

GULF DRILLER III SUPER M2 JACKUP DRILLING RIG



Gulf Driller III, the Super M2 Jackup Drilling Rig consists of a modified triangular hull with three (3) triangular truss work legs each fitted with spud cans at their lower ends. The modified triangular hull is 59.745m long, 55.78 m wide, and 7.62 m deep at the side. The three (3) legs are spaced with the forward leg on the centerline of the vessel and the two after legs 35.055 m aft and 18.3 m outboard of the centerline of the forward leg. The spud cans which form the lower segments of each leg are 12.09 m in diameter and 4.57 m high. The drilling depth is 30,000 ft. The quarters house is constructed above the main deck and around the bow leg and consists of a four (4) story building for a 110 man crew.



GULF DRILLER III

SUPER M2 JACKUP DRILLING RIG

GENERAL

Class : ABS
 Notation : ABS XA1 Self-Elevating Drilling Unit,
 CDS,CPS,CRC

PRINCIPAL DIMENSIONS

Length o.a. : 59.745m
 Beam o.a. : 55.78 m
 Depth moulded : 7.62m
 Transit Draught : 4.8m
 No. of legs : 3
 Leg length : 125.3m
 Spud can diameter : 12.09m
 Spud can height : 4.57m
 Drilling Depth : 30,000ft

DESIGN ENVIRONMENT

Water depth : 91.44m
 Air Temperature : -10°C min. to 40°C ~max.
 Humidity : 30% min. to 90%max.
 Wind Survival Operations : 100kts
 Seawater
 Temperature : 0°C min. to 35°C
 Density : 1025 kg/m³ (For design purposes)
 Corresponding wave period: 13.5sec
 Wave Height : 15.24m(Survival, of the water depth 300ft);
 16.46m(Survival, of the water depth 250ft)

CARGO CAPACITIES

Deck Load : 9000kips
 Pipe rack : 540lbs/ft²
 Main deck (outside pipe rack): 425lbs/ft²
 Quarter's deck : 90lbs/ft²
 House Tops : 150lbs/ft²
 Machinery Spaces : 270lbs/ft²
 Sack stores : 540lbs/ft²

MACHINERY/PROPULSION

Main engines and Generators:
 CATERPILLAR 3516C HD Offshore
 Generator Set: 5SET,1603eKW, 600V, 60Hz
 Emergency : CATERPILLAR C32 Emergency
 Generator Set: 1 set 710eKW, 480V, 60Hz, 1800rpm
 Fuel Purifier : 1500L/H Two (2) ALFA-LAVAL MAB or equal.
 Oily Water Sep : 5m³/h, the max oil content<15ppm.
 Sewage Plant : 1 x 120 men capacity, gray & black water.
 Preload System : 3 centrifugal, vertical submersible
 pumps,500m³/h@65m head.
 FW Generator : 2 x 40m³/D.
 Air Compressors: 2 x rig air compressor
 1180m³/h@9bar/480V-3P-60HZ/IP44.
 1 x bulk air compressor
 1180m³/h @8bar/460V-3P-60HZ/IP44
 Fuel Pumps : 2 x Fuel oil transfer pumps, 13m³/h @
 4.5bar /1750 rpm/480V-3P-60HZ/IP55
 Jacking System : NOV-BLM D60H/SUPER MOD2
 Rack Chock Sys: Friede & Goldman ARCOS

STORE CAPACITIES

Ballast water : 228,274 ft³ (6,464 m³)
 Drill water : 36,263 ft³ (1,027 m³)
 Potable water : 13,136 ft³ (372 m³)
 Brine tank : 5,049 ft³ (143 m³)
 Base oil tank : 5,049 ft³ (143 m³)
 Mud tank : 19,458 ft³ (551 m³)
 Diesel oil : 23,343 ft³ (661 m³)
 Misc tank : 3,002 ft³ (85 m³)

DRILLING PACKAGE

Derrick : MAXIMUM HOOK: 750ST,
 CLEARANCE HEIGHT: 160FT
 DERRICK BASE: 35FTx32FT
 Rotary Table : NOV-VBJ RST 49.1/2"
 Max.Continuous torque:45000IBS-FT
 Set-back : 750kips
 Cantilever Skid : Cantilever XY skid: 50ft by 15ft
 Draw-works : NOV- ADS-30D Power:2X1500HP
 Top Drive : NOV TDS-8SA GEB-20 600VAC MOTOR
 1150HP
 INTERMITTENT TORQUE RATING:95,000ft-lbs@ 0RPM
 MAXIMUM SPEED RATING:14,500ft-lbs@270RPM
 CONTINUOUS TORQUE RATING:62,250ft-lbs@94RPM

WELL CONTROL EQUIPMENT

Diverter : GE KFDJ-500 ,49-1/2" 500PSI
 BOP stack : CAMERON, 21-1/4" 2000PSI
 CAMERON, 13-5/8" 15000PSI

HIGH PRESSURE MUD SYSTEM

System working pressure : 7,500 psi
 System test pressure : 11,250psi

MUD PUMPS

3 x NOV 14-P-220 single acting triplex mud pump

HELIDECK

1 x Heli-deck suitable for Sikorsky S-61N helicopter

ACCOMMODATION

110 men

DECK MACHINERY

Main Deck Crane : 1 x 120ft 50ton at 28.5ft/diesel drive
 1 x 100ft 50ton at 25ft/diesel drive
 4 Point Moor System : 4 x Single Drum winches, Brake Hold
 1170kN, first layer
 Anchors : 4 x anchors, 3.1752T ea
 Towing Gear : bridle , 8m*266mm steel chain;
 Hook-up, 5Ton Air tugger winch
 Rating, MBL.320T