SIEM DAY

VESSEL PARTICULARS

SIEM TBN-OSCV 11L

The vessel is a Offshore Subsea Construction Vessel (OSCV) designed and equipped for subsea operation duties such as construction and installation work, inspection and maintenance. The vessel is of clean design, environmental friendly with focus on low fuel consumption through its hull shape and diesel electric machinery.

General

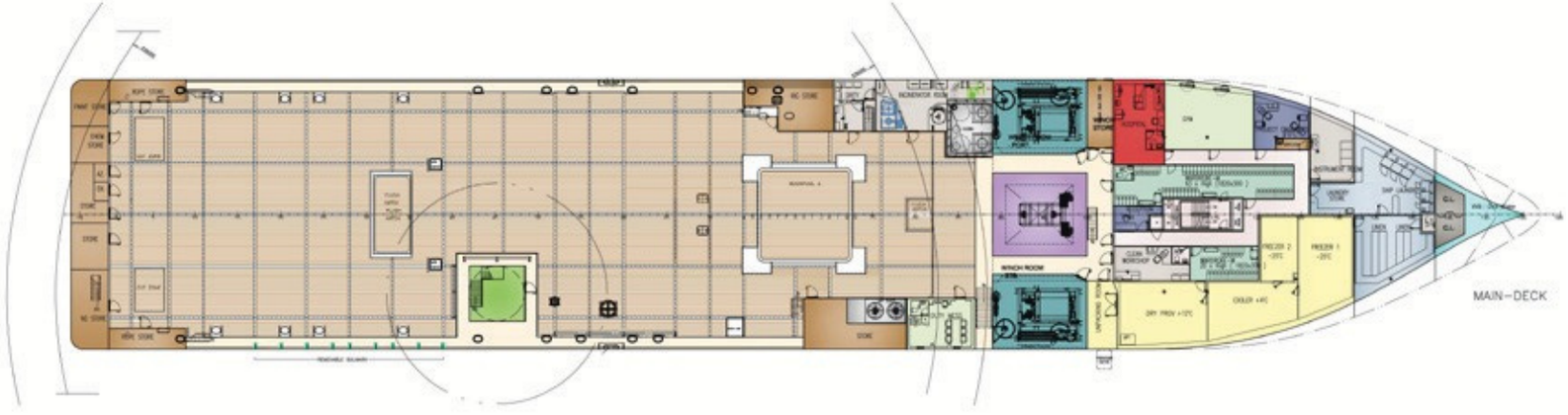
This specification together with General Arrangement plan drawing describes an offshore support vessel specially designed and equipped for subsea operation duties. The design is of type OSCV 11L.

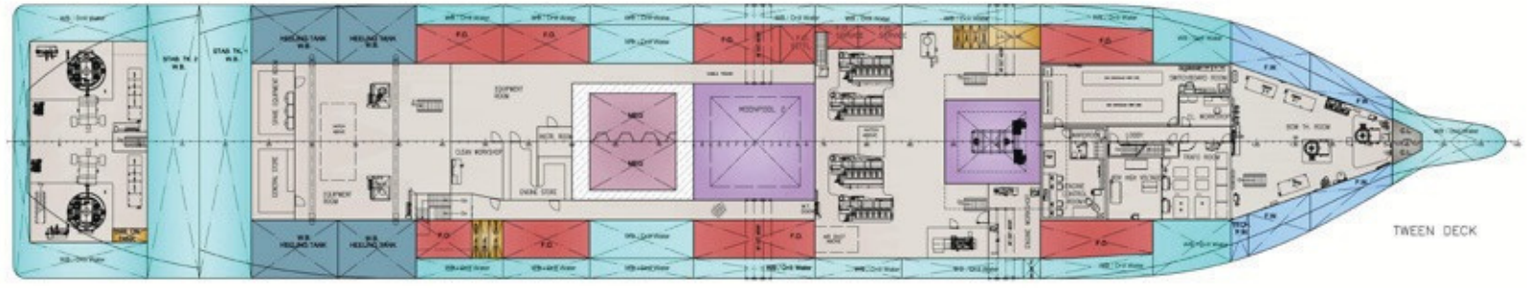
The vessel is environmental friendly with focus on low fuel consumption. Precautions equivalent to DNV's CLEAN DESIGN requirements are incorporated in the design.

With its optimized hull form and bow shape optimized for all weather conditions together with the specified propulsion configuration, the vessel will have particularly good seakeeping abilities, station keeping performance and be able to keep a high transit speed.

