

# 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)<br>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.<br>One 20-3/4" x 3,000 psi Shaffer Spherical BOP.<br>One 20-3/4" x 3,000 psi Shaffer LWS Double Ram BOP.<br>One 13 5/8" x 10,000 psi Shaffer Spherical BOP.<br>One 13-5/8" x 15,000 psi Shaffer SLX Double Ram BOP.<br>One 13-5/8" x 15,000 psi SLX Single Ram BOP. |
| 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, EHZ40-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  |