The Wärtsilä 34DF is based on the well proven and reliable Wärtsilä 32 diesel engine introduced in the mid-1990s. The fuel flexibility of the Wärtsilä 34DF enables optimisation for constant speed generating sets for main engine applications, as well as variable speed mechanical drives.

The Wärtsilä dual fuel engine capability enables ships to be operated on either conventional liquid marine fuels (LFO, HFO or liquid bio fuel) or LNG. The switch between fuels can be made seamlessly without loss of power or speed. Such fuel flexibility enables compliance with emission regulations in controlled areas, while giving operators the option of determining the fuel according to cost and availability.

**Typical applications**
The Wärtsilä 34DF is the ideal choice for main power source in a vast range of applications, for instance offshore support vessels and platforms, small LNG carriers, ferries & tugs.

Besides serving as mechanical-drive or diesel/gas-electric main engine, the Wärtsilä 34DF is also a perfect fit as auxiliary generating set installed alongside Wärtsilä 46DF or 50DF main propulsion machinery, thus completing the multi-fuel engine room concept.

**Key benefits**
- Flexibility to operate on natural gas and liquid fuels (LFO and HFO)
- High efficiency
- Low emissions, due to clean fuel and lean burn combustion
- Low gas pressure
- Pilot fuel for ignition of gas
- Operation in arctic conditions
- Advanced control.
- Gas mode operation, 0-100%
Operational features
The Wärtsilä 34DF is manufactured in configurations from 6L to 16V, giving 500 kW per cylinder and a total maximum mechanical output of 8000 kW. The engine speed is 750 rpm.

With the current output range from 2610 kW to 8000 kW and three in-line (6, 8 & 9L) and two V-cylinder (12 & 16V) configurations, it covers the mid part of the Wärtsilä 4-stroke engine portfolio for multi-fuel engines aimed at the main (CPP) and diesel electric propulsion as well as auxiliary applications.

Environmental compliance
The Wärtsilä 34DF engines are Tier 2 compliant in diesel mode and Tier 3 compliant in gas mode. The 34DF can also be delivered as Wärtsilä NOR compatible.

The engine operates efficiently and economically on low sulphur fuels (<0.1% S), making it suitable for operation in emission-controlled areas.

The Wärtsilä 34DF has also obtained certification of emission standard compliance from the United States Environmental Protection Agency (EPA), which further endorses the environmental compliance of this engine.

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