

INSTALLATION INSTRUCTIONS



MAKE: GM
MODEL: 2500HD / 3500HD
YEAR: 2006 – 2010 LLY/LBZ/LMM
ENGINE: V8 – 6.6L (td) Duramax

Turbocharger (GT Series)
46-60242

	Parts Included:	Qty.
	Turbocharger Oil Injector Up-pipes to turbo exhaust inlet Rubber sealing washer for water inlet / outlet M6 x 1.0 x 15mm Bolt Oil return gasket at turbocharger Oil return gasket at the engine block Oil supply banjo washers	1 1 1 4 3 1 1 2

CAUTION: Allow time for your vehicle to cool down prior to installation. When working on your vehicle proceed with caution. Wear protective safety equipment; eye goggles and gloves to ensure a safe installation. **aFe recommends professional installation on this product. Thoroughly inspect the aFe turbocharger to make sure there is no damage from shipping (if damage is noted, immediately contact aFe customer service).**

1. If applicable, remove the ground strap attached to the hood.
2. Put the hood hinge into service mode.
3. Disconnect the negative battery cables on both batteries.
4. Disconnect the positive battery cables on both batteries.
5. Drain the coolant system.
6. Remove the wheel well covers from both sides of the vehicle.

Note: It will make doing this job easier if you lift the passenger side body off the frame 2". If you go any higher than that you will need to remove the intercooler boost tubes.

7. Loosen the heat shield on top of the turbo but do not remove.
8. Remove the v-band clamp from the exhaust downpipe at the turbocharger.
9. If equipped with an automatic transmission, remove the transmission dipstick.
10. Loosen the exhaust downpipe from the exhaust system. Leave it in the vehicle.
11. Remove the passenger side up-pipe.
12. Remove the exhaust downpipe.
13. Remove the heat shield from the driver's side up pipe.
14. Remove the driver's side up pipe.
15. Remove the air intake system.
16. Remove the intake manifold.
17. Remove the positive crank case vent tubes (PCV).
18. Remove the clamps and the coupling connected to the driver's side boost tube.
19. Remove the coolant inlet hose from the turbocharger coolant bypass valve.
20. Remove the coolant outlet hose from the turbocharger.
21. Remove the turbocharger upper heatshield.
22. Remove the turbocharger oil return pipe nuts at the top of the flywheel housing.
23. Remove the oil supply banjo bolt. Reposition the oil supply pipe out of the way.
24. Remove the glow plug computer positive (+) wire from the glow plug computer.
25. Remove the Adel clamp which holds the fuel line to the glow plug computer heat shield/mount.
26. Disconnect the main electrical connector from the glow plug computer.
27. Remove the glow plug computer and the glow plug computer heat shield/mount.
28. Disconnect the turbocharger vane position sensor.
29. Disconnect the turbocharger control solenoid connector.
30. Remove the three (3) mounting bolts from the turbocharger.
31. Remove the turbocharger from the vehicle.
32. Remove the oil return tube from the turbocharger.
33. Remove the vane position sensor from the turbocharger.
34. Remove the turbocharger control solenoid from the factory turbocharger.

35. Clean the mating surfaces on the oil return tube.
36. Clean all the turbocharger to engine gasket mating surfaces.

Note: It would be a good idea to change the coolant hoses which attach to the turbocharger at this time.

Note: Note the orientation of the coolant inlet and coolant outlet pipes attached to the factory turbocharger. They will need to be reinstalled at the same locations and angles on the supplied aFe Power turbocharger.

37. Remove the nut which holds the coolant outlet tube to the turbocharger. Remove the banjo bolt from the coolant outlet tube at the turbocharger. Remove the tube from the turbocharger. Make sure to remove the sealing washers from the banjo fitting. Save for reinstallation.
38. Remove the banjo bolt from the coolant inlet tube. Remove the coolant inlet tube. Make sure to remove the sealing washers from the banjo fitting. Save for reinstallation.
39. Install the supplied oil return gasket to the bottom of the supplied aFe turbocharger. Install the oil return tube to the oil drain and tighten.
40. Using two (2) supplied rubber sealing washers, install the coolant outlet tube using the banjo bolt removed in Step 34 on the side of the aFe Power turbocharger. Leave the banjo bolt loose. Reinstall the nut which attaches the Adel clamp that holds the tube to the compressor cover. Tighten the nut and the banjo bolt.
41. Using two (2) supplied rubber sealing washers, install the coolant inlet tube using the banjo bolt removed in Step 35 on the side of the aFe Power turbocharger. Make sure that it is the same position that it was in when it was removed.

Note: Before installing the turbocharger control solenoid, lubricate the O-rings with new motor oil.

42. Install turbocharger control solenoid into the aFe turbocharger and tighten to factory specifications.
43. Install the supplied oil return gasket at the engine block onto the flywheel housing.

Note: When installing the aFe turbocharger, please make sure to use caution with the oil return tube. It will need to be lined up onto the two (2) studs on top of the flywheel housing at the same time.

