



# AL-ZUBARAH Specifications



The **AL-ZUBARAH**, is a KFELS Mod V-B rig designed and built by Keppelfels (Singapore). This class permits operating in 300 ft of water depth to a drilling depth of 30,000 ft. The cantilever provides a drilling envelope of 50 ft. extended and 15 ft either side of the centre line. Thus enabling the Rig to access multiple wells on a platform. The AL-ZUBARAH is the latest jack-up rig to join GDI's fleet (the 5<sup>th</sup>) in March 2008. The rig is a State-of-the-art Cyber model using the latest in Amphion technology and HP rated

## DESIGN:

KEPPEL FELS MOD V B-CLASS Cantilever Self Elevating Drilling unit.

### MAIN DIMENSIONS:

Length (molded).....	234' (71.3 m)
Breadth (molded).....	208' (63.4 m)
Hull Depth.....	25' (7.6 m)
Leg Length.....	430' (111 m)
Usable Leg Length (below hull).....	372' (113.3 m)
Spud Can Area.....	1643 sq. ft. (152.6 sq. m)
Spud Can Diameter.....	47 ft. (14.3 sq. m)
Drilling Envelope.....	50' aft and 15' from centre line
Gross tonnage.....	9264 tons
Helideck size/rating.....	73' /for a Sikorsky S-61N

### DESIGN CRITERIA:

Max. operating water depth.....	300'
Max. rated drilling depth.....	30,000'

### STORAGE CAPACITIES:

Fuel oil.....	5,336 bbls (640 m <sup>3</sup> )
Lube Oil.....	1,000 bbls (120 m <sup>3</sup> )
Base Oil.....	1,000 bbls (120 m <sup>3</sup> )
Drill water.....	5,000 bbls (600m <sup>3</sup> )
Potable water.....	2,300 bbls (276m <sup>3</sup> )
Liquid mud.....	3,878 bbls (465m <sup>3</sup> )
Bulk mud.....	6,800 ft <sup>3</sup> (197m <sup>3</sup> )
Bulk cement.....	4,500 ft <sup>3</sup> (127m <sup>3</sup> )
Sack storage.....	5,000 sacks

### MAXIMUM GROSS VARIABLE LOAD:

While Drilling (including 450 tonnes setback and hook load)	3856.62 tonnes at 25' extension
	3720.50 tonnes at 50' extension
Jacking or Towing	7,000Kips

### CLASSIFICATIONS HELD:

American Bureau of Shipping; ≡ AI Self-elevating Drilling Unit.

### ACCOMMODATION:

Three floors of air conditioned cabins for 110 personnel.

### POWER EQUIPMENT:

Main Engines: Four Caterpillar, 3516BHD Engine, total 6412KW at 1200rpm

Main Generators: Four Kato, 6P72650, 7,500 KVA at 1,200 rpm, AC 600V, 60 Hz.

Emergency Use: One Caterpillar 3508B Engine with Kato generator rated 750KVA

### MOORING SYSTEM:

Anchors:	Four 11,000lbs F-Delta type anchors.
Anchor Wire:	Four 38mm x 2,700ft wire anchor lines.
Anchor Windlasses:	Four Brohl/OM300, Variable Frequency drive motors. Maximum 11.6m/min x 33.7 kips, 5.8m/min x 67.46 kips.

### DRILLING EQUIPMENT:

Drawworks:	Varco ADS-10DT (Automated AC Drive) Powered by two 1400HP AC motors
Derrick:	Woolslayer Companies, Inc WCI Model 15277, 160' high with 35 ft x 35ft base, 1,500,000 lbs static hook load capacity.
Crown Block:	Varco, 857 tons, 9 x 68" sheaves for 1-1/2" drilling line
Traveling Block:	Varco type A750 block, 750 tons, 7 x 68" sheaves for 1-1/2" drilling line.
Top Drive:	Varco TDS-8SA, 1,150 HP AC Electric Drive.
Rotary Table:	Varco RST495 Hydraulic drive, 97HP Rated output power.
Rotating Mouse hole.	Access Oil Tool Phantom rotating mouse hole.
Automated Racking.	TBA

### BOP & DIVERTER EQUIPMENT:

BOPs & Diverter:	One 29-1/2" x 500 psi Shaffer MSP diverter. One 20-3/4" x 3,000 psi Shaffer Spherical BOP. One 20-3/4" x 3,000 psi Shaffer LWS Double Ram BOP. One 13 5/8" x 10,000 psi Shaffer Spherical BOP. One 13-5/8" x 15,000 psi Shaffer SLX Double Ram BOP. One 13-5/8" x 15,000 psi SLX Single Ram BOP.
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BOP Control System: Shaffer Koomey accumulator unit, T360-60-3 with Remote control panel at Drillers Cabin, Tool pusher's Office and Main Deck

BOP Crane: Two 40 Ton JDN, EH240-LN20, Pneumatic operated

### MUD CIRCULATION SYSTEM:

Mud Pumps:	Three National Oilwell 12-P-160 Triplex pump with two 800HP AC motors each.
Shale Shakers:	Four Brandt VSM300 independently driven linear motion Shale Shaker 1500gal/min capacity
Mud Centrifuge:	Two Brandt, HS3400 with motor
Desilters:	Brandt VSM300 Desilter
Degassers:	Brandt DG-10 Degasser with 100gal/min flow

### OTHER EQUIPMENT:

Cementing Unit:	Client provided
Cranes:	Three Favco deck cranes. Max rated Capacity 45MT. Boom Length 120Ft.

Water Maker: Two Alfa Laval Water maker, D-PU\_36-C100, 21,134 gal/day.

Anti-pollution Equipment: Yes, TBA in details