



N54 GC Turbo Install Tips

- Always remove the sub frame it provides complete access to the turbochargers to get the job done right
- Make sure you drain the oil and coolant before starting to remove the turbos, this will help keep the mess to a minimum, when draining the coolant remove the cap from the coolant bottle. If you catch the coolant in a clean container it can be reused, same with the PS fluid
- Removal is pretty straight forward, getting the water pump and thermostat out of the way will help quite a bit getting the front turbo out
- Leave the oil drains and feeds on the turbos, just disconnect from the block for removal, the 2 outmost water lines also leave on the block just unbolt from the turbos and move out of the way
- Once the turbos are off, remove all the studs from the block and the remaining water lines
- Replace all the studs and all the orings to the water and oil lines. Make sure to use all new nuts and gaskets
- Make sure you check EVERY line and intake, blow them out with carb cleaner and compressed air, if there is anything in your intake tubes or feed lines and you do not get it out, kiss your turbos goodbye very quickly
- When putting the turbo back in put the oil drains and feeds on the turbos FIRST on the bench, this will make life SO much easier, aid in install, and help cut down on leaks.
- Install the 2 water lines back into the block before trying to install turbos
- Putting a little white grease on all o-rings will help everything slide in easily and avoid cutting or pinching them
- Install the rear turbo first, than the front one
- The heat shields behind the turbos can go on after you install the turbos, before connecting all the lines. The turbos are a pain to get in with the heat shields in place
- The charge pipes are a VERY tight fit on the GC turbo outlets, this is by design, use a little lubrication, and you can get them on. Make sure the clamp is BELOW the lip this will keep the charge pipe very secure, and prevent boost leaks
- Don't forget to connect the vacuum hoses to the actuators when you still have access before installing DP's etc.
- Do not over torque the small screws holding the water and oil lines in, they can and will break, same goes with the studs in the head

- Putting a small o-ring on the bolt for the DP's between the flanges will keep it from falling out when trying to get them seated and the bolt started
- Leave the DP's loose while bolting them to the exhaust mid pipes. This will help get them in place and line up the holes, then tighten everything together
- Putting the sub frame back in, its best to get the motor mount bolts started first then the other sub frame bolts

Parts we feel need to be inspected and or changed for a successful turbocharger upgrade with minimum problems

- Clutch (Sped 2+ or 3+, Twin Disc are popular upgrades for higher power levels)
- Upgraded PCV valve (we have these in stock, also consider valve cover gasket and PCV hose)
- Oil Catch Can or OCC at this time we can only recommend the BMS
- All Vacuum lines from pump to canisters, canisters to solenoids, solenoids to actuators
- Inspect canisters themselves for cracks
- All worm clamps on charge piping to T-Bolt clamps
- Check all charge piping for any leaks
- Upgraded charge pipe with aftermarket BOV. Stock DV's leak under high boost
- If not already done, upgraded intercooler, and 3" non-catted DP's
- Replace plugs with NGK5992's gapped to 0.56mm or 0.022"
- Replace your intank pump with a Walbro 455 or equivalent
- Replace any suspect coils or injectors
- Run only 91+ fuels and higher

ANY QUESTIONS, OR FITMENT PROBLEMS, PLEASE EMAIL SUPPORT@VARGASTURBO.COM BEFORE TRYING TO FORCE OR MODIFY ANYTHING. GC TURBOS ARE PLUG AND PLAY, IF SOMETHING DOESN'T FIT, PLEASE CONTACT US.