Performance Upgrade

Hot part package designed for TPL-A and TPL-C
Diesel Engines – HFO operation – Marine & Power Generation

“This component upgrade comprises the key features to perpetuate the overall efficiency when operating with HFO and keeps the thermal load at the designed level.”

Adrian Reinhart,
Product Manager Upgrades, ABB
**Turbocharger Upgrade Solution**

**Hot part package for TPL-A and TPL-C**

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**The solution in a nutshell**

ABB offers a convenient component upgrade which is ideally suited for operation with HFO.

For diesel engines with HFO operation, frequent build-up of hard contamination on the turbine diffuser of axial turbochargers is observed. The formation of such contamination layers leads to a significant increase of wear on the turbine blade tip during operation. As consequence, the turbocharger efficiency decreases which results in higher fuel costs and higher thermal loading of the engine.

The hot part package consists of coated blades which feature a wear-resistant coating material at the blade tip. 6 coated blades (“dragon teeth”) are inserted into the turbine in combination with a reinforced turbine diffuser. They scrape off the hard contamination build-up on the turbine diffuser during operation and consequently maintain the high turbocharger efficiency.

This hot part package has a proven success record with numerous reference projects installed around the globe and positive customer feedback.

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**Application**

- For axial turbocharger type TPL-A or TPL-C
- Stationary and marine diesel engines
- Engine OEM: Wärtsilä, MAK, Hyundai
- All cylinder configurations
- Fuel type: HFO, Crude oil

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