

Turbo Compound (TC) Hot Side Noise, Diagnostic Information

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Valid For

All Volvo VNL and Mack AN,CHU,CXU,PI models with a turbo compound

There are three typical Turbo Compound (TC) hot side noises:

1. Bearing spin down. This can be heard when performing a Snap Throttle then immediately turning the Key Off.

- This is normal for fixed geometry turbochargers on TC engines. No diagnostics are necessary.

2. Closed loop butterfly (CLB) valve application noise from gaskets or from the CLB valve itself. This will occur during warm hold or engine braking.

- Smoke test the exhaust for any leaks around the CLB pipe section.

3. Fluttering, Squealing, or Whistling noise, indicative of an exhaust leak under load.

- Visually inspect the exhaust system for evidence of soot tracking. A mirror should be used to thoroughly inspect all surfaces.

- Smoke test the exhaust system for leaks if no soot tracking found.

If no soot tracking or leaks from the smoke test are found:

IMPORTANT
An eService case is required PRIOR to removing or replacing either the turbocharger or the turbo-compound unit.

NOTE: Soapy water is not recommended for hot side leak detection.

If the noise goes away or gets quieter: Focus on the EGR Hot pipe.



Flange weld at EGR cooler inlet

If the noise gets louder or worse: Focus on the exhaust manifold.



Cracks in the manifold or warped face causing leaks at gasket

2. Perform a Soot Regeneration.

If noise gets louder or worse: Focus on the Diffuser pipe (between the TC unit and turbo).



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