"Hybrid package scope of supply typically includes the gearbox itself, with the combined electric motor and generator already flanged to the gearbox and a separate frequency converter. Main input and output shafts are vertically offset and the gearbox includes integrated hydraulic clutches to control drive options.

Reintjes also supplies specialist marine gearboxes for workboats, fast ferries and inland waterway vessels at a wide range of power ratings. Workboat gearboxes are designed for heavy duty operation, with applications including tugs, trawlers, tankers and container vessels. Starting at propulsion powers as low as 250kW, the highest

## Kumera supplies hybrid gear for new tug application

Norwegian company Kumera is in the process of delivering a further major order from Vard Brevik to supply its innovative Norgear hybrid marine drive for a new anchor handling tug (AHT). The Norgear advanced Multi Step Hybrid Gear is designed with a focus on enabling fuel saving solutions and minimising environmental impact through optimum power use in a range of operating modes.

The AHT is contracted to the Norwegian tug boat company Buksér og Bergin and will be delivered in the first quarter of 2015. The Multi Step Hybrid Gear contract with Kumera is valued at over NKr5 million (US\$0.8 million) but the investment will be offset by fuel savings, where reductions of up to 40 or 50 per cent are claimed as achievable, dependant on the operating mode.

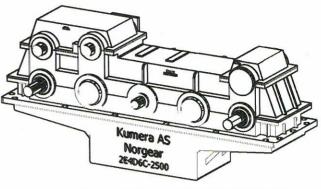
The project will be completed by Kumera in close cooperation with Buksér og Berging, which has been a partner in the development of the gear solution and is a major supplier of marine services in ports and terminals, ocean towage and other complex marine operations. Vard Brevik, which will construct the AHT, is a major builder of specialised vessels used in offshore industries and has previous design experience of vessels with complex gear arrangements.

"Kumera is emerging as a preferred supplier of hybrid marine main propulsion gears for the AHT, tug and workboat markets," commented Jukka Kyttälä, CEO of Kumera Corp. "This new contract shows that our strategy of delivering customised marine drive solutions internationally is appreciated by our customers, especially technically advanced companies like Buksér og Berging and Vard that are committed to reducing fuel consumption and harmful environmental emissions," he said.

Kumera has over 80 years of experience in providing equipment to the marine industry and has a portfolio of transmission products including hybrid gearbox propulsion drives, power take-off systems and thruster drives. The company is a wholly-owned subsidiary of Kumera Drives and has held globally responsible for marine drives within the Kumera Corp since the 1970s. MP

capability DLG series gearboxes handle engine powers of up to 30,000kW. These hydraulically operated twin input / single output reduction gearboxes offer a number of advantages that include their light weight design and low noise emissions.

Reintjes has over 80 years' experience of making marine gearboxes and is certified to DIN ISO 9001/EN 29001. Products can be supplied based on typeapproval or full classification from IACS classification societies.



Kumera's Norgear takes two inputs and offers a variety of outputs for workboat installations (illustration: Kumera)

