



Unit : ESV Guardian (# H194)
Type: : 300 foot workover jack-up / Super M2
Flag : Port Vila / Vanuatu
Class : ABS
Built : 2011
Rig Operator : Bluewhale Offshore
IMO Number : IMO 8770479
Email : marketing@bluewhaleoffshore.com



Unit Specifications

Registered Name	ESV Guardian
Rig Type	Self Elevating Maintenance Unit / Jack Up Rig
Unit/Design/Shape	Friede & Goldman, Super M2
Unit Flag	Vanuatu / Port Vila
Unit Classification	ABS #A1 Self-Elevating Unit; #AMS-NP; # DPS-1
IMO Certification	IMO8770479
Year of Construction	2011
Construction Yard	Yantai CIMC Raffles Offshore Ltd
Last Major Upgrade	SPS in 2017

Main Dimensions/Technical Description

Hull Length	196 ft (59.75 m) - LOA @ 240 ft (73.2 m)
Hull Width	183 ft (55.78 m)
Hull Depth	25 ft (7.62 m). Transit draught 5 m
Number of legs/length	3 x 423 ft (3 x 129 m)
Spud Can Diameter	50 ft (15.24 m)
Spud Can Height	15 ft (4.57 m)
Cantilever Envelope	55 ft x 30 ft (16.76 m x 9.14 m)
Maximum Hook Load	500 kips (227 metric tonnes)
Maximum Rotary Load	500 kips (227 metric tonnes)
Maximum Setback Load	500 kips (227 metric tonnes)

Storage Capacities

Fuel	22,739 ft ³ (643 m ³)
Mud Processing Tank	496 ft ³ (79 m ³)
Active Liquid Mud	3,789 ft ³ (110 m ³)
Drilling Water	42,670 ft ³ (1,208 m ³)
Potable Water	12,116 ft ³ (343 m ³)
Sack Storage	5,000 sacks
Bulk Bentonite/Barite	N/A
Bulk Cement	N/A
Deck Load Capacities	Pipe rack: 540 lbs/ft ² Main deck: 540 lbs/ft ² (outside pipe rack) Quarter's deck: 90 lbs/ft ² House tops: 150 lbs/ft ² Machinery spaces: 270 lbs/ft ² Sack stores: 540 lbs/ft ²

Jackup Systems

Jacking Systems	F&G jacking system; 54 jacking units; 600 V / 60 Hz AC electric motors; system equipped with fail-safe electric brakes
Raw Water System/Ballast	3 sets of Tower-Salt Water; submersible electric drive; 2400/4800 GPM; 120/60 feet of head; 1750 rpm; 125 hp

Operational Capabilities

Maximum Water Depth	300 ft (91 m)
Maximum Drilling Depth	25,000 ft

Operational Capabilities

Thrusters	Self-propelled. 3 x steer-prop azimuth thrusters; SP35; ABS certified maximum continuous rating of 2500 kW @ 1200 rpm; DP-1 control system by L-3
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Variable Load Capacity

Variable Load Capacity	Survival VL capacity: 6,000 kips Maximum Combined VL: 9,000 kips
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Environmental Limits

Environmental Limits	Air Temperature: -10°C min. to 40°C max. Humidity: 20% min. to 100% max. Wind Survival: 100 knots SW Temperature: 0°C min. to 32°C max. Density: 1025 kg/m ³ (for design purposes) Corr. wave period: 13.5 sec Wave Height: 50 ft (survival @ 300 ft water depth) or 54 ft (survival @ 250 ft water depth)
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Mooring System

Mooring System & Anchors	4 x single drum winches; Brake hold 60 tonne on first layer. 4 x 7 tonne anchors
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Crane, Hoist And Material Handling

Cranes	Skidding crane: Favelle Favco - PC300; 280 tonne @ 20 m on- and off-board. Main deck cranes: 2 x Favelle Favco slewing cranes (each with a capacity of fixed lifting of 45 tonne @ 37 m and slewing 7 tonne @ 39 m)
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Helicopter Landing Deck

Dimensions	72'-10" x 72'-10" (22.20 m x 22.20 m)
Deck Load Capacity	0.21 tonne/m ² ; 9.3 tonne per UK CAP 437
Refueling System	Not installed. System retrofit as per contract agreement
Designed For Helicopter Type	Sikorsky S61N

Auxiliary Equipment

Water Maker	2 waste heat water-maker units (Alfa Laval); 2 x 8000 GPD 2 sets of RO type HSR0-40 Aqua-Chem Inc.; 2 x 40 tonne per day
Cargo Transfer Pumps	2 x fuel oil transfer pumps; 2 x 140 GPM 2 x fresh water pumps; 2 x 10 GPM 1 x general service pump; 1 x 273 m ³ /hr @ 35 m

Derrick and Substructure

Derrick Dimension and Capacity	Modular workover rig - 9 modules; 127 ft clear height mast Base: 32 ft x 35 ft; Crown: 9 ft x 14 ft Maximum 700 kips
Racking Platform	Port and starboard fingerboard; 9,300 ft of 4 ½" DP and 15,600 ft of 3 ½" DP
Automated Pipehandling	N/A
Drawworks	LeTourneau 275 ton / 550 kips; Model LDW550K; 10 lines 1 ¼"; 1,500 hp motor and electric brake
Rotary Table	LeTourneau RT375E; 37 ½" pass through; rated at 250 ton
Top Drive	LeTourneau 250 ton / 500 kips; Model L-DDTD
Manriding and Hoists	One (1) off Ingersoll Rand Model FA150KGi man riding winch (@ 150 kg) Four (4) off Ingersoll Rand Model BU7A (each @ 450 kg)



