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INSTALL MANUALS AT*



**\*\*ATTENTION\*\***

You must prelube the turbocharger before installation. Failure to do so will void the warranty.

# **FORD 7.3L TURBO THRUSTER**

## **1999.5-2003 Ford Powerstroke F250-350**

<b>Part#</b>	<b>1047510</b>
<b>Part#</b>	<b>1047511</b>

*Fits build date 03/22/99 and later. See decal on driver's door pillar for build date*  
**PLEASE READ ALL INSTRUCTIONS BEFORE INSTALLATION**

**UNLESS AN EO# IS LISTED, THIS PRODUCT IS LEGAL IN CALIFORNIA FOR RACING VEHICLES ONLY, WHICH MAY NEVER BE USED UPON A HIGHWAY.**




***KIT CONTENTS:***

Please check to make sure that you have all the parts listed in this kit before you start the disassembly of your truck.

**THIS 1047510 IS NOT CARB APPROVED**  
**AND IS NOT FOR ROAD USE IN THE STATE**  
**OF CALIFORNIA**

**FORD 1995.5-2003 7.3L TURBO KIT (BD# 1047510)**




1407505	1407018	1407017	1407026
			
<i>7.3L Turbo Thruster</i> Qty: 1	<i>Inlet Clamp</i> Qty: 1	<i>GTP38 Inlet Hose</i> Qty: 1	<i>Bolts, 12 Point</i> Qty: 7

1407343	1407344	1407519
		
<i>Inlet Oring</i> Qty: 2	<i>Oil Out Oring</i> Qty: 2	<i>Outlet Oring</i> Qty: 1

**THIS 1047511 IS CARB APPROVED**  
**CARB EO# D-553-2**

**FORD 1995.5-2003 7.3L TURBO KIT (BD# 1047511)**

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1407343	1407344	1407519
		
<i>Inlet Oring</i> <b>Qty: 2</b>	<i>Oil Out Oring</i> <b>Qty: 2</b>	<i>Outlet Oring</i> <b>Qty: 1</b>

## ***Pre-Installation Notes***

A turbocharger is driven solely on exhaust energy. Therefore, if the vehicles current exhaust manifold is cracked or is leaking, it is recommended that the exhaust manifolds are checked by a reputable machine shop.

