

# ATWOOD BEACON



The ATWOOD BEACON, a KFELS MOD-V Enhanced B-Class Ultra-Premium Jack-up, is rated to work in up to 400 feet of water. Attributes of the rig include a 70 feet cantilever, accommodations for 112 persons, three 2,200 horsepower mud pumps, 7,500 psi high pressure mud system, a Cameron 13-5/8 inch x 15,000 PSI BOP, 7,500 kips variable deck load, 1,500 kip allowable hook load, and a self-positioning fixation system.

## CHARACTERISTICS

Type Of Vessel	KFELS Mod V Enhanced B-Class Deepwater Independent Leg Jack-Up
Water Depth	400 ft. nominal rating as presently equipped with 517 ft. leg. Leg length can be increased to 545 ft. with slightly reduced environmental rating. 18 ft. minimum
Jacking	Rack/Pinion with Leg Locking System and single stage preload capability
Drilling Depth	36,000 ft. nominal rating
Classification	ABS A1
Country of Registry	Marshall Islands

## PRINCIPAL DIMENSIONS

Hull Length	234 ft.
Hull Breadth	208 ft.
Hull Depth	25 ft.
Leg Length	517 ft.
Spud Can	47.2 ft. diameter

## CANTILEVER

Reach	70 ft. from transom
Transverse Travel	15 ft. either side CL
Load Capacity	1,604 kips on CL @ 70 ft. 2,000 kips on CL @ 62 ft. 2,500 kips on CL @ 52 ft. (Depending on combination of total load, can skid longitudinally and transversely with up to 850 kips set back and up to full day rack load rating)

## CAPACITIES

Fuel	2,590 bbls.
Drill Water	3,840 bbls.
Potable Water	2,053 bbls.
Liquid Mud	2,868 bbls. (Brine Storage 1921)
Base Oil	647 bbls.
Bulk Tanks	11,100 cu. ft.
Sack Storage	5,000 sacks
Variable Load (Operating)	7,500 kips
Variable Load (Survival)	5,600 kips
Accommodations	112 persons (plus 5 bed sick bay)



# ATWOOD BEACON

## POWER SYSTEM

### Diesel Engines

Five (5) Caterpillar Model 3516B, 1855HP @ 1200 RPM, Total of 9,275HP

### Generators

Five (5) KATO, 600 VAC, 1500 KW, 2500 KVA

### Emergency Generator

One (1) Caterpillar Model 3508; 1000 BHP, 750KW with Caterpillar Model SR4 Generator

### SCR System

600V switchboard with six (6) NOI Ross Hill 2,200 amp drive bays

## DRILLING EQUIPMENT

### Rating

Nominally rated for 36,000 ft. well depth with 750 ton drilling system

### Derrick

Woolslayer 160 ft. with 36 x 36 ft. base; 1,500,000 lbs. Static Hook Load with 850 kips setback with room for approximately 368 stands of 5-7/8" drillpipe, 10 stands of hevi-wate and 10 stands of 8 1/4" drill collars

### Crown Block

Woolslayer 750 tons with 7 each 60" sheaves plus 1 each 84" fast line sheave/1 each 60" dead line sheave, all grooved for 1-5/8" wire rope

### Drawworks

NOI Ensco C3-type II, 3,300HP with three (3) GE752 High Torque 1,100HP Motors; Dynamic Motor Braking, One (1) 36" hydraulic disc brake and one (1) Baylor Type 9650 Eddy Current Braking

### Top Drive

Varco TDS 8SA with GE A20 AC motor, rated at 1,200HP continuous, 1,500HP intermittent with VFD variable speed AC motor drive. Continuous drilling torque 65,500 foot pounds @ 100RPM and 100,000 max break-out torque foot pounds

### Rotary

Oilwell 49 1/2" with GE752 High Torque 1,100HP DC motor

### Traveling Block

Woolslayer 750 ton with Sheaves for 1-5/8" Wireline

### Auto Driller

Cyber Base System and Kinetic Energy Monitoring System (KEMS) with WOB or ROP via dynamic electric motor braking

### High Torque Make Up/Breakout

VARCO ST-80 Iron Roughneck "Tork Winder" with 145,000 ft. lb., 140 degree single stroke makeup and one (1) NOI Hydraulic Cathed rated at 140,000 ft. lbs.

