

Diving Support & Construction Vessel



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This advanced DP2 DSCV is designed and built with specification for deepwater offshore operations globally.

Vessel is a state of art DP2 Multipurpose Diving Support Vessel complying with SPS Code 2008 and is equipped with an 18-men single bell saturation diving system for depth down to 300 meter. Vessel has its own moon-pool, an air diving system, and fitted with 2 Work Class LARS/ ROV's.

The Vessel is equipped with diesel electric frequency controlled propulsion, highly efficient azimuth thrusters, dynamic positioning system and 150t SWL AHC offshore crane with capabilities of up to 3,000m water depth.

The vessel is certified to accommodate up to 120 personnel on board and is with optimized hull design that delivers excellent characteristic for deployment worldwide.

FEATURES:

- 103.15m length x 23m Breadth DP2 Multipurpose Diving Support Vessels
 - 150 T AHC Crane with single fall up to 3,000m water depth
 - Built-in 18 Man Saturation Diving System capable of operating at 300m depth
 - Clear deck area 800m²
 - Accommodates up to 120 personnel
 - Green design by first-class Norwegian engineering Company with reduced fuel consumption and reduced exhaust emission
 - Excellent speed, high safety level, low sound and vibration level.
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Technical Specification

The vessel is designed according to the class notation "Clean Design" and SPS Code and high focus is given to low fuel consumption, which reduces emission to the environment. FO tank arrangement according to "Clean Design" and MARPOL - oil fuel tank protection.

Vessel is designed to fulfill following duties: -

Diving operations with an 18-men (single bell) SAT dive system rated at 300 msw, ROV and seabed construction work.

In addition to diving, and construction work the vessel is arranged with 2 WROV's LARS in the hangar for survey/ inspection scopes of work. The vessel can also perform offshore installation & decommissioning field support duties. While this subsea construction vessel is capable to serve deployments worldwide.

MAIN DIMENSIONS

Length o.a.:	103.15 m
Length b.p.p.:	95.25 m
Breadth mid.:	23.00 m
Depth Main deck:	10.00 m
Depth Shelter deck:	12.80 m
Max draft midship (SWL):	7.00 m
Corresponding Freeboard:	3.00 m

CLASS / AUTHORITIES

DNVGL + 1A1 - SPS - E0 - Dynpos AUTR - DK(+) - HELDK-SH, FIRE FIGHTER II - BIS - COMF-V(3) - CLEAN DESIGN - DSV-SAT- DSV SURFACE - CRANE - ICE C - NAUT OSV(A)-BWM-T- RECYCLABLE.

Flag: TBD

SPEED

Speed at d=5 m:	~15 knots
Fuel capacity	approx. 90 days durations
Econ transit 11Kn	~18 t/day
Econ transit 10K	~7 t/day
DP Operations	8-11 t/day
Port	3-5 t/day

TONNAGE

Gross Tonnage (GRT):	~8300t
Net Tonnage (NRT):	~2500t

ACCOMMODATION

Accommodation for 120 persons, 28 x 1-man cabins, 46 x 2 men cabins

Tween Deck: Sat Control Room, Dive System Switchboard room x 2, LST store, Dive pantry, Diver suit dry, Diver suit wash, Switchboard room, Workshop store, Toilet x 2

Main Deck: Locker room, Wardrobe, Toilet x 8, Laundry work cloth., Engine contr. room, Store x 3, Linen, Laundry, Tech. Library, Incinerator, Tech. workshop, Dive tech. store, Techs. office, Project office, Client office, Air dive room, Dive control room, Air Dive store, Dive Store/Work shop, ROV Workshop, ROV Trafo room, Dive Hangar Area, Paint store, Rigging store, Deck workshop

Shelter Deck: Reception, Dry provision x 3, Cool, Freeze, Galley, Bakery, Scullery, Mess room, Dayroom, Day room smokers, Waste trunk, Broom closet, Toilet x 3

Forecastle Deck: Client and Crew cabins, Laundry, Linen x 2, Instrument room, ROV Control room

Boat Deck: Client and Crew cabins, Instrument room, Store, Laundry, Linen, Toilet, Broom closet, Hospital, Ward, Gymnasium

Capt. Deck: Client and Officers cabin, Instrument room x 2, Broom closet, Laundry, Linen, Ship's office, Lounge, Conference room

Bridge Deck: Bridge/manoeuvre consols fore/aft, Survey areas in bridge wings, Office area in lowered level, Radio station, Toilet, Kitchen, Lobby

Top of wheelhouse: Sky lounge, Sky lobby, Reception/TV-room, Heli Suites, Battery room, Store, Toilet.

