



## 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

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## General Information

Classification	<b>Lloyds Register, +100A1, Pipe Laying Ship, Helicopter Landing Area, WDL(10t/ m2 Aft to Fr.120), *IWS, LI, ECO. LMC, UMS, OCC, DP(AA), NAV1, IBS, CAC3 Merwede Shipyard, The Netherlands / 2015</b>
Built / Delivery	<b>Isle of Man Government</b>
Flag State Authority	

## Principal Dimensions

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

## Main Deck

Deck strength	<b>10t/m<sup>2</sup> partially on aft deck, 5t/m<sup>2</sup> elsewhere</b>
Deck area	<b>1,200m<sup>2</sup> (approx)</b>

## Tank Capacities (100%)

Marine Gas Oil	<b>2,197m<sup>3</sup></b>
Potable Water	<b>998m<sup>3</sup></b>
Ballast Water	<b>4,696m<sup>3</sup></b>
Anti-Heel tanks	<b>1,525m<sup>3</sup></b>
Technical FW (in WB tanks)	<b>633m<sup>3</sup></b>

## Power and Propulsion

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

## DP Systems

DP Classification	<b>DP (AA) - Class II</b>
DP System	<b>KPOS DP22 dual redundancy</b>
Reference Systems	<b>3x Veripos DGPS</b>
	<b>2x HiPAP 501</b>
	<b>2x Cyscan MK4</b>
	<b>2x RADIUS 1,000</b>

## Cranes

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

## 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.

## ROV Systems

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

## Accommodation

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

## Helideck

D value	<b>22.2m</b>
T value	<b>12.8t</b>

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

## 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.



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Our Differentiators



Culture



Creativity



Relationships



Reliability



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The Subsea 7 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.