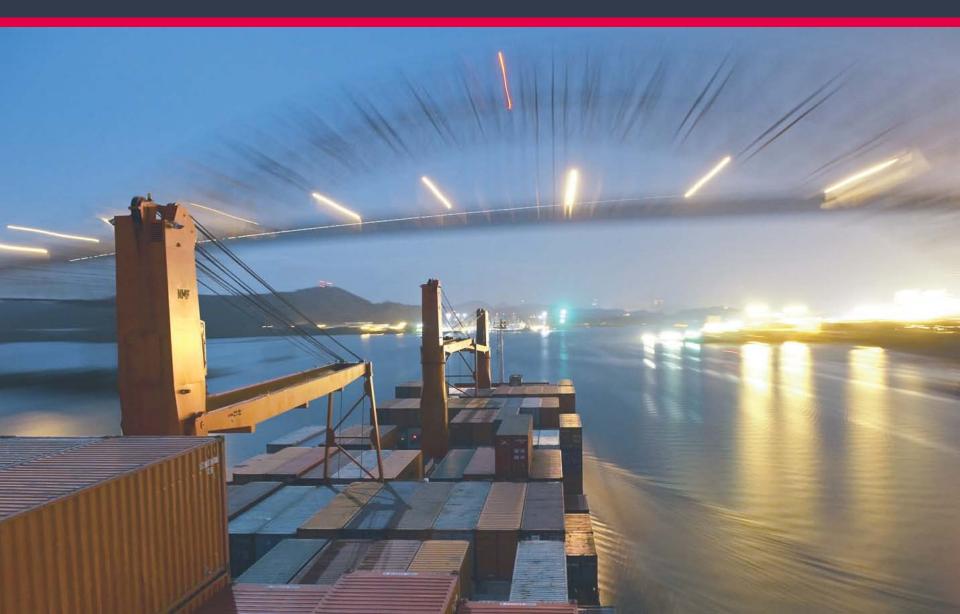
NR/NA Containment Improvement

MAN

Concept of Upgrade Solution



NR/NA Containment Improvement

Concept of Upgrade Solution

Problem

With NR and NA turbochargers, the casings and/or the flange connections are not sufficiently strong to withstand extreme load situations which may for example occur in the very rare case of a rotor failure.

Solution concept

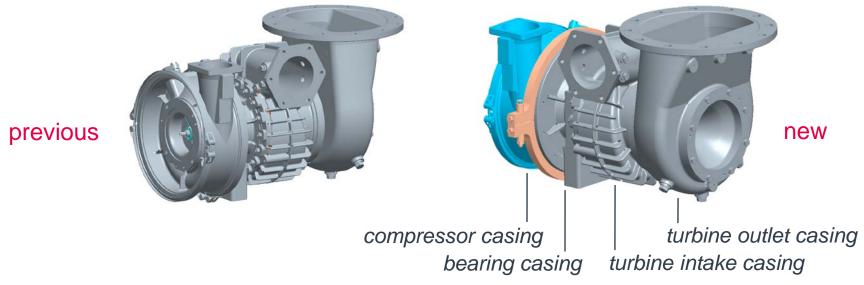
- Modification of the casing design (compressor casing, insert piece)
- Modification of connection of compressor and bearing casing
- Scope (number of components) varies per turbocharger type

NR/NA Containment Improvement

Concept of Upgrade Solution



Example of modification (NR turbocharger)



Remarks

- The upgrade kit comprises all required parts to perform the upgrade (including sealing rings etc)
- In some cases the turbocharger has to be lifted from the engine to install the kit
- In some cases a rib of the foot holding the turbocharger must be grinded
- Assembly time depends on scope (4 24 h)

MAN Diesel & Turbo Joerg Albrecht TS/Example of Upgrade Solution

Thank you for your attention.



All data provided in this document is non-binding.

This data serves informational purposes only and is especially not guaranteed in any way. Depending on the subsequent specific individual projects, the relevant data may be subject to changes and will be assessed and determined individually for each project. This will depend on the particular characteristics of each individual project, especially specific site and operational conditions.