The vessel's main services/duties are:
Subsea Light Construction and Installation work
Subsea Light Maintenance work
Subsea Inspection work

The vessel is fitted with a	
ROV hangar	
Offshore crane	
Work moonpool	
Helideck	
High standard accommodation for	110 persons with low noise levels





Main Particulars	
Length overall	120.8 m
Length between p.p.	110.8 m
Breadth moulded	22.00 m
Depth main deck	9.0 m
Max. load line draft midship	6.6 m

Capacities: (Approx. values)

Max. deck cargo capacity will occur at draught less than the vessel's max. draught.

Tanks etc.	Capacity 100%	Remarks
Fuel oil	1 400 m3	
Fresh water	730 m3	
MEG	300 m3	
Water ballast/Drill water	5 400 m3	
Deck cargo	3 100 TCOG = 1.0 m above deck	
Cargo deck area	1 300 m2	Free area – 10T/m2 aft of frame 87
Deadweight	5 000 T	At max draught

Classification and Regulations:

Det norske Veritas (DnV) or similar IACS:
DNV *A1, E0, DYNPOS-AUTR, DK(+), HELDK, ICE-1B (hull only), ICE-C, SF, BIS, CLEAN DESIGN, RECYCLABLE, NAUT-AW, Comf-V(3)-C(3), SPS Resolution MSC.266(84), Code of safety for special purpose ships, 2008.

IMO/SOLAS

Nationality:

Cypriot Flag (CY)

Performance:

Vessels trial speed at d = 4.5 meter to be approx. 15.5 knots in calm weather and with clean hull.
Station keeping: ERN 99.99.99.99

Heeling pump /system:

Two off water ballast heeling pumps, with capacity 1 500 m3/h each to be installed.

Side Thrusters:

Two off	El. driven side thruster forward:	1 900 kW, freq. controlled
One off	El. driven swing-up thruster forward:	1 500 kW, freq. controlled

Roll reduction system:

Two off	passive roll reduction tank

Joystick:

Joystick system for integrated manoeuvre control of azimuth propellers and side thrusters.

DP II system:

The vessel to be equipped with DP II (Dynpos AUTR) system according to specified class, including following position reference systems:

One off 1000 m range laser positioning system
Two off Hydroacoustic Position Reference system (HPR)
One off Radius 1000D reference system

Reference systems:

The vessel shall be equipped with the following reference systems:

DPS 132 + 232
Hipap 501 + Hipap 451
Radius 1000 D
Cyscan 1000 m
2 x MRU 5
1 x MRU D
3 x windsensors
1 x deepwater echosounder 4000 m
Ships gyro compass

Navigation system:

The vessel to be equipped with an integrated bridge system according to specified requirements and regulations.

Communication system:

Communication equipment according to GMDSS requirements for Area 3 operation with equipment duplication and shore maintenance utilized to assure availability. Sufficient internal communication systems.

Safety Equipment:

The vessel to have safety equipment according to SOLAS and flag state requirement.

Two off	Lifeboats with davit according to SOLAS (100 % capacity each side)
Two off	MOB boats with el. hydraulic davit SOLAS approved.

Accommodation:

The vessel has accommodation and equipment for 110 persons.

Four (4) off	Single Cabins - State cabin
Nine (9) off	Single Cabins - Officer cabin
Twenty-one (21) off	Single Cabins - Crew cabin
Thirty-eight (38) off	Double Cabins - Crew cabin

Each cabin shall have direct access to private toilet (shower, WC and wash basin).

All accommodation to be fully air-conditioned for world wide operations based on chilled water system.

Sewage treatment plant to be installed.

Builder:

VARD BRATTVAAG - BRATTVAAG, NORWAY

Moonpool:

The vessel to be fitted with a work moonpool of 7.2 x 7.2 m. The moonpool to be fitted with baffle zones in order to get optimized sea damping capability.

The vessel to be fitted with a ROV moonpool of 5.5 x 4.8 m. The moonpool to be fitted with baffle zones in order to get optimized sea damping capability.

Helideck:

The vessel shall be equipped with a helideck, dia. 26.1 m suitable for Sikorsky S-92, holding DNV-class "HELDK-SH".

