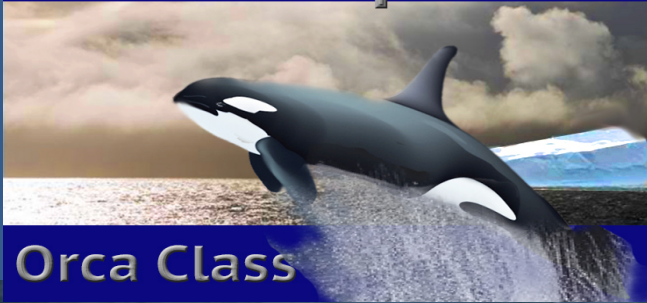


Ocean Xplorer



Orca Class



Registration

- Built: Halifax Shipyard 2003
- Flag: Canadian
- Official Number: 824923
- IMO Number: 9255907
- Call Sign: CFH 8950
- Vessel Type: UT722-L Anchor Handling, Tug, Supply, Light Intervention Vessel
- Classification: DNV
- Main Class: ★ 1A1 Tug Supply Vessel
- Additional Class: FiFi I/II, EO, ICE C, EO, DYNPOS-AUTR, DK(+) HL(2.5), TMON, SF

Principle Dimensions

- Length overall: 80.00 m
- Length BP: 69.30 m
- Breadth, moulded: 18.00 m
- Depth, moulded: 8.00 m
- Design draft: 6.00 m
- Maximum draft: 6.60 m
- Gross Tonnage: 3453 t
- Net Tonnage: 1147 t
- Deadweight: 2750 t

Machinery

- Main Engines: 4 x 3000 kW = 12,000 kW (Total 16,092 bhp) Bergen diesel en-

gines. Type B32:40L6P

- Propellers: 2 x 3900mm Ulstein CPP in Kort nozzles
- Rudders: 2 x Ulstein High Lift flap rudders
- Steering Gear: 2 x independent Ulstein Tenfjord electric-hydraulic steering gear. Max Angle 45, Max Flap Angle 55
- Azimuth Thruster: 1 x 833 kW (1200 bhp) forward swing-up thruster, CPP
- Forward Tunnel Thruster: 1 x 833 kW (1200 bhp), CPP
- Aft Tunnel Thrusters: 2 x 590 kW (800 bhp), CPP
- Generators: 2 x Shaft, 2240 kW (3004 bhp), 450V, 60/50hz, each
- Auxiliary: 1 x 1070 kW (1435 bhp), 450V/230V, 3-phase, 60hz
- Auxiliary: 1 x 370 kW (496 bhp), 450V/230V, 3-phase, 60hz
- Emergency: 1 x 99 kW (133 bhp), 450V/230V, 3-phase, 60hz

Control Systems

- Consoles: full navigation console forward
- Full navigation & main winch control console aft, full 360° view from bridge
- 8 CCTV camera system, views of decks fore & aft, winch drums, thruster rooms, etc,

monitors at fore & aft consoles.

- Joystick: 2 x Ulstein Poscon, independent from DP joysticks with 4 plug in stations

Performance

- Economic Speed: 12 knots
- Super Economic Speed: 8 knots

Crane Specifications

- Deck Cranes: 2 x Hydramaskin, 5 t SWL “knuckle” boom crane. 10m work radius
- Portable Deck Crane: Palfinger 1.0 MT
- Movable Guideline Winches: 2 x National Oilwell 6.5 t SWL Normal and Constant Tension modes

Deck Machinery

- Tuggers: 2 x hydraulic, Port and Stbd
- Main Deck:
 - 1st Layer: 20 t @ 0-22 m/min,
 - 2nd Layer: 10 t @ 0-33 m/Min,
 - Light line: 0- 70 m/min, hydraulic
 - Capacity: 600 m x 76 mm wire
- Capstans: 2 x hydraulic, Port and Stbd
- Main Deck Aft. 10 t @ 0-22 m/min combined with drum for 45 m x 20 mm wire
- Windlass/Mooring Winch: 1 x 15 t 0-16.5 m/min, hydraulic

