

(I-00300)

BD Engine Brake LIMITED WARRANTY STATEMENT

BD Engine Brake (the "Seller") warrants the following product(s):

All products manufactured or rebuilt by the Seller are to be free from defects in material or workmanship, which includes but is not limited to Turbochargers, Exhaust and Intake manifolds, Exhaust brakes, Intercoolers, Flex Plates, Transmissions, Torque Converters, Oil pans, Fuel pumps and systems, Electronic monitors and control systems. The Seller warrants to the original buyer of the product (the "Buyer") that it will repair or replace, free of charge, any product which has a defect in material or workmanship within the warranty period described below. Copy of original invoice is required to qualify for warranty.

A defect is defined as a condition within the product that would render the product inoperable under normal conditions of use and service. The Seller's responsibility under this Warranty is limited to the repair or replacement, at the Seller's option, of any warrantable product returned prepaid with complete service history and proof of purchase. A valid proof of purchase is a dated bill of sale or receipt.

A Return Material Authorization (RMA) number, obtained in advance from a customer service representative of the Seller and the dated bill of sale or receipt, must accompany any product returned by the Buyer for warranty determination. The Seller will be the final authority on the approval of all warranty claims hereunder. The issuance of a RMA number does not represent an approval of a warranty claim. BD reserves the right to return or replace Warranty Approved items freight Prepaid. While warranty denied or rejected, claims will be returned freight collect. Accepted warranty products, which have been replaced, will become the sole property of BD.

Until the Seller has approved a warranty claim, the Buyer will be responsible for all costs. Replacement parts and the labor costs incurred by the removal and replacement of the product while performing warranty work will be the responsibility of the Buyer. In no case does the obligation of the Seller exceed the original purchase price of the product as indicated on the original bill of sale or receipt. Under no circumstances will the Seller be liable for any travel time incurred in diagnosis for defects, or any other contingent expenses.

Only once the claim is approved, and depending on if the warrantable product is eligible, labor costs will be considered for the removal and replacement if an eligible part at an hourly rate of \$100.00 per hour. The end user may be responsible for the difference between the BD warranty labor rate and the authorized service dealer's labor rate. BD recommends the end user negotiate these conditions before the service is performed. As well the end user may be responsible for additional freight charges from FOB Abbotsford, BC / Washington.

To the extent permitted by law, the Buyer hereby waives all rights other than those expressly set out herein and acknowledges that this warranty sets out the Buyer's exclusive remedies with respect to products covered by it. This warranty shall not be extended, amended or varied except by written instrument signed by the Seller and the Buyer. If the buyer replaces the product from the Seller with another from another manufacturer, the Buyer-Seller warranty contract is void and the RMA Claim will be terminated. Any claim for remuneration will be rejected.

The Seller will administer warranty requests on products sold by the Seller and not manufactured by the Seller by forwarding claims made by a Buyer under the manufacturer's warranty to the manufacturer. The final disposition of such claims will be made by the manufacturer and ruled by the laws of British Columbia, Canada.

Customer assumes risk in purchasing product with in 30 days may return the product for exchange of other BD products or services only. No cash refunds are available.

The installation of BD aftermarket parts may void the OE warranty. BD is not responsible for OE warranties or how they are administered. Residents of the U.S.A. can reference the Magnuson-Moss warranty act that protects the consumer on the installation of aftermarket parts, please research this act to base your decisions accordingly.

In the case the warranty is denied, BD at its discretion, may offer to refurbish (where applicable) the product at discounted rate for the end user.

Please refer to Warranty time limitation per product.

NOT COVERED UNDER THIS WARRANTY

This warranty is limited to the original purchaser of the product and is not transferable to subsequent owners. Specifically excluded from this warranty are failures of products caused by misuse, misapplication, negligence of the Buyer, accidents, modification, abuse, improper storage, installation, repair or operation, use of unauthorized parts or other mistreatment of the Buyer or his agent. Any competitive use, sled pulling, drag racing will void warranty on product. A sheared or twisted shaft, broken planetary gear sets, burned clutches, broken drive hubs, sun gear damage, cracked housings are not covered. Damage caused from debris in oil contaminated coolers, improper fluids and filters or damage caused from fuel or air contamination, Biodiesel, low fluid levels are also not covered. This warranty does not cover deterioration of plating, paint or any other coating, linings or parts that are subject to normal wear and tear, such as light bulbs, fuses, bearing wear, seal wear, etc.

In the case of BD transmissions, a BD torque convertor must be installed at the time of installation of the transmission. Use of a 3rd party or OE convertor may invalidate the transmission warranty.

