Press Release
MAN Diesel & Turbo

The World's First MAN B&W ME-GI in Service

Retrofit milestone: successful ME-GI gas injection project for Nakilat's 'Rasheeda'

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Nakilat, in association with Qatari LNG producers Qatargas and RasGas Company Limited and engine manufacturer MAN Diesel & Turbo, recently celebrated the success of the ME-GI project. The project involved retrofitting chartered Q-Max vessel, Rasheeda, with a gas-burning M-Type Electronically Controlled – Gas Injection (ME-GI) System, which has now been successfully commissioned.

The Qatari-owned Q-Max vessel is the world's first low-speed marine diesel engine to be converted to use LNG as a fuel. The retrofit modification meets the current known and future stated global emissions regulations.

Nakilat's Rasheeda built in 2010 is a 266,000 m^3 LNG carrier with two MAN B&W S70ME-C HFO-burning engines, which have been converted to the dual-fuel ME-GI concept. The shipyard operator Nakilat-Keppel Offshore & Marine (N-KOM) carried out the ship's conversion at its Erhama bin Jaber Al Jalahma Shipyard facilities in the major Qatari port of Ras Laffan Industrial City.

The project collaborators, including MAN PrimeServ, installed the ME-GI system on the vessel at the Erhama bin Jaber Al Jalahma shipyard in Qatar in June 2015. The partner for the ME-GI fuel supply system is TGE.

Christian Ludwig, Head of Retrofit and Upgrades, MAN PrimeServ, said: "This is a fantastic milestone in our company's history. It is a lighthouse project, and there has been a remarkable partnership and cooperation through this historic conversion. Our ME-GI order book now stands at 140 orders – for different vessel sizes and applications, which we see as a compelling case for our technology to be designated the industry standard."

Nakilat Managing Director Eng. Abdullah Al-Sulaiti, said, "The success of the ME-GI project is the culmination of years of cooperation with Qatargas, RasGas and MAN Diesel & Turbo as turnkey project manager. In late 2013, Nakilat worked with our charterers to implement a pilot conversion on Q-Max Rasheeda, the first retrofit ME-GI project ever to be implemented in the marine industry. This is a milestone moment for all involved parties."

MAN Diesel & Turbo reports that the vessel's ME-GI units have displayed a seamless change between fuel-oil and gas operation – a key characteristic of the ME-GI technology.

The Qatar fleet comprises 14 Q-Max and 31 Q-Flex LNG carriers, all using dual MAN Diesel Turbo's S70-ME low-speed diesel engines for propulsion.

The ME-GI engine

The ME-GI engine represents the culmination of many years of work, and gives ship owners and operators the option of utilising fuel or gas depending on relative price and availability, as well as environmental considerations. The ME-GI uses high-pressure gas injection, allowing it to maintain the numerous positive attributes of MAN B&W low speed engines, which have made them the default choice of the maritime community. The ME-GI is not affected by the multiple deratings, fuel-quality adjustments or large methane-slip issues, which have been seen with other dual-fuel solutions.

MAN Diesel & Turbo sees significant opportunities arising for gas-fuelled tonnage as fuel prices rise and modern exhaust-emission limits tighten. Indeed, research indicates that the ME-GI engine delivers significant reductions in CO_2, NO_x and SO_x emissions. Furthermore, the ME-GI engine's negligible methane slip makes it the most environmentally friendly technology available. As such, the ME-GI engine represents a highly efficient, flexible, propulsion-plant solution.

An ME-LGI counterpart that uses LPG, methanol and other liquid gasses is also available and has already been ordered.

About Nakilat

Nakilat is a Qatari LNG transport company providing an essential transportation link in the State of Qatar's LNG supply chain. Its LNG shipping fleet is the largest in the world, comprising 63 LNG vessels. Nakilat also manages and operates four large LPG carriers via two strategic joint ventures: N-KOM and NDSQ. Nakilat operates the ship repair and construction facilities at Erhama Bin Jaber Al Jalahma Shipyard in Ras Laffan Industrial City. Nakilat also offers a full range of marine support services to vessels operating in Qatari waters.

For more information visit: www.nakilat.com.qa

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About MAN Diesel & Turbo

MAN Diesel & Turbo SE, based in Augsburg, Germany, is the world's leading provider of large-bore diesel engines and turbomachinery. The company employs around 14,500 staff at more than 100 international sites, primarily in Germany, Denmark, France, Switzerland, the Czech Republic, India and China. The company's product portfolio includes two-stroke and four-stroke engines for marine and stationary applications, turbochargers and propellers as well as gas and steam turbines, compressors and chemical reactors. The range of services and supplies is rounded off by complete solutions like ship propulsion systems, engine-based power plants and turbomachinery trains for the oil & gas as well as the process industries. Customers receive worldwide after-sales services marketed under the MAN PrimeServ brand.

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