### GENERAL SPECIFICATIONS AND OPERATING PARAMETERS

## LAURUS KFELS MOD V-B CLASS

Shipyard Delivery	May16, 2013. Keppel FELS.
Classification	ABS      ABS     ABS      ABS
Owner	Oro Negro Laurus Pte Ltd. Managed
Elec	Danama
Flag	Panama
Dimensions	234′ x 208′ x 25′
Water Depth	Rated for 35' to 400'
Max Drilling Depth	30,000 ft
Cantilever Reach	70 ft aft, 30' transverse
	(15' port and 15' starboard)
Leg Length	517 ft (460 ft below hull)
Leg Spacing	142' transverse
	129' longitudinal
Spudcan Diameter	46 ft and 19 ft high
Variable Deck Load	Operating: 7,500 kips
	Survival: 5,000 kips
	Transit: 5,000 kips
Helideck Capacity	Sikorsky S-61N & S92

### DRILLING EQUIPMENT

Derrick	Lee C Moore Beam Leg Derrick S/N W-15285-9, 36 ft sq. base x 18 ft sq. top x 160 ft clear working height
Capacity	1.5 million lbs static hook load with 14 lines strung
Racking Capacity	270 Stands of 5%" drill pipe range II triples x 93 ft (38,409 ft) 20 Stands of 5%" HWDP range II triples x 93 ft 16 Stands of 8%" drill collar range II triples x 93 ft (1,116 ft)
Drawworks	NOV ADS-10T, 2 Speed Gearbox (3000 hp)
Rotary Table	NOV RST 495-3G - 49½" hydraulically operated, 750 sht dynamic and 1000 sht static load
Iron Roughneck	1 x NOV model AR3200 roughneck for tubular range 3½" to 9¾" for well center ops
	1 x NOV model ST-120 roughneck for tubular range 3½" to 10" for offline ops
Top Drive	NOV TDS-8SA, lifting capacity 750 sht hoisting, 650 sht rotating, 62,250ft lbs max continuous torque, 95,000 ft lbs intermittent, 0-270 Max rpm, $1 \times 1,150$ hp AC motor
Catheads	2 x NOV HC-26EV electrically controlled hydraulic catheads, 34,500 lbs line pull

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### **CAPACITIES**

Diesel	3,000 bbls	Drillwater	3,600 bbls (plus 16,000 bbls of preload)
Potable Water	2,000 bbls	Bulk Storage	11,100 ft3
Sack Storage	5000 sacks	Base Oil	1,500 bbls
Brine	1,000 bbls	Liquid Mud	4,000 bbls

### OTHER PARTICULARS

Accommodations	150 Persons
Jacking System	KFELS OTD Fels Rack and Pinion Jacking System, c/w 9 elevating Jack sets consists of 4 pinions per chord, Total of 36 pinions, normal jacking capacity 46,800 kips (21,228 mt)
Mud Pumps	3 x LEWCOW-2215, 2,200 hp, 7,500 psi, c/w 2 x GEB22 AC motors
Shakers	5 x NOV Brandt VSM 300 (1 configured as Desander / Desilter)
BOP Stack	1 x Cameron 18¾" 15,000 psi, 4 x ram BOP, (2 x TL doubles), + 1 x Cameron DL 18¾" 10,000 psi annular BOP, HPHT, $H_2S$ rated (c/w test stump and test pump)
<b>BOP Controls</b>	1 x Cameron BOP / Diverter control system including local control, driller's control and toolpusher's control stations
Diverter	1 x Dril-Quip FDS 500 psi (27½" ID) diverter with 16" flow- line and 2 x 14" overboard lines
C & K Manifold	1 x TechDrill API 6A PSL 3 3¼6" 15k HP side / 4⅓6" 10k LP side Choke & Kill Manifold, HPHT service & H₂S trimmed
Mud Manifold	1 x TechDrill API 6A PSL 3 dual 5" ID 7,500 psi WP Standpipe Manifold, HPHT & H₂S trimmed
Cement Manifold	1 x TechDrill API 6A PSL 3 single 3" ID 15,000 psi WP Cement Manifold, HPHT & H₂S trimmed
Cement Unit	Halliburton HT400 (Halliburton Owned) unit, 15,000 psi safe working pressure

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### **POWER GENERATION**

Main Engines	5 x CAT 3516C HD DITA Diesel engines, rated at 2,150 hp, (1,603 bkW), at 1200 rpm c/w Baylor S637/WUT AC generator rated at 2150 kVA at 1200 rpm, 600V, 60 Hz, 3 Ph
Emergency Power	1 x CAT 3508B DITA Diesel engine, rated at 910 hp, (682 bkW), at 1200 rpm c/w Stamford AC alternator rated at 700 ekW at 1200 rpm, 480V, 60 Hz, 3 Ph

### HANDLING SYSTEMS

Deck Cranes	3 x Favelle Favco Model 7.5/10K w/ 120 ft boom, main hoist ratings – 45.4 mt @ 40 ft radius, 11 mt @ 120 ft radius (static).
	All cranes – auxiliary hoist ratings – 9.8 mt at maximum radius (static)
Offline Tubular	1 x Forum OAC offline activities crane, 16,000 lbs maximum hoisting capacity
BOP Handling	2 x Ingersoll Rand BHS150R22 pneumatically operated chain hoists. Capacity of 68 mt each
Xmas Tree Handling	1 x Xmas Tree trolley beams rated at 20 mt c/w hoist
Conductor Tensioner	1 x Icon 230 mt capacity CTU suitable for 20", 30" and 36" conductor

### LIFESAVING SYSTEMS

Lifeboats	4 x 75 man capacity Norsafe JYN85T TELB davit launched lifeboats (200% of PoB)  Life boat #1 is designated as rescue boat
Life rafts	6 x 25 man RFD Surviva 25DL MKIV inflatable liferafts launched via davits located one each port and starboard (100% of POB)
Lifejackets	225 SOLAS approved lifejackets
Lifebuoys	10 installed in accordance with IMO MODU & SOLAS