

MULTIPURPOSE VESSEL *LOUHI*

ILS 624



ils.fi



**ILS Ship Design
& Engineering**

Owner: Finnish
Environment Institute

Operator:
Finnish Navy

Conceptual designer:
ILS Ship Design
& Engineering

Builder: UKI
Workboat Ltd

MULTIPURPOSE VESSEL LOUHI ILS 624

OPERATIONAL

Main duties

- ⚓ Icebreaking
- ⚓ Oil combatting and recovery
- ⚓ Chemical combatting
- ⚓ Fire fighting
- ⚓ Search and Rescue
- ⚓ Emergency towing
- ⚓ Diving and ROV operations

Navy duties

- ⚓ Fuel oil transport
- ⚓ Support and service vessel operations
- ⚓ Minelaying
- ⚓ Transport of deck cargo
- ⚓ Cable laying and service operations
- ⚓ Towing

The vessel is classed to operate in international waters without restrictions. The vessel has been designed and built with excellent seakeeping, manoeuvrability and icebreaking performance in mind.

ILS Commissions:

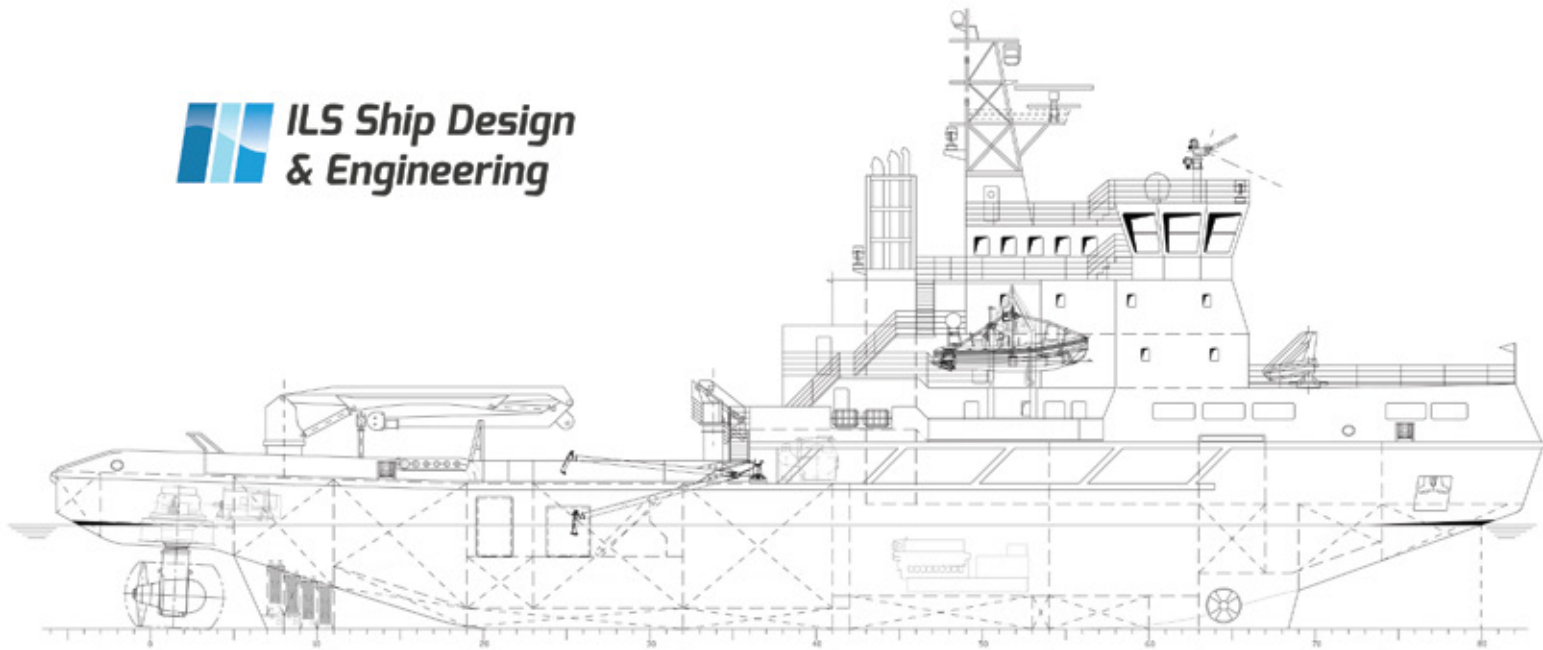
- ⚓ Conceptual design
- ⚓ Basic design
- ⚓ Model tests
- ⚓ Full scale ice trials



