

Instruction Manual

TURBOCHARGER

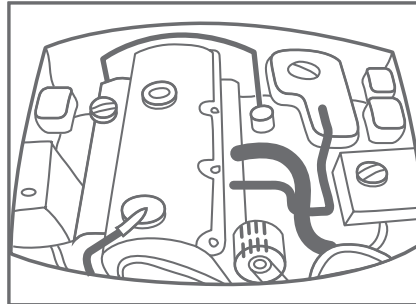
Open this packing, you will find this manual and turbocharger.
Read this manual before your use.

Any laypeople are not allowed to disassemble the turbocharger.

Steps to follow

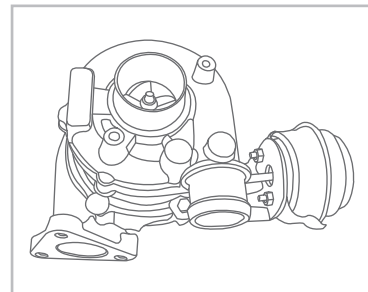
Step1 Identify why previous turbocharger fails.

Ensure that the problems have been rectified before fitting a replacement unit. It is necessary to figure out the overall failure causes for turbocharger. Lack of power, excessive smoke, high oil consumption and oil leak, result from faulty injection system, air filter or lubrication problem.

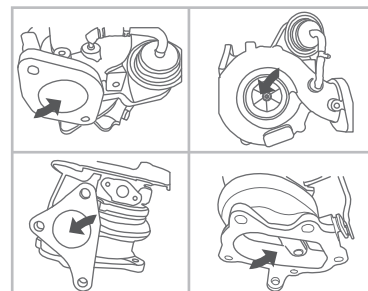


Step 2 New Turbocharger Check

- a. Open the pack, need to confirm the inside packaging in good condition. Check the turbocharger. If find any demolishment or distortion, please return it to the dealer at once. It's not allowed to load any force on its actuator when carrying the turbocharger.

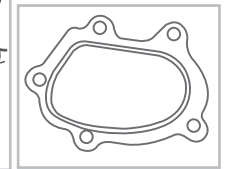
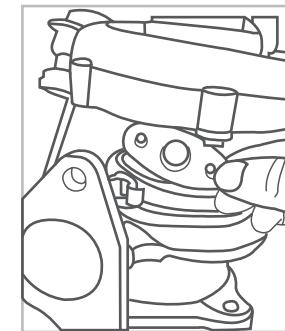


- b. Inspect the turbocharger inlet and exhaust systems. Make sure no foreign elements and seals residues.



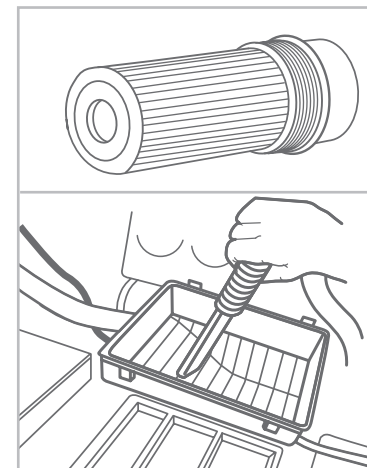
Step 3 Turbo Installation

- a. Make sure that all protective caps and plugs are removed from the turbocharger. Installing a turbocharger onto the engine, make sure that dirt or any foreign object does not enter the turbocharger, otherwise will cause huge damage due to high speed rotation like 200,000 RPM.



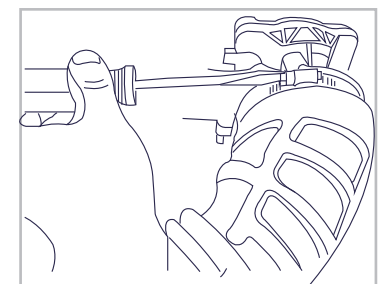
Oil Inlet and Return

Exhaust Gasket

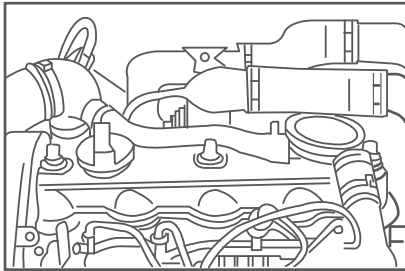


- c. It's recommended to use new air and oil filters. It is necessary that, after 200 km for a passenger car and after 600km for a truck, to change the oil and oil filter.

- d. Replace with new air hoses, totally clean.

