



SKANDI CONSTRUCTOR

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Owned by DOF Subsea AS, *Skandi Constructor* is on a long-term charter to Helix Well Ops (Well Ops). *Skandi Constructor* is a 120 m long advanced light well intervention (LWI) vessel with exceptional performance in operability and station keeping. It has been designed to minimize production downtime and provide a cost-effective method of maintaining subsea wells.

The *Skandi Constructor* is a class III (DP3) vessel which can accommodate up to 100 persons on board. The vessel is equipped with two Canyon work class ROVs, launched by a heavy weather deployment system.

The vessel has 3,850 m³ in built tank capacity and pumping systems to provide full chemical treatment capability, including acid wash. The vessel also has the capability for clean-up operations and can be adapted to perform well stimulation tasks.

The inbuilt tank capacity leaves the working decks clear to be fully utilized for project specific equipment without sacrificing additional deck area for extra fluid storage. Available deck space is 1,470 m² at 10 Te/m².

The integrated deployment tower is a 350 Te rated tower coupled with a 150 Te AHC deployment winch. The tower has been upgraded by Well Ops for deepwater / harsh environment operations.

The *Skandi Constructor* is ideally suited to a wide range of intervention and well management tasks including mechanical safety valve and SPM lock / change out, zonal isolation, perforation, pumping, production logging, subsea Christmas tree recovery / replacement and complete live and suspended well abandonment, including wellhead severance and recovery.

In operating the *Skandi Constructor*, Well Ops has focused on developing a highly efficient and operable mono-hull vessel that, as a first, will allow riserless intervention to be undertaken at water depths to 1,500 m.



Class

+1A1 R Ship-shaped Well Intervention Unit
SF LFL* COMF-V (3)C (3) HELDK CRANE
OPP-F E0 DYNPOS-AUTRO (A) NAUT-OSV
(A) CLEAN DESIGN DK (+) HL (2,8)

Accommodation

100 people

Dimensions

Overall Length	120 m (394 ft)
Breadth Moulded	25 m (82 ft)
Depth Moulded	10 m (33 ft)
Summer Draft	8 m (26 ft)
Displacement	15,942 Te
Gross Tonnage	11,572 Te

Deck

Main Crane	150 Te
Operating Depth	2,500 m
2 x Electrohydraulic	2.5 Te SWL
1 x Electrohydraulic	15 Te SWL

Moon Pool

Working Moon Pool 8 m x 8 m (27 ft x 27 ft)

HP Pumps

Allweiler Eccentric Screw Pump 2 each
75 m³ / hr @ 24 bar

Power and Thrusters

Installed Power	13,800 ekW
Bow Tunnel Thruster	2 each 1,920 kW
Bow Swing-Up Compass Thrusters	1 of 1,800 kW
Stern Swing-Up Compass Thrusters	1 of 1,800 kW

Propulsion

Azipull thrusters 2 each 3,500 kW

Vessel Speed

14 kn (maximum) 11 kn (economic)

Dynamic Positioning (DP) System

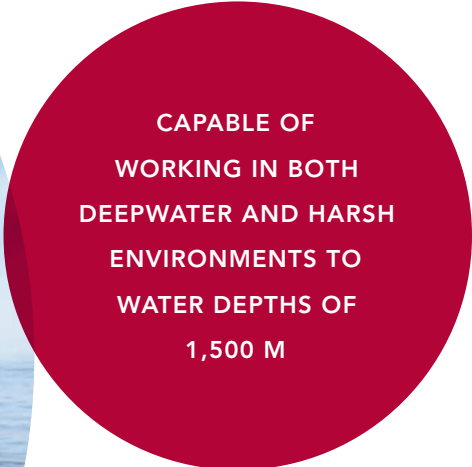
Dynpos-Autro IMO Class III

Tower Capabilities

150 Te AHC

ROV Specification

2 x XL Work Class



CAPABLE OF
WORKING IN BOTH
DEEPWATER AND HARSH
ENVIRONMENTS TO
WATER DEPTHS OF
1,500 M

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The 7 $\frac{3}{8}$ " Subsea Intervention Lubricator (SIL) deployed from the *Skandi Constructor* enables efficient and cost-effective riserless intervention or abandonment solutions for all subsea wells.

This Well Ops 7 $\frac{3}{8}$ " SIL is an evolution of the tried and tested system fitted to another vessel in the Well Ops fleet, the *Well Enhancer*.

Well Ops has evolved the design of the existing system using experience gained in over 25 years of subsea intervention systems to maximize the system's reliability whilst ensuring the deployment and recovery phases are as simple and efficient as possible.

The 7 $\frac{3}{8}$ " SIL is designed for 'single-trip' deployment for tool strings up to 22 m providing excellent tractor / conveyance options in high deviation wells and longer gun runs where perforating new or existing zones is desirable. The 7 $\frac{3}{8}$ " SIL can access both conventional and horizontal (large bore) trees to allow a full range of wireline intervention options.

The 7 $\frac{3}{8}$ " SIL features an electro-hydraulic control system that provides a high level of redundancy and excellent reliability. The control system is an integrated topside hydraulic / grease generation and distribution system coupled with the subsea system for control and monitoring functions including those of the third party subsea trees.

Specifications

7 $\frac{3}{8}$ 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 $\frac{3}{8}$ in 10,000 psi hydraulic latch mandrel integrated with wire cutting ball valve

Wire cutting ball valve 7 $\frac{3}{8}$ in 10,000 psi Norsok D0027 $\frac{3}{8}$ 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 $\frac{1}{2}$ in 10,000 psi Hydraulic EDP connector and re-entry hub (7 $\frac{3}{8}$ in bore)

7 $\frac{3}{8}$ 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

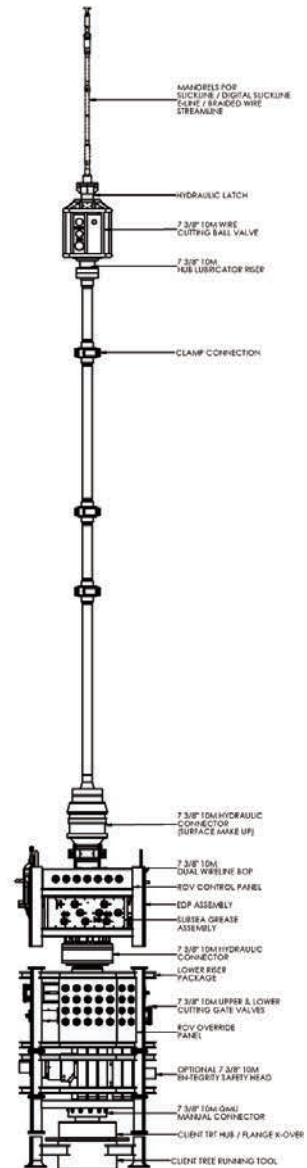
Dual redundant MUX control system with fiber-optic primary and secondary control

Dedicated emergency shutdown system independent of MUX controls

Optional: En-Tegrity safety head

7 $\frac{3}{8}$ 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



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