



VESSELS
Construction /
Flex-lay

Our Values



Safety



Integrity



Sustainability



Performance



Collaboration



Innovation



subsea 7

Seven Rio

Vessel Info

Full specification overleaf

Seven Rio is a construction / flex-lay vessel capable of operating in water depths of up to 3,000m.

- Length 145.9m x breadth moulded 29.9m
- Service Speed 13.0 knots
- Special Purpose Ship Code Compliant
- Accommodation 120 persons
- 100t AHC crane
- 25t AHC crane
- 2x work-class ROVs

Fast Facts

- Proven track record operating in water depths up to 3,000m in Brazil and US (Gulf of Mexico) for pre-salt area projects
- Work-class ROVs rated to 3,000m for pipelay and ROV support operations
- ECO Lloyds notation at design/service
- Vertical Lay System rated to 550t top tension capacity for flexible products and moonpool designed to hang off products (flexible and rigid) up to 600t load capacity



Seven Rio

subsea 7

General Information

Classification	Lloyds Register, Pipe Laying Vessel, Helicopter Landing Area, +100A1, WDL(10t/m² FR.15-49, 5t/m² FR.10-15 and FR.49-119), +IWS, ECO, +LMC, UMS, ICC, DP(AA), NAV1, IBS, CAC3, Shipright (SERS, BWMP(S), MPMS (CM), ThCM, IHM-EU+), EDD, LI.
Flag State Authority	Brazil Government
Port of Registry:	Rio de Janeiro

Principal Dimensions

Length Overall	145.9m
Breadth moulded	29.9m
Depth to maindeck	13.0m
Draught (operational)	7.2m
Draught (max)	8.3m
Deadweight (operational)	14,207t
Deadweight (max)	12,760t
Max displacement	26,967t
Gross Tonnage	18,602t
Net Tonnage	5,580t
Air draft (with TLS vertical)	66.9m at 6.6m draught
Air draft (with TLS inclined)	47.4m at 6.6m draught

Main Deck

Deck strength	10t/m² partially on aft deck, 5t/m² elsewhere
Deck area	1,200m² (approx)

Tank Capacities (100%)

Marine Gas Oil	2,197m³
Potable Water	998m³
Ballast Water	4,696m³
Anti-Heel tanks	1,525m³
Technical FW (in WB tanks)	633m³

Power and Propulsion

Service Speed	13 knots (approx)
Main Engines / Generators	6x 3,840kW (Wartsila diesel electric)
Propulsion (Wartsila)	3x 2,950kW stern azimuth thrusters 2x 2,400kW retractable bow azimuth thrusters 2x 2,200kW bow tunnel thrusters

Vessel Speeds and Fuel Consumption

Maximum Speed	13.5 knots
Economic Speed	10.0 knots
Economic Speed Fuel Consumption	34.8m³/day

DP Systems

DP Classification	DP (AA) - Class II
DP System	KPOS DP22 dual redundancy
Reference Systems	3x DGNSSs (3x Veripos LD 900) 2x HiPAP 501 (with Hain) 1x Cyscan MK4 (1x Laser Units) 2x Radius 1000 (2x Radius Interrogators) 1x SceneScan (1x Laser Units)
Environmental Sensors	3x MGCs (Kongsberg R3) 4x Wind Sensors (2x Gill US + 2x Mech)

Cranes

MacGregor Offshore Knuckle Boom Crane	
Main line (AHC)	100t
Whip line (man riding)	10t
MacGregor Auxiliary Knuckle Boom Crane	
Main line (AHC)	25t
Whip line (man riding)	10t
HS Marine Service Crane on the TLS tower	
Main line (man riding)	25t
HS Marine Combined Knuckle Boom/Telescopic Stern Crane	
Main line	30t
TTS Stores / Moonpool Handling Knuckle Boom Crane	
Main line	5t
TTS Stores / Moonpool Handling Telescopic Boom Crane	
Main line	10t

ROV Systems

The vessel is fitted with two over side launched work-class Forum XLX-C ROVs rated to 3,000m.

Helideck

D value	22.2m
T value	12.8t

The vessel is fitted with an approved and certified helideck suitable for Sikorsky S92 and Super Puma operations.

Pipelay Systems

The vessel is fitted with two underdeck storage carousels, with a capacity for 2,500t and 1,500t of product. A vertical (tiltable) lay system (550t top tension capacity) is permanently installed for deployment of a range of flexible products with a diameter from 50 to 647.6mm. The lay tower can operate at up to 10° and is fitted with two tensioners, each of 275t capacity which can be retracted clear of the firing line, and with two wire centralisers. The system has two A&R winches, one 637t capacity with 3,500m wire and one 200t capacity with 3,000m wire. The moonpool is designed to hang off products up to 600t and is fitted with a mechanism to allow the product to be rotated under full load.

Comms Systems

The vessel is fitted with an extensive communications system including a dual KU/C Band VSAT satellite communication system, WIFI entertainment system, 2x Inmarsat C and Inmarsat F systems.

Accommodation

120 persons	
Single cabins (with dayroom)	4
Single cabins	40
Double cabins	38
Hospital (not included in total)	3



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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.

