



Icebreaking escort and OSR tug

ILS Knight Design Series high ice class Offshore Support Vessel concept **SUBARCTIC** is suitable for harbor area icebreaking / ice management and escort tug duties, as well as oil spill and other emergency response duties, offshore supply, personnel transfer, towing for round-the-year operation, fire fighting, and anchor handling. Possibility to equip with a motion compensated gangway.

Classification | DNV Ice-10 Ice Breaker AUT-UMS Escort Tug
Unrestricted Navigation Fi-Fi 1 OilRec DEICE DAS DP1



Length, overall	79.5 m	Stern winch (anchor handling and towing)	DMT 150 t, twin drum	Deck fittings	Cargo rails & fittings, container fittings
Beam, molded	19.0 m	Bow escort winch	DMT 150 t, single drum	Deck protection	Wood sheathing
Draft, max	6.5 m	Anchor winch	Combined with escort winch	Dispersant tank	29 m ³
Displacement	4 500 t	Top hat towing pins and shark jaw	Karmoy	Recovered oil tank	700 m ³ with submersible transfer pump and discharge hoses
Deadweight	1 200 t	Stern roller	SWL 150 t	Fuel oil	650 m ³ + 500 m ³ cargo
Main diesel generators	3 x Wärtsilä 7L32, 3 900 kW / 750 rpm	Man riding deck crane	Kongsberg Motus, 7.0 ton / 12 m	Fuel connections	On work deck P&S
Propulsion power	2 x ABB Azipod ICE 1400 a' 4 500 kW	Stern knuckle boom crane	Palfinger	Accommodation	Seating for 12 passengers for transfer. 4 single bed cabins and 4 double bed cabins for Charterer use. 18 crew cabins.
Bollard pull	110 t	2 x deck tugger winch	Kongsberg		
Auxiliary / Harbour diesel generator	1 x 760 kW Wärtsilä or Cummins	2 x deck capstan	Kongsberg		
Emergency diesel generator	Cummins 150 kW	FRDC water jet (fast rescue boat)	Viking		
Icebreaking capability	Transit speed of 3 knots in 1.0 m level ice with 20cm-snow cover ahead and astern; transit speed of 8 knots in 0.8 m level ice with 20cm snow cover ahead.	Clear deck load area	510 m ²		
		Clear deck load area min length	49 m		
		Deck strength	5 t / m ²		