ROV HANGAR

1 WROV LARS over SB side
1 WROV Lars over P side

MOON POOL

1 of Moon Pool for dive bell 3.9 m x 3.9 m

CARGO CAPACITIES

Deadweight at max d.: 4000t

CARGO TANK CAPACITIES

Fuel Oil	~1150 m3
Fresh Water	~860 m3
Water Ballast	~4400 m3
Anti Heeling	~1050 m3
Lubricating Oil	~50 m3
Misc.tanks: (inkl. bilgge)	~190 m3
Oil recovery storage tank	~200 m3

WORKING DECK AREA

Main work deck (aft of hangar)	~710 m2
Cargo deck max width	23 m
M. deck load: Stern—fr.61	10 t/m2
M. deck load: fr.61—fr.100	5 t/m2
Removable bulwark according to GA	

MAIN MANAGER / GENERATORS

4x MAN 7L32/40	each 3380 kW
Total	13520 kW

EMERGENCY. GEN. SET DIVE

1 off CAT 3512 1360 kW at 1800 rpm

HARBOUR/EMERGENCY. GEN. SET SHIP

1 off CAT C32 910 kW at 1800 rpm

DISTILLED AND MAKE-UP WATER SYSTEMS

2 off FW reverse osmosis plant, capacity approx. 20 m3/24h to be arranged.
2 off LO separator for each main generator set.
2 off DO separators

PROPELLERS

2x Schottel SRP4600 FP Azimuth thrusters with nozzle, each 2500 kW. Frequency controlled.

THRUSTERS FORE

2 off tunnel thrusters, FP, 1800 kW
1 off retractable thruster, FP, 1200 kW, Thrusters are freq. controlled

ELECTRICAL MAIN SWITCHBOARDS

Hareid Elektriske /Siemens/ABB.
The ships electrical power is generated by the main generator sets. The power levels are divided into 4 different voltage ranges 6600 V-60Hz, 690V- 60Hz, 440V-60Hz, 230V-60Hz and 24VDC.

DECK EQUIPMENT/CRANES

Integrated Automation System (IAS)
The system consists of the following functionality and sub systems:

Alarm and Monitoring System.	
Power Management System (PMS) interface.	
Wind/Mooring:	
2 of Rauma or similar, min	15t
2 of Capstan/mooring winch aft.	15t

Deck Cranes:

1 off AHC Knuckle Jib Crane MacGregor
- 150t@15m, 45t@30m - shipboard mode
- 150t@10.5m, 38t@30m - offshore mode
- Aux winch/whip line, 10t@36m w/pers. lift 1.5t
- 2x tugger winches, ca. 5t, const. tension
1 off Telescopic Jib Crane MacGregor
- 20t@22m - shipboard lift, 17.4t@14m - subsea lift
- Aux winch, 2t@22m
- Personnel lift, 0.75t@22m
2 off Provision/general service cranes HIAB
- 2t@15m / 3t@10.6m

ROLL REDUCTION SYSTEM

A passive anti-roll system. 1 off roll reduction tank.

LIFE SAVING EQUIPMENT

Life rafts: acc. to rules. SPS
SPS Survival Suits for 120 men
Safety Equipment: acc. to SOLAS for 120 pers.
1 off Rescue Mob Boat (Lifeboat PS)
2 off Life Boats: 2x 60 pers.
2 off Hyperbaric Life Boat: 2 x 18 pers

FIRE DETECTION SYSTEM

Stand-alone addressable fire detection central for all compartments and cabins

ANTI HEEL SYSTEM

Pump: 2x 1200 m3/h ~10 mwh
Anti Heeling tk. cap.: 1050m3

HELICOPTER DECK

Helicopter deck of aluminium for Sikorsky S92 acc. to HELDK-SH class notation, IMO regulation and UK Aviation Authorities CAP 437 regulation. Sky lobby allocated for in/out going passengers.

DIVE SYSTEM

Dive system: 18 men single bell saturation system, for depth down to 300 m.
Chambers 3x6 men
Air dive system 1x2 men
2 x independent Launch and Recovery Systems. Design criteria sea state 5.5 m sign. wave height

DP CONTROL AND NAVIGATION EQUIPMENT

DP System: Kongsberg K-Master

-Kongsberg independ. joystick sys.
-Kongsberg dynamic pos. system (Dynpos AUTR) Dynam- ic Positioning Syst. DnV AUTR, IMO Class II. Position reference systems: DPS132, DPS232, laser reference system, two hydro acoustic reference units Hipap 500 mounted in steel trunks with remote operated gate valves.

-Kongsberg I.A.S.

Radar Equipm, Satellite Navigator, Chart System, Conning, Compass System, Autopilot, Echo Sounder Speed log, Sat log AIS, VDR, Radio Equipment TV Parabol, Helicopter beacon, monitoring syst. Acc. to rules and high class standard requirements.

Navigation equipment according to NAUT OSV Radio installation acc. to GMDSS - area A3 Satcom C, Fleet-77. Two V-Sat communication antennas
Internal Communication common distribution of automatic telephone, data network and satellite TV antenna signal to all offices and cabins. Battery less telephone system, separate PA, DECT TV satellite antenna.