Anchors aweigh

The world's first battery-driven fishing boat goes into operation

Unlike other vessels, the vessel called Karoline generates all or most of its power from batteries depending on the voyage.

Trondheim, Norway. "In five years' time, we'll see battery-driven fishing boats as completely normal," says Erik Ianssen, owner and Managing Director of Selfa Arctic AS.

The constant throb and hum of a diesel engine powered fishing smack with its plume of black smoke trailing behind is in sharp contrast to the majestic beauty of Norway's fjords and rugged coast. But this could become a distant memory, due to the the world's first battery-operated fishing boat developed by the company Selfa, the "Karoline".

Unlike other vessels, the Karoline generates all or most of its power from batteries depending on the voyage. Most trips last eight to 12 hours, so an 80 percent minimum reduction of total diesel consumption is expected. For emergencies, a diesel generator set was built in. The batteries are recharged quayside from standard supply during the night. As Norway's energy is renewable, this makes for environmentally sound sailing at a much lower cost than diesel-fuelled alternatives. Battery-powered electric propulsion is also easier to maintain and maintenance costs reduce accordingly. Erik Ianssen, owner and Managing Director of Selfa Arctic AS, says: "With cold winters, the fishing fleet must tackle below-freezing temperatures, which means vessels need to be kept heated in port. Traditional solutions end up heating the water as well as the boat with up to 70 percent of heat lost. The Karoline has a very efficient heating system driven by clean electricity direct from batteries or a shore connection. No diesel is required".

Cutting diesel consumption

The propulsion system of the vessel has a battery bank and variable-speed generator driven by an efficient diesel common-rail silent-running engine for safety purposes and long-distance transit. Siemens' scope of supply includes the complete electric propulsion system, power management system, thruster control system, frequency converters for pumps, a 60 kW (kilowatts) generator and motor and two 97,5 kWh (kilowatt-hours) battery modules. Selfa Arctic and Siemens have developed the propulsion and auxiliary system together. "Although we approached several companies with a view to partnering, Siemens had the proven expertise and enthusiasm for the project. We've been very pleased with the result and surprised that such a big and well organized company can be so personal," he states. «

Naval & Commercial Vessels

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