44. Install the aFe turbocharger onto the engine. Line up the oil return tube to the top of the flywheel housing at the same time. Do not tighten.
45. Install the cooling outlet hose and tighten the hose clamp.
46. Install the coolant inlet hose and tighten the hose clamp.
47. Using the supplied oil injector, lubricate the aFe turbocharger.
48. Reattach the oil feed hose using the factory banjo bolt and the two (2) supplied oil supply banjo washers.
49. Install the two (2) nuts onto the oil return tube at the top of the flywheel housing and tighten to factory specifications.
50. Tighten the three (3) aFe turbocharger mounting bolts to factory specifications.
51. Install the turbocharger vane position sensor and plug in the connector.
52. Place the heat shield onto the turbocharger but leave loose (Do not install bolts).
53. Reinstall the glow plug computer heat shield/mount and the glow plug computer.
54. Reconnect the main electrical connector to the glow plug computer.
55. Reinstall the Adel clamp which hold the fuel line to the glow plug computer heat shield/mount.
56. Reattach the positive (+) wire to the glow plug computer.
57. Reinstall the driver's side coupling and boost tube and tighten to factory specifications.
58. Reinstall the intake manifold onto the turbocharger. Leave the v-band clamp loose.
59. Reinstall the PCV tubes back onto the truck. Tighten to factory specifications.

Note: aFe recommends replacing the gaskets on the exhaust system parts (not supplied).

60. Reinstall the driver's side up-pipe and tighten to factory specifications.
61. Reinstall the driver's side heat shield onto the driver's side up pipe.
62. Slide the exhaust downpipe in but leave loose. Do not connect it.
63. Reinstall the passenger side up pipe and tighten to factory specifications.
64. Reinstall the exhaust downpipe and tighten. The exhaust will need to be centered on the downpipe and tightened to factory specifications.
65. Attach the turbocharger heat shield that is on top of the turbocharger using the supplied three (3) M6 x 1.0 x 15mm Bolts and tighten to factory specifications.
66. If vehicle is equipped with an automatic transmission, reinstall the dipstick and tighten to factory specifications.

Note: If the body was lifted off the frame, now would be the time to put the body back down on the frame and tighten the body bolts.

67. Reinstall the wheel wells.
68. Check the coolant system and make sure all connections have been made. Fill the coolant system following the factory guidelines.
69. Reconnect the positive battery connections on both batteries.
70. Reconnect the negative battery connections on both the batteries.
71. If the hood was placed in service mode, you will need to put the hood back together correctly and tighten to factory specifications.
72. Install the ground strap back onto the hood.
73. Your installation is now complete. Start the vehicle and verify again that all connections are secure and that you have no leaks. Let idle for 5-15 mins. to allow the aFe Power turbocharger to properly lubricate before driving.

Warranty

General Terms:

- aFe warrants their products to be free from manufacturer's defects due to workmanship and material.
- This warranty applies only to the original purchaser of the product and is non-transferrable.
- Proof of purchase of the aFe product is required for all warranty claims.
- Warranty is valid provided aFe instructions for installation and/or cleaning were properly followed.
- Proper maintenance with regular inspections of product is required to insure warranty coverage.
- Damage due to improper installation, abuse, unauthorized repair or alteration is not warranted.
- Incidental or consequential damages or cost, including installation and removal of part, incurred due to failure of aFe product is not covered under this warranty.
- All warranty is limited to the repair and/or replacement of the aFe part. To request Return Goods Authorization ("RGA"), email RGA@afepower.com or call (951)493-7100. Upon receipt of the RGA, you must return the product to the address provided in the RGA, freight prepaid and accompanied with a dated proof of purchase and the RGA. Upon receipt of the defective product and upon verification of proof of purchase, aFe will either repair or replace the defective product within a reasonable time, not to exceed thirty days.

<u>Product Category</u>	<u>P/N Prefix</u>	<u>Warranty duration</u>
Direct OE Replacement Filters	10, 11, 30, 31, 71, 73	Life of the vehicle
Racing Filters	18	1 year
Universal	21, 24, 72	2 years
Air Intake Systems	50, 51, 54, 55, 75	2 years
Exhaust Systems	49	2 years
Intercoolers & Intercooler Tubes	46-2	2 years
Intake Manifolds	46-1	2 years
Differential Cover	46-7	Life of the vehicle
Transmission Pans / Oil Pans	46-7	Life of the vehicle
Turbochargers	46-6	2 years
Exhaust Manifolds	46	2 years
Throttle Body Spacers	46-3	2 years
Fluid Filters	44	90 days
Pre-Filters	28	2 years
Heavy Duty OE Replacement	70	2 years
Power Sports OE Replacement	81,87	2 years
Power Sports Intake Systems	85	2 years

No other warranty expressed or implied applies nor is any person or advanced FLOW engineering authorized to assume any other warranty. Some States do not allow the exclusion or limitation of incidental or consequential damages or do not allow limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from State to State.

