

(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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BD LB7 Duramax Turbo Stock Replacement & Screamer Turbo

Drop-in Turbo

| Part # | Compressor Size | Turbine Size | Description |
|----------------|------------------------|---------------------|--------------------------|
| 1045836 | 60 mm | 62 mm | Stock Replacement |
| 1045837 | 63 mm | 64 mm | BD Screamer |

Modification to your turbo inlet piping is required if observing over 23psi boost. See installation procedure for details.

PRE-INSTALLATION



A new turbocharger will not solve the following failures:

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

Turbo over speed will lead to premature turbo failure. Boost pressure can be used to estimate turbo speed. The table below shows maximum allowable turbo speed for a stock motor at 3500rpm. A turbo intake restriction, clogged filter, high altitude or boost leak will cause increased wheel speed.

| Turbo | Estimated Airflow (lb/min) | Max boost (psi) | Max Boost with clogged filter (psi) |
|---------|----------------------------|-----------------|-------------------------------------|
| 1045836 | 62.5 | 28 | 23 |
| 1045837 | 75 | 37 | 30 |

Kit Contents

| 1045836 | 1045837 |
|---|--|
|  |  |
| Turbo; 2001-04 LB7 | Turbo; Screamer 2001-04 LB7 |



Introduction

The BD turbo series is now available for the 2001-2004 Duramax. We offer two different turbos for the LB7 Duramax. 1045836 is a stock replacement turbocharger that offers up to 23psi boost. The Screamer turbo is designed to be a drop-in stock-appearing performance turbocharger that increases the total airflow without affecting low-end drivability and offers up to 75lb/min (37psi boost).

The LB7 Screamer Turbo (1045837) is sized for those looking for a mild performance upgrade from the OEM turbo, but would like to still utilize their truck for what it is, a reliable work horse.

The 63mm compressor wheel is sized to pair nicely with a stock CP3 pump and can be pushed up to 625whp utilizing 90hp injectors and a R900 CP3. BD’s Duramax screamer line-up utilizes a custom mixed flow turbine (MFT) wheel with a larger 64mm extruder. A MFT wheel geometry offers increased efficiency in both initial spool up and high flow operation.

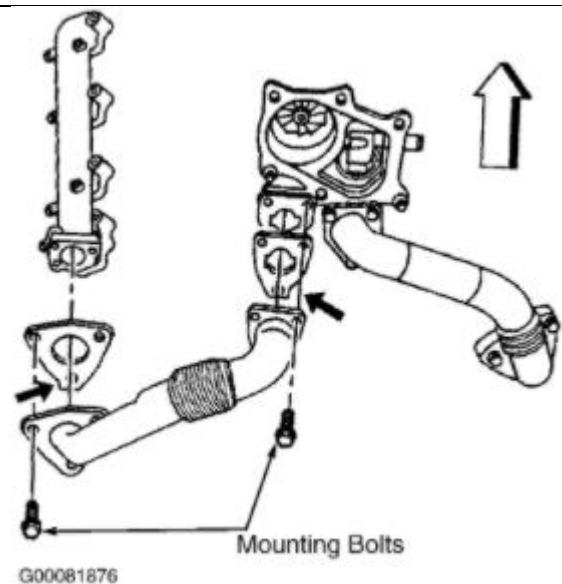
Optional Accessories

| Part | Description | |
|--|--|---|
| <p>BD Diesel Hose and Clamp Kit</p> <ul style="list-style-type: none"> 1046275 | <p>Stock boots and clamps may be worn out due to old age, leading to boost leaks when increased boost is applied.</p> <p>This kit is capable of 100psi and uses rugged, spring-loaded, stainless steel clamps.</p> |  |
| <p>Venom Fuel Lift Pump</p> <ul style="list-style-type: none"> 1050322 | <p>Due to the lack of a lift pump, increases in power will also increase strain on your Duramax’s CP3 pump. The venom lift pump provides a constant flow of fuel to the CP3 pump.</p> |  |

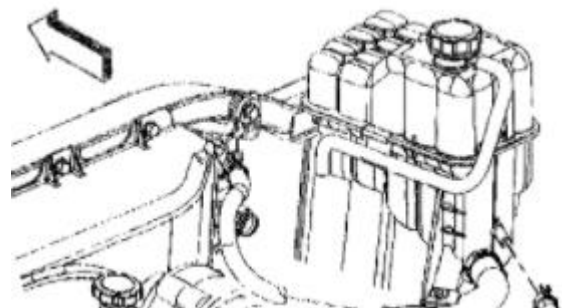
1. Disconnect both negative battery terminals.
2. Spray all bolts with penetrating fluid well in advance.
3. Spray the up-pipe bolts a second time and wait for penetrating fluid to do its job. Come back a few hours later.