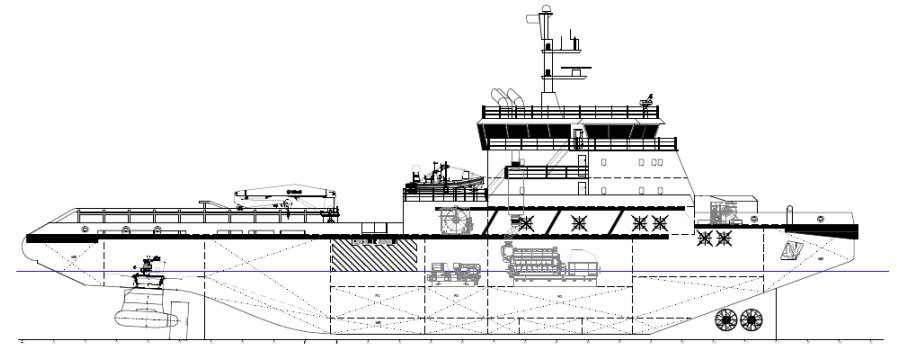
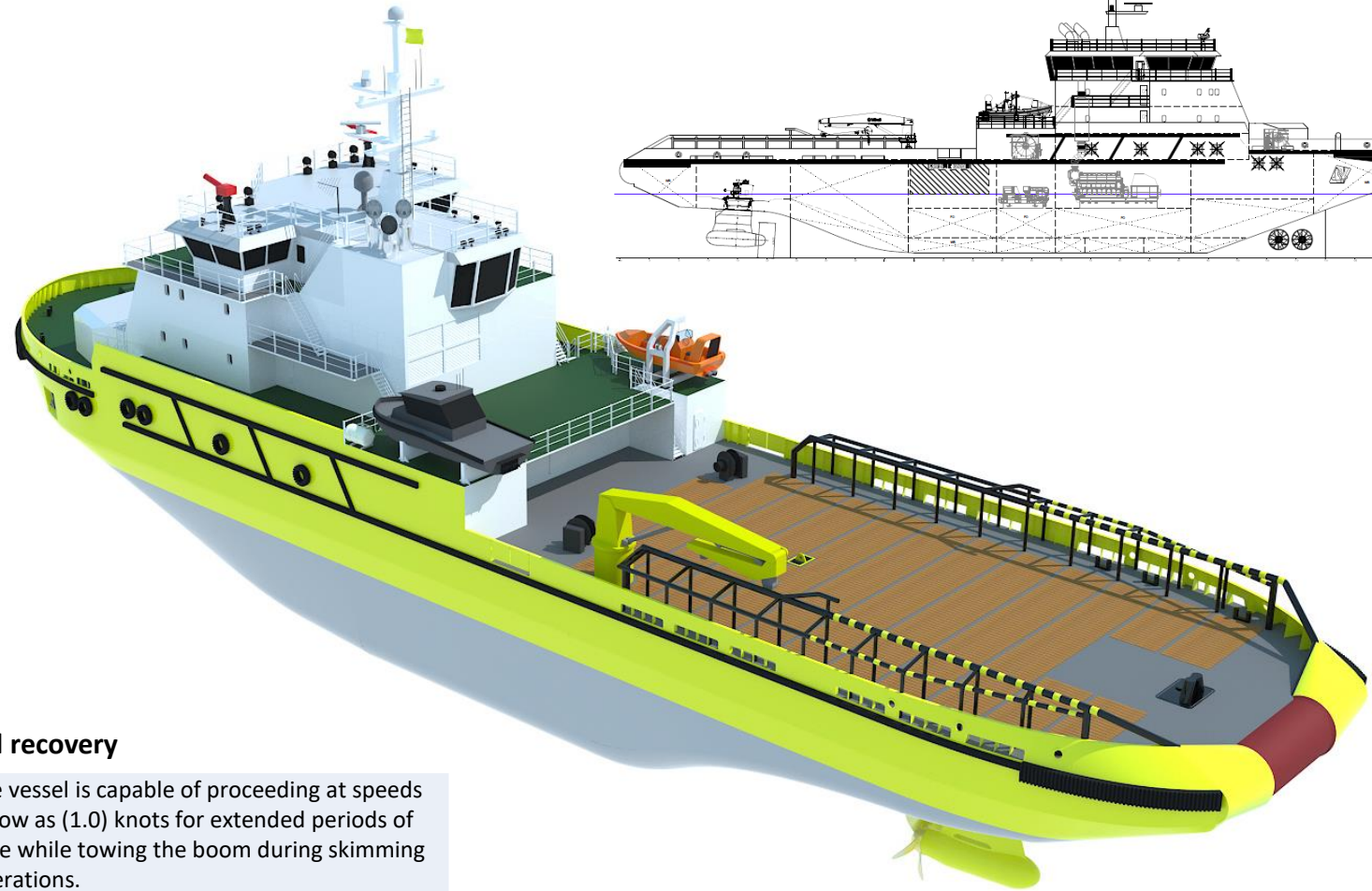
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SUBARCTIC is a modern multipurpose vessel concept designed for demanding offshore operations in harsh, freezing environments. Its primary task is to assist Aframax tankers arriving for loading to offshore platforms or SPMs. In ice conditions, it prepares the loading sites by breaking the ice blowing the ice floes and crushed ice away with its thrusters. It provides hold-back support to tankers in their maneuvering, and, during loading, helps them to maintain their position. Vessel winches are equipped with quick release brake, and a tension meter, both accessible directly at the conning station.

The vessel is also designed for different kinds of emergency response duties.



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Oil recovery

The vessel is capable of proceeding at speeds as low as (1.0) knots for extended periods of time while towing the boom during skimming operations.

Deployment, positioning and recovery of oil spill containment boom of 1.3 m in height and 250 m in length.

Jib arm, length 7.5 m, for side sweep boom is installed onboard.

The vessel has a protected space for the storage of skimmer, booms, davits and associated equipment. Storage space is located and arranged to allow for direct deployment of oil spill equipment winterized storage.

Fire fighting

Fire monitors 2 x 1200 m³/ h with remote control.

The vessel is capable of maneuvering and maintaining station for sustained periods and apply sea water to the main decks of tankers SPMs and offshore platforms to a height above water of 65 m.

Search & Rescue

The vessel is designed to provide rescue operations including the launching and recovery of rescue boats and deployment and use of rescue nets.

The vessel is configured to recover and support up to 150 survivors. Spaces are dual purpose, totally 92 m².