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

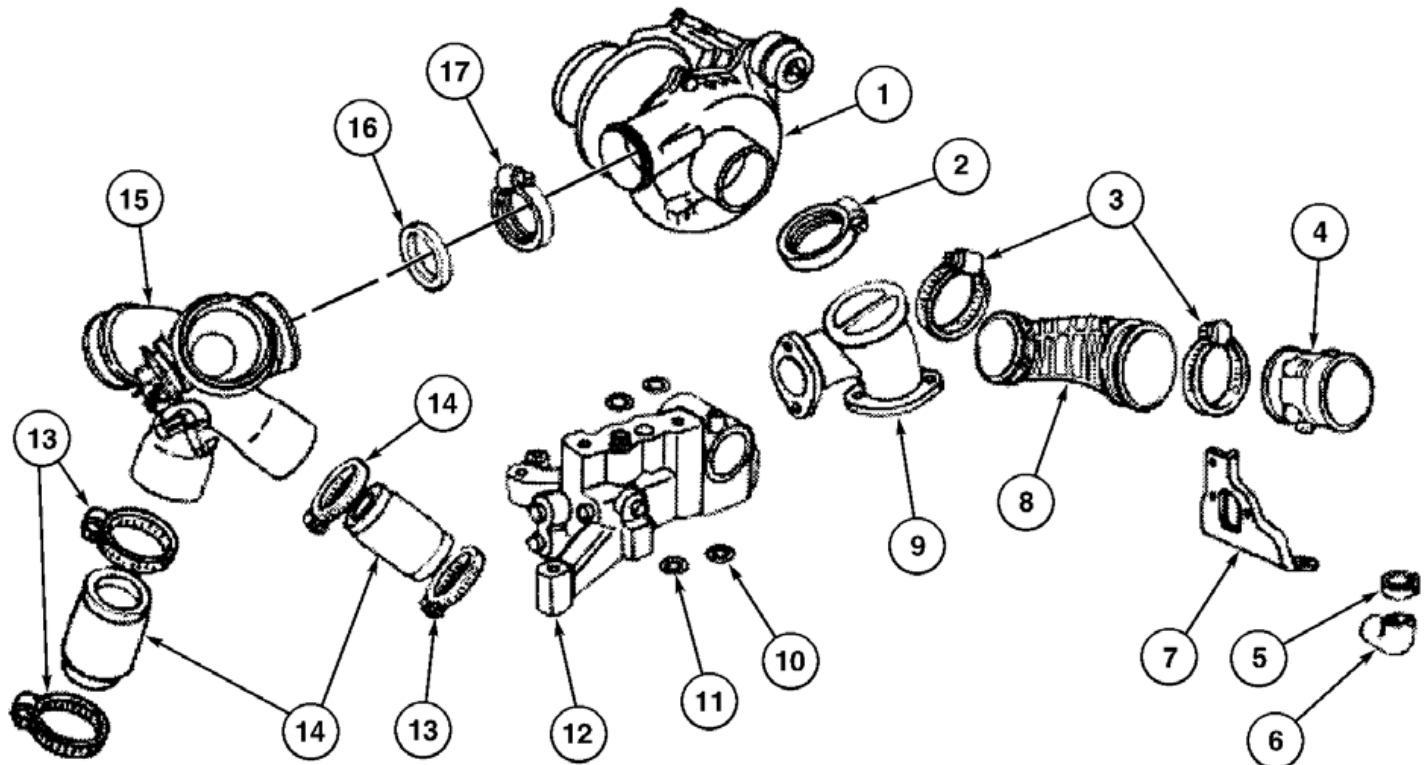
***To prelube the turbocharger, squirt some oil into the oil feed inlet. Rotate the compressor or turbine wheel to ensure the oil coats all around the bearing and shaft. Once complete the turbo is ready to be installed.***

## ***Upgrade Options***

<b>Description</b>	<b>Part #</b>
BD X2 Digital Gauge Monitor	1080500
BD Cool Down Timer	1081160
ARP Head Studs	250-4201 (1999-2003 Only)
Charge Air Cooler	1042700
Stainless Exhaust Kit	1049701D (1999-2003 Only)

## **BATTERY DISCONNECT**

Disconnect the negative terminals on both of the vehicle's batteries, and then disconnect the positive terminals.



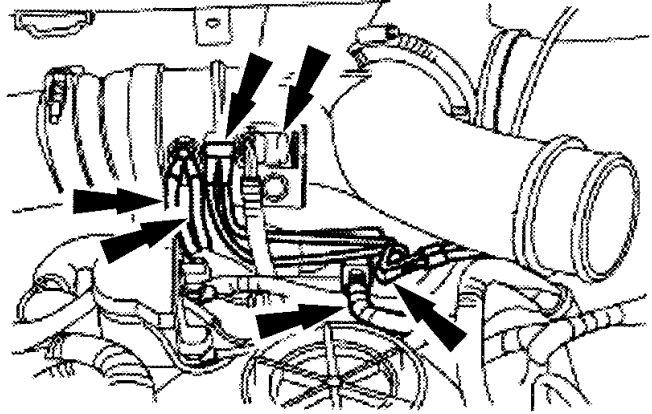
- |   |  |
|---|--|
| 1 Turbocharger                          | 10 Turbocharger Oil Supply "O" Ring (2 Required) |
| 2 Marmon Clamp                          | 11 Turbocharger Oil Drain "O" Ring (2 Required)  |
| 3 Clamp                                 | 12 Turbocharger Pedestal Assembly                |
| 4 Air Inlet Duct                        | 13 Clamp   |
| 5 Breather Hose Elbow Clamp             | 14 Intake Manifold Hose (2 Required)             |
| 6 Breather Hose Elbow                   | 15 Compressor Manifold                           |
| 7 Air Inlet Bracket                     | 16 Turbocharger Compressor Outlet Seal           |
| 8 Air Inlet Hose                        | 17 Marmon Clamp                                  |
| 9 Turbocharge Exhaust<br>Inlet Manifold |  |

