

# GULF DRILLER V SUPER M2 JACKUP DRILLING RIG



Gulf Driller V, 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 V

## 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 45°C ~max.
Humidity	: 30% min. to 90%max.
Wind Survival Operations	: 100kts
Seawater	
Temperature	: 0°C min. to 35°C
Density	: 1025 kg/m <sup>3</sup> (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/ft <sup>2</sup>
Main deck (outside pipe rack):	540lbs/ft <sup>2</sup>
Quarter's deck	: 90lbs/ft <sup>2</sup>
House Tops	: 150lbs/ft <sup>2</sup>
Machinery Spaces	: 270lbs/ft <sup>2</sup>
Sack stores	: 540lbs/ft <sup>2</sup>

### MACHINERY/PROPULSION

Main engines and Generators:	CATERPILLAR 3516C HD Offshore Generator Set: 5sets,1530eKW, 600V, 60Hz
Emergency	: CATERPILLAR C32 Emergency Generator Set: 1 set 710eKW, 480V, 60Hz, 1800rpm
Fuel Purifier:	250 GPH Two (2) ALPHA-LAVAL MAB or equal.
Oily Water Sep	: 5m <sup>3</sup> /h, the max oil content<15ppm.
Sewage Plant	: 1 x 120 men capacity, gray & black water.
Preload System	: 3 centrifugal, vertical submersible pumps,500m <sup>3</sup> /h@50m head.
FW Generator	: 2 x 30m <sup>3</sup> /D.
Air Compressors	: 2 x rig air compressor 1182m <sup>3</sup> /h@9bar/460V-3P-60HZ/IP44. 1 x bulk air compressor 1182m <sup>3</sup> /h @8bar/460V-3P-60HZ/IP44
Cargo Pumps	: 2 x Fuel oil transfer pumps, 13m <sup>3</sup> /h @ 4.5ba RPM 1750 rpm/480V-3P-60HZ/IP55
Jacking System	: NOV-BLM D60H/SUPER MOD2
Rack Chock Sys	: Friede & Goldman ARCOS

### STORE CAPACITIES

Ballast water	: 222,274 ft <sup>3</sup> (6,464 m <sup>3</sup> )
Drill water	: 36,263 ft <sup>3</sup> (1,027 m <sup>3</sup> )
Potable water	: 13,276 ft <sup>3</sup> (376 m <sup>3</sup> )
Brine tank	: 5,049 ft <sup>3</sup> (143 m <sup>3</sup> )
Base oil tank	: 5,049 ft <sup>3</sup> (143 m <sup>3</sup> )
Mud tank	: 19420 ft <sup>3</sup> (550 m <sup>3</sup> )
Diesel oil	: 23,092 ft <sup>3</sup> (654 m <sup>3</sup> )
Misc tank	: 2,471 ft <sup>3</sup> (70 m <sup>3</sup> )

### DRILLING PACKAGE

Derrick	: MAXIMUM HOOK: 750ST CLEARANCE HEIGHT: 160FT DERRICK BASE: 40FT×35FT
Rotary Table	: One 49-1/2" Max.Continuous torque:35000lb-ft
Set-back	: 750kips
Cantilever XY skid:	50ft by 15ft
Draw-works	: TSC 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	: 11,250 psi

### MUD PUMPS

3 x TSC 2000 triplex 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*Dia 66mm steel chain; Hook-up, 5Ton Air tugger winch Rating, MBL.320T