

# Q7000

## DP3 well intervention vessel



The **Helix Q7000**, a purpose-built DP3 semisubmersible vessel built to perform in harsh environments such as the North Sea, enables riser-based subsea well intervention and decommissioning operations.



With a proven track record operating in West Africa and Australasia, the Q7000 provides value through integrated solutions with reduced interfaces, time, and optimized crew sizes.

The Q7000 performs through riser subsea well intervention and decommissioning operations using the Helix-designed intervention riser system (IRS), which features a high-angle disconnect capability.

With her open deck plan and triaxial configuration, the vessel is capable of a wide range of production enhancement operations in addition to well-cleanup and field development support. It is equally optimized for well decommissioning activities, including well suspension, tubing removal, tree recovery, and seafloor clearance.

The Q7000 features a variable deck load capacity of about 3,000 metric tons in addition to well intervention and service fluids. A 600-metric-ton well intervention tower with active and passive heave compensation is on the upper deck. The large flush deck features a skidding system for well intervention support equipment and tubular storage.

An Intervention Tension Frame and the associated skidding system eliminate the need for man-riding, reduce over-the-deck crane lifts, and optimize changeouts between services. It has below deck twin work-class ROV systems, bulk fluids storage and pumping systems.



### Experience

Designed with the benefit of 30+ years of subsea intervention operational experience, and developed upon the learning from multiple dedicated intervention semi-subs and topsides designs.



### Innovation

Featuring the innovative Intervention Tension Frame (ITF) and associated skidding system which remove the need for man riding, reduce over the deck crane lifts and optimises change-out between services.



### Value

Highly efficient operations combined with increased uptime in North Sea environment situations results in high value operations.

## TECHNICAL SPECIFICATIONS

<b>Main characteristics</b>		<b>Additional features</b>		<b>Control system features</b>	
Vessel Name	Q7000	Aluminium helideck with fire suppressant box construction		Full redundant MUX	
Owner	Helix Energy Solutions Group, Inc.	Buoyant deck box for reserve stability		Backup Emergency System	
Builder	Jurong Shipyard, Singapore	Gravity filled basket system		Client system (Separate HPU)	
Design	Helix ESG / JSPL	Ballast overflow elevation – No backflow		Chemical injection system	
Built	2017	Flush deck operating principal for all deck operations		Optional Lubricator valve	
DNV Class Notation	+1A1 Column Stabilized Well Intervention Unit 2, HELDK-SH, CRANE, E0, DYNPOS-AUTRO, CLEAN, WELL (1), UKVS, BWM-T, COM-V (1)C(3)	Two (2) enclosed 150 hp ROV rooms		<b>Control system (IRS / client)</b>	
Accommodations	Worldwide- 140 Persons UK North Sea - 130 Persons	Heavy weather launch and recovery cursor guide system		Working Pressure	
<b>Dimensions</b>		<b>Fluid capacities*</b>		5,000 psi	
Length of Pontoons (LOA)e	97.50 m	Water Ballast		Fluid (IRS)	
Breadth of Pontoons	14.30 m	10,501 m <sup>3</sup>		Pelagic 100 H	
Cross Bracings	Four (4)	Fuel Oil		Fluid (client)	
Upper Deck Length	70.20 m	1,799 m <sup>3</sup>		Various	
Upper Deck Breadth	61.10 m	Drill Water		<b>Intervention riser system (IRS)</b>	
Depth of Deck Box	7.50 m	345 m <sup>3</sup>		Internal Diameter	
Transit Draft	9.00 m	Brine		7 3/8" Nom	
Operating Draft	18.25 m	312 m <sup>3</sup>		Working Pressure	
Displacement at Operating Draft	29,735 Te	Acid / Special Fluids		10,000 psi	
Operational Air Gap	8.75 m	300 m <sup>3</sup>		Service	
Survival Draft	15.0 m	Potable Water		Sour (H2s)	
Survival Air Gap	12.0 m	422 m <sup>3</sup>		Sweet (CO2)	
Moon Pool on Lower Deck	8.8 m x 6.5 m	Base Oil		Temp Class	
<b>Complies with</b>		161 m <sup>3</sup>		ISO 10423 class U	
UK HSE, UK CAA, CAP 437, IMO MODU Code, MARPOL, API 2C, NORMAM-27		Fluid Header Tanks		PSL Level	
<b>Pontoons</b>		150 m <sup>3</sup>		PSL 3G	
Design Max Transit Speed	10 knt	Hydrocarbon Tanks		Design Temp	
<b>DP capabilities</b>		132 m <sup>3</sup>		-18°C to +121°C	
DP3 DNV ERN 99/99/99/99		Surface Stock Tank		Annulus ID	
Unrestricted Worldwide Operation		32 m <sup>3</sup>		2" Nom	
<b>Payload VDCL</b>		Dry Bulk (Cement)		<b>Emergency disconnect package</b>	
Deck and Column, Operational	3,000 mt	90 m <sup>3</sup>		Up to 15 degrees disconnect angle	
Deck and Column, Survival	3,000 mt	Mud Tank		Hydraulic FSC Production Retainer Valve	
Deck and Column, Transit	1,500 mt	161 m <sup>3</sup>		Riser Circulation Valves	
<b>Engine / electrical rooms</b>		* losses are not accounted for in capacities.		<b>Riser tensioners</b>	
8 x Diesel Generators	2,925 KW each	<b>Operation &amp; well service equipment</b>		Rated	
Total Installed Power	22.4 mw	Huisman Well Intervention Tower		8 x 126 kips ea.	
Engine Room	Four (4)	600/400/200 mt active and passive heave compensation		Stroke	
High Voltage S.B. Room	Four (4)	Max Clearance between hook and drill floor		50 ft.	
Low Voltage S.B. Room	Four (4)	42 m		<b>Lower riser package</b>	
4 x Thrusters AFT	3,200 KW ea.	Main Deck		Dual Barrier Hydraulic production shear seal valves	
4 x Thrusters FWD	1,500 mt	600 mt		Flushing valves	
Two (2) x 1,950 kW tunnels		Moon Pool / Drill Floor		Safety head	
Two (2) x 2,000 kW swing down azimuth		Lower Deck Moon Pool Hang-Off Trolley		Qualified to Norsok D002	
AC variable frequency drives		400 mt		Coiled Tubing BOP	
		Guidewire System		<b>Iron roughneck</b>	
		800 m		Makeup Torque	
		<b>Port side deck &amp; subsea AHC crane</b>		100k ft-lb	
		Surface Limit		Breakout	
		150 mt		130kt ft-lb	
		3,000 m WD		Torque Pipe Size Range	
		90 mt		3.5" – 10"	
		<b>Starboard side crane</b>		<b>Shear valve cutting capability</b>	
		Surface (main)		LRP Hydraulic Shear seal valves	
		160 mt		2.00" OD 0.224" WT 148KSI YS c/w 0.288 E-Line & Inconel IFC Active tubing (OD: 0.094" & ID: 0.074")	
		Surface (fly jib)		Safety head	
		20 mt		Qualified to Norsok D002	
		<b>Pipe &amp; material handling</b>			
		Knuckle Boom Crane			
		12 mt			
		Catwalk Machine			
		26 m x 45 mt			
		Deck Skidding System, 5 Pallet System			
		150 mt ea.			
		<b>Mud pumps</b>			
		Cameron W2214 x 2 Rated Pump Speed			
		110 spm			
		Changeable Liner Size			
		5" to 8" liner size with a maximum 9" liner with a special liner retention system installed			
		Pressure Rating			
		7,500 psi			



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