

'Royal Greenland' Factory Trawlers

powered by MAN common rail engines



The ST-118 and ST-119 design for ground fish and shrimps respectively. Graphic: Skipsteknisk AS

New order: Complete propulsion and GenSet systems for two new Royal Greenland arctic freezer trawlers, designed by Skipsteknisk AS, Norway – and to be built at Astilleros de Murueta S.A., Spain.

New vessels for tough arctic fisheries

The Royal Greenland vessels will replace the 2002-built MFV Qaqqatsiaq (Orskov Shipyard, Denmark) and the MFV Sisimiut (Mjelllem & Karlsen Shipyard, Norway) from 1992. Both new vessels will be equipped and geared for arctic fishery operations in the Barents Sea and the waters east and west of Greenland.

Principal vessel particulars

Trawler design	ST-118	ST-119
Fish products	fillets	shrimps
Freeze cap (t/day)	80	100
L oa (m)	82.05	82.30
L bpp (m)	73.80	73.80
B mld (m)	17.00	18.00
D main deck (m)	7.45	7.95
Acc (persons)	43	30
Main engine (kW)	5,400	7,200
Boost PTI (kW)	600	-
Speed, ballast (kn)	15	15

High energy efficiency and low OPEX

During the vessels' development, great efforts were made to achieve the highest possible energy and consumption standards for all kinds of operations with different fishing modes under various weather conditions. Consistent selection of reliable high end equipment leads to the lowest operational expenses and lifecycle costs.

The vessels are designed with specific focus on reduced all over carbon footprints via reduced consumptions and emissions. This is being obtained by the specification of a fuel efficient hull, aft ship, propeller, nozzle, main engine, propulsion system, auxiliary engines – and additional systems for recovering and recycling of excess energy. Electrical trawl winches for reverse power recovery are one example. The vessels will be built according to DNV-GL class for the highest Baltic ice class.



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For environmental reasons Royal Greenland will run their 32/44CR engines with Marine Gas Oil



Royal Greenland's arctic factory vessels will operate with full resource utilization and no discard

Integrated MAN power systems

The newbuildings will be powered and propelled by propulsion packages comprising MAN 32/44CR common rail engines. A 9 cyl 5,400 kW version for ST-118 will together with the 600 kW GenSet PTI-power be able to provide a total propulsion power of 6,000 kW. A gearbox driven shaft alternator output is up to 3,200 kWe. For the ST-119, a 12 cyl 7,200 kW 32/44CR engine will power the propulsion train and an engine front end driven 3,200 kWe shaft alternator. Approx diameters for the ducted MAN Alpha propellers are 4,500 mm - operating in Alpha High Trust nozzles type 4540. The additional auxiliary power for e.g. fish factory processing, freezer plants and hotel loads - not covered by the shaft alternators - is supplied by 2 x MAN 6L21/31 GenSets.

MAN PrimeServ Online Service transmits key engine data from any place in the world via secure data connections. PrimeServ experts will be able to analyze the data and provide valuable recommendations for maintenance/repairs of the engine or turbocharger. They can also provide the operator with remote support by accessing real-time engine data

Engine and propulsion control

The propulsion packages will be controlled by MAN's SaCoS_{one} – controlling the Common Rail system's part load fuel saving features – in combination with the Alphatronic 3000 Propulsion Control System via control stations at main bridge, bridge wings, aft bridge and engine control room. With balanced load and engine control in combination with MAN PrimeServ's Online Service the TBOs are expected to be beyond 24,000 hours.

Royal Greenland - a seafood brand

Royal Greenland employs 2,000 people and has a fleet of 15 ocean-going and coastal vessels. Royal Greenland, headquartered in Nuuk, is the world's largest supplier of cold water shrimps and runs 40 landing and processing facilities.



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