If product is not installed by a trained and authorized BD dealer, installation facility must prove it is properly tooled and has certified training to have installed or to carry out repair of product.

The Seller also disclaims any liability for incidental or consequential damages including but not limited to, repair labor, rental vehicles, hotel cost or any other inconvenience cost. To the extent permitted by law, this warranty is in lieu of all other warranties or guarantees, either expressed or implied, included the implied warranties of merchantability and fitness for a particular purpose and shall not extend to any Buyer or to any person other than the original purchaser residing within the boundaries of the continental U.S. or Canada. As well the seller is not responsible or obligated to update previously manufactured parts that are currently under the above warranty.

NOTE THAT THIS GUARANTEE WILL BE VOID IF THE USER BREACHES THE CONDITIONS IN THE SECTION LABELED "NOT COVERED UNDER THIS WARRANTY" AND IS ONLY APPLICABLE ON THE PRODUCTS THE SELLER MANUFACTURES.

DISCLAIMER OF LIABILITY

Other than as expressly set forth herein, the Seller, together with its distributors, jobbers and dealers shall in no way be responsible for the product's proper use and service. In no event shall the Seller be liable for any special, incidental, indirect or consequential damages of any kind or nature, whether or not the Buyer was advised of the possibility of damage, arising or resulting from the use or performance of the product, and the Buyer hereby waives any and all such claims.

The Buyer acknowledges that he/she/it is not relying on the Seller's skill or judgment to select or furnish goods suitable for any particular purpose and that the Seller has no liability that will extend beyond the scope of the limited warranty contained herein, and the Buyer hereby waives all remedies or liabilities, expressed or implied, arising by operation of law or otherwise, (including, without limitation, any obligations of the Seller with respect to fitness for any particular purpose; merchantability; and special, incidental, indirect or consequential damages) or whether or not occasioned by the Seller's negligence.

The Seller disclaims any warranty and expressly disclaims any liability for personal injury or damages related to the Buyer's use of the product. The Buyer acknowledges and agrees that the disclaimer of any liability for personal injury is a material term for this Agreement and the Buyer agrees to indemnify the Seller and hold the Seller harmless from any claim related to the product and its use or performance. Under no circumstances will the Seller be liable for any damages, liabilities, costs or expenses incurred as a result of by reason of the use, performance or sale of the product, including without limitation, any damages, liabilities, costs or expenses incurred by reason of the Buyer's negligence related to those uses of the product as a result of the removal of the speed limiter.

The Seller assumes no liability regarding the improper installation or misapplication of the product. It is the installer's responsibility to check for proper installation, and, if in doubt, contact the manufacturer.

Limited Warranty Details			
Product Name	Parts (Months/Miles) ¹	Labor (Months/Miles) ^{1,2}	Notes
Torque Converters	36/ 150,000	12/12,000	No Race abuse covered
Transmissions (TowMaster & TorqueMaster)	36/ 150,000	12/ 24,000	No Race abuse or broken shafts covered. Remote filter required for inspection with a cooler flow rate in GPM at Oil/Air transmission cooler outlet. Freight provision allowed.
Transmissions (RoadMaster)	24/ 100,000	12/ 24,000	
Rebuild/Repair Transmission	12/ 24,000	12/ 24,000	Defined as "Cost of Repair" or repaired units that fall outside of the retail warranty period.
Race Transmissions	12/ 24,000	Not Eligible	
Valve / Accumulators Bodies	12/ 24,000	12/ 24,000	
Transmission Pans	36/ 150,000	Not Eligible	
Flex Plates	36/ 150,000	Not Eligible	
Injectors (Mechanical) & Injection Pumps	12/ 24,000	12/ 24,000	VP44/P7100 Race Pumps 90 days parts/No labor coverage
Performance Injector Nozzles (Common Rail)	Not Eligible	Not Eligible	
Common Rail Injectors	24 Months	Not Eligible	Manufacturing and material defects are only covered. Cracks caused by high fuel pressure are not covered. High Return flow not covered after 12 months on Performance Injectors. For No Hassle Eligibility, see https://us.bddiesel.com/pages/extended-warranty
	24 Months + No Hassle	Not Eligible	
Performance Tuners and Chips	Manufacturer ³	Not Eligible	
BD Electronic Modules (TSB, VVB, etc)	24/ 48,000	Not Eligible	
Intake / Exhaust Manifolds	36/ 75,000	Not Eligible	
Exhaust Up pipes	12/24,000	Not Eligible	Surface rust not eligible.
Exhaust Kits	Manufacturer ³	Manufacturer ³	
Hoses / Clamps	12/ 24,000	Not Eligible	
BD Xtruded Transmission Cooler	12/ 24,000	Not Eligible	
Manual Transmission Clutches	Manufacturer ³	Manufacturer ³	
Short Shifters	12/ 24,000	Not Eligible	
Engine / Head Stud kits	Manufacturer ³	Manufacturer ³	
Positive Air Shutoff / Electronic Positive Air Shutoff	24/ 24,000	Not Eligible	
Exhaust Brakes	24/ 24,000	12/ 24,000	
Gauges and Mounts	Manufacturer ³	Manufacturer ³	
Screamer Turbos	24 Months	Not Eligible	24 Month warranty effective for sales after 11/01/2024
Performance/OEM Turbos	12 Months	Not Eligible	
Remanufactured ISX Turbos	90 Days	Not Eligible	See I-00437 for more details. For 1045880, see OEM Turbos.
Auxiliary Fuel Pumps	12/ 12,000	Not Eligible	
BD FICM	12 Months	Not Eligible	
Fuel Control Plate/Pin (VE & P7100)	24 Months	Not Eligible	
Distributed Product (Not Manufactured by BD)	Manufacturer ³	Manufacturer ³	
Replacement Components	12 Months	Not Eligible	
Transmission Rebuild/Build It Kits	12 Months	Not Eligible	Material Defects Only
Steering & Suspension Parts (Track Bar, Caster kit, Steering Stabilizer, Bars and links)	Limited Lifetime (12 months if not registered)	Not Eligible	Must register online within 30 days of purchase to be eligible. See website https://warranty.bddiesel.com/limited-lifetime/ for details. Excludes normal wear & tear (boots, bushings, joints, bearings) and improper use.
Venom/FlowMAX Fuel Lift Pump Kit	Limited Lifetime (12 months if not registered)	Not Eligible	Must register online within 30 days of purchase to be eligible. See website https://warranty.bddiesel.com/limited-lifetime/ for details. Excludes normal wear/service items (hose, filters) and improper use.

