

# Grand Canyon II

## Construction | ROV | Survey Vessel



# The **Grand Canyon II** is specially designed for operation under severe weather conditions with high maneuverability and station keeping capabilities.



The *Grand Canyon II* is a versatile, and technically advanced, dynamically positioned (DP Class 3) Multi-Role construction support Vessel (MSV). She is equipped with a 250 ton Active Heave compensated crane with 3,000m of installed crane wire.

The vessel offers 1,650m of available open deck space to deploy a wide variety of subsea construction equipment, including subsea product reels, carousel drive assemblies, winches and other hardware. The large steel deck allows clients the flexibility to deploy large equipment, such as Helix Trenchers, subsea templates, subsea production trees, control modules and other Helix Robotics Solutions or client required tools and equipment in a safe and efficient arrangement.

The *Grand Canyon II* is equipped with high quality, comfort class accommodations for 104 persons with multiple dedicated client offices, conference rooms and excellent crew dining and recreational facilities including gym, saunas, lounges and cinema.

The *Grand Canyon II* is designed to operate in severe weather conditions with high maneuverability and station keeping capabilities, which enable it to work efficiently and reliably with consistent results reducing downtime during critical operation.

The *Grand Canyon II* is provided with two (2) ea. Schilling UHD Generation III, 250 hp work class ROV systems installed in Port and Starboard launch hangars, with a dedicated controls area. The *Grand Canyon II* includes dedicated survey systems, including Multiple HiPap transponders, dedicated survey areas on the bridge with multiple video links and remote monitoring stations throughout the client offices and vessel work areas.



## Experience

Helix Robotics Solutions currently operates and maintains 54 work class ROVs, 5 trenching systems, 2 ROVDrill systems and 3 DP III support vessels and 1 DP II IMR vessel via strategic offices in key areas of the world.



## Innovation

Helix Robotics Solutions works closely with our clients and vendors to seek and resolve complex technical developments to engineer practical solutions and implement in the most efficient, safe and economical ways possible.



## Value

Helix Robotics Solutions is one of the most innovative and reliable specialty marine contractors in the world. Focusing on providing leading edge underwater, unmanned services in extreme environments, Helix strives to deliver the highest value to its customers.

## TECHNICAL SPECIFICATIONS

### Main characteristics

Vessel Name	Grand Canyon II
Owner	Volstad Maritime
Builder	Kleven
Design	ST-259 CD
IMO Number	9653874
Year Built	2015
DNV Class Notation	DnV + 1A1, E0, ICE C, DYNPOS AUTRO, SPS, CLEAN DESIGN, COMF-C3-V3, HELDK-SH, NAUT- OSV(A), CRANE, TMON, BIS
Flag	NIS

### Vessel dimensions

Length Overall	127.75 m
Length Between Particulars	114.60 m
Breadth Moulded	25.00 m
Depth to Main Deck	10.80 m
Maximum Draft	7.50 m
Maximum Deck Cargo Load	2,600 t
Deck Area Aft of Hanger	1,650 m <sup>2</sup>
Dead Weight	7,900 t
Gross Tonnage	12,652 t

### Accommodations

Accommodations	104
Cabins	Single and double cabins
Gangway	2 x hydraulic operated gang-ways leading to reception area
Lounges	4
Cinema	48 seats
Hospital	1
Gym	1
Saunas	1 x female sauna 1 x male sauna

Vessel also features a mess room with self-serving area, meeting rooms & offices on various decks, Helideck reception area and an outdoor pool

### Deck equipment

250 t AHC offshore crane with 3,000 m wire
1 x 15 t AHC offshore crane with 1000 m wire
1 x auxiliary crane for provision handling 2 Te / 18 m
4 tuggerwinches, each 10 Te
2 capstans, each 10 Te

### Dynamic positioning system

Dual redundant dynamic positioning system (AUTRO / DP3)
2 x Acoustic positioning units (HIPAP 501)
3 x DGPS
3 x MRUs
1 x Tautwire winches / A-frames
Cyscan Position Reference System
RADius 100 Position Reference System

### Navigation and radio communications

Equipment according to GMDSS regulations, Area A3
3 x radars, 3 x gyro compasses
Auto pilot, DGPS
Electronic chart system
3 x Anshutz
Calling, command, telephone system + CCTV

### Tank capacity

Fuel Oil	Approximately 2,000 m <sup>3</sup>
Potable Water	Approximately 500 m <sup>3</sup>
Technical / Cargo Water	Approximately 1,000 m <sup>3</sup>
Technical / System Water	Approximately 200 m <sup>3</sup>
Water Ballast	Approximately 3,923 m <sup>3</sup>

### Remotely operated vehicles (ROVS)

2 x 250 hp UHD WROVs
Hangar for port and starboard launching of WROV's
ROV workshop and maintenance area
Offices and meeting rooms for ROV operations
Overhead crane in hangar 50 Te SWL
LARS are active heave compensation electric McCartney systems

### Power generation

6 x 3,000 kW diesel generator sets, 720 rpm
1 x 550 kW emergency generator

### Tunnel thrusters / azimuths

2 electric driven tunnel thrusters aft, each 2,000 kW
4 electric driven tunnel thrusters in bow, each 2,000 kW

### Fuel consumption

Dock	6 m <sup>3</sup> / day
Mobilization	12 m <sup>3</sup> / day
Demobilization	12 m <sup>3</sup> / day
Normal Transit @ 12 kts	35 m <sup>3</sup> / day
Fast Transit @ 15 kts	55 m <sup>3</sup> / day
DP Low Loading Light Environmental Conditions	12 m <sup>3</sup> / day
DP Med Loading Increased Environmental Conditions	16 m <sup>3</sup> / day
DP High Loading High Environmental Conditions but within Operating Limits	25 m <sup>3</sup> / day

### Speed

Maximum speed at 6.0 m draft approximately 15.0 kn

### Anti-rolling tanks

One anti-rolling heeling system

### Main propulsion equipment

Diesel electric propulsion plant  
Two nozzle propellers for main propulsion, output of 5.0 MW each

### Helideck

Rating	Sikorsky, S-92
Rules	CAA CAP437 / DnV
Diameter	26.1 m

### Safety equipment

Fast Rescue Craft (FRC)  
2 x 68 men lifeboats  
According to SOLAS for the specified class and number of crew  
Stability according to IMO Res. MSC.266 (84) code of safety for special purpose ships 2008







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