



SEAWELL



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The *MSV Seawell* is a custom designed, dynamically positioned light well intervention and saturation diving vessel. With more than 25 years of successful service in the North Sea, it is unique in both structural design and unrivaled operational experience.

Since 1987 *Seawell* has been operating throughout the North Sea, providing bespoke Subsea Well Intervention solutions and in doing so, pioneering subsea Light Well Intervention (LWI).

In 2015, the vessel underwent a major refit focused on ensuring continued compliance with maritime regulations. It also removed obsolete equipment from the vessel to extend her life. This included new engines, generators, switch gear and DP control systems.

Seawell's unique design and multi-service capability significantly reduces intervention time and provides a cost-effective method of maintaining subsea well stock, through well maintenance and production enhancement solutions.

The vessel's track record is second to none, having intervened in more than 700 wells, decommissioning over 150 live and suspended wells including 15 subsea fields.

Seawell is custom designed to Dynamically Positioned class 2 (DP2) specification. It features a purpose built Module Handling System (MHS) tower positioned over a 7.1m x 5.0m moonpool. The main winch is rated to 150Te (SWL) hookload capacity in both passive or active heave compensation modes. The tower also incorporates guide wire tensioners and winches, active and passive podlines and constant tension Launch and Recovery System (LARS) winches.

The *Seawell's* MHS is capable of deploying both 5" and 7" SIL systems to 500m water depth. This includes the 73/8" Electro-Hydraulic SIL which enables communication with next generation Subsea Trees.

Seawell's subsea crane provides an AHC lifting capacity of 45Te. Inbuilt vessel tanks provide generous storage for chemical treatment (pumping) capabilities. The vessel can perform well stimulation and pumping operations as well as pipeline remedial services.

The vessel's twin bell saturation diving system is rated to 300m and has capacity for up to an 18-man dive team. The diving spread, combined with the vessels work / observation class ROVs, provides for full IRM and light construction services.



**UNIQUE DESIGN AND
MULTI-SERVICE CAPABILITY
SIGNIFICANTLY REDUCES
INTERVENTION TIME**

Classification

DNV X1A1, Supply Vessel, SF, CRANE, DSV-I and III, DYNPOS AUTR (A), E0, HELDK, WIU-1, WELL1

Accommodation

131 people

Dimensions

Overall Length 114 m (374 ft)

Breadth Moulded 22.5 m (74 ft)

Depth Moulded 11 m (36 ft)

Operating Draft 6.4 m – 7.26 m (21 ft – 24 ft)

Displacement 11,935 Te

Gross Tonnage 9,158 Te

Deck

Deck Load 5 Te per m²

Above Main Deck 900 m² (9,688 ft²)

Below Main Deck 250 m² (2,691 ft²)

Intervention Tower

Lifting Capacity 150 Te

Free Lifting Height 28.4 m

Active Heave Compensated 150 Te at Hs5m

Cranes

Individual Cranes 45t main crane @ 20 m
Aux - 7.5t @ 3 m
Aux 5t @ 14 m

Operating Depth 500 m (1,640 ft)

Moon Pool

Working Moon Pool 7 m x 5 m (23 ft x 16 ft)

Well Stimulation

Mud / Frac Liquid Tanks 487 m³ (3,063 bbl)

Diving System

Depth Rating 300 m (984 ft)

Divers in Saturation Up to 18 persons

Diving Bells 2 x 6 m³ (212 ft³)

Power and Thrusters

Installed Power 6 generator sets, each 2,560 kW

Thrusters 3 aft each 1,325 kW and 3 fwd each 2,200 kW

Vessel Speed 14 kts max, 12 kts efficient

Dynamic Positioning (DP) System

Kongsberg K-Pos DP-21 and interdependent joystick back-up

Kongsberg SDP 11 Back Up System

Dynpos AUTR (DP2)

Three Subsea Intervention Lubricators (SIL's) 5 1/8", 7 1/16" and 7 3/8" deployed from the *Seawell* enable efficient and cost effective riserless intervention or abandonment solutions for subsea wells.

Well Ops has unrivaled experience in the development of subsea intervention systems and these are designed with both ease of handling and operational effectiveness in mind.

The SIL systems are conduits for interfacing with conventional/vertical and horizontal/spool subsea trees and act as a means for both well access and well control purposes.

The SIL's fully hydraulic control system has been developed and refined during the vessels time in service and provides a high level of redundancy and unparalleled operational reliability.



**EFFICIENT AND
COST EFFECTIVE
RISERLESS
INTERVENTION FOR
SUBSEA WELLS**

5 1/8" Subsea Intervention Lubricator (SIL) Specifications

Maximum Bore Diameter 5 1/8 in production

Maximum Working Pressure 10,000 psi

Surface Equipment Hydraulic Power Unit (HPU), Hydraulic Control Panel (HCP), flushing skid, main umbilical, choke manifold, riser assembly

Subsea System Lower Base Section (LBS)

5 1/8 in 10 ksi WP

QMU connector

Hydraulic DHSV delay system

Kill line capability

Redundancy systems

Subsea accumulation

ROV panels for additional XT and miscellaneous controls

ROV override on primary well barriers

ROV override for mandrel release

Non orientating latch / mandrel system

Stab plate for riser hoses with access latforms

Diverless

Weight ~ 25 Te without TRT connector



Specifications

7 3/8 in bore, 10,000 psi WP

Diverless system with wireline capability to 1,500 m

Modular lubricator riser supporting up to and beyond 22 m wireline tool string (Vessel dependent)

7 3/8 in 10,000 psi hydraulic latch mandrel integrated with wire cutting ball valve

Wire cutting ball valve 7 3/8 in 10,000 psi Norsok D002 7 3/8 in 10,000 psi WP Dual wireline BOP with inverted ram for contingency operations

10,000 psi WP Subsea Grease package assembly c / w redundant Subsea storage with recharged capability via Umbilical or ROV

13 5/8 in 10,000 psi Hydraulic EDP connector and re-entry hub (7 3/8 in bore)

7 3/8 in 10,000 psi WP Upper and lower shearing gate valves. Hydraulically actuated fail safe. Norsok D002

ROV override panel for contingency functioning of critical wellbore functions

2 in Kill Line with Deco Line capability

Dual redundant MUX control system with fiber-optic primary and secondary control

Dedicated emergency shutdown system independent of MUX controls

Optional: En-Tegrity safety head

7 3/8 in 10,000 psi WP. Dual metal-to-metal fail safe closed sealing with shearing capacity in excess of Norsok D002

Suitable for all Subsea XT's and Wellhead connections

7 1/16" SIL system specifications are available on request.



Helix Energy Solutions Headquarters
3505 W. Sam Houston Parkway North, Suite 400
Houston, Texas 77043 USA
Office 281.618.0400

Helix Well Ops (USA)
3505 W. Sam Houston Parkway North, Suite 400
Houston, Texas 77043 USA
Office 281.618.0400

Helix Well Ops (UK)
Alba Gate Aberdeen
Stoneywood Park, Stoneywood Road
Dyce Aberdeen AB21 7DZ UK
Office +44(0)1224.351800