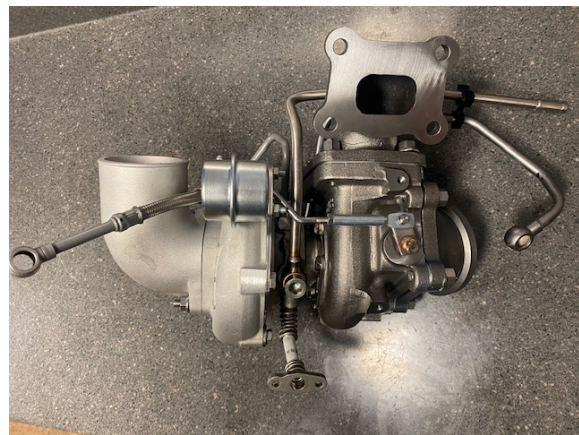
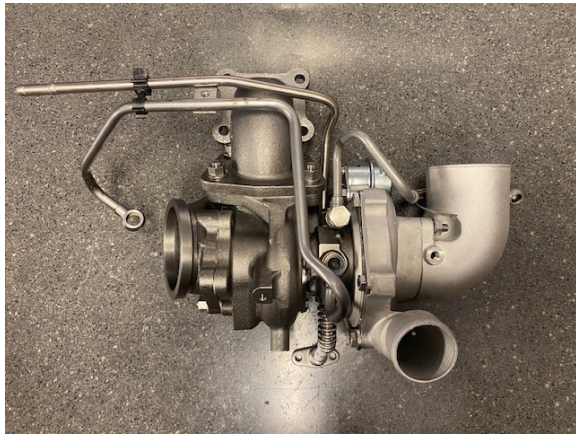


BNR Focus Turbo Assembly Guide

Thanks for the purchase of the new BNR products for the Ford Focus ST! We hope you enjoy our products for many years to come!

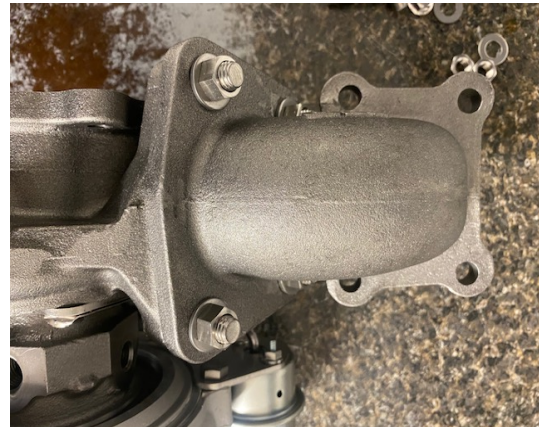
Antiseize all threads before inserting/torquing. Both the turbine inlet and turbine outlets need to be torqued in star sequence first at 12 ft lbs and final torque at 25 ft/lbs. Make sure the M10 1.5 hex nuts' flat surface goes against the round side of the washers supplied. This will lock the nut into place once torqued. Factory header gasket will be reused. All original oil and water lines bolt up directly except for the engine side water line which is replaced with the supplied water line. Factory Boost control solenoid fittings transfer over to the BNR compressor housing and Compressor inlet pipe. Make sure you put the BCS hoses in the proper place (intake side/nozzle side). If not it will result in boost control issues.



Turbine Inlet Adapter

Hardware: 4-M10x1.5 studs, 4-M10 flat washers, 4-M10x1.5 hex nuts, Turbine inlet gasket

Install studs hand tight (short side) into the turbocharger turbine inlet flange. Install turbine inlet gasket that is supplied, then slide adapter on. The engine side washers/nuts will be installed first since you have to lift the adapter all the way up to the end of the threads to install the hardware. Once they are both started you can spin the nuts all the way down and start the back side hardware. Torque in a star pattern. Open end wrench will need to be used on the engine side nuts. Star pattern in 2 increments to 25 ft/lbs. If torque wrench isn't used just do the best you can.



Turbine Outlet Adapter

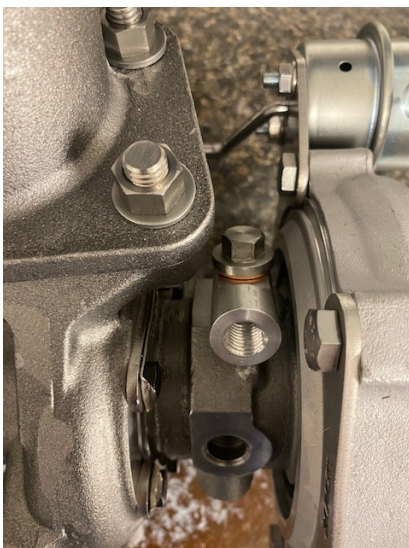
Hardware: 3-M10x1.5 studs, 3-M10 flat washers, 3-M10x1.5 hex nuts, 1-M10 x1.5 30mm Length Allen head bolt with lock washer, and turbine outlet gasket

Put adapter on to identify where the studs go and install them. Install 3 studs hand tight into the exhaust housing (using short end). Install supplied turbine outlet gasket and then put the adapter on the housing. One hole isn't used and the hole inside the vband flange gets the Allen head bolt with lock washer. Torque in star pattern in 2 increments to 25 ft/lbs.



Oil inlet adapter

Install hand tight with supplied banjo bolt and copper washers once turbocharger is mounted in the car. Install stock oil supply line hand tight then torque the adapter banjo bolt to 18-20 ft lbs. Torque stock bolt to the same specs. Install tip is to leave all banjo bolts hand tight until engine side banjo bolt is installed, then torque all.



Compressor Inlet Elbow

Hardware: 2-M8x1.25 36mm Length studs, 2-M8 flanged lock nuts, and 60mm/2mm O ring. Install of the inlet happens once turbocharger is mounted on the engine. Torque bolts to 14 ft/lbs



Other install Tips

- Leave compressor inlet elbow off until turbocharger is mounted to the engine. Makes slipping the turbocahrger through the tunnel from the back side much easier.
- Make sure to hook up your boost control solenoid properly. There are diagrams online.
- Do not preload wastegate unless you want extreme boost levels! The ST67 and ST71 are preset around 15 psi bench crack pressure. If you want 26 psi plus boost levels add a couple rounds of preload to the wastegate. Some tuners frown upon higher starting boost pressure so adding preload might have to come after a couple tuning revisions.
- Anneal the copper sealing washers for better sealing! String them all up on a wire and put a propane torch to them until the copper changes colors. When you do this process it softens copper and improves the seal! The picture below demonstrates the difference! The copper washer to the right has been annealed. You can actually see where the copper crushed and made a good seal on the surface!

