

WinGD secures world-first ethanol-fuelled engine orders for ocean-going ships

May 19th, 2026. Swiss marine power company WinGD's first ethanol-fuelled X-DF-M/E engines have been ordered for two ore carriers to be built for Chinese owner Shandong Shipping Corporation and to operate under long-term charters for Brazil-headquartered global mining company Vale. The two Newcastlemax (325,000 DWT) vessels will be built by Beihai Shipbuilding in China, and will each be powered by a six-cylinder, 820mm-bore 6X82DF-M/E engine intended to run primarily on ethanol fuel.

The engines will be the first of the X-DF-M/E platform optimised for primarily ethanol use. The fuel supply and injection pressure will be modified from WinGD's methanol-fuelled engine concept already in service to account for the difference in energy density between the two fuels, which otherwise share very similar properties and combustion characteristics. The contract includes options for further engine deliveries should the vessel series be extended.

WinGD Executive Director Sales Volkmar Galke said: "These first ethanol-fuelled X-DF-M/E engines build on more than a decade of intensive investigation into alcohol fuels including ethanol and methanol. Securing orders for a top-tier charterer and ship operator is the best possible validation of those efforts. This is a clear signal that the shipboard technology and fuel infrastructure around ethanol as a marine fuel are ready, giving confidence to others considering ethanol as an option for maritime decarbonisation."

Ethanol is gaining attention as a ship fuel due to its widespread and cost-competitive availability in several markets. These markets include Brazil, from where the vessels will deliver iron ore to China. According to Vale's own investigations, the use of ethanol can reduce greenhouse gas emissions by around 90% compared with heavy fuel oil, depending on the fuel type and lifecycle assumptions.

Vale Director of Shipping Rodrigo Bermelho said: "The adoption of ethanol as an alternative fuel is part of Vale's strategy to combine flexibility and efficiency in the ships that transport our ore and places the company in a unique position for the energy transition in global shipping over the coming decades, whilst driving similar initiatives in the sector. We are pleased to partner with Shandong and WinGD on the world's first newbuilding order for ethanol-fueled ocean-going vessels."

With the addition of ethanol-fuel capability for its X-DF-M/E platform, WinGD now offers unparalleled fuel flexibility across Diesel-cycle two-stroke engines. X-DF-M/E, alongside the ammonia-fuelled X-DF-A and high-pressure LNG-fuelled X-DF-HP platforms, are all based on the same robust engine architecture and injection concept – ensuring efficient conversion capability that does not lock owners into a single fuel option.

The engine deliveries are scheduled to take place in early 2029 depending on shipyard requirements.

ENDS

Media Contact:

Kami Paulson
Head of Client Communications
Knights Media and Public Relations #knightsmpr
E-mail: kami@knightsmpr.com
Tel.: +44 7947 697 653

WinGD in brief

WinGD advances the decarbonisation of marine transportation through sustainable energy systems using the most advanced technologies in emissions reduction, fuel efficiency, hybridisation and digital optimisation. With their two-stroke low-speed engines at the heart of the power equation, WinGD sets the industry standard for reliability, safety, efficiency, and environmental design - supported by Global Service by WinGD, which delivers tailored 24X7 lifecycle engine support through Swiss engineering excellence, dependable maintenance, rapid global response, and genuine parts to keep engines performing at their best.

Headquartered in Winterthur, Switzerland since its origin as the Sulzer Diesel Engine business in 1893, today it is powering the transformation to a sustainable future.

For more information visit: www.wingd.com
Follow WinGD on [LinkedIn](#) for the latest news and updates