



Methanol Fuelled Vessels on the Water and on the Way

To learn more about each project, click on the project title.

China (October 2023)

JP Morgan confirms order for two 49,800 deadweight dual-fuel Methanol Chemical IMOII Medium-Range (MR) Newbuilds, to be constructed at Guangzhou Shipyard, in China. Both vessels are scheduled for delivery in 2026 on time-charter to MI member TotalEnergies.

Undisclosed (October 2023)

Maersk hunts for shipyards for a new batch of methanol ships, another 10 to 15 container ships with dual fuel methanol engines. The shipping giant already has 24 methanol ships in the order book. They range from a few thousand teu to upwards of 16,000 teu.

Japan (October 2023)

TSUNEISHI SHIPBUILDING signs contracts with ITOCHU Corporation and Safe Bulkers to order two KAMSARMAX methanol-fueled bulk carriers. The ships are scheduled to be completed in the latter half of 2026 to the first half of 2027.

Greece (October 2023)

Athenian Sea Carriers orders four LNG and methanol-ready chemical tankers at the Chinese shipbuilding company Wuchang Shipbuilding Industry Group. The vessels, with a deadweight of 18,500 tons (dwt), are slated for delivery in 2025.





South Korea (October 2023)

The first of twelve green methanol-powered containerships ordered by Maerks has been launched at Hyundai Heavy Industries. The vessel measures 350 meters in length and 53.5 meters in beam width, with a capacity to carry 16,200 TEUs.

Netherlands (October 2023)

Lloyd’s Register announces it has awarded boatbuilder Feadship AiP for its multi-fuel system to be used on large yachts enabling operation on methanol.

Japan (October 2023)

Tsuneishi wins landmark order for methanol-fuelled boxships from an undisclosed owner to build four 5,900 teu ships, after previously winning orders for methanol dual-fuel bulkers. No further details have been disclosed about the latest order except that the vessels will feature a Mitsui-MAN B&W 6G80ME-C10.5- LGIM-EGRTC, which will be the first in Japan to be installed on a ship.

Finland (September 2023)

Wärtsilä confirms that it will power the “world’s first methanol fuelled hybrid RoRo vessels.” The 147m long NewMax class ships are expected to be delivered to Stena RoRo in 2025 before transfer to Stena Line.





Japan (September 2023)

Kambara Kisen has ordered a methanol-powered bulk carrier and signed a time charter deal for the vessel with MOL's subsidiary MOL Drybulk. It is slated for delivery in 2027.

Japan (September 2023)

Hitachi Zosen Marine Engine has decided to invest in methanol supply systems and produce methanol engines. HZME has received an order from MAN for a methanol-compatible dual-fuel test engine and conducts technical verifications through manufacturing and onshore testing.

Japan (September 2023)

HD Hyundai Heavy Industries - Engine & Machinery announces it signed a contract for 16 sets of HiMSEN methanol dual-fuel engines and selective catalytic reduction systems with Tsuneishi Shipbuilding in Japan. Scheduled for delivery starting in January 2025.

China (September 2023)

Diana Shipping signs LOI to order through Marubeni Corporation two 81,200 dwt methanol dual-fuel new-building Kamsarmax dry bulk vessels, for a purchase price of \$46 million each, built at Tsuneishi Group Shipyard, expected to be delivered by the second half of 2027 and the first half of 2028 respectively.





China (September 2023)

Jinling Shipyard bags four tankers from Sirius. The vessels will be prepared for methanol propulsion allowing it able to reach a goal of Zero CO2 emissions and almost non-existent NOx emissions. The first vessel delivery is scheduled in 2026.

China (September 2023)

Vale orders up to twelve VLOCs powered by methanol, reportedly to be placed entirely with Chinese shipyards like Yangzijiang Shipbuilding and Hunli Heavy Industries.

China (September 2023)

Headway Technology Group signs a deal to provide a methanol fuel supply system for a dry bulk carrier. The company has agreed to supply the system for a 10,000 DWT bulker to be owned by China National Energy Group. The vessel is under construction in Hubei, classed by CCS, and the fuel supply system will be delivered at the end of this year.

China (September 2023)

China Merchants Energy Shipping moves forward with the order of the world’s first methanol dual-fuel Very Large Crude Carrier (VLCC). Dalian Shipbuilding Industry Group Co. has been commissioned to build the 306,000-ton methanol dual-fuel giant for \$107M

The delivery of the vessel should be no later than April 2026.





Finland (September 2023)

Auramarine Ltd has secured an order to supply methanol fuel supply systems for three 15,000 DWT hybrid tankers for Swedish shipping company Terntank. The ships are being built at China Merchants Jinling Shipyard (Yangzhou), with the first vessel of the series set to be delivered in March 2025.

Europe (September 2023)

Maersk signs an agreement with Equinor to secure supply of green methanol for Maersk's first methanol-powered feeder vessel during its initial months of operation from September 2023 and into the first half of 2024.

United States (September 2023)

Disney Cruise Line says the former Global Dream will debut as the Disney Adventure, and confirmed its plans to deploy the ship to Asia when it starts revenue service in 2025. The ship will have capacity for approximately 6,000 guests and will come methanol-ready.

Denmark (September 2023)

Naming ceremony held in Copenhagen for world's first methanol dual-fuel containership the Laura Maersk, featuring the ship's godmother EU President Ursula van der Leyden.





