The Skandi Singapore is a purpose built dive support vessel designed for safe and efficient offshore operations. The vessel is equipped to meet the challenges presented by the subsea infrastructure of today and the deep water systems of the future.

**Capabilities**
The Skandi Singapore is a high specification, DNV classed, AKER 06 design DSV. Built to meet future environmental standards, the vessel is fuel efficient, clean class, comfort class and ICE class, thus having the capability to work in most of the world's offshore oil & gas precincts. Due for delivery during 2011, the vessel is ideally suited to construction programs as well as large IRM operations. With a 900 m² main deck area, operating capabilities include a 140 t crane, two in built Triton XLX work class ROVs and an 18 man saturation diving system.

**General description**
- **Name**: Skandi Singapore
- **Type**: DP II Dive Support Vessel
- **Owner**: DOF Subsea
- **Class**: DNV 1A1, E0, DYNPOS-AUTR (IMO II), DK(+), HELDK, ICE-C, CLEAN DESIGN, NAUT-AW, COMF V3, DSV-SAT, DSV-SURFACE
- **Flag**: NIS
- **Delivery**: Q1 2011
Skandi Singapore  Dive Support Vessel

Main Dimensions
Overall length 107.1 m
Length between pp 94.7 m
Breadth 21 m
Depth 8.5 m
Draft 6.6 m
Displacement Gross 9,500 t approx
Deadweight 4,000 t

Cranes
Manufacturer National Oilwell Varco (NOV)
Type  Knuckleboom crane
Main hoist 140 t @ 10 m
Auxiliary hoist 10 t @ 42 m
Main and auxiliary hoist wire lengths 2,500 m

Deck
1 x McGregor Auxiliary 5 t @ 10 m
1 x McGregor Provision 3 t @ 15 m

Deck Space
Cargo Deck Area 900 m² @ 10 t / m²
Mezzanine Area 140 m² @ 5 t / m²
Moonpool 4.2 m x 4.2 m with aeration

Speed
Maximum 16 knots
Economic Transit 12 knots

Helideck
21 m D-Rating (Sikorsky SH2)
ERN 99.99.99

Power & Propulsion
Total Generated Power 12 MW
Main Engines
4 x MAN 9L27/38 3,150 kW each
Main Generators
4 x 3,000 kW each
Emergency Generators 2 x 370 kW each

Thrusters
Azimuth Thrusters
Main 2 x 3,000 kW each
Bow 1,500 kW each
Tunnel Thrusters
2 x Bow 1,500 kW each

Capacities
Marine diesel oil 1,170 m³
Lub oil 48.3 m³
Fresh water 1,100 m³
Ballast water 3,820 m³

Endurance
Fuel consumption
In port 3 m³ / 24 hrs
Transit 25 m³ / 24 hrs

Accommodation
100 persons in 64 single/double cabins

Saturation Diving System
Reclaim System
Depth rating 350 MSW
No. in Sat 18
No. of bells 1
Bell volume 6.5 m³
Gas Storage 18,400 m³
in 40 Kelly Tubes stored at 200 bars
System Volume 158 m

Air Diving System
Depth Rating 50 MSW
Chamber Volume 12 m³
2 x Portable LARS

ROV
2 x TRITON XLX Work Class
Power 150 hp
Depth 3,000 MSW
Launch System 2 x Sepro Gantry Systems

Specifications subject to change without prior notice
Skandi Singapore Dive Support Vessel

General arrangement

The vessel combines excellent sea keeping performance, accurate positioning systems and sophisticated subsea equipment to provide comprehensive offshore operations capability.
The vessel is fitted with a fully redundant Kongsberg K-Pos DP 21 dynamic positioning system.

There are two HiPAP 500 hydroacoustic transducers, two satellite positioning systems (DGPS), a Radius system and two vertical taut wire reference systems.
Cranage capacities

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

On the port side at D-Deck there is a subsea knuckle boom crane of capacity 5 t at 10 m. The small provisions crane has a capacity of 3 t at 15 m.
**Skandi Singapore Work Class ROV**

**Triton XLX**

The TRITON® XLX is a state of the art heavy duty work class ROV system, able to cope with the most demanding offshore applications. A wide range of modern tooling and sensors can be accommodated and it has been designed to allow prolonged and accurate operation.

