



EDRILL-1 is a self-erecting, tender assist, drilling rig combining a high specification, lightweight drilling equipment set (DES) with an upsized, deep-draft barge. The DES is handled in three (3) lifts to reduce rig move times and the high capacity tender barge effectively supports batch drilling and completions with offline casing, tubing, and drillpipe stand building. EDRILL-1 is well matched to highly mobile, fast paced production drilling and completion programs offshore South East Asia, Western Australia, West Africa, Gulf of Mexico or Brazil.

For further information call +65 6222 8370 or visit [www.edrill.com](http://www.edrill.com)

Key features that differentiate EDRILL-1 are:

- 170 person accommodation in 1 & 2-man cabins w/- own bathrooms. 6 offices with 2 dedicated to service companies.
- Main crane rated to 400MT at 20m radius in 1.0m significant wave heights. Handles operator's construction lifts.
- SW ballasting system achieves heavy displacement to maximum draft and reduces vessel motions during heavy lifts.
- Integrated 450mm full length bilge keels reduce 5° roll resonant motions by up to 2° in 12 second swell periods.
- D.E.S. dry weight minimized to 750MT while maintaining a 454MT Hookload rating.
- D.E.S. heavy lifts reduced to three (3) total for safe and efficient rig moves. Heavy lifts are landed "Hands Free".
- Large 1,732m<sup>2</sup> pipe deck area eliminates DES load-out space constraints and offers ample space for drilling supplies as well as specialized well stimulation, acidization, sand control and frac pumping equipment.
- Setback rated to 340MT for 6,000m of 5-7/8" DP and 3,200m of 7" casing or other tubular combinations.
- NOV TDS-8SA top drive with 65,000 ft-lbs continuous and 92,000 ft-lbs of intermittent drilling torque.
- 152ft clear-height Aker mast for simultaneously racking triples of drill pipe and tubing along with doubles of casing.
- Offline Activity Cantilever handles 2-7/8" to 9-5/8" tubulars at the lower racking board while drilling or tripping.
- Three 1,600HP Lewco W1712 mud pumps rated to 7,500psi WP with space for an additional 4<sup>th</sup> pump.
- 8,590 bbls mud & brine storage with separate mixing systems. High volume for lost returns / well control situations.
- 1,500m anchor wires for mooring in 250m water depths. 64mm wires have a Nominal Breaking Strength of 296MT.
- High holding power 10MT Vryhof Stevpris anchors. No piggybacks or ground tackle required. Less time with AHV's.
- Helideck rated for Sikorsky S92 and S61 helicopters in full compliance with CAP437 requirements.
- Cameron 10M - Type -"U" DRBOP with FXT bonnets to shear 5-7/8" S-135 grade drill pipe.

## Specifications

- Year / Yard Built: 2014 / COSCO (Guandong) Shipyard Co., Ltd. China
- Design: Self-erecting tender assist drilling barge

## Regulatory

- Registration: Singapore
- Classification: ABS +A1 Barge
- Approval: 'Statement-of-Fact' for IMO MODU Code 1989 for the Construction and Equipment, Resolution A.649 (16)  
International Convention for the Safety of Life at Sea of 1974 (SOLAS 1974) including all Amendments up to the Protocol of 1988.





## Principal Dimensions

- Length: 100m (328 feet)
- Width: 29.87m (98 feet)
- Hull Depth: 11.5m (37.8 feet)
- Draft: 5.64m (18.5 feet)
- D.E.S. Dry Weight: 750MT, excluding 3<sup>rd</sup> party equipment







## Power

- Main Power Plant: 6 each, Caterpillar model 3516C HD DITA diesel engines & each running a 2,150kVA Kato model 6P6.6-3200 generator. Total output 9,180kW.
- Emergency Power: 1 each, Caterpillar model 3512B turbo-charged diesel engine & running a 1,250kVA Kato model 6P6.6-2150 generator.
- Power Distribution: The LTI 600V VFD Switchboard supplies power to the AC Drawworks, Top Drive System (via the bow junction box), AC Mud Pumps and Watermaker Booster Heaters. It also supplies power to two 2,000kVA transformers which step down the voltage to 480V and feed the 480V Main Switchboard, which is the primary source of 480V power on the EDRILL-1.

