Aker Finnyards

Fesco Sakhalin

Ice-breaking Supply and Standby Vessel

Preferred for innovation

The first double-acting large-scale icebreaker ever built

This ice-breaking vessel of a new type is based on the double-acting concept for icebreakers. This concept makes the combined icebreaker, offshore supply and standby vessel for Far Eastern Shipping Company (FESCO) truly one of the most sophisticated and versatile ships ever built for arctic operations.

In the double-acting concept developed and patented by the Aker Arctic Technology Inc. (AARC), the vessel penetrates the most difficult ice conditions with the ship's stern first, powered by azimuthing electric propulsion. This technique reduces the power demand, and the ship's bow can be optimised for efficient operation in ice-free conditions. This vessel was specially designed for the ice management of the Orlan platform in Sakhalin area, where extreme conditions expose the platform to the risk of becoming surrounded by grounded ice rubble. With its capability to approach the platform through the rubble, there is no competition; this new vessel is unique in the world.

Main particulars

Length, oa	99.9 m
Length, wl	93.5 m
Breadth, moulded at dwl	20.95 m
Breadth, maximum	21.23 m
Draught, design	7.5 m
Draught, scantling	7.5 m
Deadweight	3,950 t
Gross tonnage	6,900 t
Ice performance	1.5 m of level ice, 20 m deep ridges with 4 m of consolidation
Classification	1A1, Supply Vessel, Icebreaker ICE-10, DEICE, Standby Vessel, Fire Fighter I, NAUT-OC, DK (+), HL (2.0), DYNPOS-AUT, OILREC, SF, EO

Main equipment and machinery

Type of propulsion	Diesel electric. Azipod drive
Main engines	3 x Wärtsilä 8L38B, total output 17,400 kW
Propulsion	2 x Azipod V16 DAS, total output 13,000 kW
Bow thrusters	2 x 1,100 kW
LSA capacity	40 persons
Rescue capacity	150 evacuees

For safer oil production

This new vessel will serve around the year at the Orlan platform, performing its standby-rescue task and securing the oil production. With its rescue capacity and versatile fire-fighting equipment, it is capable for various types of safeguarding operations, not to mention the protection of the environment. It is fitted with high-tech equipment for oil spill recovery, e.g. an arctic oil skimmer, 200 meters of oil boom and receiver tanks for recovered oil, all especially developed for the harsh offshore conditions.

Aker Arctic Technology Inc (AARC)

Aker Arctic Technology Inc is the arctic R&D unit of Aker Yards. The unit has been engaged in research with its own ice model basin for decades and been involved in numerous projects wherever freezing waterways are found. A third generation technology centre is currently under construction with plans to replace the existing laboratory in 2006. The most advanced ship designs, such as the double-acting ship concept, originate from Aker Yards.

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CRUISE VESSELS

FERRIES

SPECIAL VESSELS

AKER FINNYARDS IN BRIEF

Aker Finnyards is amongst world leading designers and builders of cruise vessels and ferries as well as other technically complex vessels. The company's shipyards are situated in Helsinki, Rauma and Turku. During the last ten years, over 25% of the world's cruise ships have come from the company's shipyards, the major customers within this vessel segment being the globally leading cruise operators.

Aker Finnyards is part of Aker Yards, an international shipbuilding group being one of the world's five largest shipbuilders.

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