### Tubular Handling

Varco PS-30 and BX elevators

### Drive Pipe Tension System

Rated at 500,000 lbs with four (4) each motion compensated hydraulic jack cylinders located on transom

### Drilling Instrumentation

NOI Cyber Base System (2 chairs)

### Offline Makeup

Forward mousehold with Varco air operated slips, Varco ST-80 and Access Tools handling system

## MUD SYSTEM

Have the ability to mix and circulate any two (2) of three (3) separately stored mud systems simultaneously

Three (3) LEWCO Model W-2200 2,200HP triplex mud pumps each with two (2) GE752 1,100HP top mounted motors and belt drive configuration and maintenance free dampers. Fluid ends rated for 7,500 psi WP.

One (1) Brandt 6 ft. Dual Cartridge (two motorized chains) gumbo box

Five (5) Brandt LCM-3D/CM-2 cascading linear motion Shale Shakers

One (1) Brandt LCM-3D/CMC(24/4) Linear motion mud conditioner

Two (2) Brandt model DG10 vacuum Degassers with JP10 Jet Pump Eductor

Two (2) Vortex Ventures "Lobestar" shear/mix Model VVE4-6S/D

One (1) 4 ft. diameter by 20 ft. 8" high vertical Mud Gas Separator with 10" vent line

### Liquid Mud Tanks

2,178 bbls. active, 1,083 bbls. mud or brine, 838 bbls. brine, 116 bbls. slugging pit, 233 bbls. pre mix, 647 bbls. base oil and 2 trip tanks 35 bbls. each

### Drill String

15,000 ft. 5" 19.50 ppf S-135 with NC50 connections

5,000 ft 3 1/2" 13.3 ppf S-135 with NC38 connections

30 jts. 5" Hevi-wate

38 jts. 3 1/2" Hevi-wate

24 jts. 8 1/4" OD spiral Drill Collars, 6-5/8" Reg. with zip

24 jts. 7" OD spiral Drill Collars, NC50 with zip

24 jts. 4 3/4" OD spiral Drill Collars, NC38 with zip (Equipped to run 5-7/8" drill string)

### BOP and Well Control Equipment (all API 16A H2S rated)

Diverter System

One (1) 49 1/2" 500 psi WP fixed ABB Vetco KFDJ diverter system with 14" lines running port/stb with 24" and 32" risers

### Low Pressure BOP Stack (21 1/4", 2,000 psi WP)

One (1) Varco-Shaffer Spherical annular BOP

One (1) CIW Type "U" Double ram BOP with blind rams on top and pipe rams on bottom

One (1) Test Stump and one (1) Vetco KFDJ adapter on top of the annular

Two (2) hydraulic and two (2) manual 3-1/8" kill/choke valves

One (1) BOP Stack frame with work platforms, hydraulic lines, kill/choke connectors and runs, etc.

### High Pressure BOP Stack (13-5/8", 15,000 psi WP)

One (1) Varco-Shaffer 10,000 psi WP Spherical annular BOP

Two (2) CIW Type "U" Double ram BOPs with one cavity having booster-operating cylinders for SBRs

One (1) Test Stump and one (1) Vetco KFDJ adapter on top of the annular

Two (2) hydraulic double acting fail safe and two (2) hydraulic double acting 3-1/16" kill/choke valves

### Choke-Kill Manifold

3-1/16" 15,000 psi WP with two (2) remote and two (2) manual chokes

## AUXILIARY EQUIPMENT

### Heliport

Designed for S61 and S92 Helicopter and fully compliant with CAP 437 regulations

### Cranes

Three (3) Seatrax Cranes with 120 ft. booms, two (2) Model 4828 rated at 27.7 tons at 40 ft. radius and one (1) Model 6024 rated at 36 tons at 45 ft. radius

### Air Hoists

Nine (9) utility winches, 4 each Ingersall Rand Model (2 on Rig floor and 2 in BOP area)

### Hydraulic Power Unit

Two (2) 150 HP unit with distribution manifold with individual flow rates and pressures supply up to eleven (11) different units of hydraulic equipment

### Watermaker

One (1) waste heat type unit rated at 19,800 total GPD

### Air Compressors

Three (3), 125 PSL, each rated at 500 CFM

### Fire/Gas Detection System

Total Safety system for fire, combustible and H2S gas

### Sewage Treatment

Omnipure

### Lifeboats

Four (4) Shat-Harding, 60 person enclosed, self-propelled davit launched lifeboats

### Liferafts

Six (6) 25 person Zodiac inflatable liferafts

### Rescue Boat

One (1) Schat Harding Mob 17 crane deployed

### Mooring Equipment

Four (4) Skagit JUW-075 100,600 lb. line pull winches with two (2) on bow and two (2) on stern with tension and wire length monitoring system. Each with 2,500 ft. of 1 1/2" wire rope and 10,000 lb. LWT anchor