



# GRAND CANYON

CONSTRUCTION | ROV | SURVEY VESSEL



[www.helixesg.com](http://www.helixesg.com)

# GRAND CANYON

CONSTRUCTION | ROV | SUPPORT VESSEL

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

The **Grand Canyon** is a dynamically positioned (DP Class 3) multi-role construction support vessel. As a trenching support vessel, the vessel is mobilised with two trenchers; one high power jet trencher and a second heavy soils mechanical cutting trencher. In support of both trenching and subsea construction, there are two hanger installed work class ROVs. On the bridge is a suite of survey support systems and the personnel to operate the vessel and systems on a 24hr basis.

On deck is a 250Te active heave compensated crane with 3,000m of installed wire and without the trenching spread installed, the available back deck space is 1,650 m<sup>2</sup>. The vessel is further equipped

with berths for 104 persons with dedicated client and project offices and recreational facilities. The **Grand Canyon** is designed to operate in severe weather conditions with high maneuverability and station keeping capabilities.

As the primary trenching solution, the **Grand Canyon** is equipped with a spread of trenchers and ROVs to work in the harshest environments and able to bury products in a variety of seabed conditions . In construction support mode, the crane, ROVs, survey suite and available deck space allow for the mobilisation and operation of project specific equipment as well as the deployment of project subsea infrastructure.



## EXPERIENCE

Canyon Offshore currently operates and maintains 54 work class ROVs, 5 trenching systems, 2 ROVDrill systems and 3 DP III support vessels via strategic offices in key areas of the world.



## INNOVATION

Canyon Offshore 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

Canyon Offshore 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, Canyon strives to deliver the highest value to its customers.

## MAIN CHARACTERISTICS

Vessel Name	Grand Canyon
Owner	Volstad Maritime
Builder	Bergen Group
Design	ST-259 CD
IMO Number	9614608
Year Built	2012
	DnV + 1A1, E0, ICE C, DYNPOS
DNV Class Notation	AUTRO, SPS, CLEAN DESIGN, COMF-C3-V3, HELDK-SH, NAUT-OSV(A), CRANE, TMON, BIS
Flag	Norway [NO]

## DIMENSIONS

Length Overall	127.75 m
Length Between Perpendiculars	114.60 m
Breadth Moulded	25.00 m
Depth to Main Deck	10.80 m
Maximum Draft	7.50 m
DWT at SWL / 7.3 m	Approximately 7,300 Te
Deck Area Aft of Hanger	1,650 m <sup>2</sup>
Dead Weight	7,000t
Gross Tonnage	12,652t
Net Tonnage	3,796t

## ACCOMMODATIONS

Accommodations	104
Cabins	Single and double cabins
Gangway	2 x hydraulic operated gangways 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 messroom 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 auxiliary crane, starboard, 15 Te / 20 m
1 auxiliary crane for provision handling 2 Te / 18 m
4 tuggervinches, each 10 Te
2 capstans, each 10 Te

## WORKING DECK

Jet trenching operations from the forward port side  
Heavy soils trenching (iTrencher) stern launched  
Capable of deploying Carousel or Reel Drive Systems

## DYNAMIC POSITIONING SYSTEM

Dual redundant dynamic positioning system (AUTRO / DP3)  
2 x Acoustic positioning units (HIPAP 500)  
3 x DGPS  
Laser fan beam  
3 x MRUs  
2 x Tautwire winches / A-frames

## NAVIGATION & 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 310 m <sup>3</sup>
Technical / Cargo Water	Approximately 750 m <sup>3</sup>
Technical / System Water	Approximately 200 m <sup>3</sup>
Water Ballast	Approximately 4,000 m <sup>3</sup>

## TRENCHING & ROVS

2 x 200Hp Triton XLX WROVS; High sea state Launch and Recovery System  
WROVS Control systems built into the vessel; Undercover ROV workshops and maintenance areas

Jet Trencher T1200 / T1500 High Power Jet Trencher; Designed to trench in non-cohesive and cohesive soils up to 3m below the seabed

Mechanical Trencher i-Trencher Heavy soils mechanical trencher capable of trench depths to 2m in stiff seabed conditions

## TUNNEL THRUSTERS / AZIMUTHS

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

## POWER GENERATING PLANT

6 x 3,000 kW diesel generator sets, 720 rpm  
1 x 550 kW emergency generator  
1 x 1,500 kW harbor generator

## FUEL CONSUMPTION

Dock	5 m <sup>3</sup> / day
Mobilization	7 m <sup>3</sup> / day
Demobilization	7 m <sup>3</sup> / day
Transit @ 10kts	18-20 m <sup>3</sup> / day
Transit @ 12kts	25-38 m <sup>3</sup> / day
Transit @ 15kts	45-50 m <sup>3</sup> / day
DP Low Loading Light Environmental Conditions	12 m <sup>3</sup> / day
DP Med Loading Increased Environmental Conditions	19 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 60 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








 **Canyon Offshore - Americas**  
3505 W. Sam Houston Parkway North,  
Suite 400  
Houston, Texas 77043 USA

 Office 281-618-0400  
Fax 281-681-0544

 **Canyon Offshore - Europe / West Africa**  
Helix House, Kirkton Drive,  
Pitmedden Industrial Estate,  
Dyce, Aberdeen, UK, AB21 0BG

 Office +44(0)1224.351800  
Fax +44(0)1224.351801

 **Canyon Offshore - Asia Pacific**  
25 Loyang Crescent  
Loyang Offshore Supply Base  
Block 603, Tops Ave 6, Unit 1, Box 5009  
Singapore 508988

 Office +65 6.501.0130  
Fax +65 6.542.8675