delivering solutions at any depth

Skandi Hercules
vessel specification
The Skandi Hercules is a new generation high powered anchor handling vessel designed for field installation operations across a wide range of water depths and environmental conditions.

### Capabilities

The Skandi Hercules is a versatile multipurpose Construction Anchor Handling Vessel, ideally suited to deepwater mooring and field installation operations. Built to meet future environmental standards, the vessel is fuel efficient and clean class, thus having the capability to work in most of the world’s offshore oil & gas precincts. At 108 m long, operating capabilities include a working moonpool, a 140 t Offshore Crane, “Safe Deck” manipulator crane system, a main winch capacity of 500 t and secondary of 170 t and a bollard pull of 350 t. The Skandi Hercules has a Schilling UHD work class ROV, a working deck area of 1,070 m² and below deck chain lockers totalling 1,150 m³.

### General description

<table>
<thead>
<tr>
<th>Name</th>
<th>Skandi Hercules</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>AHTS Construction and Field Support Vessel</td>
</tr>
<tr>
<td>Owner</td>
<td>DOF Subsea</td>
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<tr>
<td>Class</td>
<td>DNV 1A1, SF, SUPPLY VESSEL, TUG, E0, DYNPOS-AUTR, (IMO DP II), Comf-V(3), CLEAN DESIGN, NAUT OSV, Helidk-SH, T-MON, DK(+), HL(2.8)</td>
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<td>Flag</td>
<td>NIS</td>
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<td>Year of build</td>
<td>2010</td>
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</tbody>
</table>
Main Dimensions
Overall length 108 m
Length between pp 99 m
Breadth 24 m
Depth 9.8 m
Draft 7.8 m

Cranes
Manufacturer National Oilwell Varco (NOV)
Type AHC Knuckleboom crane
Main hoist 140 t @ 10 m
Auxiliary hoist 10 t @ 42 m
Main and auxiliary hoist wire lengths 2,500 m
2 x Anchor handling (cargo rail) with manipulators (Safe Deck)

Winches
Main
1 x BRATTVAAG Water Fall triple drum (SL500W-3)
Towing / working Drums - 500 t
1 x Declutchable towing drum
1,500 mm Ø x 3,750 mm Ø x 4,100 mm length
1 x Declutchable working drum
1,500 mm Ø x 3,750 mm Ø x 4,100 mm length
Wire capacity 6,700 m of Ø 76 mm each

Anchor handling Drum - 500t
1 x Declutchable all/wire drum
3,500 mm Ø x 5,400 mm Ø x 8,200 mm length
With dividing flange socket part
18,700 m of Ø 76 mm wire
2 x BRATTVAAG Secondary winches
170 t pull @ 0 - 23 m / min

Deck Space
Main Deck Area 1,070 m² @ 10 t / m²
Deck Material Timber
Moonpool 7 m x 7 m
Chain Locker 1,150 m³

Speed
Maximum 17.5 knots
Economic Transit 12 knots

Helideck
21 m D-Rating (Sikorsky S92)

DP System
Kongsberg K-POS DP21 (DP2)

Reference Systems
1 x HIPAP 500
2 x DGPS
1 x Fanbeam
1 x Radius

Additional Interface For:
Gyro, MRU, Wind, DGPS, Fanbeam, Radius, Winch Tension, ECDIS, Survey Computer

Power & Propulsion
Main Engines
2 x Wartsila 16V32 7,680 kW each
Bollard Pull 350 t
Generators
Main 4 x Wartsila 8L26 2,600 kW each

Harbour / Emergency 1 x Nogva 220 kW

Diesel Electric Propulsion Service
Bow
1 x Wartsila Hybrid Retractable Thruster 1,500 kW each
2 x Wartsila Lips Tunnel 1,500 kW each
Stern
2 x Wartsila Lips Tunnel 1,200 kW each

Endurance
Fuel Consumption
In Port 3 m³ / 24 hrs
Transit 30 - 35 m³ / 24 hrs
DP 13 m³ / 24 hrs
FW Making Capacity 30 m³ / 24 hrs

Capacities
Marine diesel oil 1,200 m³
Fresh water 1,000 m³
Ballast water 4,000 m³

Accommodation
90 persons in 55 single/double cabins

ROV
1 x Schilling UHD Work Class

Optional Equipment
Observation Class ROV

Specifications subject to change without prior notice
Skandi Hercules  Construction Anchor Handling Vessel

General arrangement

With 1070 m² main deck space, large work moonpool and sophisticated equipment for safe and efficient field development, including "Safe Deck" manipulator crane system, the Skandi Hercules is ideally suited to conduct deepwater construction installations.
**Dynamic Positioning System**

The vessel is fitted with a fully redundant Kongsberg K-Pos DP21 dynamic positioning system.