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¹ Warranty is based on whichever occurs first (Months or Mileage).

² Prior approvals must be given to qualify for labor reimbursement.

³ As per Manufacturer's warranty

Updated 10/21/2024

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Pre-Installation

A new turbocharger will not solve the following failures:

- Oil contamination
- Restrictive oil drain
- Overspeed due to a boost leak or clogged air filter
- Exhaust leaks due to faulty bellows, clamps, or seals





Turbo overspeed will lead to premature turbo failure. Boost pressure can be used to estimate turbo speed. A turbo intake restriction, clogged filter, high altitude, or boost leak will cause increased wheel speed.

Turbo	Estimated Airflow	Max boost
1045768	75 lb/min	39

Turbo Mount Exhaust Brakes

The BD Diesel Screamer turbo retains the factory turbine outlet. If your stock turbo has a turbo mount exhaust brake it can be transferred to your Screamer turbo. If you plan on purchasing an exhaust brake with your Screamer turbo buy according to the year of your truck; see the optional accessories section for year ranges and part numbers for BD Diesel exhaust brakes.

Kit Contents

	1407557 (Plug) 1453157 (Small O-ring) FT-920155095 (Large O-ring)		1462430
			
Turbo; Screamer 03-07 5.9L Cummins Qty: 1	Compressor Cover Plug with 2 O-rings Qty: 1	Oil Drain Gasket Qty: 1	Stud M10-1.5x30 - M10-1.5x42 Qty: 2

3678603	FT-920156020		1462441
			
O-ring Qty:1	O-ring Qty: 1	Exhaust Elbow V-Band Qty: 1	Mounting Nuts Qty: 4

Optional Accessories

Part	Description	
Exhaust Elbow <ul style="list-style-type: none"> 4.5-07: 1045100 	Turbine outlet exhaust elbow.	
BD Diesel Exhaust Brake <ul style="list-style-type: none"> 03-04: 2023138 04.5-07: 2023331 06-07: 2023330 	Turbo mount exhaust brake. Will work with a BD Diesel Screamer Turbo or a stock turbo.	
BD Diesel Hose and Clamp Kit <ul style="list-style-type: none"> 10452515 	Boots can withstand over 100psi and are secured by rugged, spring-loaded, stainless steel clamps.	

Introduction

The BD Screamer turbo series is now available for the 2003-2007 Dodge 5.9L Cummins. The Screamer turbo is designed to be a drop-in stock-appearing performance turbocharger that increases boost while decreasing drive pressure and peak EGTs without affecting low-end drivability.

The 5.9L Cummins Screamer turbo utilizes a 63mm billet compressor wheel and a 76mm high-flow turbine wheel, offering increased turbine flow and efficiency. The wastegate for the Screamer turbo is pre-set to 30 psi. With supporting modifications, the Screamer turbo is capable of 625hp.

