Diesel to gas conversion

MAN PrimeServ
New fuels – new options
As the availability of natural gas increases worldwide, gas powered engines are becoming more and more attractive for power generation in landbased and marine applications. Operators are looking for solutions that make use of gas in their existing diesel engines wherever possible.

Fuel flexibility
Dual-fuel engines provide the ability to run on either gas or liquid fuels and hence offer a wider plant availability.

In a scenario of fluctuating fuel prices, operators can choose the most economic fuel depending on the current price.

Improvement of emissions
Like pure gas engines, dual-fuel engines running in gas mode have a better emission profile with regard to nitrogen oxides and carbon dioxide. The NOx emissions of a 51/60DF engine in gas mode for example, are up to 90 % lower in comparison to liquid fuel operation.

Emissions of the greenhouse gas CO2 are also reduced significantly by approximately 20 %. Emissions of SOx are almost zero and mainly depend on the quality of the pilot fuel oil used.

In gas mode, all our DF engines fulfill the strict IMO Tier III NOx limitations for maritime Emission Control Areas (ECAs).

Upgrade now
Upgrade solutions for existing diesel engines to dual-fuel capability are a suitable way to benefit from higher efficiency and lower emissions in combination with an extension of the engine’s lifetime.
Conversion packages

Solutions for marine and stationary applications

MAN Energy Solutions delivers complete dual fuel conversion packages as well as modified turbochargers. We offer a customized adaption of gas related plant equipment, engine control and safety installations. Our highly experienced service engineers conduct the conversion and commissioning of the engines to gas operation. To complete the package, MAN PrimeServ Academies offer theoretical and hands-on training for the operators of our upgraded equipment.

Benefits

Derived from well proven diesel engines
Due to the well-known family concept for MAN engine design, MAN Energy Solutions provides dual fuel conversion packages for most of its diesel engine portfolio.

Engine control upgrade
For gas operation, the latest Safety and Control System (SaCoS) will be installed, based on the latest state-of-the-art technology.

Gas start capability
MAN Energy Solutions offers the exclusive ability to start dual fuel engines in gas mode.

Committed to the future
MAN Energy Solutions together with our customers foresee a future where DF conversions will expand across several vessel types within the marine sector, including, but not limited to: cargo vessels, dredgers, Ro-Pax ferries and cruise liners. MAN Energy Solutions will of course continue to convert power plants to a gas fueled future.

Conversion experience
As field experience shows, even engines that have logged more than 100,000 operating hours can benefit from a DF conversion.

Economically, the best approach for the operator is to carry out the DF upgrade at the time of a planned major overhaul.

Further LNG solutions
Standard LNG tanks
Smallbore DF engines
Two-stroke DF engines

References
In recent years, we have successfully completed several stationary and marine conversions, including the world’s first dual fuel retrofit of a 1000 TEU container feeder vessel.
# MAN engine portfolio

for diesel to gas upgrades

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Represented in all key markets and major ports, with a network of more than 100 service centers, and with skilled field service managers at the ready to provide first-class technical support, MAN PrimeServ is fully primed to provide 24/7 service, wherever you are.

In power plants, marine engines & systems and turbomachinery, offering reliable technical support when you need it most, our service solutions include OEM spare parts, engine and machinery maintenance and repairs, customized service agreements and individual consulting.

For existing equipment our holistic retrofit and modernization solutions keep your engines or turbochargers up-to-date and at optimal levels of reliability, availability and economic efficiency. Through cutting edge digital technology we’re able to hike performance and minimize downtimes, while our remote connections enable live data analysis, ensuring quick, effective solutions. MAN PrimeServ Academies provide expert training courses around the world, developing the operational and maintenance skills required.

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