

AL-WAJBA Specifications



The Al-Wajba (Ex-GULF-3) is a Marathon Le Tourneau design and built in 1977 at Jurong Shipyard, Singapore. Major modifications were made in conversion from a slot to a cantilever MODU in Aug 2006 at Lamprell shipyard in Sharjah, UAE.

The rugged design permits operations in water depths of up to 270 ft while drilling to a rated drilling depth of 20,000 ft. The cantilever provides a drilling envelope extending from 15 ft to 45 ft aft of the stern and 15 ft either side of the rig's centerline enabling the rig to access multiple wells on platforms without having to move.

DESIGN:

Marathon Le Tourneau Hull Class 82-C No.100 self-elevating cantilever jack up drilling rig with three triangular trussed independent legs.

MAIN DIMENSIONS:

Length (including helicopter deck)	280' 1-3/16" (85.37 m)
Breadth (including anchor racks).....	198' (60.30 m)
Hull Depth	22' (6.70 m)
Leg Length.....	394' 2-3/4" (120.46 m)
Usable Leg Length (below hull).....	337'(101.10m)
Spud Can Area	1700 ft ² (157.10 m ²)
Drilling Envelope.....	45' aft and 15' from centre line
Gross tonnage	3,187.85 tons
Helideck size/rating.....	.64' /for a Super Puma AS332L2

DESIGN CRITERIA:

Max. operating water depth.....	.270' with 35' air gap & 25' penetration
Max. rated drilling depth	20,000'

STORAGE CAPACITIES:

Fuel oil	3,398 bbls (540 m ³)
Drill water	5,936 bbls (943 m ³)
Potable water.....	1,832 bbls (291 m ³)
Liquid mud	2,075 bbls (329 m ³)
Bulk mud.....	4,500 ft ³ (127 m ³)
Bulk cement.....	4,500 ft ³ (127 m ³)
Sack storage.....	3,000 sacks

MAXIMUM GROSS VARIABLE LOAD:

While Drilling (including 450 tons setback and hook load)	2,100 tons at 15' extension	2,100 tons at 45' extension
Jacking or Towing	1,649 tons	

CLASSIFICATIONS HELD:

American Bureau of Shipping; ≅ A1 Self-elevating Drilling Unit.

ACCOMMODATION:

Total 95 beds, 4men room x 19, 2men room x 8, 1man room x 3, Meeting room, Company office, Heli briefing romm, Third party office, Recreation room x 2, Contractor office x 2, Hospital, Mess room and Prey room.

POWER EQUIPMENT:

Main Engines:	Five Caterpillar diesel D399 engines, 1,200 hp x 1,200 rpm.
Main Generators:	Four GE AT-1 generators, 1,162 KVA at 1,200 rpm, AC 600V, 60 Hz. One KATO 1030-68036112 generator, 1,288KVA at 1,200rpm
Emergency Use:	One Caterpillar diesel D398 engine, KATO generator 625 KVA at 1,000 rpm, AC 240/415V, 60 Hz.

MOORING SYSTEM:

Anchors:	Four 5 tons Danforth anchors.
Anchor Wire:	Four 1-1/2" x 1,500' wire anchor lines.
Anchor Windlasses:	Four single drum, powered by 40 kW AC motors. Maximum pull 25 tons x 20 ft/min. (low gear), 10 tons x 40 ft/min. (high gear).

DRILLING EQUIPMENT:

Drawworks:	National Oilwell Varco E-2000, fitted with an Elmagco 7838 eddy current brake, powered by two 1,000 hp DC motors.
Derrick:	Loadmaster, 160' high with 30 ft x 30ft base, 1,100,000 lbs static load capacity.
Crown Block:	Loadmaster C110014X12-9NC, 500 tons, 7 x 60" sheaves for 1-1/2" drilling line.
Traveling Block:	National Oilwell type A500, 500 short tons, 6 x 50" sheaves for 1-1/2" drilling line.
Top Drive:	National Oilwell Vacro IDS-4A, 1,150 hp with Varco HP-85 pipe handler. 500 tons capacity.
Swivel:	Nil.
Rotary Table:	National Oilwell B-37-1/2", driven by Hydraulic motor.

BOP & DIVERTER EQUIPMENT:

BOPs & Diverter:	One 29-1/2" x 500 psi Hydril MSP diverter. One 21-1/4" x 2,000 psi Shaffer spherical bolted cover BOP. Two 21-1/4" x 2,000 psi Shaffer LWS single rams. One 13-5/8" x 5,000 psi Shaffer spherical bolted cover BOP. One 13-5/8" x 10,000 psi Shaffer SLX double rams. One 13-5/8" x 10,000 psi Shaffer SLX single ram
BOP Control System:	Model T-80 Koomey accumulator unit auxiliary control panel at Rig floor and Tool pusher office.
BOP Crane:	Two Ingasoll Rand BHS50MA6-33-30E 25 tons air operated crane.

MUD CIRCULATION SYSTEM:

Mud Pumps:	Three National Oilwell AT1700 triplex, each driven by two GE 800 hp DC motors.
Shale Shakers:	Four Derrick Flo Cleaner 514.
Mud Cleaner:	One Derrick Flo Cleaner FLC-514, National Oilwell Mission Magnam centrifugal pump with 100hp motor.
Desilters:	One Derrick Round Desilter Machine, mounted 4" x 20ea corns.
Degassers:	One Derrick VACU-FLOE 1,200 gpm
Centrifuge:	One Brandt S2-1G full hydraulic drive decanter centrifuge 200 gpm.

OTHER EQUIPMENT:

Cementing Unit:	Lease item.
Cranes:	Two Marathon Le Tourneau PCM-1200 deck crane (Starboard and Port Aft side), 45.30 tons at 24', 6.6 tons at 96' One Dresco 48 DNS 100-1.5 diesel Engine deck crane (Port side), 40 tons at 25', 8.3 tons at 100'
Water Maker:	Two Alfa Laval Dolphin-40, 40 tons/day each.
Anti-pollution Equipment:	One Harmworthy KSE limited ST-9 11.84 m ³ /day for 120 persons capacity sewage treatment unit One Ocean Clean GmbH, EB-5000 oil and water separator, maximum capacity 10 m ³ / hour with 15 ppm oil content or less.