**Capabilities**

The ROV has a power unit rated at 150 HP with 4 horizontal and 4 vertical thrusters. The Thruster Control Manifold is equipped with 4 spare proportional valves and 2 spare Solenoid valves, and the tooling manifold is fitted with 5 spare proportional valves and 1 spare Solenoid valve. The ROV is fitted with Schilling T4 seven function and Schilling Rigmaster five function manipulators, 16 station proportional main manifold and 12 station proportional tooling manifold as standard. The survey junction box allows for the easy integration of all modern sensors, and additional cameras.

**General description**

- Depth Rating: 3,000 MSW
- Power: 150 HP
- Payload Capacity: 250 kg
- Through Frame Lift: 3,000 kg
- Control Modes: Heading, Depth, Altitude & Auto Position
- TMS Top Hat Design
**Main dimensions**

- **Length**: 3.22 m
- **Width**: 1.80 m
- **Height**: 1.95 m (2.15 m w/skid)
- **Depth Rating**: 3,000 m
- **Weight in Air**: 4.9 t approx.
- **Payload Capacity**: 250 kg
- **Under-slung**: 3,000 kg
- **Aft load Capacity**: 600 kg

**Propulsion/Speed**

- **Power Pack (Shaft/HP)**: 150
- **Thruster Horizontal**: 4 x 380 mm
- **Thruster Vertical**: 4 x 300 mm
- **Forward Speed**: 3+ knots
- **Lateral Speed**: 2 knots
- **Heading Control**: +/- 2.0 °
- **Pitch and roll control**: +/- 5.0 °
- **Depth control**: +/- 0.15 m
- **Altitude control**: +/- 0.15 m

**Bollard Pull**

- **(Nominal)**: 1,100 kgf
- **Forward**: 1,100 kgf
- **Lateral**: 1,100 kgf
- **Vertical**: 900 kgf

**IHPU**

- **Compensator volume (dirty pack)**: 6.5 L
- **Integrated Clutch Control**: 68 L/min @ 3,200 PSI

**Manipulators**

- **Schilling Titan 4**: seven-function
- **Schilling Rigmaster**: five-function

**TMS**

- **Top-hat design, Type IV TMS**
- **Depth rating**: 4,000 m
- **Height**: 2.00 m
- **Diameter**: 1.80 m
- **Weight in air**: 1,950 kg
- **Tether capacity**: 440 m
- **Electrical Horsepower**: 10 HP

**Standard Sensors**

- **Depth**
  - **Type**: Paroscientific
  - **Model**: Digiquartz 8B 4000
  - **Operating Range**: 4,000 m
  - **Accuracy**: 0.01% FS

- **Heading**
  - **Manufacturer**: IRITECH
  - **Model**: IGC-IFG
  - **Accuracy**: 2 °

- **Pitch and Roll**
  - **Manufacturer**: Watson
  - **Model**: AHRS-24
  - **Accuracy**: 0.2 °

- **Altimeter**
  - **Manufacturer**: RDI
  - **Model**: Workhorse DVL
  - **Frequency**: 1,200 KHz
  - **Range**: 30 m

- **Sonar**
  - **Manufacturer**: Kongsberg
  - **Model**: MS1000

- **Doppler (Auto Position Sensor)**
  - **Manufacturer**: RDI
  - **Model**: Monitor Workhorse 1,200 kHz
  - **Range**: 30 m

- **Camera**
  - **Manufacturer**: Kongsberg
  - **Model**: OE 15-102 Near SIT
  - **Model**: OE 14-366 Colour Zoom
  - **Model**: OE 1358 & 14-108 (mini)

**Light**

- **Manufacturer**: DeepSea Power & Light
- **Model**: Sea Arc HID, Deep Multi Sealite

**Launch and Recovery System**

- **Manufacturer**: Sepro / Cetix
- **LARS**
  - **SWL**: 19.5 t in water, 13 t in air
  - **Outreach**: 5.5 m

- **Winch**
  - **Cable capacity**: 3,500 m
  - **Recovery speed**: 1.8 m/sec
  - **Umbilical**: 3,500 m Ø 39.5 mm armoured
  - **SWL**: 13 t Top Layer 19.5 t Bottom Layer

**Other**

- **Separate Survey Pod Nexus Mux with dedicated single mode fibre for Multibeam and Ethernet capabilities**

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