**REMOVAL**

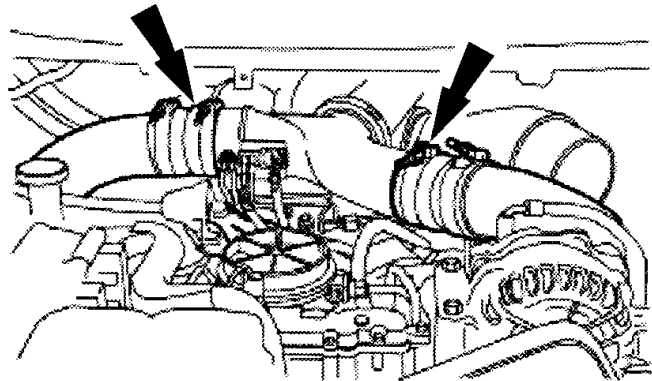
1. Remove the engine cover located near fuel filter/water separator. Disconnect the charge air cooler inlet and outlet pipes.

Label and disconnect the intake air heater element electrical leads, Intake Air Temperature (IAT) sensor electrical connector, Manifold Absolute Pressure (MAP) sensor electrical connector and the pressure hoses.

Loosen CAC to manifold clamps and disconnect CAC pipes.

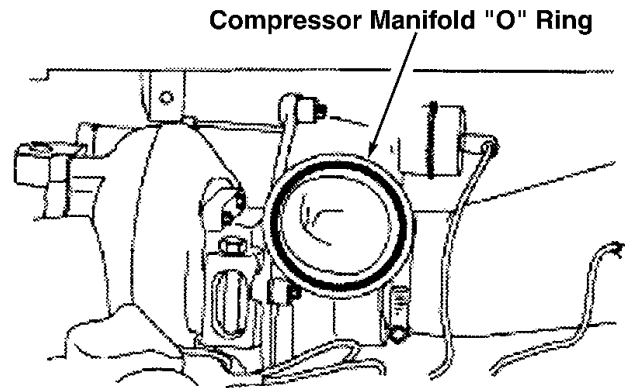


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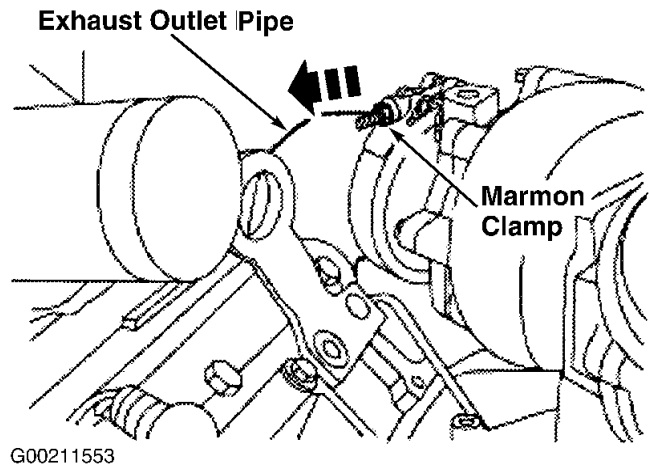
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2. Loosen the compressor manifold clamps and remove the compressor manifold. Remove and discard the compressor manifold "O" ring seal.