Tools Required for Installation

- 7mm-22mm Metric Socket and Wrench Set
- 5/16"-9/16" Socket and Wrench Set
- Hose Clamp Plier
- Torque Wrench
- 21mm Crows foot

Installation

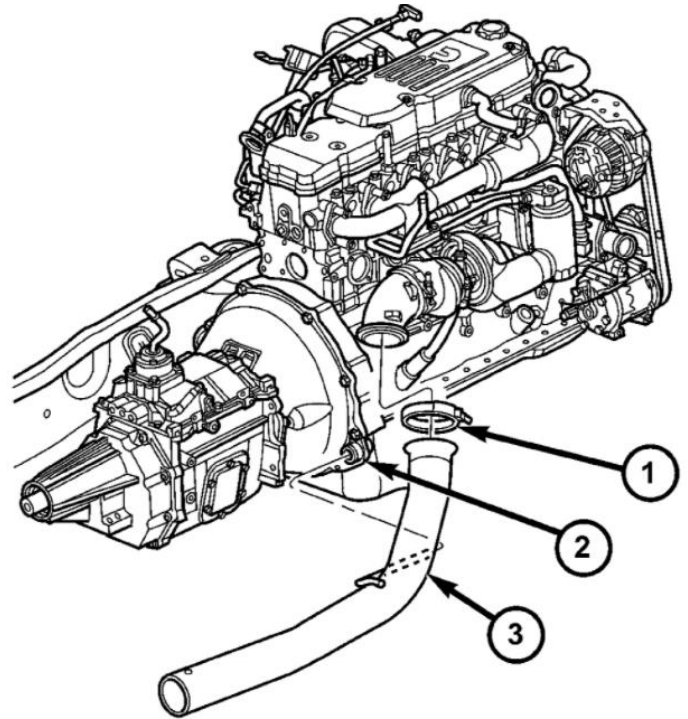
Removal

1. Disconnect the battery and raise the vehicle.

2. Remove the passenger side inner fender well with a 5/16" socket.



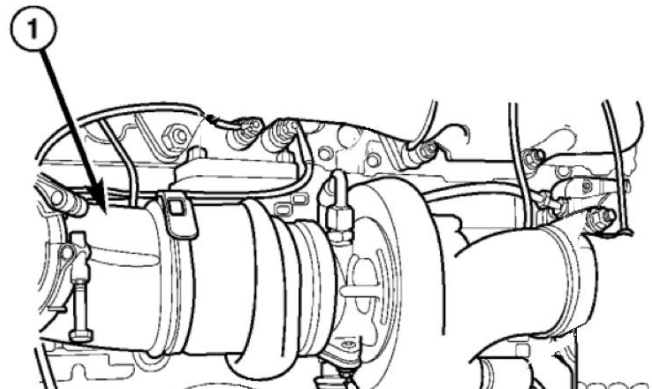
3. Disconnect the exhaust pipe from the turbo exhaust elbow.
 - Saturate the bolts and nuts with heat valve lubricant. Allow 5 minutes for penetration.
 - Remove the exhaust pipe-to-extension pipe clamp using a 11mm socket. Separate the exhaust pipe and extension pipe
 - Remove the exhaust pipe-to-turbo elbow clamp using a 10mm socket.
 - Remove the exhaust pipe from the transmission support.



- | |
|---|
| 1 - Exhaust pipe to turbo clamp
2 - Transmission support
3 - Exhaust pipe |
|---|

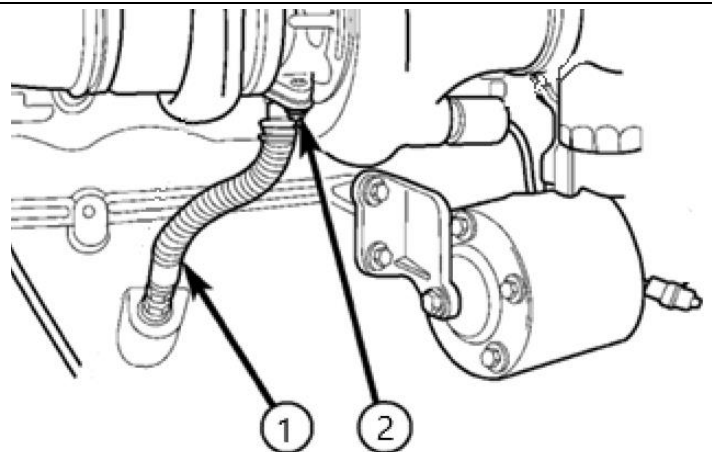
4. Remove the exhaust elbow from the turbo by removing the v-band clamp using a 10mm socket.