ROV Hangar:

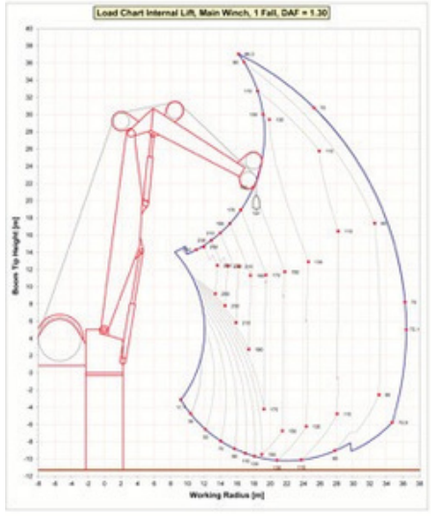
The vessel is equipped with a hangar aft of the accommodation for the installation of:

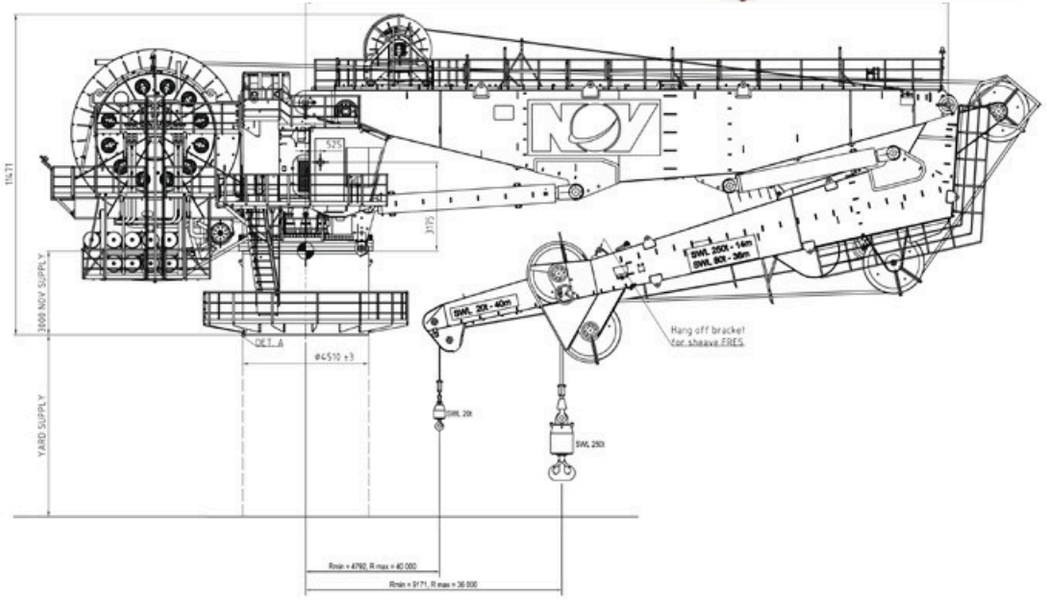
One off	Overside LARS - 15 t/3000 m AHC
One off	Moonpool LARS - 15 t/3000 m AHC

Deck	
machinery: Two	Mooring winches aft, 10 tonnes each
off	Windlass with cable lifters,
Two off	warping ends and drums
Two off	Hydraulic / electric operated mooring platform

Deck Crane:	
Two off	Deck / provision crane: 3.0 T - 15 meter.
One off	Foldable crane for equipment handling to be arranged in ROV hangar. Capacity: 1 ton – 16 m.

Offshore Crane:	
One off	SWL 250 tons main line -14 m AHC 20 tons whip line -40 m AHC Knuckle boom offshore crane. Depth cap. 3000 m
	Man riding 10t/38 m on whipline





Main Propellers:

Two (2) off	Azimuth thrusters. El. driven frequency controlled propellers and water cooled drives. Power: Approx. 3000 kW each

Generators:

Generator	Quant.	Capacity eKW	Voltage V	Freq.	Rpm	Prime mover
Main generators	4 (Four)	2760	690 690	Hz 60	720	Main diesel engine
Harbour generator	1 (One)	750	690	60 60	180	Harbour diesel engine
Emergency generator	1 (One)	185			0	Emerg. diesel engine
					180	
					0	

Machinery Systems:

Four off One off One	F.O. service tanks
off (+2) Two off Two	F.O. settling tanks
off Two off Three off	F.O. transfer pumps
Four off Two off One	W.B. pumps
off Two off	F.W. pumps
	F.O. separator, automatic selfcleaning type
	L.O. transfer pump
	L.O. separator, automatic selfcleaning type
	Hydraulic oil transfer pumps
	MEG pumps
	SW cooling pumps for deck equipment

Cooling Systems:

Cooling systems based on central cooling system. One separate cooling system for each engine according to supplier's recommendation.

Two off	Starting air compressors
Two off	Starting air bottles
Two off	Working- /instrument air compressor
Two off	Bilge pumps
Three off	Fire pumps
One off	Bilge water separator
	Water mist fire fighting system in engine room
	Ballast treatment system

Electrical System:

Alternating current system, 3 phase, 60 Hz for the general el. system according to DIN and /or IEC norms.

System voltages: 690V AC, 440V AC, 230V AC and 24V D