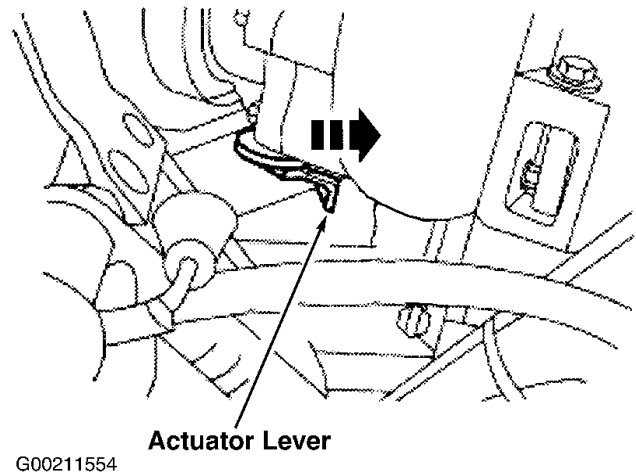


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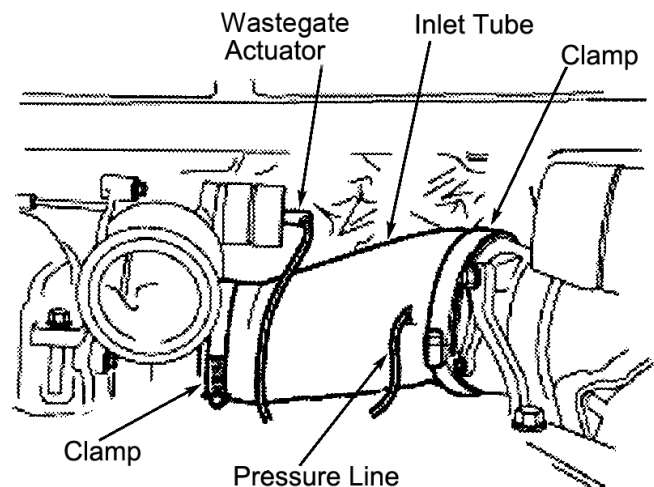
3. Loosen the exhaust outlet pipe Marmon clamp and disconnect the exhaust outlet pipe from turbocharger.



4. On vehicles with exhaust back pressure system, disconnect the exhaust back pressure valve by sliding the retaining clip away from the exhaust back pressure valve actuator lever. Detach the exhaust back pressure valve actuator rod.

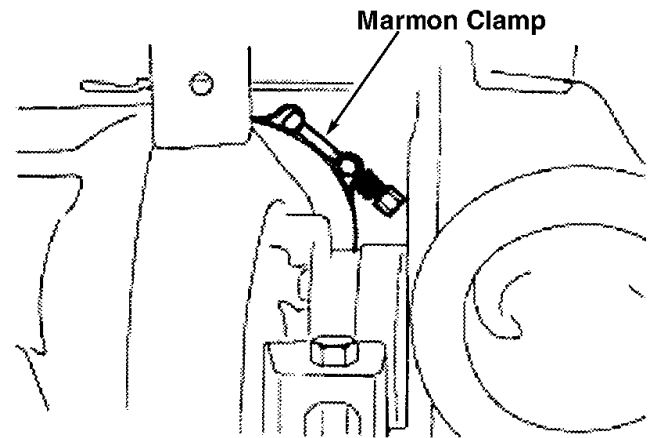


5. On all vehicles, label and disconnect the wastegate actuator vacuum and the pressure lines. Loosen the air inlet tube clamps and remove the air inlet tube.