Note: Put this elbow aside, it will get used with the new turbo.



- | |
|-------------------------|
| 1 - Turbo Exhaust Elbow |
|-------------------------|

5. Remove the oil drain line from the turbo with a 10mm socket, and discard the gasket.



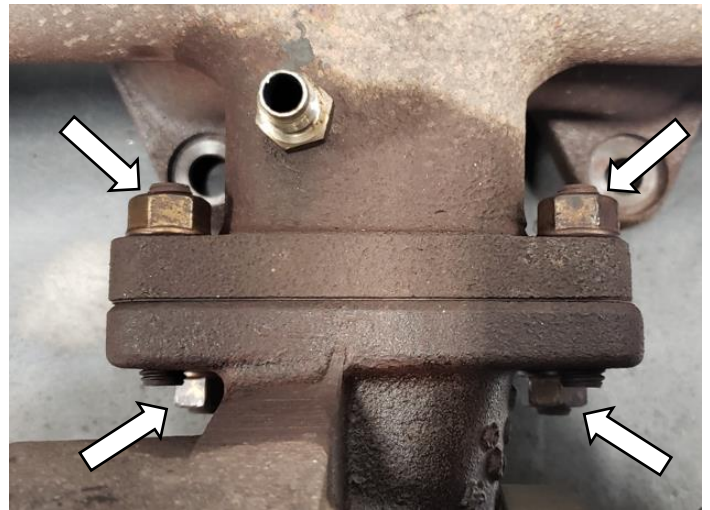
- | |
|---|
| 1 - Turbo oil drain tube bolt
2 - Turbo oil drain tube |
|---|

6. Disconnect the turbo oil feed using a 21mm wrench.



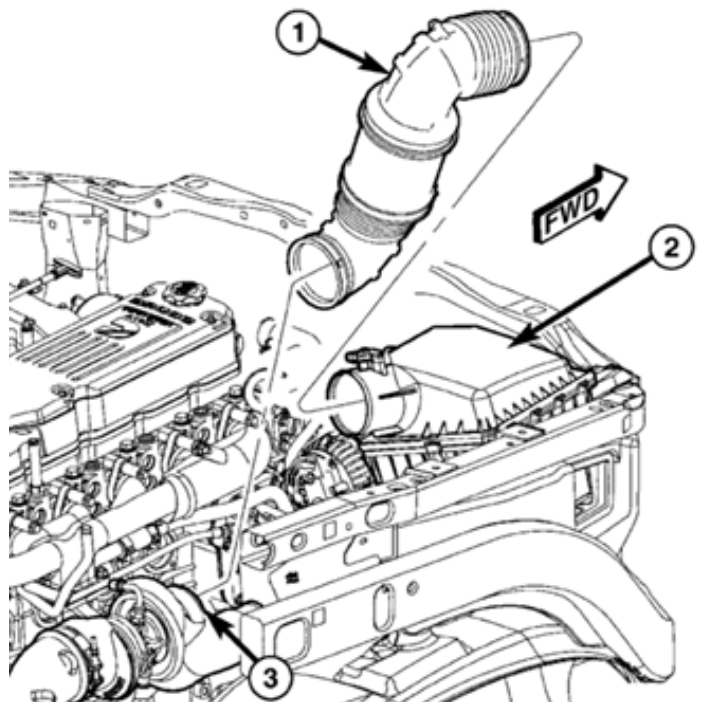
7. Remove the two lower turbo mounting nuts with a 15mm socket and extension.

Break the two upper turbo mounting nuts loose with a 15mm wrench.



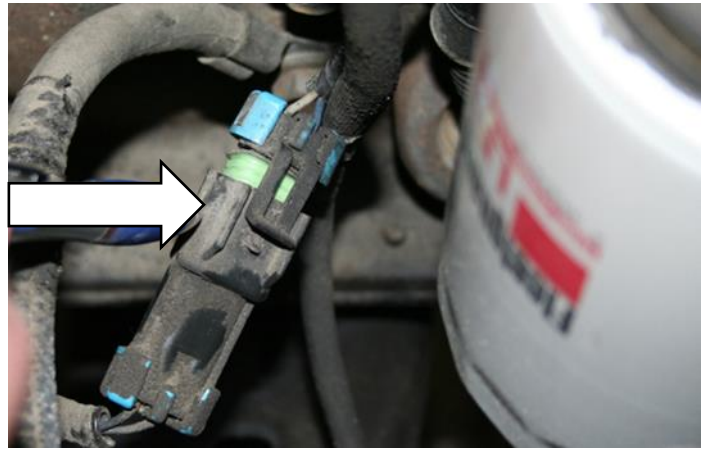
8. Lower the vehicle.