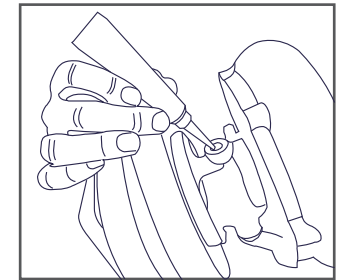


Steps to follow

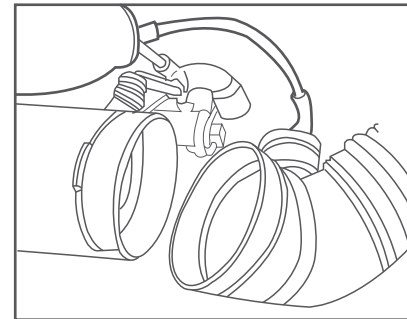
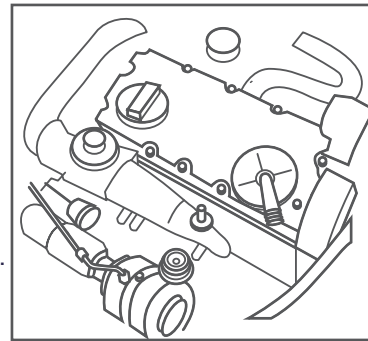


- e. Clean the engine breather system, exhaust manifold and pipe.

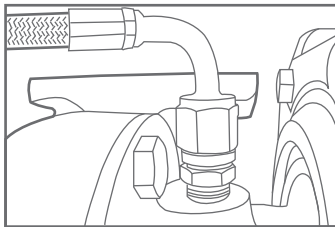
- h. Oil poured into turbocharger, for full lubrication.
Before install, pour clean oil at the entrance of the oil drain and turn the "shaft and wheel" by hand .
According to engine operating conditions, it is required to change the engine oil and oil filter (filters) on time



- f. Mounting the turbocharger onto engine with new gaskets.
Install the turbocharger onto the engine, make sure that it is fastened and sealed at the connection, otherwise it causes to howl and oil leaking.

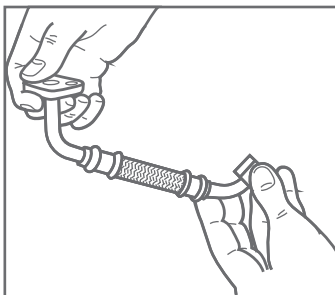


- i. Install inlet and outlet air hoses to turbocharger compressor housing.
Make sure that the connections are airtight and hose clamps are correctly tightened.



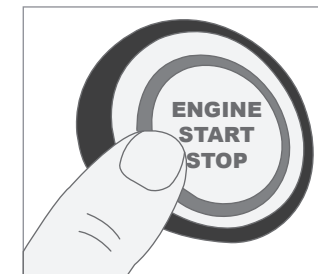
Oil Feed Line

- g. Check the engine oil feed and drain line for any damage, deformation, constriction of the cross-section or any other suspicious signs.
If in doubt, replace these parts.
In some cases it is necessary to replace them.



Oil Drain Line

- j. Start the engine, keep idling 3-5 minutes
This will protect the turbocharger bearings from damage and will remove the remaining contaminants from the lubricating system and the bearing housing.





Important Note:

1. Not extinguish the engine immediately after high modes (under load).
Before turning off the engine, it is necessary to give it a fake idle 60-120 seconds
2. Keep the oil pressure in the range of manufacturers' parameter.
Lubricating quality of the oil and oil filter should satisfy the car and the engine
3. Avoid large accelerations when the engine is cold
4. Allowing the engine to operate without the air filter, will damage the turbocharger blades.
5. Make sure that the exhaust system is not clogged.
Clogging of the exhaust system (or catalyst) causes the turbocharger to get excessive axial shaft load. It can ruin the rear shaft supports, seals and impellers.
6. Inspect all connections with engine, making sure there is no looseness, no air leak and oil leak.



Maintenance

1. Inspect all connections with engine.
Make sure there is no looseness, air leak or oil leak.
2. Clean the air cleaner periodically.
Replace the air cleaner termly according to the manufacturer's manual.
3. Replace the oil and oil cleaner termly (About 8,000km)
4. Check the radial clearance and thrust clearance by a dial gauge.
If the radial clearance is less than 0.1mm or the thrust clearance more than 0.15mm, you must ask for the professional.
5. The engine oil and filter(s) must be changed before starting the engine. Use only a grade of oil approved by the OEM manufacturer for your specific vehicle/application.