China (September 2023)

OceanPal invests in methanol-ready chemical tanker contracts for two 6,600 dwt stainless steel chemical tankers. RFSea Infrastructure II AS has secured two newbuilding contracts to construct vessels at Wuhu Shipyard in China. Two vessels are anticipated to arrive in the fourth quarter of 2025 and the first quarter of 2026.

France (September 2023)

JP Morgan orders two advanced dual-fuel methanol carriers with China's Guangzhou Shipbuilding International (GSI). The methanol carriers, to be delivered in 2026, will be employed on a time charter with France's energy giant TotalEnergies.

Sweden (August 2023)

Wärtsilä has been contracted by Stena Line to carry out and convert some of its vessels to operate with methanol fuel. The conversions will include the fuel supply system and engine modifications, as well as integrating the new installations with the ships' existing systems.

South Korea (August 2023)

HJ Shipbuilding & Construction Names Two 5,500 TEU Container Ships, commissioned by a European shipowner. Named "Zim Danube" and "Zim Ganges," the ships are two of the four eco-friendly container ships ordered after HJ Shipbuilding & Construction's major shareholder change in August 2021, marking its first such order in six years.





China (August 2023)

COSCO Shipping Special Carriers welcomes its second methanol-ready 68,000-ton ice-class multi-purpose pulp ship, named Green Kotka, built by Dalian COSCO KHI Ship Engineering Co., Ltd. (DACKS) shipyard.



Egypt (August 2023)

The world's first containership owned by Maersk, powered by green methanol has reached East Port Said, Egypt. The 2,100 TEU feeder was built by South Korea's Hyundai Mipo Dockyard and delivered in July and runs on MAN Energy Solutions' G50 or G95 dual-fuel engine capable of running on green methanol or conventional fuel.



Denmark (August 2023)

Svitzer launched the second phase of its project to design the world's first methanol hybrid fuel cell tug, with the aim of delivering a self-sustained tug with longer endurance and fewer operational constraints than a purely battery-powered vessel.



China (August 2023)

China launches "Eco Maestro," its first-ever methanol dual-fuel container ship at New Dayang Shipbuilding Company, a subsidiary of Sumec Shipbuilding. Anticipated to commence service in the second quarter of 2024, the vessel will navigate feeder routes in Northern Europe.





China (August 2023)

CCS issues an AiP to Wuhan Rules and Research Institute to Zhejiang Seahead Ship Design and Research Institute to design a methanol bunkering ship in China.

Norway (August 2023)

Ocean Yield invests in four methanol-ready LR1 product tankers constructed at Guangzhou Shipyard International (GSI) in China for 2026 and 2027 delivery.

Germany (August 2023)

Hapag-Lloyd enters a Conversion Commitment Agreement with MAN and Seaspan to equip its fleet with engine retrofit kits to run on methanol. MAN will deliver 15 engine retrofit kits capable of running on green methanol, with option for 45 additional retrofits.

Singapore (August 2023)

Hafnia orders four 49,800 deadweight dual-fuel methanol chemical IMOII Medium-Range (MR) tankers backed by TotalEnergies. The deal was signed with Guangzhou Shipyard International.

Norway (August 2023)

Wallenius Wilhelmsen has signed a LOI with China Merchants Jinling (Jiangsu) for four 9,350 CEU (car equivalent units) methanol dual-fuel pure car and truck carriers. The LOI covers up to eight optional vessels, with deliveries of the first vessels starting from the second half of 2026.





France (August 2023)

CMA CGM orders additional six 15,000 TEU container vessels which are being built at the Dalian Shipbuilding yard in China. Wärtsilä booked the order in Q2 2023.

Spain (July 2023)

Freire Shipyard signed a contract with the French national institute for ocean science IFREMER for the construction of a new methanol-fuelled vessel. It will join the the French oceanographic fleet.

Taiwan (July 2023)

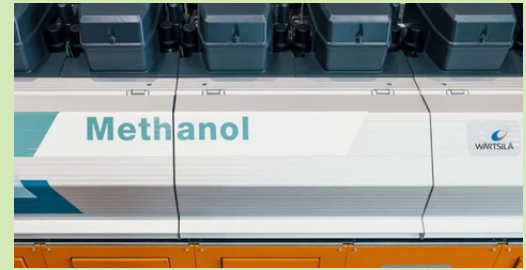
Evergreen Marine orders twenty-four methanol dual-fuel containerships, an investment of over \$5 billion. The construction deal has been divided between Samsung Heavy Industries (16) and Nihon Shipyard (8). The 24-strong newbuilding fleet is expected for delivery between 2026 and 2027.

Netherlands (July 2023)

KOTUG Canada selected Türkiye's Sanmar Shipyards to build two RAsalvor 4400-DFM methanol-fuelled escort tugs to service the Trans Mountain Expansion Project (TMEP), the tugs will be able to run on both methanol and conventional marine fuel.

England (July 2023)

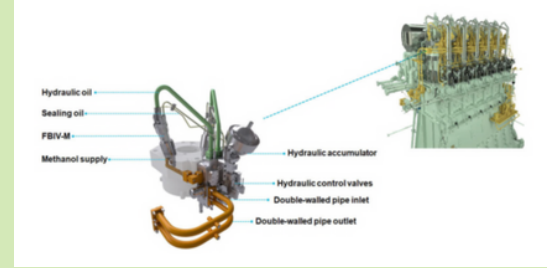
London-based RFOcean has placed an order for four 6,600 dwt methanol dual-fuel stainless steel chemical tankers at Wuhu Shipyard in China.