4. Remove the 3 nuts and the left exhaust heat shield at the front lower of the lower dash panel. Remove the left exhaust pipe heat shield bolts. Reposition the left exhaust pipe heat shield in order to access the left exhaust manifold bolts. Do not remove the heat shield from the vehicle at this time.

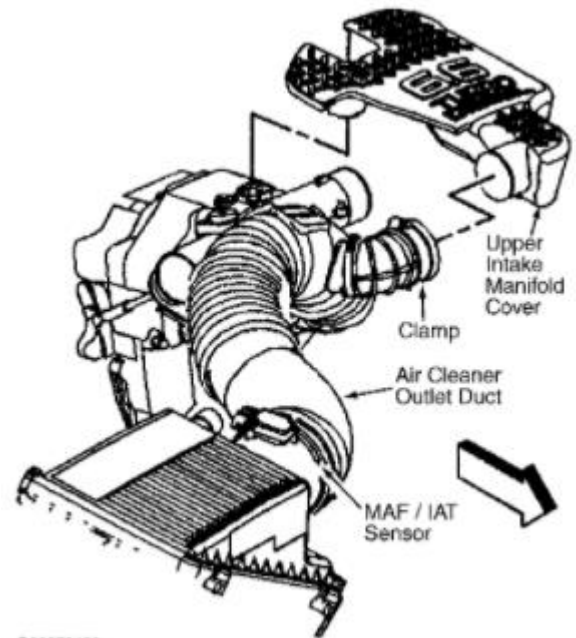
5. Remove both the left and right exhaust pipe to exhaust manifold bolts. Remove the lower bolt for the exhaust outlet shield.



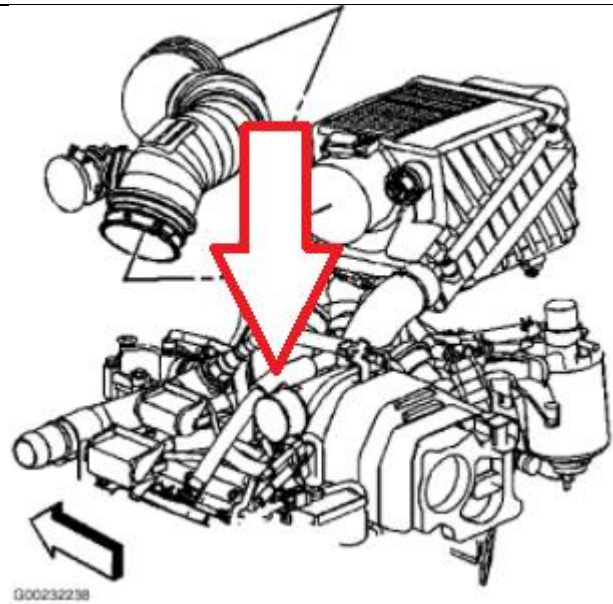
6. Drain the engine coolant.



7. Remove the upper intake. Be careful to not damage the tubing.



8. Disconnect the turbocharger air outlet CAC tube.

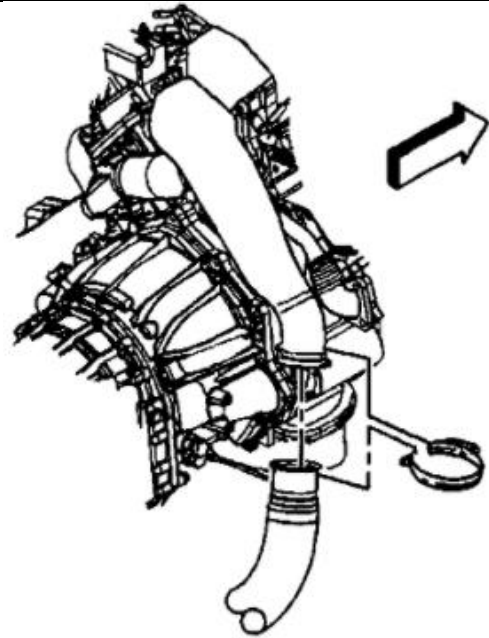


9. Disconnect both turbocharger coolant lines. Disconnect the PCV hose from the left rocker valve cover.

10. Remove the 3 bolts and the turbocharger heat shield. Remove the 2 bolts and the exhaust outlet heat shield. Remove the 4 bolts and 2 nuts for the exhaust outlet (Downpipe).

Note: The transmission dipstick tube may need to be removed.