**Draft / Displacement**

	Operating Draft:	3.7m to 5.64m.	(12ft and 18.5ft)
	Operating Displacement:	16,108MT at 5.64m draft	(18.5ft)
	Transit Draft:	5.64m	(18.5ft)
	Lightship Draft:	2.6m	(8.5ft)



















**Operating Parameter**

	Water depth:	9m to 250m - 2,000m w/ pre-laid mooring	(29.5ft to 820ft)
	Drilling depth:	9,000m	(29,500ft)
	Towing speed:	5knots with tugboat	
	Survival condition:	70knots wind, 8.6m wave height and 4.0knots surface current	
	Operating condition:	50knots wind, 5.6m wave height and 3.3knots surface current	
	Design temperature:	Range between 0°C and 40°C	(32°F and 104°F)






**Capacities**

	Variable Load:	7,495MT	
	Pipe Deck Area:	1,732m <sup>2</sup>	(18,720ft <sup>2</sup> ) – 1,000 metric tons
	Mud Tanks Total Capacity:	1,366m <sup>3</sup>	(8,590bbls) – total for active, reserve & slug pits (13 tanks)
	Active / Reserve Mud Pits:	868m <sup>3</sup>	(5,460bbls) – 8 tanks consisting of active (2) & reserve (6) pits
	Active / Reserve Brine Pits:	450m <sup>3</sup>	(2,830bbls) – 4 tanks consisting of active (2) & reserve (2) pits
	Slug Pit:	48m <sup>3</sup>	(300bbls) – consisting of one Slug pit
	Trip Tank:	12.7m <sup>3</sup>	(80bbls) – partitioned into 2 x 40bbls compartments
	Brine Storage:	450m <sup>3</sup>	(2,830bbls)
	Drilling Fluid Base Oil:	610m <sup>3</sup>	(3,837bbls)
	Bulk Mud / Bentonite:	237.86m <sup>3</sup>	(8,400ft <sup>3</sup> ) – consisting of four P-tanks
	Bulk Cement:	237.86m <sup>3</sup>	(8,400ft <sup>3</sup> ) – consisting of four P-tanks
	Sack Materials:	9,000 sacks plus 100 drums of chemical	
	Drilling Water:	3,239m <sup>3</sup>	(20,373bbls)
	Potable Water:	655m <sup>3</sup>	(4,121bbls)
	Fuel Oil:	920m <sup>3</sup>	(5,787bbls)

**Drilling Equipment**






	Derrick:	1 each, Aker Solutions Telescoping Mast, 152ft clear height & 1,000,000lbs GNC.
	Substructure:	1 each, Aker Solutions combined 1,000,000lbs Hookload and 750,000lbs Setback. (Masterskids accommodate WHP with cap beams spacing of 30ft to 45ft. Wider spacing can be accommodated at request)
	Crown Block:	1 each, Aker 500MT, 6 x 55" Cluster, 1 x 55" Fastline and 1 x 42" Deadline sheaves.
	Drawworks:	1 each, LTI model LDW-1000k 3,000HP. Dynamic brake system for ROP of 4000ft/hr.
	Drilling Line:	1 drum, 1.1/2" diameter x 7,500ft, 6x19 IWRC, EIPS.
	Top Drive System:	1 each, AC Top Drive System NOV model TDS-8SA rated 750MT.
	Travelling Block:	1 each, LTI model TB-500 with 6 x 60" Sheaves rated 500MT.
	Power Tong For Rig Floor:	1 each, Hawk Ind. model 100K-2GSR Power Tong, 100,000lbs torque.
	Rotary Table:	1 each, LTI model L-375 with 37-1/2" opening and rated 650MT.
	Cement Unit:	Operator supplied. Space and services provided.
	Mud Pump:	3 each, Lewco model W-1712, Triplex, 1,600Hp, 120SPM and 7,500psi WP.
	Shale Shakers:	4 ea. Brandt VSM300 Shale Shaker with Integral Scalping Deck.
	Degasser:	1 each, M-I Swaco model CD-1400 Hurricane with 25Hp Blower, 1400GPM.
	Desilter:	Operator supplied. Space and services provided.
	Mud Centrifuge:	Operator supplied. Space and services provided for 3 units.
	Drill Collar:	10jts x 8" OD x 150lb/ft, DCs and 15jts x 7" OD x 110lb/ft. DCs.
	Heavy Weight Drill Pipe:	30jts of 5" OD, 61.6lb/ft with 6.5/8" OD X 3" ID Tool Joint and DS-50 conn.
	Drill Pipe:	22,000ft of 5" OD, S-135, 19.5lb/ft, with 6.5/8" OD X 3.1/4" ID Tool Joint and DS-50 conn, R2.

