



Harbor Icebreaker "Vityaz"

ILS Knight Design Series ASD harbor icebreaker and escort tug working at Sakhalin-1 consortium's De-Kastri oil export terminal in the Russian Far East.

Class notation

KM ★ 1A SUPER AUT1 ANTI-ICE OIL RECOVERY SHIP (> 60C) ESCORT support OMBO F3WS

Operational profile

- Escort towing & berthing
- Icebreaking operations
- Ice management
- Towing
- Anchor handling
- Oil spill recovery
- Fire fighting
- Transport duties



EXXON NEFTEGAS LIMITED
Sakhalin-1 Project operator



江苏大津重工有限公司

Jiangsu Dajin Heavy Industry Co., Ltd.



Harbor Icebreaker "Vityaz"

Length OA : 52.2 m
 Breadth (moulded): 14.0 m
 Depth (moulded): 6.6 m
 Draught (moulded, scantling): 5.0 m
 Draught under keel, scantling: 5.5 m
 Complement: 8+2+12 persons
 Propulsion: Diesel-mechanic, ASD, CPP
 Main engines power: 2 x 2 040 kW



Max. speed	3 kn
Icebreaking capability	0.7 m level ice / limit thickness 0.3 m level ice / 6 knots 180°turn in 0,3 m level ice / 3 minutes
Main engines	Wärtsilä W6L26C 2 x 2 040 kW
Auxiliary engines	Cummins K-19 DM 3 x 410 kW with generators 3 x 360 kW
Boiler	Heatmaster 1 x 650 kW
Azimuth thrusters	Rolls Royce 2 x US 305P40CP
Bow thruster	Rolls Royce 1 x 350 kW
Towing winch	Rolls Royce 1 x TWH 1500/500, 2 drums x 200 m UHMPE rope 60 mm dia
Escort winch	Rolls Royce 1 x ETWH 1500/800, 2 drums x 200 m UHMPE rope 60 mm
Bow thruster	Rolls Royce 1 x 350 kW
Towing winch	Rolls Royce 1 x TWH 1500/500, 2 drums x 200 m UHMPE rope 60 mm dia
Escort winch	Rolls Royce 1 x ETWH 1500/800, 2 drums x 200 m UHMPE rope 60 mm dia

Deck crane	1 x 7.5 t / 12 m, man riding, motion compensation
Deck crane	1 x 1.5 t / 6 m
FRC	1 x 6,5 m, 21 knots with 3 persons
Workboat	1 x 6,5, 320 kW, bollard pull 1,3 t
Work deck	150 m ²
Clear deck length	14 m
Work deck strength	5 t / m ²
Stern roller	Dia 2.0 m, length 4.0 m, SWL 150 t
Deadweight in tug use, typically	470 t
Deadweight in oil rec	660 t
Recovered oil tank	300 m ³
Dispersant tank	25 m ³
ILS COMMISSIONS	Conceptual and basic design, ice and open water model tests