Denmark (July 2023)

MAN Energy Solutions signed a Conversion Commitment Agreement with Seaspan, in collaboration with Hapag-Lloyd to deliver 15 engine retrofit solutions for the conversion of vessels powered by individual MAN B&W S90-type fuel-oil-powered engines from the Seaspan and Hapag-Lloyd fleets to dual-fuel ME-LGIM engines capable of running on green methanol, with 45 optional engine retrofit solutions.



Denmark (July 2023)

Maersk receives delivery of the world’s first containership operating on green methanol, an HMD Hull 4168, built at Hyundai Mipo Dockyard Co. and Hyundai Heavy Industries Co. The 2,100 TEU boxship is now preparing to embark on its maiden voyage towards Copenhagen.



Denmark (July 2023)

Ørsted and ESVAGT sign a second contract for a sister vessel to the world’s first methanol-powered service operation vessel, announced in 2022. The SOV will be ready for launch in 2026.



China (June 2023)

Danaos Corporation has been linked to a pair of methanol-fuelled new-build orders at Yangzijiang





China (June 2023)

J. Lauritzen has ordered a third methanol dual-fuel 81,200 dwt kamsarmax bulk carrier from Tsuneishi Shipbuilding, also to be operated by Cargill.

Canada (June 2023)

Algoma Central Corporation placed an order for two methanol-ready 37,000 dwt product tankers with Hyundai Mipo Shipyard in South Korea.

Denmark (June 2023)

Maersk plans to retrofit an existing ships to dual-fuel methanol power capable of operating on green methanol. The retrofit, an industry first, will take place in 2024. Maersk said it aims to replicate the retrofit on sister vessels in starting in 2027.

China (June 2023)

Cosco Shipbuilding Marine Technology Co. Ltd, signed an agreement with COSCO Shipping Heavy Industry Co., Ltd. for an order of methanol fuel supply systems for four 16,000TEU container ships.

Taiwan (June 2023)

X-Press Feeders has ordered an additional six methanol 1,250 TEU container feeder ships, bringing their total to 14 dual-fuel methanol ships on order.

Sweden (June 2023)

Wärtsilä has been contracted by Stena Line to carry out and convert some of its ferries to operate with methanol fuel. The conversions are scheduled to take place in 2025.





Netherlands (June 2023)

Tune Chemical Tankers (TCT) has ordered up to four methanol-fuelled chemical tankers at Turkish Tersan Shipyard, with a capacity of 16,000 DWT. Delivery will be in 2025.

China (May 2023)

SAIC Anji places an order for four methanol-ready car carriers. China Merchants Jinling Shipyard will build the 9,000 CEU vessels.

Ireland (May 2023)

Stena Line announces that it is constructing two all-new hybrid propulsion vessels designed to run on methanol. Construction of the NewMax freight vessels will begin shortly with launch on the Irish Sea in 2024.

S. Korea (May 2023)

Mitsui O.S.K. Lines (MOL) and Mitsubishi Gas Chemical Company sign an agreement for the long-term charter of a methanol carrier, which can run on either methanol or conventional heavy fuel oil. The vessel will be built at Hyundai Mipo Dockyard and is slated for delivery in 2025.

China (May 2023)

China Merchants Energy Shipping Co., LTD. (CMES) disclosed that its Board of Directors approved the construction of two new generation energy-saving and environment-friendly AFRAMAX oil tankers with methanol-ready design.





United Kingdom (April 2023)

RWE and Acta Marine plan to deploy two “green” service operation vessels (SOV), the first in the world to be built capable of being powered by methanol and batteries. Operation begins in the Port of Grimsby in early 2025-2026.

China (March 2023)

COSCO placed orders for four 16,000 teu methanol-fueled ships at its affiliated yard in Yangzhou for an undisclosed price basis delivery in 2025.

Singapore (March 2023)

Consort Bunkers has signed a contract with China Merchants Industry Holdings (CMHI) Jinling for a series of six 6,500-dwt methanol fuels new buildings, to be delivered in 2025

Denmark (March 2023)

J. Lauritzen has signed a letter of intent with Tsuneishi Shipbuilding, for the construction of at least two methanol dual-fuel 81,200 DWT Kamsarmax bulk carriers. The vessels have been ordered in partnership with Cargill, which will operate the vessels for a period of at least seven years.

China (March 2023)

China State Shipbuilding Corporation has signed a cooperation agreement with CMA CGM Group to produce 16 large methanol dual-fuel container vessels worth more than 21 billion yuan (about 3 billion U.S. dollars).





Netherlands (March 2023)

WinGD has announced that it will supply 10X92DF-M methanol-fuelled engines to four 16,000 TEU containerships for COSCO SHIPPING Lines to be delivered by 2025

Finland (March 2023)

Neste announced a partnership with Terntank Rederi A/S to time charter two lower-emission methanol and wind assistance-ready product tankers. Deliveries are planned for 2025/2026.

South Korea (March 2023)

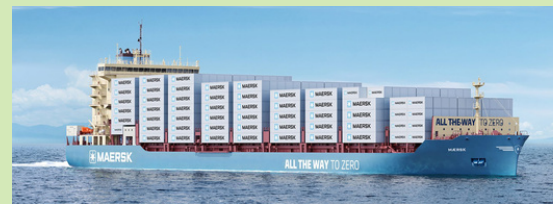
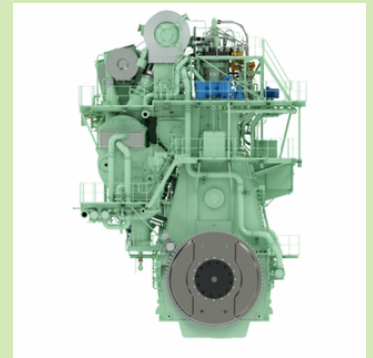
Hyundai Samho Heavy Industries Co. and HJ Shipbuilding & Construction Co. (HJSC) ordered seven and two MAN B&W G80ME-LGIM methanol dual-fuel engines in connection with the construction of 9 x 9,000 TEU container vessels for HMM Co.