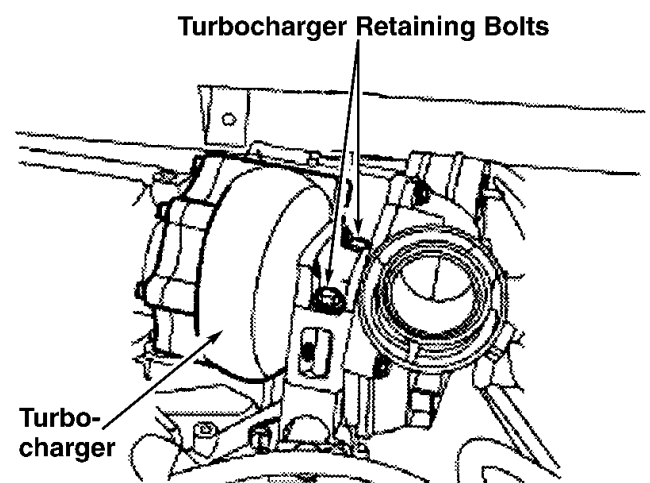


6. Exhaust inlet Marmon clamp is located behind turbocharger. Loosen the Marmon clamp. Remove the turbocharger retaining bolts and remove the turbocharger. Remove and discard the "O" ring seals.

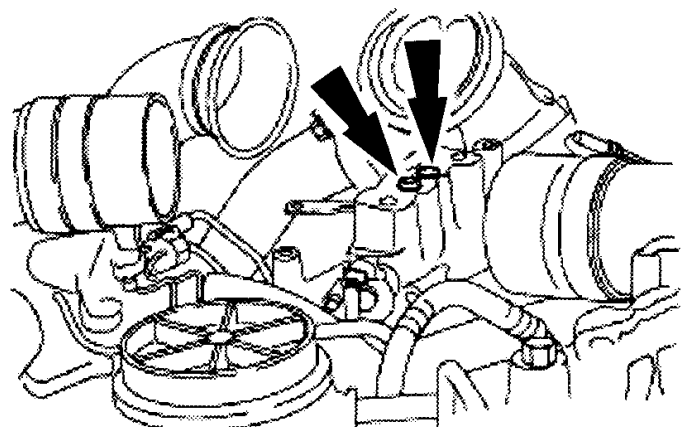
*NOTE: The exhaust inlet Marmon clamp cannot be removed with the turbocharger installed.*



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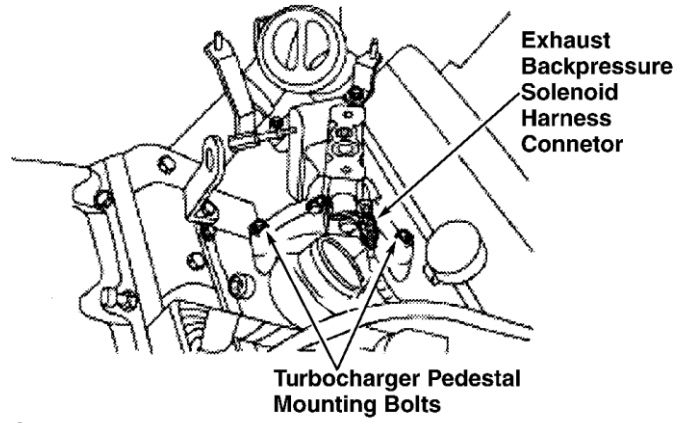


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7. Disconnect the exhaust back pressure solenoid electrical connector. Remove the 4 pedestal mounting bolts and remove the turbocharger pedestal. Remove and discard the 2 turbocharger pedestal to engine "O" rings.



