
Press release

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Hartmann Orders ME-LGIP Engines for LPG Tankers

Leading German shipowner orders MAN Energy Solutions propulsion package featuring dual-fuel prime movers

MAN Energy Solutions has won the contract to supply individual MAN B&W ME-LGIP (Liquid Gas Injection Propane) dual-fuel engines to 3 × 5,000-m³ LPG tankers currently under construction by CIMC-SOE (CIMC Sinopacific Offshore & Engineering Co., Ltd.) in Shanghai for Hartmann Gas Carrier, the German shipping company.

Each newbuilding will receive a propulsion package featuring 1 × 5S35ME-LGIP engine with an Alpha controllable pitch propeller, power take-off (PTO) and propulsion control system (PCS). MAN Energy Solutions states that it also expects to introduce its new Triton control platform with the engines.

MAN Energy Solutions' two-stroke licensee, CMD, will construct the engines in Lingang, China with delivery scheduled during the latter half of 2021. The contract contains an option for two further vessels.

The new order is the latest in a series for the ME-LGIP engine. Among these, Oslo-based BW LPG recently exercised an option for further conversions of HFO-burning engines from its fleet to the dual-fuel type. This happened in the wake of the first ME-LGIP retrofit engine enjoying a successful TAT (Type Approval Test) at the works of MAN Energy Solutions' two-stroke licensee, STX HI, in Korea.

Bjarne Foldager – Senior Vice President, Head of Two-Stroke Business at MAN Energy Solutions – said: “After the success of our dual-fuel ME-GI engine running on ethane, orders for our ME-LGIP variant capable of running on LPG are now taking off – a situation we are very pleased with. That the engines in this order form part of an MAN Energy Solutions' package fits perfectly with our desire to increasingly supply complete propulsion solutions.”

Foldager continued: “Our low-speed, dual-fuel portfolio has now racked up over 1 million operating hours that owes everything to the strategy we have laid over the past decade and confirms our leadership within this critical marine segment. Our engines' efficiency is the best in the market, which gives shipowners enormous flexibility, and we note that all fuel modes are employed.”

Lars Zimmermann, Senior Manager and Head of Two-Stroke Direct Sales, MAN Energy Solutions said: “Despite Hartmann expressing a strong preference for the ME-LGIP, we had to win this order in the face of very strong competition and are, naturally, very happy. The engine is a standard bearer for environmentally friendly, reliable propulsion technology with its seamless switching between fuels and the full rating and performance of the baseline, low-speed diesel engine.”

LPG and the ME-LGIP engine

MAN Energy Solutions states that interest in using LPG as a fuel, within and outside of the LPG carrier segment, is growing due to its sulphur-free character, widespread availability and ease of bunkering. In gas mode, the ME-LGIP engine operates on just 3% pilot oil and down to 10% load. Ultimately, the company expects the engine to operate without the need for pilot oil.

The ME-LGIP engine can also burn liquid volatile organic compounds, a deliberate move on the company's part since the IMO will inevitably turn its focus towards the reduction of volatile organic compounds in the future.

The Diesel principle provides the ME-LGIP engine with high operational stability and efficiency, including during load changes and fuel change-over, while defining properties such as a stable change-over from one fuel type to another with no fuel-penalties are maintained. The negligible gas slip of the ME-LGIP engine makes it the most environmentally friendly, two-stroke technology available.

MAN Energy Solutions also reports that the ME-LGIP engine has experienced an up to 18% reduction in CO₂ and circa 90% reduction in particulate matter when running on LPG, compared with HFO.

MAN Energy Solutions notes that its portfolio of two-stroke, dual-fuel engines has accumulated 1 million operating hours. The milestone comes on the back of the 300 engines/6.3 GW sales the company recently announced for the segment – all running on clean fuels such as LNG, LPG, ethane and methanol.

MAN Energy Solutions' ME-GI (-Gas Injection) and ME-LGI engines form the core of its two-stroke, dual-fuel portfolio and have notched many notable industry-firsts since their market introduction, including the very first oceangoing ships operating respectively on LNG, methanol, ethane and LPG. To this end, the company recently released a Mk II ME-GI model and are currently, owing to market demand, developing an Otto-cycle variant – the ME-GA.

Triton

Based on the experience accumulated over more than 20 years in the development and production of mission-critical electronics, Triton is the new controller platform for MAN Energy Solutions' entire, two-stroke engine portfolio and is a future-proof solution characterised by its modularity, flexibility and scalability.

Having such a stable, flexible foundation for the company's control software will benefit the future direction of its two-stroke technology immensely going forward. Triton delivers extra computing power and a faster network and I/O flexibility to face future demands; it also crucially encompasses cyber security by design.

The Maritime Energy Transition

The ME-LGIP engine ties in with MAN Energy Solutions' belief that it is time for what it terms a 'Maritime Energy Transition' to find clean, decarbonised solutions for seaborne trade and transportation. Essentially, it is the company's call to action to reduce emissions and establish natural gases as the fuels of choice in global shipping. It strongly promotes a global 'turn to gas', driven by the IMO, and a common approach by the shipping industry and politics to invest in infrastructure development and retrofits.

About Hartmann

Hartmann Gas Carriers Germany GmbH & Co. KG is part of the Hartmann Reederei Group – the German ship-management company – and specialises in the technical and economical management of gas tankers.



The MAN B&W ME-LGIP engine was unveiled at a ceremony in Copenhagen in 2018

MAN Energy Solutions enables its customers to achieve sustainable value creation in the transition towards a carbon neutral future. Addressing tomorrow's challenges within the marine, energy and industrial sectors, we improve efficiency and performance at a systemic level. Leading the way in advanced engineering for more than 250 years, we provide a unique portfolio of technologies. Headquartered in Germany, MAN Energy Solutions employs some 14,000 people at over 120 sites globally. Our after-sales brand, MAN PrimeServ, offers a vast network of service centres to our customers all over the world.