9. Disconnect the air intake hose using a 7mm socket.



- 1 - Air inlet tube
2 - Air filter housing
3 - Turbo

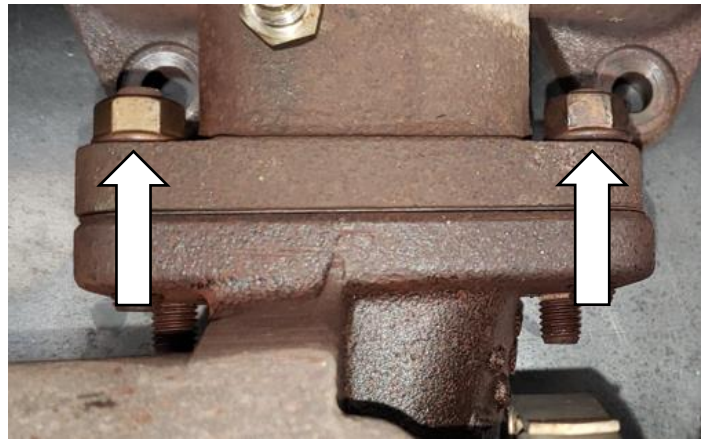
10. On 04.5-07 trucks, you will need to disconnect the wastegate solenoid connector.



11. Disconnect the intercooler inlet pipe from the turbo compressor outlet. Use a 7/16" socket for the hose band clamp.



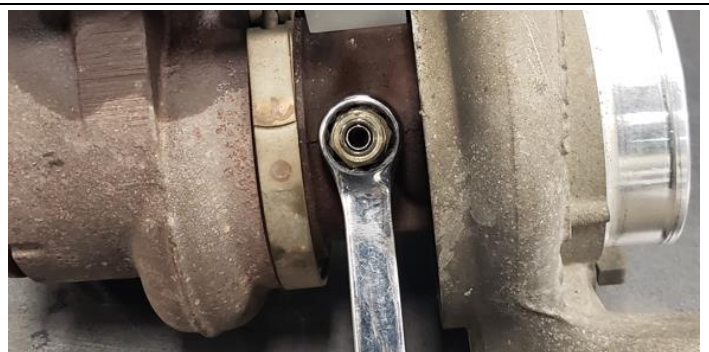
12. Remove the two upper turbo mounting nuts with a 15mm wrench.



13. Remove the turbo and gasket from the exhaust manifold.

14. If the turbo is not being installed immediately, cover the opening to prevent material from entering into the manifold.

15. Remove the turbocharger oil supply fitting and put it aside. This fitting will be used on the new turbo.



Installation

For **2003-2004.5** make sure the compressor cover plug with 2 O-rings is installed on the compressor cover.



For **2004.5-2007** make sure the solenoid is installed on the compressor cover.

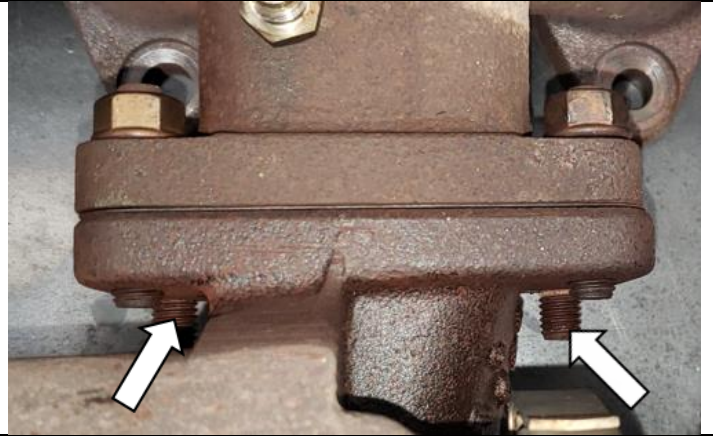
Be sure to torque either the plug or solenoid to **13.5 Nm (10 ft.lbs)**.



1. Using the new gaskets (FT-920156020 & 3922794) provided in the kit, install the oil supply fitting from the old turbo to the Screamer turbo. Tighten fitting to **36 N.m (27 ft.lbs)** with a 19mm socket.