Towing and Anchor Handling

- **Bollard Pull:** DNV certified
176.4 t continuous bollard pull
- **Towing/AH Winch:** 1 x Ulstein Brattvaag
500 t SWL declutchable Tow /AH drum,
with hydraulic spooling gear
- **Drum Size Main/Socket:**
- **Socket Portion:** 2800 mm diameter x 4050
mm depth x 900 mm width
- **Main Portion:** 2800 mm diameter x 4050
mm depth x 4250 mm width
- **Wire Capacity:** 4250 m length x 83 mm
diameter
- **Dividing Flange opening:** 300 mm
- **Low Gear:**
1st layer: 500 t @ 0-18 m/min,
lowering 0-18 m/min,
Mid layer: 440 t @ 0-21.5 m/min,
lowering 0-21.5 m/min
Top Layer: 350 t @ 0-25 m/min, lowering
0-25 m/min
- **Dynamic Braking:**
1st layer: 125-625 t @ 0-24 m/min,
Top layer: 90-440 t @ 0-33 m/min
- **High Gear:**
1st layer: 250 t @ 0-35.5 m/min,
lowering 0-35.5 m/min,
Mid layer: 205 t @ 0-43 m/min,
lowering 0-43 m/min
Top Layer: 175 t @ 0-50 m/min,
lowering 0-50 m/min
- **Dynamic Braking:**
1st layer: 62-312 t @ 0-48 m/min
Mid layer: 50-255 t @ 0-56 m/min
Top layer: 45-220 t @ 0-66 m/min
- **Work Winch:** 1 x Ulstein Bratvaag 400 t
SWL declutchable work drum, with hydrau-
lic spooling gear.
- **Drum Size Main/Socket:**
- **Socket Portion:** 1500 mm diameter x 3750
mm depth x 900 mm width
- **Main Portion:** 1500 mm diameter x 3750
mm depth x 4100 mm width
- **Wire Capacity:** 5800 m length x 83 mm
diameter
- **Dividing Flange opening:** 300mm
- **Low Gear:**
1st layer: 400 t @ 0-15 m/min,
lowering 0-15 m/min
Mid layer: 235 t @ 0-25 m/min,
lowering 0-25 m/min
Top Layer: 170 t @ 0-35 m/min,
lowering 0-35 m/min
- **Dynamic Braking:**
1st layer: 100-500 t @ 0-30 m/min
Mid layer: 60-300 t @ 0-50 m/min
Top layer: 45-210 t @ 0-70 m/min
- **High Gear:**

- 1st layer: 200 t @ 0-30 m/min,
lowering 0-30 m/min
Mid layer: 115 t @ 0-50 m/min,
lowering 0-50 m/min
Top Layer: 85 t @ 0-70 m/min,
lowering 0-70 m/min
- **Dynamic Braking:**
1st layer - 50-250 t @ 0-60 m/min
Mid layer - 30-150 t @ 0-100 m/min
Top layer - 22-105 t @ 0-140 m/min
Secondary Winches: 2 x Ulstein Bratvaag
170 t SWL winches, with hydraulic spooling
gear
- **Drum Size Main/Socket:**
- **Socket Portion:** 1500 mm diameter x
4500 mm depth x 900mm width
- **Main Portion:** 1500 mm diameter x
4500 mm depth x 4500 mm width
- **Wire/Rope Capacity:** 4000 m x 76 mm
wire or 1600 m x 203 mm synthetic rope
- **Work Duty:**
1st Layer: 138 t line pull @ 0-22m/min, 170 t
dynamic braking at max 44m/min
Last Layer: 56 t pull @ 0-54 m/min, 70 t dy-
namic braking at max. 106 m/min
Spare Tow Wire: 1 - 83 mm x 1350m.
Stored on below deck drum
- **Cable Lifters:** 2 x non-declutchable cable
lifters, two for 76 mm chain and two for 84
mm chain, fitted outside of the towing drum
- **Chain Lockers:** 4 x chain lockers 136.25
m³ each. Total 545 m³
- **Locker Capacities, 30% broken stowage**
64mm = 2085.14m, 76mm = 1339.9m,
89mm = 1158.42m, 89mm = 986.94m,
102mm = 794.92m, 114mm = 760.56m
- **Karmforks:** 2 x 750 t SWL. Remote con-
trol from Bridge and aft deck
- **Towpins:** 4 x 240 t SWL. Remote control
from Bridge and aft deck
- **Stern Roller:** 1 x Twin Stern Roller 550 t
SWL, 2996 mm width x 3.5 m diameter
- **Grapnel:** 1 x 250 t SWL, Ansel Jones
Forgings
- **J-Hook:** 1 x 250 t SWL, Ansel Jones Forg-
ings
- **Anchor:** 2 x Stockless anchors, 2.850 t
each.
- **FRC Davit:** 2 x Hydramaskin