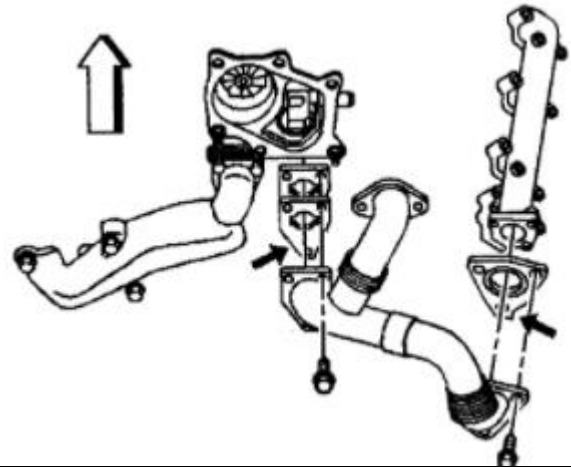
11. Once these heat shields have been removed you can now access and remove the right exhaust pipe turbocharger bolts, remove these.



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12. Remove the left exhaust up-pipe.

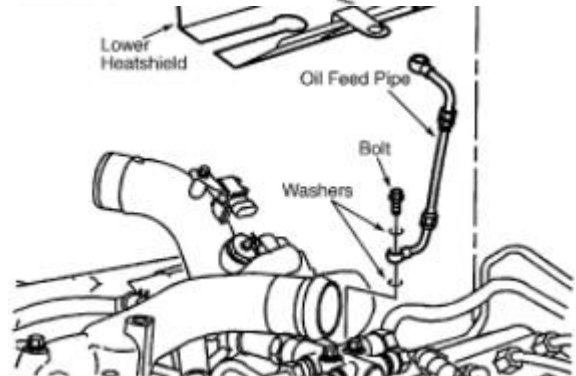
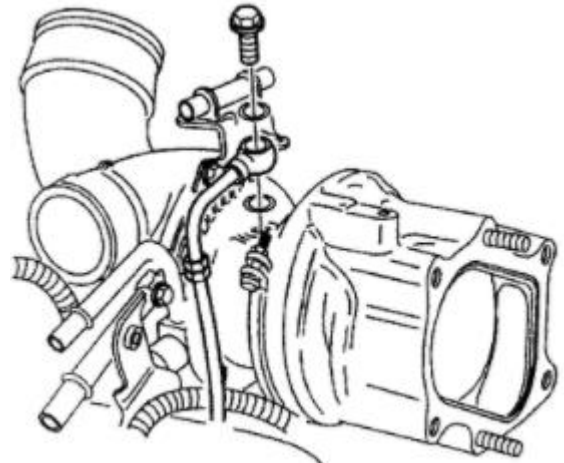
Some heating/ cooling may be required before cracking the up-pipe bolts loose.



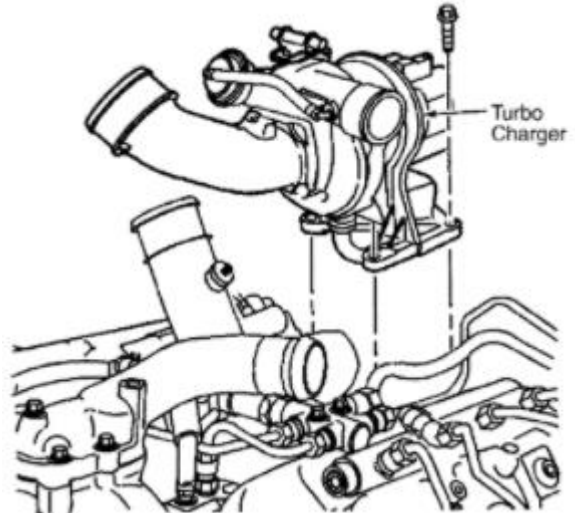
13. Remove the turbo oil feed banjo bolt.

Remove the two nuts that hold the oil drain line.

NOTE: Clean off the area around the oil drain seal to prevent debris from entering your motor.



