The Seven Borealis is our state-of-the-art strategic enabler ideally suited to meeting the exacting requirements of today’s ultra-deep and deepwater projects in the world’s deepest and harshest environments.

- Length 182m x breadth 46m
- 600t tension S-lay up to 46-inch pipe diameter
- 937t top tension J-lay system up to 24-inch pipe diameter
- 2,800t onboard pipe storage
- Mast crane: capacity main hoist 5,000t; 1,200t heave compensated aux hoist
- Accommodation for 399 persons
- 2 x workclass 3,000 rated ROVs
Seven Borealis

General Description
Type: Pipelay / Heavy Lift
DnV Class Notation: +1A1 Crane Vessel HELDK-SH OPP-F E0
DYNPOS-AUTRO NAUT-AW CLEAN DESIGN DK?BIS
Call Sign: G6YG8
Flag: Bahamas
Year Built: Delivery 2012

Principal Dimensions
Length Overall (m): 182.2m
Breadth (m): 46.2m
Depth Main Deck (m): 16.1m
Operating Draft (m): 8.5m to 11.35m
Transit Speed (knots): 12 knots
Endurance (days): 45 days in transit with 220 persons
45 days on DP with 399 persons

DP System
DP Classification: K-POS DP Class 3
Reference Systems: 3 x Gyros, 3 x MRU, 4 x wind sensors,
3 x DGPS, 2 x HiPAP, 1 x Radius, 1 x Taut
Wire + interfaces for extra Taut Wire, 1 x
Fanbeam, 2 x Seapath 320

Power and Propulsion
Main Engines/Generators
Number: 6
Type: Rolls-Royce B32:40 V12A 720 rpm diesel engines
Power (kW): 5,760kW each
Emergency/Harbour Generator
Number: 1
Type: MTU, V12 4000 Series
Power (kW): 1,600kW
Thrusters for Propulsion and DP
Number: 2 x azimuth thrusters
Type: Rolls-Royce UUC 455 FP, underwater demountable
Power (kW): 5,500kW each
Location: Stern
Thrusters for DP
Number: 4 x azimuth thrusters, vertically retractable
Type: Rolls-Royce UL 305 FP
Power (kW): 3,200kW
Location: Bow

Main Deck
Clear Deck Area (m²): 730m²
Deck Strength (t/m²): 10t/m²
Pipe Deck Storage Capacity: 2,800t

Capacities
Fuel Oil: HFO/MDO: 3080m³, MDO: 3360m³
Lubricating Oil (m³): 64m³
Fresh Water (m³): 1,123m³
Ballast Water (m³): 20,600m³
Technical Water (m³): 700m³

Accommodation
Berths (No.): 231 in single or double cabins
or 405 in single / double / 4 x man cabins
Cabins (No.): 127

Helideck
Type: Aluminium - Suitable for S-92
NMD compliant

Cranes
Main Crane Capacity (mt): 5,000t (stability permitting)
Location: Main deck centreline aft
Manufacturer: Huisman Equipment BV
Dual Main Hoist, Revolving
4,000t at 40m radius
1,500t at 78m radius
Auxiliary Hoist (Subsea Hook)
1,200t at 70m radius, 4 falls
600t at 103m radius, 2 falls
Active Heave Compensation
 Whip Line
Single fall: 55t at all radii
Double fall: 110t at all radii
Main Crane Tugger Winches
4 x 45t pull. Constant tension up to 22t each
Main Crane Comments
Main block is splitable into two blocks/
hooks to allow jacket upending
Three point lifts can be achieved using the
two main blocks and the auxiliary block

Auxiliary Cranes
Number: 3
Capacity and Location
40t Dreggen knuckle boom on starboard
side
40t Dreggen knuckle boom on port side Aft
36t Huisman PMOC on port side Fwd

Pipelaying Systems
Rigid S-lay:
Max Tension (t): 600t dynamic
Tensioners (No. and type): 3 x Huisman BV vertical two track tensioners
Variable speed electric drive motors
Pipe Range (inches): 4 - 46 inches with coating
Storage Capacity of Pipe (t): 4 x 700t SJs on starboard side deck
Total 2,800t
Work Stations (No.): 2 work stations
WS1 for welding/NDT, WS2 for NDT/coating
Joint Type Double joint nominal length 24.6m, range
19.0m to 26.0m, 40t maximum
Operating Water Depth (m): 3,000m
A&R Capacity (t): 600t traction winch, 200t CT drum winch
S-lay Comments
Steep S-lay system, up to 90 deg departure

Rigid J-lay:
Max Tension (t): 937t dynamic
Pipe Range (inches): 4-inch minimum, 24-inch maximum with coating (Friction Clamp), 36-inch with coating (Collar), 72-inch clearance for passing through inline tees, etc
Work Stations (No.): 2 work stations
WS1 for welding/NDT, WS2 for NDT/coating
Joint Type Double joint nominal length 24.6m, range
19.0m to 26.0m, 40t maximum
Operating Water Depth (m): 3,000m
A&R Capacity (t): 600t dynamic outside J-lay tower
360t dynamic insider J-lay tower
PLET Handling capacity
100t
J-lay Comments
Active gimballing mode – gimbal max angle
15°. Tower can handle pipe catenary using either friction clamps or collar clamps
Outriggers
Portside provision for 1,000t hangoff
Starboard side provision for 1,225t hangoff

Flexible lay:
Provision for future system installation

ROV System
ROVs (No. and type):
2 x workclass ROVs, ACV type by Schilling
3,000m with 1,500m long tether
LARS: Techmal HF 135 using an electric
Active Heave Compensation winch
Umbilical winch: MacArtney MASH
34.4-3400