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Power Supply Systems

Rig Power Plant Three (3) sets of GE 7FDM16 diesel engines; each rated at 3,500 hp; 2,500 kW; 4160V; 3 phase air-cooled alternator 900 rpm
Compressed Air Systems 3 sets of Ingersoll Rand QSI-500 for rig air. Air dryers PHL-1600BAS on separate skid bases
Emergency Generator One (1) set of GE 7FDM8; 1240 kW; 4160V; 3ph; 900 rpm; 60Hz (essential / emergency generator)

Drillstring Equipment

Tubulars 2 3/4" to 5" tubing or drill pipe
Handling Tools 5 1/2" HSVS Eckel Hydrashift casing tong 2 3/4" to 8 3/4"

Well Control/Subsea Equipment

Diverter N/A
BOP Cameron Iron Works (CIW) BOP; 13 3/4"; 10,000 psi
 CAD hydraulic power unit; accumulator unit 360 gallons from 24 bottles. Three (3) off air pumps and one (1) off electric triplex pump
 Two (2) off BOP Hoists; 20 tonne; air driven. BOP transport dolly with 10,000 psi test stump. Portable BOP pressure test unit (15,000 psi with charting function)
Choke and Kill Manifold Choke & Kill manifold (5" / 10,000 psi) with one mud gas separator

Mud System/Bulk System

High Pressure Mud System One (1) set of triplex circulating pump 5" x 14"; Lewco Model WH-2214; 2,200hp; AC drive; 7,500 psi; pulsation dampener with two (2) each 1,150 hp AC motors
 One (1) set of triplex kill pump 3 3/4" x 8"; SPM model TWS2250; 2200 hp; AC drive; 15,000 psi; pulsation dampener with one (1) each 3,000 hp AC motor
Low Pressure Mud System One (1) off Model FLC-503 Derrick Linear Motion Flow Line cleaner (600 ppm) on trip tank
 675 bbls active circulating system with agitators and pumps. Re-circulating 50 bbls trip tank with gauge. Slug/pill tank. Mixing hopper high jet type. Mud/gas separator (poor-boy degasser with returns to tank)
Bulk System N/A

Casing/Cementing Equipment

Casing Equipment Casing equipment mobilized as per contract agreement
Cementing Equipment Cementing equipment mobilized as per contract agreement

Instrumentation/Communication

Drilling Instrumentation Petron Electronic Touch Screen Display with 25 parameters/alarms on floor and within offices; Pit volume total (PVT); Fluid return flow increase (Flo-sho); and pump strokes; TDS speed indicator 0-240 rpm; Petron weight indicator; Topdrive monitoring camera

Instrumentation/Communication

Rig Communication System One (1) telephone exchange
 One (1) public address system
 One (1) sound powered telephone systems
 Four (4) portable VHF transceivers
 Four (4) portable Motorola UHF transceivers
 Three (3) fixed radios for Navi. bridge and control room
 Three (3) Wave-Net Interface Module for local net of computers
Navigation Equipment AIS: 1 x Furuno FA150
 GPS: 1 x Furuno GPA-017S
 DGPS: 1 x Furuno GP150D
 Magnetic Compass: 1 x Cassens & Plath
 Radar: 1 x X-band Furuno FAR-2127
 Radar: 1 x S-band Furuno FAR-2137S/12
 Echo Sounder: 1 x Furuno FE-700
 Navtex: 1 x Furuno NX700P
 Speed Log: 1 x Furuno DS-80
 Anemometer: 1 x RM Young Wind Tracker
External Communications Eq. Two (2) INMARSAT C Furuno Felcom 15
 One (1) INMARSAT F Sailor Fleet 77
 VSAT upon deployment

Production Test Equipment

Burner Boom Not installed. System retrofit as per contract agreement

Workover Tools

Workover Tools As per contract agreement

Accommodation

Offices 5 offices (each with 4 workstations)
Living Quarters 120 PAX in 4 man cabins

Safety Equipment

Fire Fighting Firewater pumps - capacity of 2 x 91 m³/hr @ 0.7 MPa
Survival Equipment Lifeboats: 2 x 120 PAX (davit launched)
 Liferrafts: 5 x 25 PAX
 FRC/MOB: 1 x 6 PAX (davit launched)

Pollution Prevention Equipment

Sewage Treatment Omnipure / 15MXMP; Capacity for 120 PAX crew complement
Garbage Treatment & Disposal Grinder; Baldor / 8102W
Oily Water Separator Ultra-Sep US-10000 bilge water separator; 44 GPM
Pollution Prevention Drill-floor; drawworks; and bell nipple equipped with drip pan. Drain piped to two waste tanks

Additional Information

Towing Tow Brackets 320 t MBL
Tugger Winches Pull load 30 tonne at 4.5m/min; 14 tonne at 9m/min; Drum capacity 750m x Ø 38 mm SWR @ 12 layers





