
Press release

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COSCO Signs Up for Methanol Retrofits

COSCO Group shipyard to retrofit four COSCO Line vessels to dual-fuel ME-LGIM operation; option exists for further nine ships

COSCO Heavy Industry Shanghai Co. Ltd. has signed a contract with MAN Energy Solutions for the methanol retrofit of four main engines from COSCO Line's 'Camellia' and 'Virgo' -class vessels – 13,800 and 20,000 teu respectively. Currently equipped with single-fuel MAN B&W 11S90ME-C10.5 engines, the vessels will be retrofitted to dual-fuel MAN B&W 11S90ME-LGIM10.5 units capable of operating on fuel-oil or methanol, in the process becoming the first vessels in COSCO's fleet to sail on methanol.

The contract also includes an option for the retrofit of an additional nine vessels from the line's 20,000 teu 'Virgo' and 'Pisces' -classes. COSCO Heavy Industry Shanghai Co. Ltd. will act as complete turnkey solution provider for the COSCO Line retrofits.

MAN Energy Solutions will provide a solution package comprising engineering, parts, project management, onsite technical assistance at yard, sea-trial assistance and recertification service for the engine retrofits. To this end, the company has undertaken an R&D programme and invested in a testbed to develop the S90-LGIM (Liquid Gas Injection Methanol) retrofit solution. The first vessel of the series is scheduled for retrofit in Q2 2025 when these vessels will also become the first fitted with S90-LGIM engines to sail the world's oceans.

Michael Petersen, Senior Vice President and Head of PrimeServ Denmark, said: "It's very promising to see one of the largest shipping companies globally choosing MAN Energy Solutions as a partner to attain their decarbonisation goals. We are committed to bringing more retrofit solutions to the market and our investment in the S90-LGIM R&D and testbed programme is a fulfilment of this promise to our customers."

The new order follows on the heels of the recent methanol retrofit order by A.P. Moller – Maersk, the Danish integrated logistics company – for the retrofit of the G95 main engines aboard 11 of its container vessels to dual-fuel. More than 300 vessels globally are currently equipped with S90 engines and MAN Energy Solutions expects this new business to kick off a major wave of S90 retrofits.

Petersen continued: "Our retrofit solutions are now accepted as a proven way of attaining dual-fuel capability to deliver lower emissions, and COSCO's methanol retrofits are yet another instance of this. We are in the early days of a huge wave of dual-fuel retrofits and see many concrete projects coming online with the capacity to meet shipping's demand for green fuels, such as e-methanol and bioLNG. We expect that owners who have opted to wait and watch over the past few years will ultimately also convert their tonnage to dual-fuel."

Sarath Prasannan, Head of Region APAC, said: "2030 is the year where China targets peak carbon-emission, while 2060 is its target for achieving net-zero. The

decision to retrofit the propulsion engines in its fleet to methanol operation is a bold step in the right direction from COSCO, leading the way to green transportation and maritime decarbonisation. MAN Energy Solutions will stand with COSCO all the way to ensure a smooth execution of this dual-fuel engine conversion project, strongly supported by our team in China. Furthermore, PrimeServ China is currently gearing up its market presence so as to be capable of servicing large retrofit projects at multiple yards simultaneously.”

About MAN PrimeServ’s LGIM retrofit solution

MAN Energy Solutions’ experts continually develop class-leading technologies that facilitate shipping’s journey to net-zero, keeping in mind owners’ and operators’ environmental and commercial goals, as well as today’s and tomorrow’s regulatory standards.

Retrofitting an engine to dual-fuel operation is one of the most effective ways to drive greater efficiency and profitability from a fleet. A dual-fuel conversion gives the fuel flexibility to take advantage of optimal fuel prices, while making vessels compliant with IMO and local emission-control measures and legislation such as FuelEU – all leading to a greater return on investment.

The -LGIM retrofit solution, developed based on experience gained from -LGIM engines aboard methanol carriers operating at sea for multiple years, enables existing single-fuel vessels to operate as dual-fuel vessels. This fuel-flexibility, with the option of running on methanol, brings such benefits as lower CO₂, particulate matter and SO_x emissions.



Pictured at the signing at Marintec Shanghai: (front left) Xiaodong Guo, Managing Director of COSCO Heavy Industry Shanghai CO.,Ltd. and (front right) Michael Petersen, Senior Vice President and Head of PrimeServ Denmark



'COSCO Shipping Virgo', a Virgo-class vessel in the COSCO Line fleet (courtesy COSCO Line)

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.