VESSELS

Pipelay / Heavy Lift

Our Values

- Safety
- Integrity
- Sustainability
- Performance
- Collaboration
- Innovation

Seven Borealis

Vessel Info

Full specification overleaf

***Seven Borealis* is a pipelay and heavy lift vessel capable of operating in the world's 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
- 2x work-class ROVs
- SPS code compliant
- MODU certificate (for POB 260)

Fast Facts

- J-Lay tower with gimballing function extending weather capability
- Proven track record in pipelay, subsea and surface construction, including the renewables sector
- Touch down monitoring capability by ROV at radius of 1,500m from the vessel
- Heave compensated auxiliary hoist with capacity of 1,200t, for use on surface or subsea
- S-lay system configurable for conventional, sliding and swaged Pipe-in-Pipe, with or without piggyback.

Seven Borealis

General Information

Type	**Pipelay / Heavy Lift**
DNVGL Class Notation	**+1A1 CRANE VESSEL BIS CLEAN(DESIGN) DK(+) DYNPOS(AUTRO) E0 HELDK(S, H) NAUT(AW) OPPF**
Additional Compliance	**SPS and MODU code compliant**
Call Sign	**C6YG8**
Flag	**Bahamas**
Built	**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**

Main Deck

Clear Deck Area (m^2)	**730m^2**
Deck Strength (t/m^2)	**10t/m^2**
Pipe Deck Storage Capacity	**2,800t**

Tank Capacities (100%)

Marine Gas Oil (m^3)	**2,980m^3**
Lubricating Oil (m^3)	**92m^3**
Fresh Water (m^3)	**2,620m^3**
Ballast Water (m^3)	**41,076m^3**
Technical Water (m^3)	**760m^3**

Power and Propulsion

Main Engines/Generators	**6**
Type / Power (kW)	**Rolls-Royce B32:40 V12A 720 rpm diesel engines / 5,760kW each**
Emergency/Harbour Generator	**1**
Type / Power (kW)	**MTU, V12 4000 Series / 1,600kW**
Thrusters for Propulsion and DP / Location	**2x azimuth thrusters / Stern**
Type / Power (kW)	**Rolls-Royce UUC 455 FP, underwater demountable / 5,500kW each**
Thrusters for DP	
Number	**4x azimuth thrusters, vertically retractable**
Type / Power (kW) / Location	**Rolls-Royce UL 305 FP / 3,200kW**
Location	**3 at bow, 1 at stern**
Number	**1x tunnel thruster**
Type / Power (kW) / Location	**Rolls-Royce TT 3,000 CP / 2,500kW**
Location	**Bow**

Vessel Speeds and Fuel Consumption

Maximum Speed	**10.5 knots**
Economic Speed	**8.0 knots**
Economic Speed Fuel Consumption	**75.5m^3/day**

DP Systems

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

Pipelaying System

Rigid S-lay:	
Max Tension (t)	**600t dynamic**
Tensioners (No. and type)	**3x Huisman horizontal two track tensioners Variable speed electric drive motors**
Pipe Range (inches)	**4.5 - 46 inches**
Storage Capacity of Pipe (t)	**2,800t Portside**
Work Stations (No.)	**11 single or 6 double joint stations**
Stinger (m)	**3 section stinger Stinger length 92.5m, radius 70 to 300m**
Operating Water Depth (m)	**20m - 3,000m**
A&R Capacity (t)	**600t traction and 200t CT drum winches**
S-lay Comments	**Steep S-lay system, up to 90 deg departure**
Rigid J-lay:	
Max Tension (t)	**937t dynamic**
Pipe Range (inches)	**4-24 inch**
Work Stations (No.)	**WS1 for welding/NDT, WS2 for NDT/ coating**
Joint Type	**Double joint**
Operating Water Depth (m)	**3,000m**
A&R Capacity (t)	**600t dynamic outside J-lay tower 360t dynamic inside J-lay tower**
PLET Handling capacity	**100t (within J-lay tower)**
J-lay Comments	**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**
Double Joint	**Provision for double joint fabrication onboard, dedicated double joint module or S-Lay mainline**

Helideck

Type	**Aluminium - Max D 22.2m, Max T.O.W. 12.8t. 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**
Operating Water Depth (m)	**6,000m - single fall**
Active Heave Compensation	**Auxiliary hoist only**
Whip Line	**Single fall: 55t at all radii Double fall: 110t at all radii**
Main Crane Tugger Winches	**4x 45t pull. Constant tension up to 22t each**
Main Crane Comments	**Two main blocks/hooks to allow jacket upending Three point lifts can be achieved using the two main blocks and the auxiliary block**
Auxiliary Cranes 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**

ROV System

ROVs (No. and type)	**2x work-class ROVs, ACV type by Schilling**
Operating Depth Rating (m)	**3,000m with 1,500m long tether**

Accommodation

Persons	**399**
Berths (No.)	**18x single berth, 17x double berth, 87x 4 man berths**
Cabins (No.)	**127**

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The Subsea7 fleet comprises of vessels that have exceptional versatility, capable of operations worldwide including; pipelay, construction, survey, remote intervention, diving support, heavy lifting operations, renewables and decommissioning.