



CIMC RAFFLES

SHIP-SHAPED DRILLING UNIT

The Drilling Unit is primarily designed for riserless operation utilizing known and field proven technology. The vessel is also equipped for performing light well intervention work, riserless well completion, P&A, Wet Tow and subsea construction work in both shallow and deep water. In addition the vessel is prepared for installation of riser tensioning system enabling the vessel to perform slender well drilling and well intervention with riser.

GENERAL

Flag	: Singapore
Class	: DNV +Ship-shaped Drilling Unit (N), DRILL (N),E0,HELDK-SH (refueling facilities included),DYNPOS-AUTRO, DK(+),HL (2.8),LFL* ,COMF-V(3) C(3), CLEAN DESIGN,WINTERIZED BASIC , DAT (-20°C),NAUT OSV(A),BIS
Design	: Marin Teknikk MT 6028
Builder	: Yantai CIMC Raffles Offshore Ltd.

MAIN DIMENSIONS

Length Overall	: 156.60 m
LBP	: 147.55 m
Beam	: 28 m
Depth to Main Deck	: 11.50 m
Max. Draft Amidships	: 8.45 m
Scantling Draught	: 8.55 m
Work Deck	: 2280 m ²
Moon Pool (L x B)	: 8 m x 8 m
Gross Tonnage	: 16,750 tonnes
Net Tonnage	: 5,030 tonnes
Dead Weight	: 13,000 tonnes

DESIGN WORKING CAPACITIES

Water Depth	: 3,000 m
Drilling Depth	: 1,500 m (top hole drilling) 9,000 m (well intervention)
Transit Speed	: 14 kns@ 5.5 m

TANK CAPACITIES

Potable Water	: 600 m ³
Technical Water	: 2,200 m ³
MGO	: 1,600 m ³
Ballast Water	: 9,300 m ³
Liquid Mud	: 2,300 m ³
Lubricating Oil	: 65 m ³
Hydraulic Oil	: 50 m ³
Miscellaneous Tanks	: 60 m ³
Sewage Tanks	: 160 m ³
Grey Water Tanks	: 200 m ³
Hydrocarbon Slop Tank	: 350 m ³
Methanol	: 200 m ³
Dry Bulk (cement, barite)	: 750 m ³

DYNAMIC POSITIONING

DP Class	: DYNPOS-AUTRO
Ref. Systems	: 3 Master gyro compass units 3 Wind sensors shall be delivered 3 motion reference units 3 HiPAP 501 systems 1 Taut wire rated for 500m water depth 1 Seapath300.

ACCOMODATION

Berths (cabins)	110 persons (24 x 1 man + 43 x 2 men)
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MACHINERY

Main Engines	: 4 x B32 40L9ACD; 2 x B32 40L6ACD, total not less than 22,000kW
Main Generators	: 2 x generator sets, 2735 ekW at 720 RPM; 4 x generator set, 4145 ekW at 720 RPM
Emergency Generator	: 1000 kW, 1800 rpm
Propulsions	: 2 x min. 3500 kW
Tunnel Thrusters	: 2 in the fore ship, min. 1500 kW 1 in the aft ship, min. 880 kW
Azimuth Thrusters	: 2 in the fore ship, min.1500 kW

DRILLING EQUIPMENT

• Derrick	
Hook load	: 681 metric Tons
• Drawworks	
Winch load	: 377 Tons @ 40 m/min
• Rotary Table	
49 ½ hydraulic operated rotary support table with dyn. slip Ring, 3 motors with 45000 lbs-ft torque.	
• Top Drive	
Lifting capacity	: 681 metric Tons
Motor and Power	: 2 x 742kW, AC Type
Max drilling speed	: 180 rpm
Break-out torque	: 156000 Nm
Max continuous drilling torque	: 80000 Nm
Max mud pressure	: 517 bar
• Pipe Handling Crane (Cargo Rail Crane)	
Crane SWL	: 6.0 Tons (with Grippers)
Load radius	: min.26 m
• Hydraulic Roughneck	
'Making up' and 'breaking out' of drill-pipe and collars ranging 3 ½" to 9 ¾" in diameter, casing up to 25" in diameter.	
• Mud System	
Mud pumps	: 3 x 1180 kW (1600 HP), 345 bar (5000 psi)(present); 517 bar (7500 psi) (changing pump module)
Shakers (option)	: 3 x 4500 lpm each at 1,4SG mud density
• Skid System	
Push-pull (2 off)	: 100 metric Tons
Skidding beams	: aft of moon-pool for 100 tons load fwd of moon-pool for 200 tons load
Option	: Pallets (200 tons capacity)
• ROV System (2 off)	
Prepared for client installation of WROV 3000 mSW-TMS	

DECK CRANES

Subsea Crane	: 125 ton @ 12 m offshore AHC type
Knuckle Boom Crane	: 20 ton @ 35 m (used for ship-to-ship operation)

HELIDECK

Dimension	: Dia. 26.1m(Sikorsky S92) (CAA-N)
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LIFESAVING EQUIPMENT

Life Boats	: 2 x 110 persons
Life Rafts	: 2 x 110 persons (escape chute type)

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