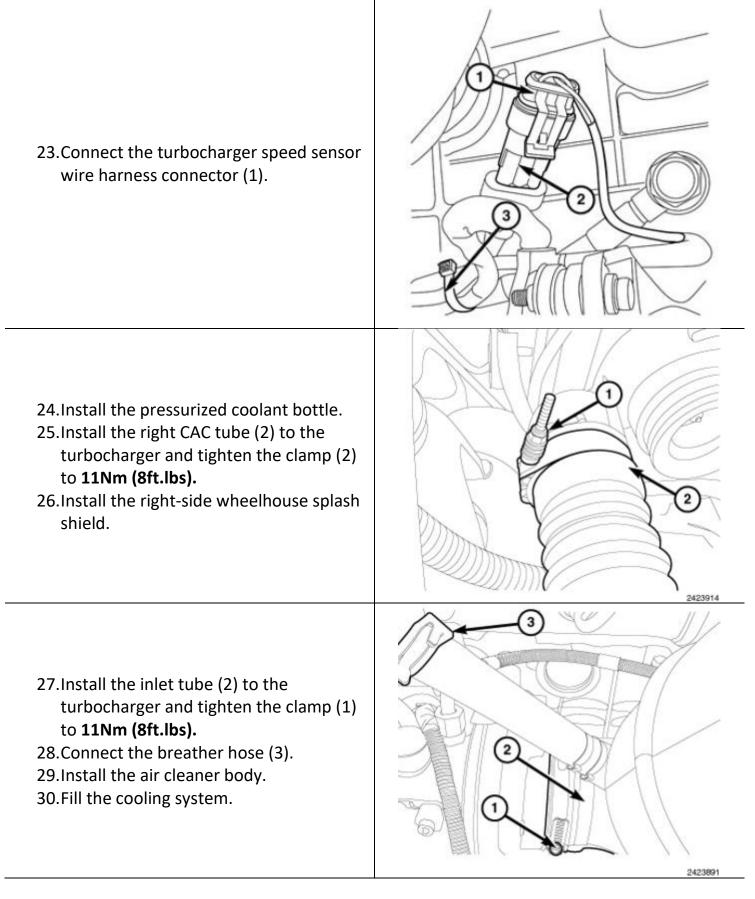
- 18.Connect the turbocharger actuator wire harness connector (1).
- 19. Position the wire harness and the turbocharger speed sensor wire into the harness retainer clip.
- 20.Install the bolt (2) to the turbocharger actuator and tighten to **11Nm (8ft.lbs).**



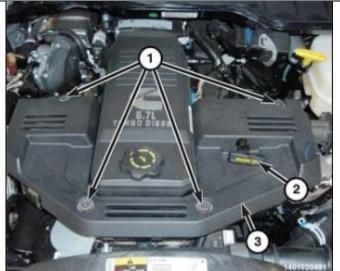
- 21.Position the wire harness and the turbocharger speed sensor wire harness into the retainer and close the retainer clip (1).
- 22.Using a cable tie (2), tie the wire harness and turbocharger speed sensor wire harness together.







- 31.Install the engine cover (3). Tighten bolts (1) to **10Nm (89in.lbs).**
- 32.Install the engine oil dip stick (2).
- 33.Install the right battery tray.
- 34.Connect both of the negative battery cables.
- 35.Start the engine and check for any cooling or exhaust leaks and confirm the turbocharger is operating properly.



- <image>
- 36. For vehicles models meeting the CARB requirements, affix the sticker onto the truck, close to the airbox as shown.