AL-KHOR Specifications

The **Al-Khor**, is a KFELS Mod V-B built and designed by Keppelfels (Singapore). This class of rig 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-KHOR is the 4th jack-up rig to join the GDI fleet in April 2007. The rig is a State of the art Cyber model using the latest in Amphion technology.

DESIGN:

KEPPEL FELS MOD V B-CLASS Cantilever Self Elevating Drilling unit IMO MODU 1989 Resolution A.649.

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)	300' (92.8 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 (640m^3)
Lube Oil	1,000 bbls (120 m^3)
Base Oil	1,000 bbls (120 m^3)
Drill water	5,000 bbls (600m^3)
Potable water	2,300 bbls (276m^3)
Liquid mud	3,878 bbls (465m^3)
Bulk mud	6,800 ft^3 (197m^3)
Bulk cement	4,500 ft^3 (127m^3)
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; ≅ Al Self-elevating Drilling Unit.

ACCOMMODATION:

Three floors of air conditioned cabins for 110 personnel.

POWER EQUIPMENT:

Main Engines:	Four Caterpillar 3516B Engines 6450KW at 1200rpm
Main Generators:	Four Kato, 1,875 KVA each 1,200 rpm, AC 600V, 60 Hz.
Emergency Use:	One Caterpillar 3508B Engine with Kato generator rated 750KVA

MOORING SYSTEM:

Anchors:	Four 30 tonnes Moorfast type anchors.
Anchor Wire:	Four 38mm x 800m wire anchor lines.
Anchor Windlasses:	Four single drum, powered by 90 kW AC Varible Frequency drive motors. Maximum pull 30 tonnes x 10 m/min. (low gear), 15 tonnes x 20 m/min. (high gear).

DRILLING EQUIPMENT:

Drawworks:	Varco ADS-10DT (Automated AC Drive) Powered by two 1200Hp AC motors
Derrick:	Varco, 160' high with 32 ft x 32ft 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 60" 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.	Varco VCR

BOP & DIVERTER EQUIPMENT:

BOPs & Diverter:	One 29-1/2" x 500 psi Shaffer MSP diverter. One 21-1/4" x 2,000 psi Shaffer MSP annular. One 20-3/4" Shaffer 3,000 psi LWS Double Ram BOP. One 13 ⅝" Shaffer 5,000 psi annular. One 13-5/8" Shaffer 10,000 psi Double Ram BOP. One 13-5/8" x 10,000 psi Single ram.
BOP Control System:	Shaffer Koomey accumulator unit with 60 bottles. Remote control panel at Drillers Cabin, Tool pusher's Office and Starboard Life Boat Station
BOP Crane:	Two 40 Ton J.D. Neuhaus air hoists 2XEHZ40

MUD CIRCULATION SYSTEM:

Mud Pumps:	Three Varco VMP-1612M Triplex pump with two 800Hp AC motors.
Shale Shakers:	Four Brandt VSM300 independently driven linear motion Shale Shakers 1500gal/min capacity
Mud Centifuge:	Two Brandt, HS3400 with motor.
Desilters:	Brandt VSM300 Desilter
Degassers:	Brandt DG-10 Degasser with a 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 makers 53 cubic meters/day each.
Anti-pollution Equipment:	One 110 person capacity Hamworthy ST-10 sewage treatment unit One RWO Water Technology oil and water separator, maximum capacity 5m cubic meters/ hour capacity