Japan (March 2023)

Mitsui OSK Lines, MOL Coastal Shipping, Tabuchi Kaiun, Niihama Kaiun, Murakami Hide Shipbuilding, and Hanshin Diesel Works will build a methanol-fuelled coastal tanker slated for delivery in December 2024.

Denmark (March 2023)

Maersk unveiled the design for its first green methanol-powered containership; 2,100 TEU capacity feeder ship, the first of nineteen carbon-neutral ships.





China (March 2023)

Wuhu Shipyard launched construction on SAL Heavy Lift's first two 14,600 dwt vessels, forming part of a fleet of six Orca-class vessels equipped with dual-fuel engines that run on methanol.

Germany (March 2023)

Lürssen Yachts unveiled a megayacht powered by methanol. Dubbed Project Cosmos, the yacht's construction is ongoing and expected to be completed by 2025.

Japan (March 2023)

ONE places orders for ten methanol- and ammonia-ready boxships. The new container vessels will each have a carrying capacity of more than 13,700TEUs, Expected to be delivered between 2025 and 2026.

Finland (March 2023)

First Methanol-Ready Cruise Ship Begins Assembly in Finland. The cruise ship is scheduled to be commissioned in 2024.

Sweden (February 2023)

Aker Arctic announces that the development of the next-gen Baltic has progressed to the next phase. The design has been finalized in cooperation with the SMA with methanol as the chosen fuel





Canada (February 2023)

Methanex and MOL say Cajun Sun tanker completed the first-ever net-zero voyage using bio-methanol across the Atlantic on a new fuel blend

Netherlands (February 2023)

Dutch fuel producer OCI and barge operator Unibarge have developed a dual-fuel methanol bunker barge, which will be deployed at the Port of Rotterdam in the second half of 2024.

USA (February 2023)

Advent Technologies will develop a 50kW-500kW marine fuel cell solution for a range of superyachts, providing a sustainable and reliable source of auxiliary power and improving power density.

Netherlands (February 2023)

Dutch short sea shipping company Vertom Group has ordered two dry cargo vessels with a modular electric propulsion system ready for methanol-electric operation.

France (February 2023)

French liner giant CMA CGM has ordered an additional six 15,000 TEU container ship dual-fuel methanol newbuildings for delivery in 2025 and 2026, this brings CMA CGM's total order to 12 methanol ships.

Switzerland (February 2023)

Proman and HMM sign MOU explore future methanol supply for HMM's new order of nine methanol dual-fuel 9,000-teu newbuildings.





Canada (February 2023)

Algoma Central Corporation and The CSL Group announced a newbuild order with Jiangsu Yangzi-Mitsui Shipbuilding Co., Ltd., to construct four new methanol-ready Kamsarmax-based ocean belt self-unloading vessels. These new dry bulk carriers will operate in the Great Lakes and St. Lawrence Seaway.

South Korea (February 2023)

South Korean flagship carrier HMM announced orders for nine 9,000 TEU vessels, which will be delivered from 2025 through to 2027. The orders, worth a combined KRW1.41trn (\$1.12bn), are split between Hyundai Samho Heavy Industries and HJ Heavy.

Japan (February 2023)

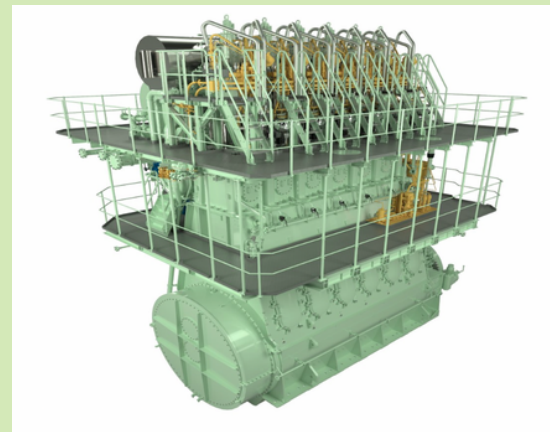
Long-term MAN Energy Solutions licensee, Mitsui E&S Machinery, has won another contract to supply the individual MAN B&W 6G50ME-LGIM (-Liquid Gas Injection Methanol) engine for a 65,700 dwt bulk carrier slated for construction at Tsuneishi Shipbuilding Co. Ltd.

China (January 2023)

HHI-EMD methanol engine passes milestone test to be supplied to the first 2,100 TEU methanol-fueled containership under construction for Maersk at Hyundai Mipo Dockyard.

Brazil (January 2023)

Vale announces what could become the world's largest methanol-fueled bulk carrier, equipped with wind propulsion and a range of energy-saving technologies that allow it to slash greenhouse gas emissions by 90%.





USA (January 2023)

Advent Technologies and Alfa Laval Partner in Marine Fuel Cell Development Project to explore applications for Advent's methanol-powered fuel cells in the marine industry.



S. Korea (January 2023)

Maersk launched the construction of its first 16,200 TEU dual-fuel containerships that can run on green methanol. expected delivery for 2024.