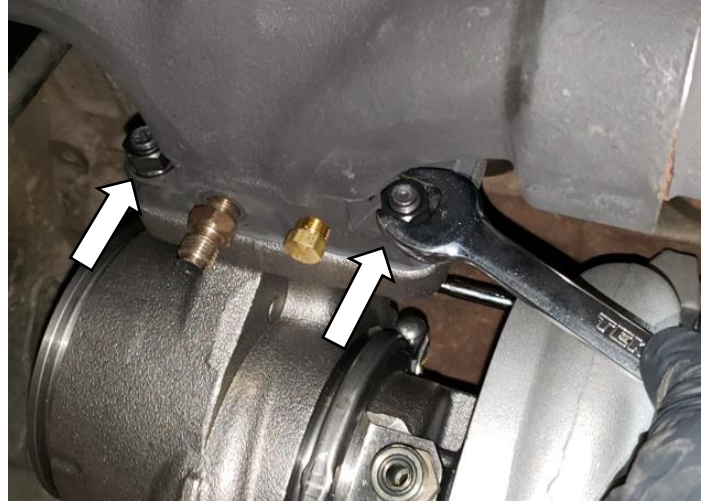


- From 2003 - 2004.5 the two rear manifold factory studs are too short so you must replace those two factory studs with the supplied studs (1462430).



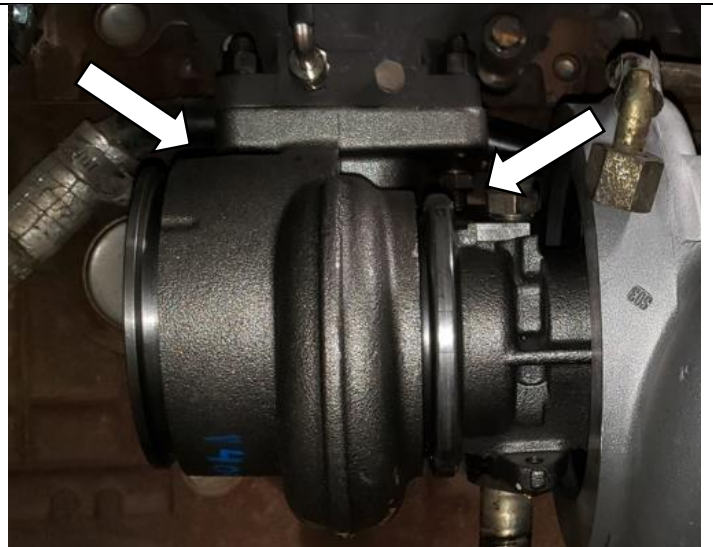
- Secure the turbo to the exhaust manifold with the two upper turbo mounting nuts. Use the NEW gasket provided with the turbo, and tighten nuts to **43 N.m (32ft. lbs)** with a 15mm socket.

Important! Improper torque of the flange can lead to exhaust leak, gasket failure, and flange damage.



- Raise the vehicle.

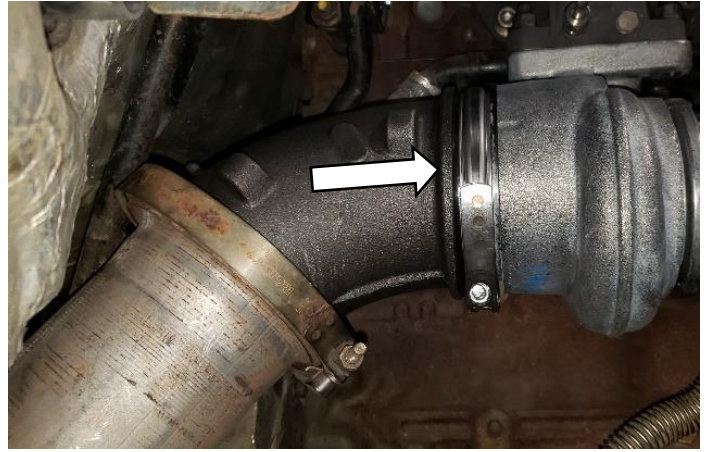
- Tighten the 2 lower turbo mounting nuts to **43 N.m (32 ft.lbs)** with a 15mm socket.



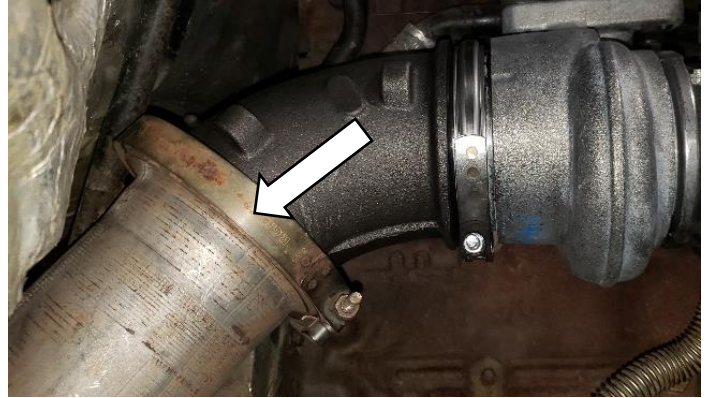
- Using the new gasket provided in the kit, install the oil drain tube to the turbo. Tighten the drain tube bolts to **24 N.m (18ft.lbs)** with a 10mm socket.



