

TECHNICAL INSPECTION SUMMARY - AFTERMARKET TURBO ASSEMBLIES

PART NUMBERS: 99612398372/2 & 99612398472/2

Purpose:

This document summarises the findings of an independent technical inspection of the above aftermarket turbocharger assemblies. It is intended to provide clear disclosure of specification, condition, deviations from O.E. K24 design, and the remedial work required prior to use.

These units are **NOT** suitable for direct installation on standard O.E.-specification vehicles. They deviate from factory specification in multiple critical areas and require professional rectification before installation.

Compressor Side:

- Fitted with larger-trim billet compressor wheels and matched compressor covers; this means they are unsuitable for standard O.E. applications without supporting modifications.
- Seal plate pockets have been machined for the larger exducer; machining quality is sub-standard, with uneven and poorly finished surfaces.

Turbine Side:

- Standard-trim turbine wheels with standard cutback.
- Turbine housings exhibit rough internal casting.

Rotor & Balance Measurements:

- Axial play: 0.004mm (within tolerance).
- Radial play: 0.32mm (within tolerance).
- Seal gaps are set within the specified tolerances.
- CHRA balancing has been checked and is within the required limits.

Bearing & Thrust Assembly:

- Standard-spec thrust assemblies and seals fitted.
- Given the upgraded compressor configuration, the use of uprated motorsport thrust assemblies with total seals is strongly recommended.

Wastegate Setup:

Wastegates are incorrectly set for standard application.

- Current opening pressure: 1.0 bar.
- Correct O.E. specification: 0.5 bar opening pressure at 4.2 mm rod lift.

Orientation & Assembly Issues:

Left-hand bank:

- End housings are correctly oriented; however, the bearing housing is rotated 90 degrees out of position.

Right-hand bank:

- Compressor cover and turbine housing misaligned from correct orientation.

Bearing Housing Specification Issues:

The Bearing housings fitted are incorrect for this application:

- Oil drain flange size and shape are incompatible with O.E. catch tanks.
- Oil drain mounting hole centres are incorrect.
- Oil drain aperture is too small.
- Water-cooled bearing housings fitted where not specified or required.

Required Rectification (Minimum Recommendation):

To make these units serviceable in their current upgraded configuration, the minimum recommended work is:

- Fitment of genuine remanufactured bearing housings.
- Fitment of genuine remanufactured seal plates correctly machined for the larger compressor exducer.
- Installation of bearing overhaul kits with total seals and updated motorsport thrust assemblies.

If the turbochargers are intended for use on a standard O.E.-specification vehicle, the compressor assemblies must be returned to full factory specification.

Disclaimer:

This document reflects the findings of an independent technical inspection conducted at the time of assessment. It is provided for informational and disclosure purposes only and does not constitute a warranty, guarantee, or assurance of performance.

Professional installation, calibration, and appropriate supporting modifications are essential. The buyer assumes full responsibility for ensuring suitability and compatibility with their intended engine configuration.