Netherlands (December 2022)

Damen has signed a Memorandum of Understanding (MoU) with U.S.-based engine manufacturer Caterpillar and official Cat dealer for the Netherlands Pon Power for the joint development of a series of dual-fuel methanol/diesel powered tugs.



China/ S.Korea (December 2022)

During the month of October 2022, South Korean and Chinese shipyards signed orders to build 18 ultra-large container ships (ULCSs) that will be powered by two-stroke, methanol dual-fuel engines. These deals were inked by major liner companies AP Møller-Maersk, COSCO Shipping and OOCL.



France (December 2022)

Zephyr & Boree lines up 10-ship order for 1,000 TEU container feederships wind and methanol-powered for transatlantic service to be build at Hyundai Mipo Dockyard with deliveries starting in 2025.





China (December 2022)

Lloyd's Register awarded CIMC ORIC Methanol Fueled 2,900 TEU Container Ship Design Approval in Principle.

Denamrk December 2022)

Blue World Technologies announce development of a fuel cell-based APU system running on methanol for shipping with support from Bill Gates-funded Breakthrough Energy Ventures

China (December 2022)

Proman Stena Bulk, the joint venture between tanker company Stena Bulk and methanol producer Proman, has taken delivery of its fourth methanol-fuelled tanker, Stena Prosperous.

China (December 2022)

Wärtsilä has been contracted by SAL Heavy Lift GmbH methanol-based hybrid propulsion system for four new " heavy lift vessels built at the Wuhu Shipyard in China. Delivery is scheduled for 2025.

China (December 2022)

China Classification Society has issued an AiP for an 85,000-ton methanol dual-fuel dry bulk carrier developed by Huangpu Wenchong Shipping, a subsidiary of CSSC.



Germany (December 2022).

Vestas and N-O-S to Run First Methanol-Powered CTV at German Wind Farm.

Belgium (December 2022).

A Port of Antwerp-Bruges tugboat has been fitted with dual-fuel engines, marking the official launch of the tugboat's conversion to methanol.

S. Korea (November 2022).

Ulsan Port Authority signed an MOU with the international classification society Korean Register (KR) to support methanol-fueled ships and establish the South Korean port as a low-carbon energy hub.

USA (November 2022).

Maritime Partners Orders RIX Industries' M2H2 Reformers for the World's First Methanol/Hydrogen Fuel Cell-Powered Towboat

Trinidad and Tobago (November 2022):

Proman Stena Bulk Ltd named its first state-of-the-art newbuild IMOII MeMAX methanol-fuelled 49,900 DWT vessel, Stena Pro Patria, the first of three methanol-fuelled vessels

China (November 2022).

Terntank places an order at China Merchants Jinling Shipyard in Yangzhou for the construction of up to four battery hybrid 15,000 dwt ships that will be methanol-ready





China (November 2022)

China State Shipbuilding Corporation started the first committee meeting of a 'special' project to develop marine engines capable of utilizing methanol, ammonia, and hydrogen as bunker fuel.

USA (November 2022)

Disney Cruise Line acquired the cruise ship Global Dream, currently under construction at German shipyard Meyer Werft, which will be one of the first in the cruise industry to be powered by methanol, expected in 2025.

Norway (November 2022)

Cecon Contracting entered an agreement for the construction of a cable installation vessel that will feature a methanol dual fuel system and a battery pack, expected in the first quarter of 2025.

Germany (November 2021):

Alfred Wegener Institute took delivery of a new research vessel UTHORN, built by Shipyard Fassmer, and is the first vessel in Germany to be powered by methanol.

France (November 2022)

CMA CGM plans to double its order for methanol-fuelled container ships from China with six more 15,000 TEU methanol-powered boxships, bringing total methanol orders to 12 ships.





Sweden (November 2022)

OljOla is working with Stena Oil and Stena Teknik in a new joint venture for an oil and chemical tanker designed to become one of the first dedicated vessels for methanol bunkering to supply the market in the North European region.

China (November 2022)

Guangzhou Shipyard International Co Ltd (GSI) has delivered the third IMOII MeMAX dual-fuel MR tanker powered by methanol, Stena Promise, to Proman Stena Bulk, a joint venture (JV) between methanol producer Proman and Stena Bulk.

Singapore (November 2022)

Global Energy Trading and Stellar Ship Management Services have entered into an agreement for the construction of a methanol bunkering ship for Singapore.

China (November 2022)

Orient Overseas Container Line Ltd.(OOCL) announced a newbuilding order of seven methanol-compatible 24,000 TEU container vessels with expected delivery starting from the third quarter of 2026.

Denmark (October 2022)

Maersk orders six additional methanol-fueled vessels to ABS Class built by Hyundai Heavy Industries, approx. 17,000 TEU, bringing their total methanol orders to 19 ships.





China (October 2022)

Alibaba-linked Transfar Shipping is targeting orders for a series of 8,000-teu newbuildings with an eye on making them methanol dual-fuel.

China (October 2022)

China Shipbuilding Hengyu Energy has completed the bunkering of three methanol-powered Proman Stena product tankers built by Guangzhou Shipyard International.

USA (October 2022)

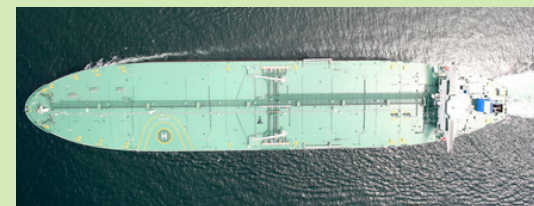
Norwegian Cruise Line Holdings has decided to pursue methanol while implementing interim steps on its in-service cruise ships with retrofit of medium-speed MAN Energy Solutions engine to run on methanol dual-fuel.