Discharge Rates

- **Potable Water:** 250 m³/hr - 9.0 bar Pres-
sure Relief @ 9.7 bar
- **Drill Water:** 250 m³/hr - 9.0 bar Pressure
Relief @ 9.7 bar
- **Fuel:** 250 m³/hr - 9.0 bar Pressure Relief @
9.7 bar
- **Mud:** 2 x 75 m³/hr - 18.0 bar Pressure

Relief @ 19 bar

- **Brine:** 2 x 75 m³/hr - 18.0 bar Pressure
Relief @ 18.7 bar
- **Base Oil:** 125 m³/hr - 9.0 bar Pressure
Relief @ 9.7 bar
- **Dry Bulk:** 72.5 t/hr - 5.6 bar, 4 aeration
jets per tank 2 x Tamrotor compressors, 22.8
m³/min each, pressure 5.6 bar.
- **Pressure Relief @ 6.1 bar.**

Capacities/Tankage

- **Clear Deck Space:** 550 m² (may vary due
to ROV containers)
- **Deck Cargo:** 1100 t
- **Deck Loading:** Cargo deck - 5 t/m²
- **Anchor handling deck** - 10 t/m²
- **Fuel:** 1143 m³
- **Potable Water:** 500 m³
- **Ballast Water:** 1670m³
- **Drill Water:** 1130 m³
- **Brine/Glycol:** 550 m³
- **Liquid Mud:** 450 m³
- **Base Oil:** 170 m³
- **Dry Bulk:** 4 tanks totaling 283m³
- **Tank Washing:** 4 x Butterworth, hot and
cold water mud tank washing.
- **Tank Recirculation:** All tanks are capable
of recirculation

External Fire Fighting (FiFi I/II)

- **Pumps:** 2 x Unitor Z22-500/400-80, 4122
m³/hr. (Total: 8,244 m³/hr)
- **Monitors:** 2 x Unitor FIRECHIEF
FC3600, 3,600 m³/hr, (Total 7,200 m³/hr)
Bridge remote controlled.

Lifesaving

- All equipment as per SOLAS, CCG, and
Standby Vessel Letter of Compliance
- **Survivor Capacity:** 360 persons
 - **Rescue Craft:** 2 x Springer MP 741, 20
person capacity, diesel jet FRC
 - **Liferafts:** 6 x 25 per liferafts, total capacity
(150) persons
 - **Rescue Frame:** 1 x Dacon Scoop
 - **Rescue Basket:** 1 x Empira, 6 person
 - **EPIRB:** 1 x Hydrostatic Release
 - **SARTS:** 1 x Seasafes 100 and 1 x Tron
SART 20
 - **GMDSS VHF:** 3 x Sailor sp3520 with
spare batteries.

Electronics

- Radars: 1 x Furuno (X- Band) Model #FR 2105
- 1 x Furuno (S-Band) Model # FAR / FR-2805
- Auto Pilot: 1 X Simrad APSO
- Electronic Chart: 1 X Sperry Marine Vision Master FT-ECDIS- E with Integrated with autopilot and DGPS
- Gyro(s): 2 x C.Plath Navigat X MK1. Integrated with DP system
- Depth Sounder: 1 x Skipper GDS 101
- Speed Log: 1 x Consilium
- VHF DF: 1 x Taiyo TD-L1550 A
- Navtex: 1 x Furuno NX-700
- AIS: 1 X Kongsberg Seatex
- DP Reference System: Kongsberg radius

Communications Equipment

- GMDSS: Sailor, compliant for areas A1, A2, and A3 Telex / Email: 2 X Sailor Sat "C" with Telex and Email
- Aeronautical Radio: 1 x Jotron TR-601
- Portable UHF's: 4 x Motorola
- Portable VHF's: 3 x Motorola
- Aeronautical Radio: 1 x Jotron PSU-7001
- Iridium: 1 x Bridge
- Cell phone: 2 x Telular & 2 x VSAT- Samsung portable, V-Sat phone and Dualog e-mail, Cap Rock phone and e-mail in each ROV control unit
- Fleet 77 phone: Fleet BB 150
- Internal phone Zenitel PBX system, all cabins and areas with complete access to each other and all external communications.
- P.A. system, all areas of the vessel, inside and outside, all sleeping areas if required.
- External communication equipment: 2 x Furuno FS 257SC.

