

CASPIAN DRILLER SUPER M2 JACKUP DRILLING RIG



Caspian Driller, the Super M2 jackup drilling rig is designed for all year benign conditions in accordance with ABS assessment criteria. It is based on the F&G L780 Mod II jackup design.

The unit is able to work up to 90 meters of water with its standard leg length of 125m and normal jacking system of 54 jacking units. It has a maximum storm variable deckload of 2,722 tonnes (6000kips) and a cantiliver outreach of 15.24 meters (50 ft).



CASPIAN DRILLER

SUPER M2 JACKUP DRILLING RIG

GENERAL

Class : ABS
 Notation : +A1 Self-elevating Drilling Unit, CRC

MAIN DIMENSIONS/TECHNICAL DESCRIPTION

Hull Length : 196 ft (59.75 m)
 Hull Width : 183 ft (55.78 m)
 Hull Depth : 25 ft (7.62 m)
 Number of legs/length : 3 x 324 ft (3 x 99.014 m)
 Spud Can Diameter : 40 ft (12.09 m)
 Spud Can Height : 15 ft (4.57 m)
 Cantilever Envelope : 71 ft x 30 ft (21.57 m x 9.14 m)
 Maximum Hook Load : 1,500 kips (680 metric tonnes)
 Maximum Rotary Load : 1,500 kips (680 metric tonnes)
 Maximum Setback Load : 750 kips (340 metric tonnes)

STORAGE CAPACITIES

Fuel : 23,413 ft³(663 m³)
 Mud Processing Tank : 1,239.5 ft³(35.1 m³)
 Active Liquid Mud : 25,663ft³(726.7 m³)
 Drilling Water : 36,268 ft³(1,027 m³)
 Potable Water : 13,278 ft³(376 m³)
 Sack Storage : 5,000 sacks
 Bulk Bentonite/Barite : 204 m³(3 x 68 m³)
 Bulk Cement : 136 m³(2 x 68 m³)

JACKUP SYSTEMS

Jacking Systems : Fried & Goldman, Ltd. patented and supplied rack chock system, VFD-440 jack-up gear unit
 Raw Water System/Ballast : 3 x 2500m³/h@50m height @3 bar

OPERATIONAL CAPABILITIES

Maximum Water Depth : 300 ft (91.4 m)
 Maximum Drilling Depth : 30,000 ft

VARIABLE LOAD CAPACITY

Transit VL capacity : 4,032 kips (1,800 t)
 Drilling VL capacity : 8,994 kips (4,080 t)
 Survival VL capacity : 5,996 kips (2,720 t)
 Jacking VL capacity : 3,968 kips (1,800 t)

POWER SUPPLY SYSTEMS

Rig Power Plant : Five (5) sets of Cat engines / 3516B-HD; 1603kW; 1200 rpm
 Five (5) sets of AC Generator CAT / Brushless / SR4B; 1530 kW; 600 V
 Emergency Generator : CAT 3412C; 550 kW; 1800 rpm
 AC Generator CAT/ Brushless PM excited SR4; 550 kW; 480V

CRANE, HOIST AND MATERIAL HANDLING

CRANES : Two (2) Pellegrini Marine Equipment Deck Crane, GN 50/8 DH with 118ft(36m) long boom. Main hoist capacity 50 tonne @ 8 m. Auxiliary hoist capacity 12 tonne @33 m. Pellegrini Electronicdriven.

DERRICK AND SUBSTRUCTURE

Derrick Dimension and Capacity : Base: 35 ft x 35 ft
 Crown: 16 ft x 16 ft
 Maximum 1,500 kips (680 tonnes)
 Racking Platform : Total 356 stands;
 Drawworks : TSC / D3000; OEM / TT1500 2x1500HP AC Motors; 1 1/2"; 638 kN. 3000 hp continuous; VFD System: SINAMICS S120, 2*1200 KW
 Rotary Table : TSC / RT495E; Maximum opening of 49 1/2"; Rated capacity of 1,000 short tons
 Top Drive : NOV / TDS-8SA (electric); Rated capacity of 750 short tons; Test/working pressure of (psi/psi) 11,250 / 7,500; Output power of 1,150 hp; Continuous torque rating of 62,250 ft-lb @ 94 rpm; International torque rating of 95,000 ft-lb @ 0 RPM; Maximum speed rating of 14,500 ft-lb @ 270 rpm; Brake capacity of 103,000 ft-lb; Maximum rotary speed of 270 rpm

DRILLSTRING EQUIPMENT

Tubulars : TDS Saver Sub: top 7 5/8" Reg Pin bottom HT55pin/XT39pin; Crossover Subs: OD size max/min of 9 1/2" ID size: 3"; Top connection size: 6 5/8" Reg box, HT55Box, NC50 Box; Bottom connection size: 7 5/8" Reg Pin, 6 5/8" Reg Pin, NC50 Pin, 7 5/8" Reg Pin
 Handling Tools: Iron Roughneck; NOV / ST-100; Range (max OD/min OD) 9 3/4" - 3 1/2"; Max. makeup torque 100,000 ft-lb; Max. breakout torque 120,000 ft-lb; Air drive Spinner 3-1/2" - 5-1/2"; 5 1/2" Drill Pipe Slip capacity 350 tons; 5" Drill Pipe Slip capacity 250 tons; 4" Drill Pipe Slip capacity 250 tons

WELL CONTROL/SUBSEA EQUIPMENT

Diverter : Make / type: MD22-500; Diverter opening size: 49-1/2"; Maximum bore: 29-1/2"; ID of insert packers: 10", 13.5", 17 3/4", 22"; Working pressure: 500 psi
 LP and HP BOP : All appropriate components H2S rated; Manufacture: RONGSHENG; HP: Annular BOP 13-5/8", Model FHZ35-70-105; Ram type Preventers: 1 Double + 1 Single; 13-5/8"; 15,000 psi; Other Preventer: Annular BOP 20-3/4", Model 203/4-3000; Ram type Preventers: 1 Single; 20-3/4"; 3,000 psi
 Control Unit: SHANGHAI SHENKAI
 Accumulator Unit: FKSQ 1200-17; Fluid reservoir capacity of 2850 LTR, Triplex pumps 25HP*2
 Choke and Kill Manifold : 3 1/16"; 15,000 psi

ACCOMMODATION

Offices : 4 offices;
 Living Quarters : 100 PAX