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MAIN DIMENSIONS

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Length overall	71,4 m
Length WL	66,8 m
Breadth molded	14,5 m
Height to upper deck	7,0 m
Draught max	5,2 m
DWT	1 250 ton
Speed ahead:	
-in open water	15 knots
-in 1,0m level ice	3 knots
-in 0,5m level ice	7,5 knots
Speed astern:	
-in 0,5m level ice	6 knots
Bollard pull	60 ton
Number of persons	40
Number of cabins	19
Propulsion motor power	2 x 2 700 W
Classification:	GL + 100A5, E4, NAV-OC Tug, Marine Pollution Response Vessel Chemical recovery vessel, + MC, E4, AUT, FF1
Additional ice class:	Finnish-Swedish ice class 1A Super

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TECHNICAL INFORMATION

Capacities:

Recovered oil or cargo fuel.....	1002 m ³	Grey water.....	45 m ³
Recovered chemicals (or cargo hold)...	180 m ³	Black water.....	22 m ³
Fuel oil.....	342 m ³	Sludge.....	10 m ³
Fresh water.....	68 m ³	Fire extinguishing foam....	49 m ³
Technical fresh water.....	80 m ³	Free work deck area.....	300 m ²
Ballast water.....	672 m ³		

Machinery and equipment (diesel electric machinery):

Main diesel engines (Clean Design)	4 x Wärtsilä 9L20	4 x 1 800 kW
Main generators	4 x ABB	4 x 2 125 kVA
Main electric propulsion motors	2 x ABB	2 x 2 700 kW
Inverters	ABB	690 v
Main azimuth thrusters	2 x Rolls Royce	2 x 2 700 kW, FP Stainless steel blades open type
Bow thruster	1 x Brunvoll	1 x 500 kW, CP
DP-system	DP1	Not classified
Electrical installations	Telesilta	690/400/230/24 V
Integrated navigation equipment	Furuno	Radars, log, DP
Multi-beam echo sounder	Kongsberg	type 9510
Surface oil detection system	OSIS	
Thermal oil boilers	2 x Aalborg Miswa	2 x 1 500 kW
Steam generator	Aalborg	500 kg/h, 8 bar
Central heating boiler	Jämä	
Oil recovery sweeping system	2 x Lamor	Fixed brush type 1,7m port and stb
Storm oil recovery channel	Kahma type	From stb side only
Winter oil recovery system	Finnish Environment Institute	Brush type
Recovered oil pumps in tanks	6 x Lamor	In each tank, submerged type a' 115 m3/h
Umbilical hose reel (oil/chemical hose)	Lamor	
Transportable oil/Chemical pump	Lamor	110 kW
Inert gas system	Air Products A/S	Rec oil/chemical tanks
Cable laying system	SLO	Cables 30-75 mm
Towing winch (hydraulic)	Rolls Royce	Brake holding 150 ton, haul in 65 ton
RIB fast rescue boat	Boomeranger	type C-740 with Rolls Royce water jet 370 hv
Work boat	Marine Alutech	8 m boat with Rolls Royce water jet 240 hv
Knuckle boom deck crane (ex)	Palfinger Marine PKM 1200	6 ton/ 20 m winch 6 ton, wire 60m
Telescopic type deck crane	Palfinger Marine 120.000 MG with warm cabin	15,8 ton/5m 3 ton / 24 m winch 6 ton, wire 60 m