Greece (October 2022)

Atlantic Bulk Carriers (ABC) has opted for methanol with future newbuildings to be readied for that technology,

Belgium (October 2022)

Euronav has ordered two new eco-friendly Suezmax tankers from South Korean shipbuilding firm Daehan Shipbuilding Co. to be ammonia/methanol ready.





China (October 2022)

COSCO SHIPPING Holdings ordered 12 24,000 TEU methanol dual-fuel powered container ships with a total price of \$2.87 billion.



Turkey (September 2022)

RINA has granted approval in principle (AiP) for a methanol dual fuel tugboat designed by Turkish shipbuilding company Med Marine.



USA (September 2022)

Glosten and ABB have teamed to develop a methanol-hybrid ship assist tug design.



New Zealand's (September 2022)

MOVE Logistics Group (MOVE) is pressing ahead with a landmark order for a methanol-capable ro-ro for the country's coastal trades.



China (September 2022)

China Shipbuilding Industry Trading Co., Ltd., a subsidiary of China State Shipbuilding Corporation, signed a contract with Mediterranean Shipping, Det Norske Veritas (DNV), WinGD and China Marine and Offshore Engineering Design and Research Institute (MARIC) for methanol dual-fuel powered container ship project.





Germany (September 2022)

Freudenberg e-Power Systems has reported that the classification society RINA has granted Type Approval for its methanol-powered fuel cell system.

Italy (September 2022)

Sanlorenzo signs partnership with Rolls-Royce to develop first methanol propulsion system on a superyacht due for delivery in 2026.

China (September 2022)

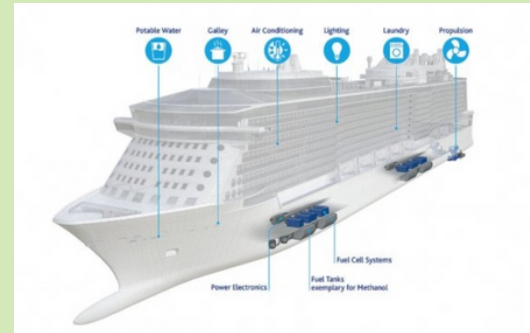
ABS grants AIP to CSSC Qingdao Beihai Shipbuilding CO., LTD and China Ship Design & Research Center Co., Ltd (CSDC) for the world's first methanol-powered Newcastlemax bulk carrier.

China (September 2022)

ContiOcean Environment Technology has inked a marine methanol fuel supply system contract with a well-known but undisclosed marine power solutions company.

Norway (September 2022)

Ocean Residences announces the M/Y Njord will be the first residential superyacht to run on e-methanol and bio-methanol to access Norway's environmentally sensitive fjords.

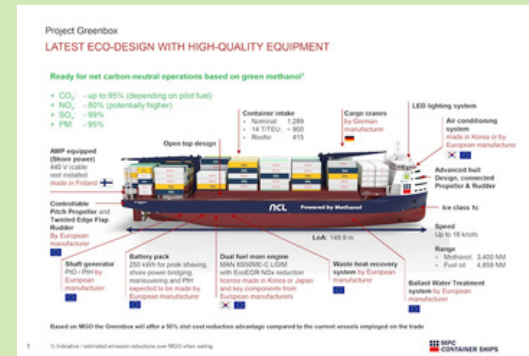


Norway (August 2022)

Topeka, the Wilhelmsen-owned zero-emission shipping company, launches two carbon-neutral, methanol-fuelled container newbuilds serving Norway to European markets.

Norway (August 2022)

MPC Container Ships has announced that it is partnering with North Sea Container Line (NCL) and materials producer Elkem on an order for two 1,300 TEU 'carbon neutral' methanol-powered container ships.



Sweden (August 2022)

Alfa Laval FCM Methanol was chosen as the fuel supply system for six methanol-fuelled container vessels ordered for X-Press Feeders.



China (July 2022)

Proman Stena Bulk announces its second methanol-powered newbuild tanker, Stena Pro Marine, was delivered.



Norway (July 2022)

Ocean Yield purchases second 5,500 TEU capacity methanol-ready containership newbuilding for long-term charter to Israeli carrier ZIM, expected in May 2023.





France (June 2022)

CMA CGM has ordered a total of six 15,000 TEU dual-fuel methanol-powered containerships from an unnamed shipbuilder. The newbuilds are planned to join the CMA CGM fleet by the end of 2025.



USA (June 2022)

Advent Technologies Holdings, Inc. has signed a Memorandum of Understanding (MoU) with Laskaridis Shipping Company Ltd. to jointly conduct a pilot program using methanol fuel cells for auxiliary power on dry bulk vessels.



Denmark (June 2022)

Blue World Technologies and Tuco Marine have entered a partnership to develop methanol fuel cell-powered workboats.



Japan (June 2022)

Ocean Network Express (ONE) has signed shipbuilding contracts with both Hyundai Heavy Industries and Nihon Shipyard to construct five 13,700 TEU vessels each, all for delivery in 2025.



Brazil (June 2022)

Brazilian mining giant Vale has approached shipyards in China for quotes on 14 newbuildings 300,000-dwt VLOCs, no fuel choice yet by enquires for LNG and methanol dual-fuel vessels.