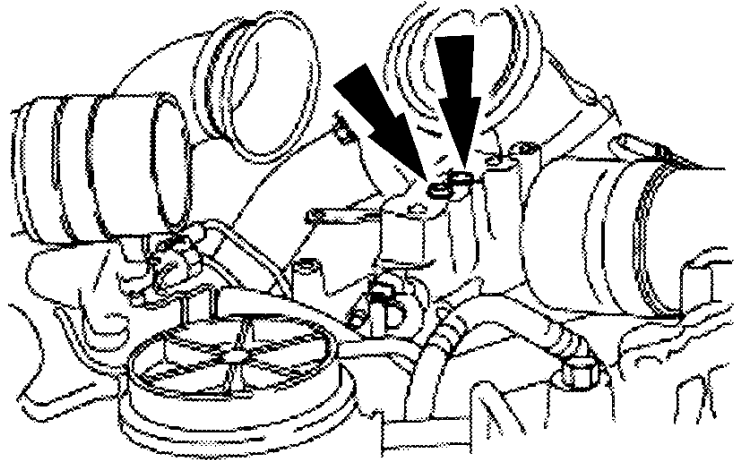
## INSTALLATION

### Tighten fasteners using the following specifications.

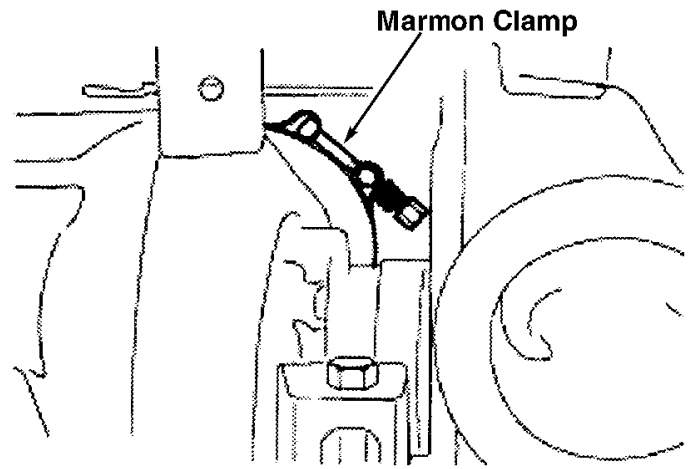
Turbocharger Exhaust inlet pipe to exhaust manifold bolts	21 ft/lbs (28 N.m)
Turbocharger mounting bolts	18 ft/lbs (24 N.m)
Turbocharger pedestal assembly mounting bolts	18 ft/lbs (24 N.m)

### INSTALLATION NOTES - To install, reverse the removal procedure.

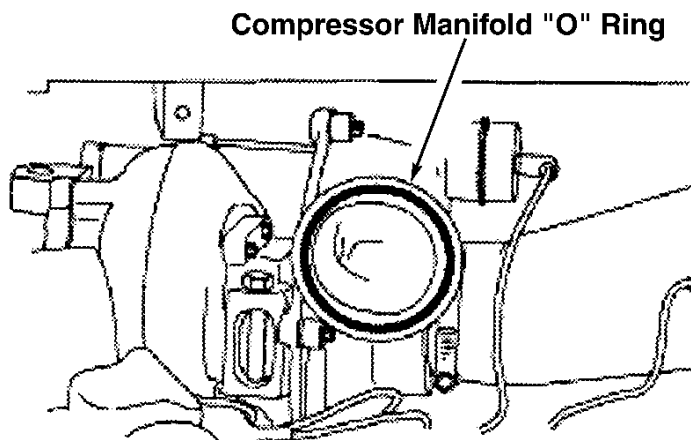
- Install New "O" rings. Reference step 6 of the removal process for the placement of the seals.