**Offline Activities Cantilever**




	OAC Crane:	1 each, X-Y Gantry, 12,000lbs SWL.
	Power Tong For OAC:	1 each, Hawk Ind. model 100K-2GSR Power Tong, 100,000lbs torque.
	Offline Cementing:	Yes.
	Offline E-line Logging:	Available.
	Offline Coiled Tubing:	Available.

**B.O.P. Equipment**












BOP's manufactured to API 16A and NACE standard MR-01-75

	Annular BOPs:	1 each, 21-1/4" 2,000psi WP, GE-Hydril Type 'MSP', API 6A with H <sub>2</sub> S trim. 1 each, 13-5/8" 5,000psi WP, Cameron 'DL', API 16A, NACE.
	RAM BOPs:	2 each, 21-1/4" 2,000psi WP, GE-Hydril, Single, API 16A with H <sub>2</sub> S trim. 1 each, 13-5/8" 10,000psi WP, Cameron Type 'U' Single, API 16A, NACE. 1 each, 13-5/8" 10,000psi WP, Cameron Type 'U' Double, API 16A, NACE. (4 RAMs 13-5/8" BOP configuration can be provided at request)
	BOP Handling System:	1 lot, Under rig floor mounted BOP handling trolley with 75MT SWL. (Capable of handling 13.5/8", 16.3/4" 18.3/4", 21.1/4" & 29.1/2" BOP stacks)
	BOP Control System:	1 each, Cameron hydraulic control unit.
	Mud / Gas Separator:	1 each, 42" OD x 22ft high with 14ft mud seal & 8" vent line discharge above crown.

**Station Keeping**

	Anchor Winches:	4 each, Skagit Smatco Model DMW-250-108, side-by-side, double drum, 300Hp electrically powered mooring winches.
	Anchor Wires:	8 each, 64mm OD x 1,500m 6 x 36(WS), IWRC, XTC Compacted, RHRL/LHRL, galvanized steel wire rope. One spare anchor wire provided.
	Anchors:	8 each, 10MT, MK5 Vryhof Stevpris type. One spare anchor provided.

**Auxiliary Equipment & Features**

	Accommodation:	170 man in 1-man and 2-man cabins and each with their own bathroom.
	Main Crane:	1 each, Favelle Favco Crane model PC-400, diesel powered, pedestal mounted with 170ft boom and rated 400MT at 20m working radius at 1.0m significant wave height.
	Deck Crane:	1 each, Favelle Favco Crane model 6/10K, diesel powered, pedestal mounted with 135ft boom and rated 20MT at 10m working radius.
	Helideck:	1 each, Designed for Sikorsky S-92A and S-61 helicopters. CAP-437 compliant.
	External Communication:	1 set, Sailor 250 FleetBroadBand multi-station, voice and data transmission. 1 lot, HF/SSB, VHF AM Ground Air, and VHF FM Marine radio transceivers.
	Internal Communication:	1 lot, Gaitronics Page/Multi Party Communication System.
	Drilling Instrumentation:	1 lot, M-I Swaco ADMS System with purged control/monitoring display consoles.
	Lifesaving Equipment:	4 each, 85man, Neptune Fully Enclosed Survival Craft for 200% POB capacity.
	Maintenance System:	1 lot, Computerised SIS 'Star PMS' maintenance, inventory and purchasing system.
	Platform Access Ramp:	1 each, Personnel access ramp between the tender barge and drilling platform.
	Fresh Water Generators:	1 each, Alfa-Laval Dolphin 50, rated capacity 50m <sup>3</sup> /day. 1 each, Alfa Laval VVC Orca 50, rated capacity 50m <sup>3</sup> /day.

Last Update: [10 Dec 2014](#)