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WinGD wins first approval in principle for ammonia two-stroke engine.

Lloyd's Register approval in principle will support shipowner confidence on vessel designs using ammonia-fuelled main engines.

Swiss marine power company WinGD has secured the first ever approval in principle (AiP) for two-stroke engines fuelled with ammonia. Lloyd's Register awarded the AiP to WinGD's X-DF-A dual-fuel range, giving shipowners the assurances they need to realise vessel designs using ammonia-fuelled main engines for the first time.

Development of WinGD's ammonia-fuelled engine series has been advanced with strong support from shipowners, shipyards and engine builders. The first engine to be developed, the 52-bore X52DF-A, will be available for delivery from Q4 2024 and is applicable to a range of vessels including gas and bulk carriers.

WinGD CEO Dominik Schneider said: "Time is of the essence as shipping looks to clean power solutions. This approval shows the industry that WinGD is leading the way in bringing carbon-free ammonia power to the deep-sea fleet. With the support of expert partners including Lloyd's Register, these technologies will be available long before emission targets require them, giving operators vital space to plan and gain experience."

Lloyd's Register CEO Nick Brown added: "The maritime industry needs to trust that new technologies can be deployed safely as it continues to evaluate multiple transition pathways. This AiP will give first movers confidence that, subject to subsequent care in design, build, integration and operation, this ammonia two-stroke engine can help meet that demand. LR is delighted to have worked with WinGD on this groundbreaking development."

WinGD was able to validate to Lloyd's Register experts that the X52DF-A concept is technically ready to satisfy future regulatory requirements with no major obstacles. As part of the AiP process, Lloyd's Register considered the engine safety concept, risk assessments and preliminary engine and fuel supply system design, as well as confirming the compatibility of materials with ammonia fuel.

WinGD will extend the X-DF-A platform to a 72-bore variant in 2025 followed by other engine sizes in 2026 according to market needs, accommodating a wide range of vessel types from small tankers and car carriers to very large tankers. The engines operate according to the Diesel principle in both diesel and ammonia modes, have the same rating field as WinGD's existing Diesel engines and will be available with the same cylinder configurations.

ENDS

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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, backed by a global network of service and support. 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.

WinGD is a CSSC Group company.

For more information visit: www.wingd.com

About Lloyd's Register

Trusted maritime advisors, partnering with clients to drive performance across the ocean economy.

Lloyd's Register (LR) is a global professional services group specialising in marine engineering and technology. Created more than 260 years ago as the world's first marine classification society, to improve and set standards for the safety of ships.

Today we are a leading provider of classification and compliance services to the marine and offshore industries, helping our clients design, construct and operate their assets to accepted levels of safety and environmental compliance.

We also provide advice, support and solutions on fleet performance and optimisation, voyage optimisation, enhancing our clients' digital capability. Our digital solutions are relied upon by more than 20,000 vessels.

In the race to zero emissions, our research, technical expertise and industry-firsts are supporting a safe, sustainable maritime energy transition.

Lloyd's Register Group is wholly owned by the Lloyd's Register Foundation, a politically and financially independent global charity that promotes safety and education.

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