

Global Motoring Group



Service Report Analysis

Customer Name: Ricky Nguyen

Product Part#: KRATOS KRAS55Bi

Date Of Service: September 20th, 2019

Service Report Details:

Turbos received and inspected with the following initial findings.

- Rear turbine wheel making contact with turbine housing causing turbine wheel failure.
- Rear turbo bearing carrier failure
- Rear turbo rotor group has axial play, however no thrust play found
- Rear turbo compressor wheel made minimal contact with compressor cover due to axial play
- Rear turbo manifold blemished due to turbine wheel contact
- Rear turbo leaking oil into manifold due to bearing carrier failure
- Rear turbo manifold wastegate flapper arm damaged and bent due to improper packaging during shipping
- Front turbo bearing carrier failure
- Front turbo rotor group has minimal axial play, however no thrust play found
- Front turbo leaking oil into manifold due to bearing carrier failure
- Front turbo wastegate flapper arm has indentations marks from what seems to

- be impact from a heavy metal object
- Front turbo compressor cover has minor blemish from compressor wheel contact

After performing complete disassembly our findings showed that bearing carrier failure on both front and rear turbos were definitively caused by oil contamination and metal debris found as shown in pictures attached.

Recommended to customer to flush out engine oil at least 2 times and to use a neodymium magnet oil drain plug (Suggest Purchasing Turner Motorsports Dimple Engine Magnet Oil Drain Plug). Also, recommended to customer to use Motul 300V Power 5W-40 Engine oil at 3000 mile oil change intervals with factory BMW S55 oil filter to prevent oil contamination due to daily use of high ethanol content fuel.

Failure was not caused by manufacturing defect and therefore would not be covered under our Limited Warranty Terms and Agreements. Good faith warranty was requested by Engineering Department and approved by Management. Therefore, all service, parts, and repair were covered under warranty at no cost to the customer. All services and parts replaced under warranty listed on Inv# 2055 attached.

Report Approved By:

Abid Defalco (Global Motoring Group Chief Engineer)