

Sertão specifications

Name	DS SERTAO
IMO Number	9541203
Owner	Dlief Drilling LLC
Owner's Technical Representative	OKEANOS bv
Manager	V-Ships Offshore Ltd., Limassol, Cyprus
Call Sign	V7WX8
Flag	Marshall Islands
Port of Registry	Majuro
Marshall Island Off. No.	4418
Classification	Bureau Veritas (BV)
Classification Society	1 Hull Mach, Offshore Service vessel / Drilling Ship / oil storage and oil offloading, unrestricted Navigation, VeriSTAR: AUTO,AUT- UMS, DYNAPOS -AM/AT - RS: INWATERSURVEY
Classification Notation	Classed, Laid up
Class status	60316
Gross Tonnage	18094
Net Tonnage	--
Previous SPS Survey	
SPS Survey Due Date	01-02-2017, deferred through lay-up status

Sertão specifications cont'd

Other Characteristics

Accommodation	For 140 pob (SOLAS certified LSA installed for 200 pob) 227.81m LOA, 211.33m LBP, 42.0m B (m), 19.00m Depth, Draft 12.03m 119.7 m approx
Dimensions (m)	
Air Draft from hull base line	
Rig Type	Dynamically Positioned Drillship
Sub Type	Ultra Deep Water
Max Water Depth (ft)	10.000
Max Drill Depth (ft)	40.000
Dual Gradient Drilling	No
Dual Activity Drilling	Yes
Ultra-Harsh	No
Moonpool (approx)	10m x 15m
Drilling Equipment	Dual Derrick (main well is AFT)
Derrick Manufacturer	Zilei Heavy Steel Structure Construction (Shanghai) Co., Ltd
Derrick Height (to waterboard)	61m free lifting height
Derrick Length (footprint)	24.4m
Derrick Width (footprint)	18.3m
Derrick setback loading	Drillpipe 2 x 350 tonnes, Casing 500 tonnes
Hookload Cap (static and dynamic)	907 tonne (1000 short tons or 2,000,000lbs)
Drawworks Manufacturer	National Oilwell Varco (NOV)
Drawworks Type	SSGD-1000-5750-55-82-10.5
Drawworks HP	4,290kW max continuous power
Topdrive manufacturer	National Oilwell Varco (NOV)
Top Drive Model	HPS-03 1000 2AC KT RD

Sertão specifications cont'd

Top Drive details	Max continuous drilling torque 106000 Nm, rotation speed 0 - 280rpm
Rotary Table Manufacturer	Hoisting capacity 907 tonnes
Rotary Table	National Oilwell Varco (NOV) Type RST605 Serial NL 0124870
Rotary Table details	Static load max 1000 short tons (907 tonnes), vertical load max 680 tonnes (rotating). Max torque 61,010 Nm
Rotary Table Opening (inches)	60.1/2 inches (60.625ins)
Mud Pump Manufacturer	National Oilwell Varco (NOV)
Mud Pumps Type	14-P-220 Triplex
No of Mud Pumps	4 (four)
Mud Pump Power (kw)	Maximum input power 1640 kW
Total Mud Pump Power (kw)	Notional maximum input power 6560 kW
Cranage	4 (four) Hydraulic/Mechanical/Electrical knuckle-boom units
Cranes Manufacturer	National Oilwell Varco (NOV)
Cranes capacity (subj to rigging)	Each = 17 tonnes @ 42m, 34 tonnes @ 39m, 85 tonnes @ 18m
Cranes type	OC3932KCE