USA (May 2022)

e1 Marine M-series methanol to hydrogen generator has received Approval in Principle (AiP) for marine applications from class society Lloyd's Register.

Canada (May 2022)

Uzmar and Robert Allan sign an agreement to design and build a new series of methanol-fuelled tugboats.

Sweden (May 2022)

Alfa Laval's FCM Methanol low-flashpoint supply system proven over 100,000 hours of operation.

USA (April 2022)

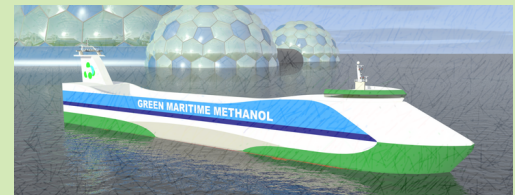
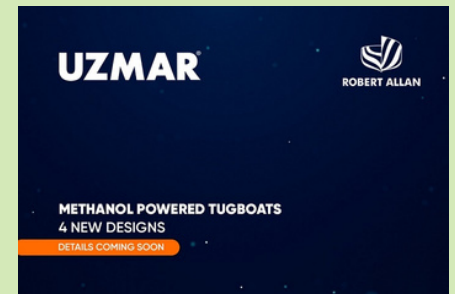
Caterpillar Marine joins the Green Maritime Methanol consortium to achieve carbon reduction through methanol in the maritime industry.

USA (April 2022)

Caterpillar Marine announces additional development of alternative fuels with an investment in methanol engine technologies.

Denmark (April 2022)

Ørsted teams with Esvagt to build the world's first service operation vessel (SOV) methanol-powered. The SOV will be powered by batteries and dual-fuel methanol engines.





Denmark (March 2022).

Danish municipality replacing diesel engines with methanol fuel cells from Advent Technologies in Margrete Laesø ferry launching 2024-2025.

Netherlands (2022).

Citing market demand, MAN Energy Solutions has designed three new engines for methanol operation, giving ship owners the choice between seven engines and five bore sizes designed to run on methanol fuel.

Japan (March 2022):

Mitsui O.S.K. Lines (MOL) and five partners form an alliance to develop Japan's first domestic methanol-fueled tanker in 2024.

Greece/China (March 2022):

Danaos has placed orders for two 7,100 TEU containerships that will be methanol fuels ready to be built at Dalian Shipbuilding for delivery in 2024.

Finland (March 2022)

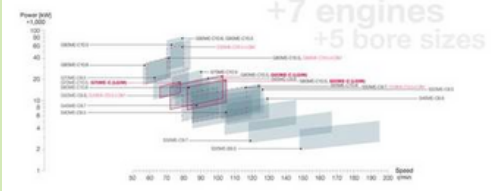
Wärtsilä develops MethanolPac, combined with the Wärtsilä 32 Methanol engines to deliver methanol-capable fuel and power systems across a wide range of vessel segments.

Singapore (Feb 2022).

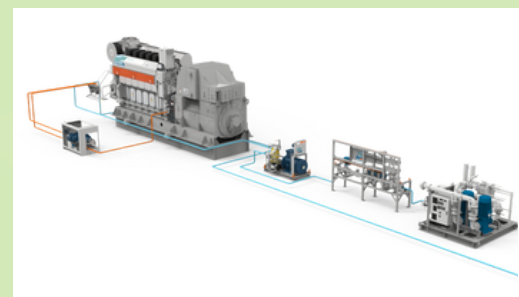
AAL Shipping increases its order for dual-fuel, methanol-ready multipurpose vessels from four to six 32,000 DWT Ships.



MAN B&W two-stroke portfolio including methanol engines of which design plans have been published



<p>MOL Mitsui O.S.K. Lines</p> <p>Ownership of methanol-dual fueled methanol carrier;</p> <p>Sharing operational expertise</p>	<p>TABUCHI KAIUN CO., LTD. 新居浜海運株式会社</p> <p>Manning and ship management services for the vessel</p>
<p>Murakami Hide Shipbuilding Co., Ltd. 村上重造株式会社</p> <p>Abundant experience in construction of chemical tankers; Responding to unique specifications</p>	<p>HANSHIN DIESEL</p> <p>World's 1st company to successfully develop methanol-fueled low speed 4-stroke diesel engine for marine use.</p>





Netherlands (Q2 2022):

Damen Shipyards delivering first "methatug" to Port of Antwerp in 2022 also part of FASTWATER project.

China (Feb 2022):

COSCO SHIPPING and CSSC Dalian Shipbuilding Industry have onw AIP certification by class societies DNV and CCS for the design of methanol fuel-powered 310,000 DWT very large crude carrier (VLCC) ship design.

Netherlands/China (Jan 2022):

Van Oord has ordered a self-elevating offshore installation vessel being built at Yantai CIMC Raffles shipyard and running on five Wärtsilä 32 methanol engines for delivery in 2024.

Spain (Jan 2022):

Ferry operator Baleària building its first electric passenger and cargo ferry that will serve as testbed for the use of methanol fuel.

Singapore (Jan 2022):

Class society ABS, SDTR Marine, and Shanghai Merchant Ship Design & Research Institute (SDARI) have designed an innovative methanol-fueled dry bulk carrier based on neo-Panamas 85,000 DWT vessel.

Germany (Jan 2022):

Rolls-Royce business unit Power Systems is working on mtu 4-stroke engines for use with methanol planned to be available as soon as possible for use in commercial ships and yachts.