DP Reference System

- DP System: Kongsberg SDP 21, Class II, fully redundant system
- Reference Systems: 2 X DGPS Simrad Kongsberg DPS 100 HIPAP/HPR Simrad Kongsberg 410, w/ 1 x 3,000 m
- DGPS: 2 X DGPS 100 Seatex

Accommodation

- 2 x 1 berth cabins
- 16 x 2 berth cabins
- 2 x 4 berth cabins
- Total: 42 berths. All cabins with ensuite washrooms.
- Additional Spaces:
- 1 x Ship's Office, with computer system (networked to Wheelhouse and Engine Con-

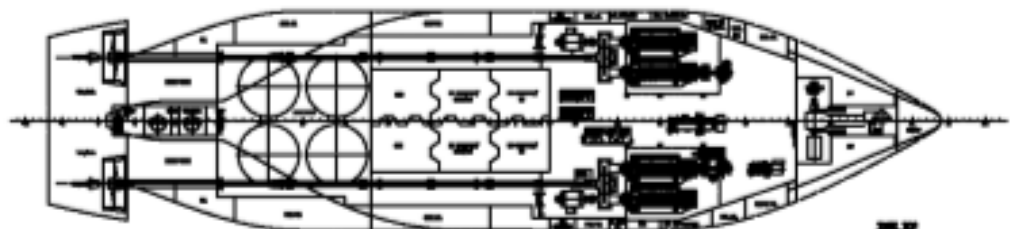
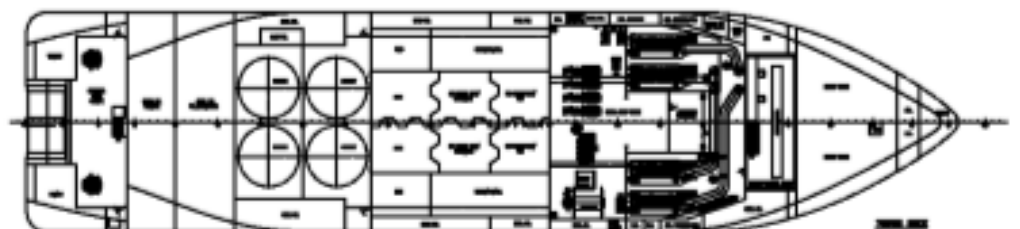
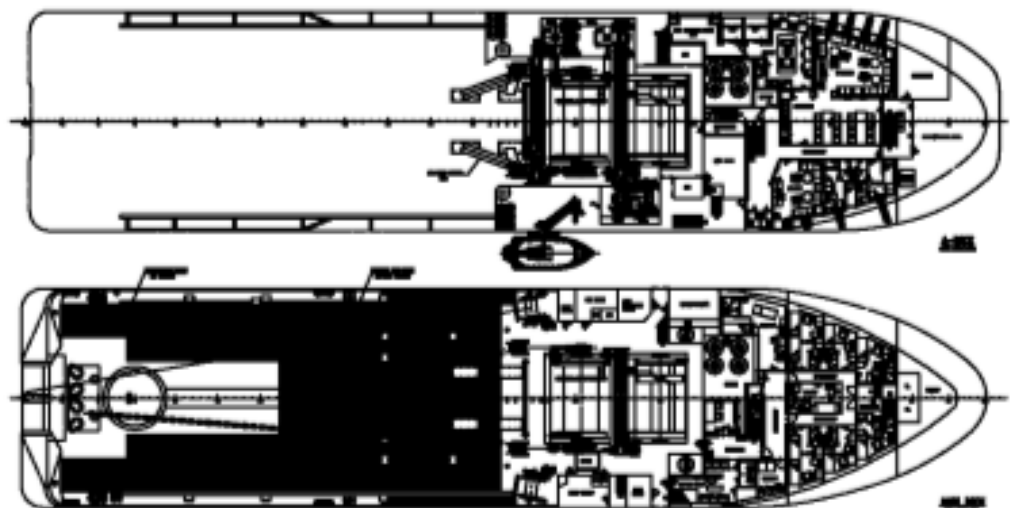
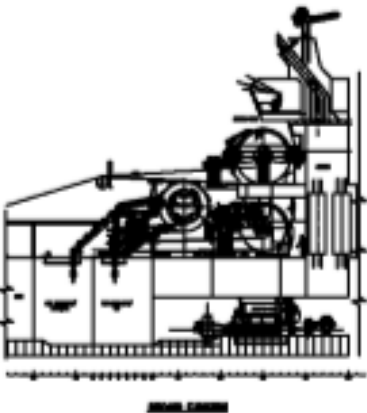
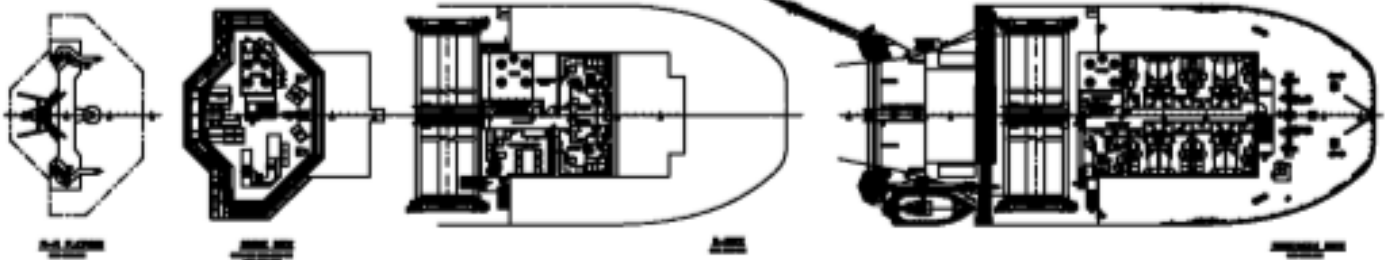
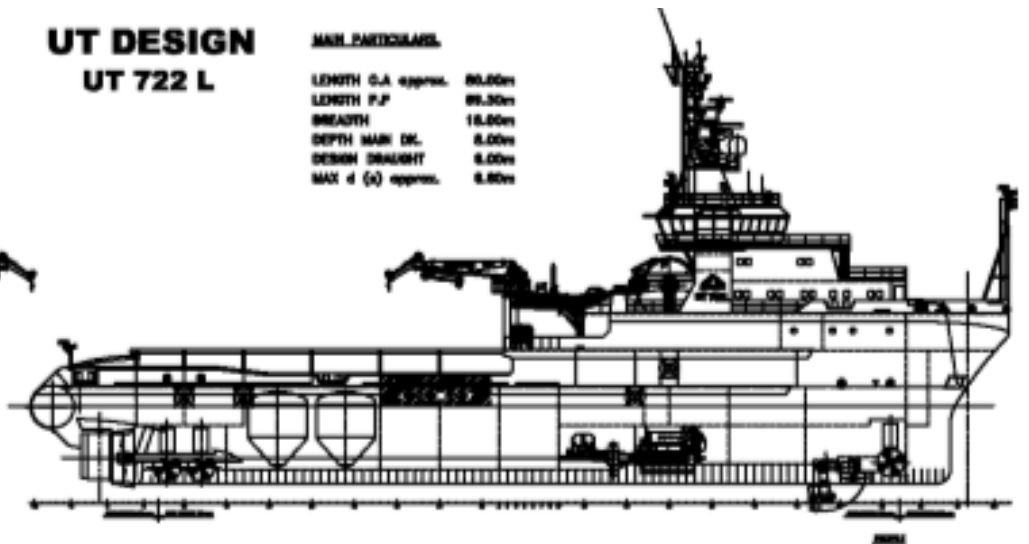
trol room) and photocopier.

- 2 x Lounges
- 1 x Messroom
- 1 x Hospital, separate berth, examination table, and all associated medical equipment required by SOLAS and CCG stand-by regulations.
- 1 x Conference Room

Miscellaneous

- 2 x passive roll "stability" reducing tanks fitted below the main deck. Also interactive with vessel UMAS system.
- Approved for the Carriage of Noxious liquids (DNV)
- Approved for the Carriage of Dangerous Goods (Transport Canada).
- Rolls Royce/Coastal 3D Stability Program fitted. Program software is interactive with vessel UMAS tank sounding system. Provides accurate and up-to-date stability info during all vessel loading and lifting operations.
- ROV Operation with 1 x 112 kW (150 bhp) and 1 x 150 kW (200 bhp) Millennium Class ROV systems with over side launch in wave heights of 6 m.

LENGTH C.A. approx.	80.00m
LENGTH P.P	89.30m
BREADTH	18.00m
DEPTH MAIN DL.	8.00m
DESIGN DRAUGHT	8.00m
MAX d (x) approx.	8.80m



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