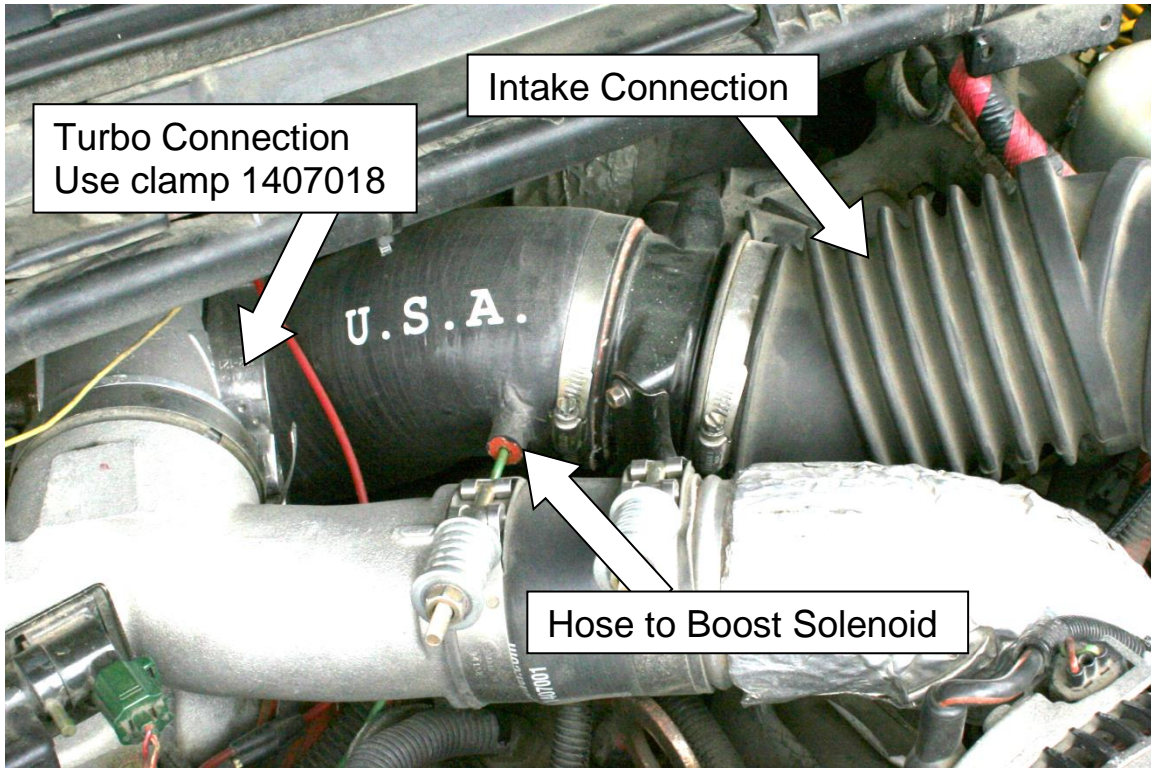
- The exhaust inlet Marmon clamp must be positioned on the exhaust inlet pipe before installing the turbocharger.



- Install the compressor manifold seal oring seal. (1407519) Reference step 2 of the removal process for placement.



Note orientation upon installation of the turbo hose.



**(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 3<sup>rd</sup> 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) <sup>1</sup>	Labor (Months/Miles) <sup>1,2</sup>	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 <a href="https://us.bddiesel.com/pages/extended-warranty">https://us.bddiesel.com/pages/extended-warranty</a>
	24 Months + No Hassle	Not Eligible	
Performance Tuners and Chips	Manufacturer <sup>3</sup>	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 <sup>3</sup>	Manufacturer <sup>3</sup>	
Hoses / Clamps	12/ 24,000	Not Eligible	
BD Xtruded Transmission Cooler	12/ 24,000	Not Eligible	
Manual Transmission Clutches	Manufacturer <sup>3</sup>	Manufacturer <sup>3</sup>	
Short Shifters	12/ 24,000	Not Eligible	
Engine / Head Stud kits	Manufacturer <sup>3</sup>	Manufacturer <sup>3</sup>	
Positive Air Shutoff / Electronic Positive Air Shutoff	24/ 24,000	Not Eligible	
Exhaust Brakes	24/ 24,000	12/ 24,000	
Gauges and Mounts	Manufacturer <sup>3</sup>	Manufacturer <sup>3</sup>	
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 <sup>3</sup>	Manufacturer <sup>3</sup>	
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 <a href="https://warranty.bddiesel.com/limited-lifetime/">https://warranty.bddiesel.com/limited-lifetime/</a> 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 <a href="https://warranty.bddiesel.com/limited-lifetime/">https://warranty.bddiesel.com/limited-lifetime/</a> for details. Excludes normal wear/service items (hose, filters) and improper use.

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.

<sup>1</sup> Warranty is based on whichever occurs first (Months or Mileage).

<sup>2</sup> Prior approvals must be given to qualify for labor reimbursement.

<sup>3</sup> As per Manufacturer's warranty

Updated 10/21/2024