

Turbo charger noise

Troubleshooting information for MX turbo charger noise complaints

Noise complaints regarding the turbo charger can be highly subjective but there are legitimate concerns for which to inspect. Below is a table of points to check during the investigation.



Engine must be off during inspection.

Symptom: Excessive noise

Possible Cause	Solutions
Loosen turbo charger flange or clamping bolts.	<ul style="list-style-type: none"> Replace gaskets and tighten as necessary.
Missing or dirty air cleaner.	<ul style="list-style-type: none"> Clean or replace air cleaner element.
Disconnected, loose, collapsed or restricted intake between air cleaner and turbo charger.	<ul style="list-style-type: none"> Inspect piping for damage or foreign objects, repair as necessary.
Boost leaks, joints and intercooler.	<ul style="list-style-type: none"> Check all connections between the turbo charger and engine intake for leakage. Inspect the CAC tanks and tubes for damage. Pressurize and soap if necessary.
Exhaust leaks.	<ul style="list-style-type: none"> Pressure test and inspect exhaust manifold and system for leaks (some leakage at the manifold slip joints is acceptable). Make sure that the manifold gaskets are in place and intact. Inspect EGR system joints as well.
Worn shaft bearings.	<ul style="list-style-type: none"> Remove the turbo inlet piping and check shaft play. Compressor wheel should not contact the housing.
Damaged turbo charger inlet noise baffle.	<ul style="list-style-type: none"> Inspect the noise baffle ring on the turbo charger inlet for damage (dents, nicks, looseness etc.).
Foreign object damage to compressor.	<ul style="list-style-type: none"> Remove turbo inlet piping and visually inspect the compressor for blade damage.

Service Recommendations

Turbo charger noise must be compared to other MX equipped trucks to determine if it is abnormal.

If a leak is discovered at a clamped joint in the air management system, the integrity of the clamp must be evaluated. If over-torqued, V-band clamps can spread and will not seal properly. Intercooler connections must be inspected for casting roughness or flash on the sealing surface. Any imperfections must be carefully filed or sanded smooth to ensure a tight seal. Once the possibility of any air system leaks has been thoroughly ruled out, inspection of the shaft bearings and compressor is justified.

Noises from accessory items can be mistaken for turbo charger noise. In general:

- Noise tracks increasing engine speed exactly ⇒ Inspect engine accessories and/or drive.
- Noise tracks increasing boost or load ⇒ Inspect turbo charger system

M036996 - 04/09/2013 16:24:42

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