There is one HiPAP 500, two satellite positioning systems (DGPS), a fanbeam and a Radius system.
Cranage capacities

The pedestal mounted active heave compensated knuckle boom crane is located on the starboard side of the main deck. It has a 140 t capacity at a radius of 10 m.

There are two bulwark rail mounted anchor handling and deck cranes with a capacity of 5 t at 10 m radius and a small stores crane with a capacity of 3 t at 15 m radius which is located above the ROV hangar on the starboard side of the vessel.
Skandi Hercules  Work Class ROV

Capabilities
The ROV has a power unit rated at 150 HP with 200 HP power burst mode, 4 horizontal and 3 vertical thrusters, along with StationKeep™ ROV Dynamic Positioning. The ROV is fitted with Schilling Titan 4 seven-function, Schilling Rigmaster five-function manipulators and 16 station proportional tooling manifold as standard. The survey junction box allows for the easy integration of an array of sensors and additional cameras.

General description
- Depth Rating: 4,000 MSW
- Power: 150 HP
- Payload Capacity: 400 kg
- Through Frame Lift: 3,500 kg
- Control Modes: Heading, Depth, Altitude & Auto Position
- TMS Top Hat Design

Schilling UHD
The Schilling Robotics UHD is an ultra heavy duty work class ROV system. It is designed to cope with demanding situations and conditions, performing all types of subsea work, from construction support through to survey and inspection. The ROV is highly manoeuvrable, offers excellent handling, and can accommodate a wide range of sensors, tools and equipment.
Schilling Robotics UHD  Work Class ROV

### Main Dimensions
- **Length**: 3 m
- **Width**: 1.85 m
- **Height**: 1.83 m (2.23 m w/skid)
- **Depth capability**: 4,000 m
- **Weight (approx.)**: 5,037 kg
- **Payload capability**: 400 kg
- **Under-slung**: 3,500 kg

### Propulsion / Speed
- **Power Pack (Shaft/HP)**: 150
- **Horizontal thruster (Sub Atlantic)**: 4 x 420 mm
- **Vertical thruster (Sub Atlantic)**: 3 x 420 mm
- **Forward speed**: 3+ knots
- **Lateral speed**: 3+ knots
- **Heading control**: +/- 2.0°
- **Pitch and roll control**: +/- 5.0°
- **Depth control**: +/- 0.15 m
- **Altitude control**: +/- 0.15 m
- **Station keeping (DP)**: +/- 0.30 m
- **Auto-follow mode**: (pre-programmed track)

### IHPU (dirty pack)
- **Compensator volume**: 20 L
- **Flow**: 45 L/min @ 207 bar

### Manipulators
- **Schilling Titan 4 seven-function**
- **Schilling Rigmaster five-function**

### TMS
- **Top-hat design**: Schilling Robotics XE™ TMS
- **Depth rating**: 4,000 m

### Specifications
- **Height**: 2.13 m
- **Diameter**: 2 m
- **Weight in air**: 4,560 kg
- **Weight in water**: 3,900 kg
- **Tether capacity**: 822 m (35 mm)
- **HPU**: 75 Hp

### Standard sensors
- **Depth**
  - **Manufacturer**: Paroscientific
  - **Model**: Digiquartz 8B 4000
  - **Operating range**: 4,000 m
  - **Accuracy**: 0.01 % FS
- **Heading**
  - **Manufacturer**: Precision Navigation
  - **Model**: TCM2-50
  - **Accuracy**: 1°
- **Pitch and Roll**
  - **Manufacturer**: Crossbow
  - **Model**: DMU-FOG-VG
  - **Accuracy**: 0.5°
- **Altimeter**
  - **Manufacturer**: Kongsberg Simrad
  - **Model**: MS 1007
  - **Frequency**: 200 KHz
  - **Range**: 30 m
- **Sonar**
  - **Manufacturer**: Kongsberg Simrad
  - **Model**: MS 1000 / 1071

### Camera
- **Manufacturer**: Kongsberg Maritime
- **Model**:
  - Workhorse 1200 kHz
  - OE 15-102 Near-SIT
  - OE 14-366 Color zoom
  - OE 14-110 (mini colour)
  - OE 1358 (monochrome)

### Light
- **Manufacturer**: DeepSea Power & Light
- **Model**:
  - Sea Arc HID
  - Deep MultiSealite

### Launch and Recovery System
- **LARS**
  - **Manufacturer**: ODIM
  - **SWL**: 12 t
  - Active Heave-Compensated Launch and Recovery System via side launch A-frame
- **Winch**
  - **Cable capacity**: 4,600 m
  - **Recovery speed**: 2.4 m/s
  - **Umbilical**: 4,500 m Ø 40.5 mm
  - **SWL**: 12 t

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