14. Remove the four turbocharger bolts and remove the turbocharger.



Installation

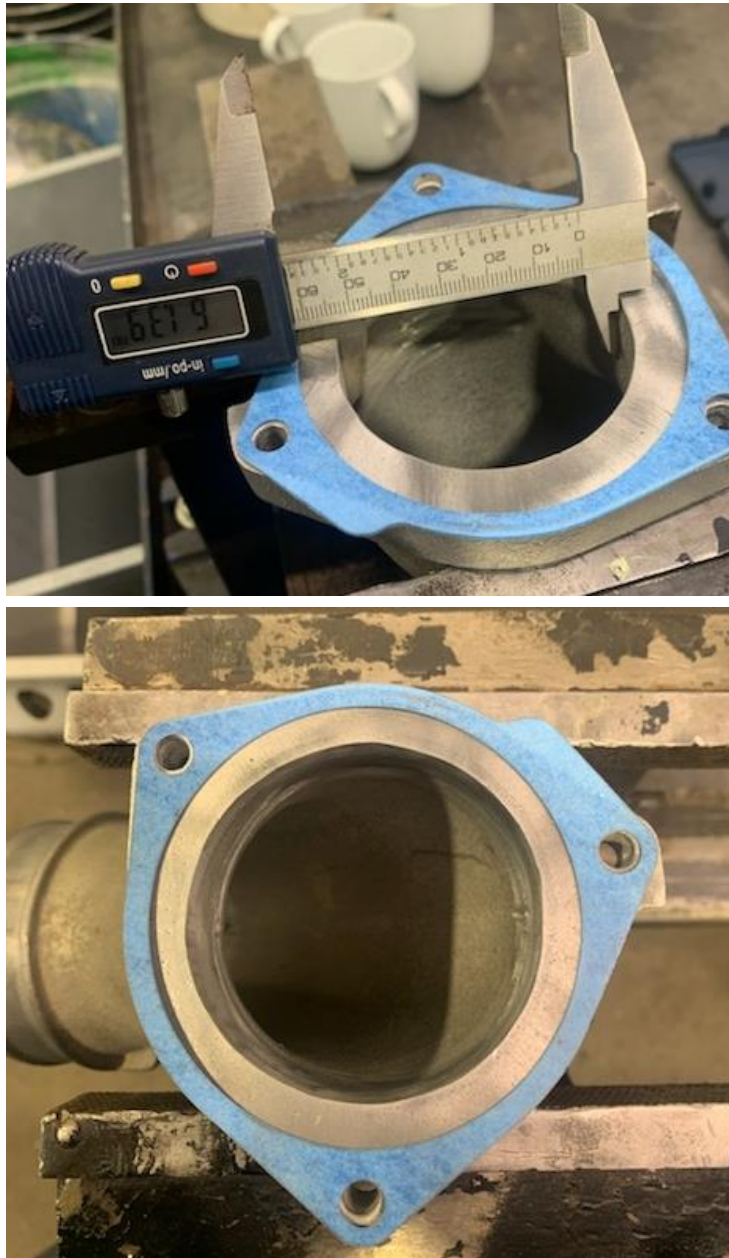
Please follow GM's factory replacement instructions for detailed year specific turbocharger replacement procedure.

| | |
|---|--|
| 1. Install new oil drain gaskets and connect the oil drain to the turbocharger. | Oil Drain Bolts: 16 ftlbs Oil Drain Nuts: 15 ftlbs |
| 2. Ensure the oil feed line is clear and free of debris. Replace both gaskets and reinstall onto the motor. | Banjo Bolt to motor: 25 ftlbs |
| 3. Install the turbocharger onto the motor. Ensure the oil drain gasket is installed. Pre-lubricate the turbocharger with 135cc of oil while rotating the turbo wheel. | Turbo Pedestal Bolts: 80 ftlbs |
| 4. Install the oil feed line onto the turbocharger. | Banjo Bolt to turbo: 25 ftlbs |
| 5. Install the left exhaust pipe to the turbocharger. Use a new gasket with the tab facing inwards. Position the heat shield in place but do not install, yet. | Up-pipe to turbo bolt: 39 ftlbs Up-pipe to Manifold: 39 ftlbs |
| 6. Install the right exhaust pipe to the turbocharger. Use a new gasket with the tab facing inwards. Use a locating bolt in the manifold to hold the up-pipe in place. | Up-pipe to turbo bolt: 39 ftlbs Up-pipe to Manifold: 39 ftlbs |
| 7. Install the exhaust heat shields. | Turbocharger heat shield: 5.9 ftlbs |
| 8. Install the exhaust downpipe. | Exhaust outlet to turbocharger: 39 ftlbs Exhaust pipe clamp: 30 ftlbs |
| 9. Install the transmission fill tube. | Transmission Tube Retaining Nuts: 13 ftlbs |
| 10. Install the PCV hose. Install the turbocharger coolant hoses. Install the inlet air heater relay | |

11. Install the turbocharger outlet tube.

12. Install the intake tubing and cover.

Note: If reusing the OEM inlet tube, the inlet will need to be opened up to at least 67mm



13. Refill and bleed your coolant.
Change your oil to ensure no debris has fallen in your motor during the process.