Netherlands (Jan 2022):

System integrators Bakker Sliedrecht and RH Marine with the Fugro-led consortium MENENS (Methanol as Energy Step Towards Emission-Free Dutch Shipping) are developing a new electrical system to enable vessels to sail on methanol.

United States (Jan 2022):

e1 Marine and Maritime Partners to launch world's first methanol-fueled towboat in 2023.

Sweden (Dec 2021):

Swedish Maritime Administration launch pilot boat using Scania engine modified for methanol in 2021 as part of FASTWATER project.

Germany (Dec 2021):

Lürssen Yachts displays "ALICE" a climate-neutral yacht model using methanol fuels cells to replace conventional diesel generators.

Netherlands (Dec 2021):

The Fugro-led consortium MENENS (Methanol as Energy Step Towards Emission-Free Dutch Shipping) awarded a grant from the Dutch government to convert the Fugro Pioneer survey vessel to run on methanol by the beginning of 2023.

Sweden (Dec 2021):

Class society ABS grants Alfa Laval the first marine approval for operating boilers on methanol.





Korea (Dec 2021):

Class society ABS provides approval in principle to K Shipbuilding for a methanol fuel-ready medium-range tanker design.



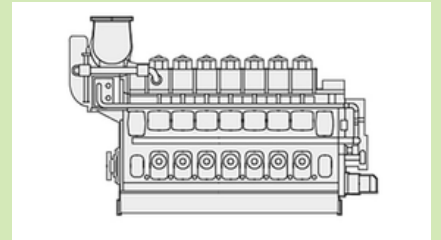
Singapore (Dec 2021):

X-Press Feeders Group commissioned 16 1,170 TEU container ships with options for more featuring dual-fuel methanol engines for delivery in 2023/2024 to operate in European and American trade routes.



Germany (Nov 2021):

MAN Energy Solutions is upgrading four-stroke engines to run on methanol and other future fuels.



Switzerland (Nov 2021):

Swiss engine-designed WinGD (Winterthur Gas & Diesel) projects that methanol-fueled four-stroke engines will be available by 2024.



Denmark (Nov 2021):

Svitzer, AP Moller, Maersk's world-leading towage operator, unveils plans to introduce the world's first methanol fuel cell tug boat to enter operation by Q1 2024.



Sweden/Switzerland/China (Oct 2021):

Proman Stena Bulk - a joint venture of shipowner Stena Bulk and Proman Shipping, a subsidiary of methanol producer Proman - building six 50,000 dwt tankers at Guangzhou Shipyard International with methanol dual-fuel engines first deliveries in 2022.





Canada (Oct 2021):

Naval architecture firm Robert Allan Ltd unveils methanol-fueled Raptor 2400 crew transfer vessel.



Japan (Sept 2021):

Japanese shipowner Mitsui OSK Lines (MOL), Marubeni Corporation, and the Ministry of the Russian Federation for Development of the Far East and the Arctic Regions are conducting a joint study to build, operate, and utilize a dual-fuel methanol chemical tanker.



United Kingdom (Jul 2021):

UK-based shipping consultancy Drewry expects half of the vessels ordered after 2025 to have dual-fuel engines, with a large percentage using methanol as a marine fuel.



Germany (Jul 2021):

Port of Emden to receive new, methanol-powered harbor boat.



Ukraine (Apr 2021):

Danube Shipping Company orders up to 33 river pushers using Anglo Belgian Corporation 'hybrid' engines with methanol/hydrogen capability.





Netherlands (Mar 2021):

OCI NV, MAN, Eastern Pacific Shipping first methanol retrofit by 2023, newbuilds and retrofits.

Netherlands (Mar 2021):

Van Oord deploys FUELSAVE hydrogen/methanol system on subsea rock installation vessel Bravenes.

Japan (Mar 2021):

Sumitomo Heavy wins Approval in Principle from Class NKK for methanol dual-fuel tanker.

Denmark (Feb/Aug 2021):

Maersk orders one 2,100 teu methanol dual-fuel container ship (2023), and eight 16,000 teu vessels exercising option for four additional methanol-fueled ships (2024-2025).

Germany (Jan 2021):

AIDAnova will employ methanol fuel cells for propulsion under the Pa-X-ell2 project.

Singapore (Dec 2020):

Hyundai Mipo Dockyard, MAN Energy Solutions, DNV GL, and the Methanol Institute unveil standard design for methanol-fuelled product tanker with building costs 10% higher than a standard vessel, but less than the 22% higher costs for an LNG-dual fuel vessel.





Germany (Jan 2020):

Shipowner Liberty One has ordered a new multipurpose (MPP) ship powered by methanol.

Netherlands (Jan 2020):

Damen Shipyards has developed a new concept Offshore Support Vessel (OSV) to operate on methanol.

Germany (Mar 2019):

Abeking & Rasmussen shipyard designing "green cruise" concept vessel using methanol fuel cells for hotel load and methanol propulsion engines.

Germany (Jul 2018):

Shipowner SAL Heavy Lift to install FUELSAVE hydrogen/methanol injection system in 6 vessels.

Canada (2016-2019):

Methanex Waterfront Shipping and their partner vessel operators - Mitsui OSK Lines, Westfal-Larsen, Marininvest, IINO, and NYK Group - began operating a fleet of 11 50,000 dwt chemical tankers with dual-fuel methanol engines.

Sweden (2015):

One of the world's largest ropax ferries - Stena *Germanica* - has been operating on methanol fuel since 2015.