Sertão specifications cont'd

Rig Power	Diesel-Electric
No. of Main Engines	6 (six) generator sets
Main Engine Manufacturer	STX-MAN diesel prime movers coupled to ABB generators
Main Engine Model	STX type 14V32/40 coupled to ABB type AMG 0900 XU10 LSE
	Per unit 7,000 Kw, power output 6,800 kW generated at 11 kVAC @ 720 rpm
Each Main Engine Power (kw)	40,800 kW (40.8 MW)
Total Main Engine Power (kw)	3 x 11 KV switchboards and 1 x 440V switchboard
Switchboards and Power distribution	1 (one). For emergency electrical power supply ONLY
No. of Emer. Engines	STX-Cummings diesel prime mover coupled to Newage generator
Emer. Engine Manufacturer	STX type QSK60-D(M) coupled to Newage PM734E1
Emer. Engine Model	1,350 kW output generated at 450 VAC @ 1800 rpm
Emer. Engine Power (kw)	to be advised
Variable Deck Load (VDL) Capacity	to be advised
VDL – Operating (mt)	to be advised
VDL – Survival (mt)	to be advised
VDL – Transit (mt)	to be advised
Well Control	
No. Annular BOPs	3 (three)
Annular BOP Manufacturer	Shaffer
Annular BOP Bore Size (in)	18.750 in
Annular BOP WP (psi)	1034 bar (15,000psi)
No. Ram Preventers	3 (three)
Ram Preventer Manufacturer	Shaffer
Ram Preventer Body	HXT
Ram Preventer Bore Size (in)	18.750 in
Ram Preventer WP (psi)	1034 bar (15,000psi)
Connector Manufacturer	VETCO
Connector Bore Size (in)	18.750 in

Sertão specifications cont'd

Connector WP (psi)	1034 bar (15,000psi)
Active heave compensation	NOV system. 9.070m travel
Helideck	
Helideck Dimensions (ft)	27.3m octagonal based on (0.9 x 27.3m) diameter.
Helideck 't-value'	--
Helideck 'd-value'	--
Helicopter Type	Suitable for Boeing-Vertol type 234 (Chinook) at MTOW 21.3 tonnes
Spudcan Diameter (ft)	--
Spudcan Height (ft)	--
Station Keeping	
DP Class	DP3
DP System Manufacturer	Kongsberg
DP System Model	Integrated K-POS (dynamic positioning system control), K-Thrust (control of rpm and direction of thrusters) and K-Chief (monitor and control system for all automated functions)
No of Mooring Winches	4 (four)
Mooring Winches Type	Hydraulic
Mooring Chain/Line	Mix of wire ropes 32mm and polypropylene ropes MBL 74 tonnes.

Sertão specifications cont'd

Anchors

Anchor Manufacturer Chain diameter 11.1mm HTS Q3. Chain length 385m (14 shots)
Anchor Model High holding power anchor, 15,000 kG
No of Anchors One (for`d)

Thruster Manufacturer Kawasaki Heavy Industries Ltd., Kobe, Japan

Thruster Model KST - 320LF/AU

Each Thruster Power (kw) 4500kW

No of Thrusters Six (grouped 3 x for`d, 3 x aft)

Thruster Type Rexpeller L-drive, azimuthing 360deg steerable

Thruster Drive Manufacturer ABB

Thruster Drive Model 6 x AMI 630L8L VAFTMH each 4500kW continuous rating

Thruster Drive Type Variable Frequency speed control, non-reversing

Rig Construction Details

Ship Design Samsung Heavy Industries (SHI)

Rig Design National Oilwell Varco (NOV)

Rig Model S10000E

Delivered 22nd Feb 2012

Country of Build South Korea

Yard Name Geoje (Koje) Shipyard

Group Yard Name Samsung Heavy Industries (SHI)

Construction Cost (US\$m) About US\$750m

Sertão specifications cont'd

Rig Generation	6th
Delivery Date	22nd Feb 2012
Order Date	2009
Last Upgrade Year	none to date
Retirement Year	
Stacked Date	December 6, 2015
Cantilever	none
Max Cantilever Load (kips)	n/a
Max Cantilever Reach (ft)	n/a
Max Cantilever Transverse (ft)	n/a
Capacities	
Liquid Mud	1,492 m3
Base Oil	499 m3
Brine	499 m3
Bulk Cement	113 m3
Bulk Barite	113 m3
Bulk Bentonite	113 m3
Sack Storage (No. of Sacks)	up to 1400
Drill Water	2,855 m3
Fuel (diesel or MGO)	6,703 m3
Potable Water	1,060 m3