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7. Connect the exhaust elbow to the turbo using the new v-band clamp provided in the kit. Tighten the v-band clamp to **11.3 N.m (100in.lbs)** using a 10mm socket.

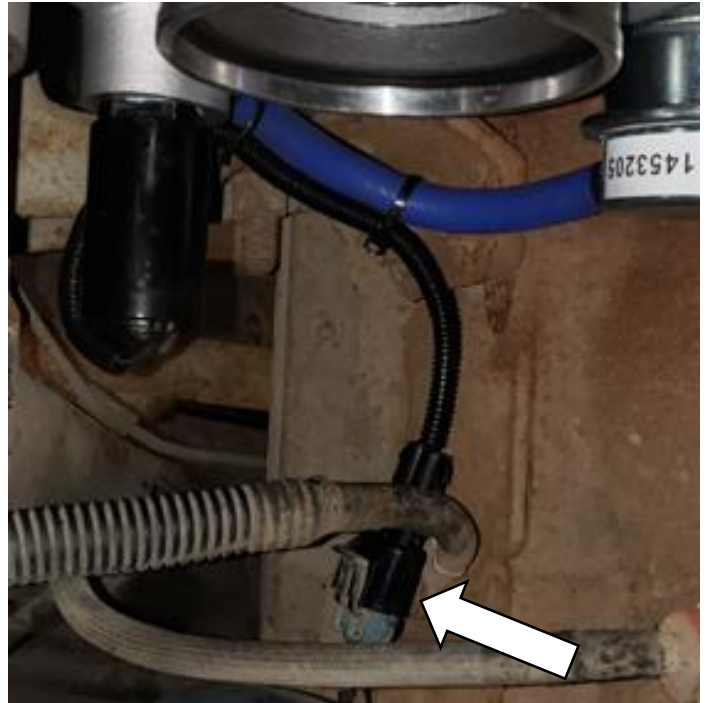


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8. Connect the exhaust pipe to the turbo and tighten the v-band clamp to **11.3 N.m (100 in.lbs)** using an 11mm socket.



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9. Lower the vehicle.

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10. On 04.5-07 trucks, connect the wastegate solenoid connector.



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11. Pre lubricate the turbo. Pour 50 to 60cc (2 to 3 oz), of clean 15w40 engine oil in the oil supply inlet. Carefully rotate the turbocharger by hand to disturb the oil thoroughly.
-

12. Install and tighten the oil supply line with a 21mm wrench. Torque to **24 N.m (18 ft. lbs)** with a 21mm crow's foot.



13. Position the intercooler inlet pipe to the turbo. With the clamp in position, tighten the clamp nut to **11 N.m (95 in. lbs)** with a 7/16" socket.



14. Position the air inlet hose to the turbo. Tighten the clamp to **4 N.m (35 in. lbs)** with a 7mm socket.



15. Connect the battery and start the engine and check for leaks

Troubleshooting

Error Code	Possible Causes	Solution
P0234 Turbocharger Overboost Condition	<ul style="list-style-type: none"> • Wastegate Stuck • Turbocharger and/or wastegate damaged • Wastegate control valve damaged (04.5-07) 	Ensure the wastegate is set at 30 psi.
P0236 MAP Sensor Too High Too Long	<ul style="list-style-type: none"> • MAP sensor intermittent condition 	Follow OE diagnostic testing procedure to determine the fault.
P0243 Wastegate Pressure Control PWM (04.5-07)	<ul style="list-style-type: none"> • Fused ignition switch output open • Wastegate solenoid control circuit open • Wastegate solenoid control circuit shorted to ground • Wastegate solenoid control circuit shorted to voltage wastegate solenoid. • Engine control module 	Follow OE diagnostic testing procedure to determine the fault.
P0299 Low Boost Pressure/ Turbocharger Underboost	<ul style="list-style-type: none"> • Intake air system restriction • Intake air system leak • Boost pressure sensor • In rare instances with the Screamer, fueling conditions underperform for turbo requirements 	Follow OE diagnostic testing procedure to determine the fault. In the rare instance of under fueling, consult with your preferred aftermarket tuning provider.