

Press release

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Two-Stroke Business Wins Large Container Order

ME-GI engines to feature innovative pump vaporizer unit

Singapore-based Eastern Pacific Shipping has exercised an option connected with an order for $5 \times 15,000$ -teu boxships placed in November 2017, and requested another six vessels. All 11 engines involved in the order will be powered by MAN B&W-branded two-stroke engines.

MAN Energy Solutions reports that the first five engines will be conventional MAN B&W 11G90ME-C units equipped with scrubbers that are due for delivery between 2019-2020. The additional six units will be built as MAN B&W 11G90ME-GI dual-fuel configurations operating on LNG with delivery dates scheduled between 2020-2022. Each of the 11 neo-Panamax boxships will be constructed at Hyundai Samho Heavy Industries (HSHI).

Bjarne Foldager – Senior Vice President, Head of Two-Stroke Business at MAN Energy Solutions – said: "We're very pleased to have landed this significant order within such a key segment and in the face of stiff competition. We currently have 55 ME-GI engines in service that have logged over 265,000 running hours, as a result of which the ME-GI engine has become an industry standard. I thank Eastern Pacific for placing its trust in our technology."

Each of the 6 x ME-GI engines will feature MAN Energy Solutions' new pump vaporizer unit (PVU), an innovative, low-cost pump unit for the supply of LNG to the ME-GI engines.

Foldager added: "We're also very happy that Eastern Pacific has chosen our new pump vaporizer unit, which makes the fuel gas-supply system installation significantly more compact. Apart from the reduced cost and weight, ordering both PVU and engine from the same designer provides many other advantages, including easier integration and straightforward installation."

MAN Energy Solutions reports that it has over 200 ME-GI units on its order books or already in service, with references in every major marine segment, and that the engine can rightly be considered as mature technology. The ME-GI continues to act as a standard bearer for environmentally friendly, reliable propulsion technology with its seamless switching between fuels and elimination of methane slip.

The company also states that it has confirmed 250+ sales within its entire portfolio of dual-fuel engines – all running on LNG or other, clean fuels such as LPG and methanol – testament to its leadership within this critical market segment.



About the PVU

MAN Energy Solutions has developed the PVU as a standardised, compact, high-quality pump unit for the supply of LNG to MAN B&W two-stroke ME-GI engines.

The PVU is designed to pressurise and vaporise the required fuel to the pressure and temperature required by the ME-GI engine. The gas pressure is controlled by control of hydraulic flow to the pump. The separate control of the three pump heads provides full redundancy and is secured by a control system with safety functions and a high degree of integration with the ME-GI engine.

The Maritime Energy Transition

MAN Energy Solutions believes that it is time for what it calls 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.

To date, MAN Energy Solutions' entire portfolio of dual-fuel engines has won almost 400 projects in total, all running on clean fuels such as LNG and LPG, testament to its leadership within this critical market segment.

The ME-GI engine – the new industrial standard

MAN Energy Solutions successful ME-GI (-Gas Injection) engine has set a new industrial standard for two-stroke propulsion engines aboard – among others – LNG carriers, container vessels, car carriers and bulk carriers. The ME-GI engine provides ship-owners and operators with a peerless solution within environmentally friendly and high-efficiency, two-stroke technology, without the greenhouse emissions such as methane slip, which is a hallmark of competing engines.

With the ME-GI engine, two-stroke development has taken a step further by combining the unique properties of multi-fuel combustion and the well-known reliability of MAN Energy Solutions ME-engine. The Diesel principle provides the ME-GI 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 fuel to gas with no fuel-penalties are maintained. The ME-GI engine is the most environmentally friendly, technology available within the two-stroke engine segment.

MAN Energy Solutions has also developed an ME-LGI (-Liquid Gas Injection) dualfuel engine that expands the company's dual-fuel portfolio, enabling the use of more sustainable fuels such as methanol, ethanol and liquefied petroleum gas (LPG).



About Eastern Pacific Shipping

Eastern Pacific Shipping Pte. Ltd., also known as EPS, is an industry leading global ship management company headquartered in Singapore. EPS manages a young, diverse and dynamic fleet with a combined tonnage of over 13 million deadweight tons. These vessels span across the tanker, bulk, container, pure car and truck, gas and chemical segments, and are managed by over 200 skilled shore staff and 4,600 dedicated sea staff. EPS offers a full suite of in-house ship management services such as technical, commercial, operations and crewing. With 30 newbuilds set to join its fleet in the next few years, Eastern Pacific Shipping is poised to remain a leader in the maritime industry.



The additional six Eastern Pacific engines will be built as MAN B&W 11G90ME-GI dual-fuel configurations operating on LNG. Pictured here, a similar MAN B&W G70ME-GI type





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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.