

ATWOOD AURORA



The ATWOOD AURORA is a Letourneau Super 116E Class Ultra-Premium Jack-up drilling unit and is rated to work in up to 350 feet of water. Attributes of the rig include a 72 feet cantilever, accommodations for 110, three 2,215 horsepower mud pumps, 7,500 psi high pressure mud system, a Cameron 18-3/4 inch x 15,000 PSI BOP, 5,986 kips variable deck load, derrick and associated traveling equipment rated to 1,500 kip, and offline drill string make-up capability.

CHARACTERISTICS

Type Of Vessel	LeTourneau Super 116E Independent Leg JackUp
Water Depth	350 ft. nominal rating (Additional leg length may be added for increased water depth rating without additional strengthening of existing legs, jack houses or jacking system)
Minimum Draft	15ft. 5 in.
Jacking	Rack/Pinion
Drilling Depth	30,000 ft.
Classification	ABS A1-Self Elevating Mobile Offshore Drilling Unit
Country of Registry	Marshall Islands
Construction	Delivered 2008

PRINCIPAL DIMENSIONS

Hull Length	243 ft.
Hull Breadth	206 ft.
Hull Depth	26 ft.
Leg Length	477 ft.
Spud Can	1,585 sq. ft.

CANTILEVER

Reach	72 ft. from transom
Transverse Travel	15 ft. either side CL
Min Drilling	19.6 ft. aft of transom
Load Capacity	1,670 kips on CL @ 70 ft. 2,330 kips on CL @ 60 ft. 2750 kips on CL @ 58 ft. or less

Note: The above load chart is for the sum of set back, rotary tension off substructure, hook load, and conductor tension

CAPACITIES

Fuel	1,995 bbls.
Drill Water	13,957 bbls.
Potable Water	1,659 bbls.
Liquid Mud	5,056 bbls.
Base Oil	1,068 bbls.
Bulk Tanks	12,200 cu. ft.
Sack Storage	5,000 sacks
(Operating)	5,986 Kips
(Survival/Severe Storm)	3,824 kips
(Afloat)	3,824 kips
Pre-Load	49,772 bbls.
Accommodations	110 persons (plus 2 bed sick bay)



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POWER SYSTEM

Diesel Engines

Five (5) Caterpillar Model 3516BHD, 2,150HP @ 1200 RPM, total of 10,750 HP

Generators

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

Emergency Generator

One (1) Caterpillar Model 3512; 1478 BHP, 1,050KW, 1,950 KVA with Caterpillar Model SR4 Generator

Power Distribution System

600V for Generator SCR/VFD drive switchboards

DRILLING EQUIPMENT

Rating

Nominally rated for 30,000 ft. + well depth with 750 ton drilling system

Derrick

35 x 35 ft. base with a 7.5 ft. off-center rotary; 1,500,000 lbs. Static Hook Load with 850 kips setback with room for at least 30,000 ft. plus of drilling pipe, and casing and/or tubing simultaneously

Crown Block

750 tons

Drawworks

4500 HP AC drawworks with regenerative AC braking (primary); Eaton (or equivalent) disk brakes (secondary) and disk parking Brake with three 1,500 HP each AC motor, Lewco Model LDW 1500 K Direct Gear Drive

Top Drive

Varco TDS 8SA, (or equivalent) 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

49½" with hydraulic drive

Traveling Block

750 ton with Sheaves for 1¾" Wireline

Auto Driller

Energy Management System automatically controls dynamic braking

High Torque Make Up/Breakout

Two (2) Hydraulic Cathead

Power Slips

One (1) hydraulic or air power slip

Hydraulic Elevators

One (1) set hydraulically actuated

Spin/Torque Hydraulic Tool

NOV ST-80 (or equivalent)

Drive Pipe Tension System

Rated at 400,000 lbs hydraulic system supported by the cantilever beam. In addition, the rig is equipped to support an aft-transom drive pipe support platform rated to 500,000 lbs (not included)

Drilling Instrumentation

Provides full overview of drilling process with all field sensors and calculates and monitors all associated parameters. Complete with Drillers Command Module with two (2) operator stations with control chairs

Offline Makeup

Dedicated offline make-up area forward of rig floor complete with two (2) dedicated mouse holes, dedicated ST-80 make-up tool, one (1) mouse hole slip, pipe handling/elevator system, catwalk dolly with pipe lifting platform and X-Y bridge crane racker covering offline make-up area and setback.

MUD SYSTEM

Able to mix and circulate three (3) separately stored mud systems simultaneously. The storage tanks for brine and OBM feed stock are accounted for separately.

Three (3) LEWCO Model 2215 2,200HP triplex mud pumps each with two (2) GE752 1,100HP top mounted motors and belt drive configuration. Each pump is fitted with dual L20-7500 Lewco high pressure dampeners. Fluid ends rated for 7,500 psi W.P.

Four (4) 6x8 mud charging pumps driven by 100 HP electric motors

One (1) Dual Cartridge (two motorized chains) gumbo box

Five (5) Cascading linear motion Shale Shakers (each rated 400 to 600 GPM)

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

Two (2) Vacuum Degassers with Jet Pump Eductor

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

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

Liquid Mud Tanks

Four (4) Active/Reserve Pits; two (2) mud/brine pits; one (1) brine pit; three (3) slug/premix pits; two (2) 40 bbls. Capacity trip tanks

DRILL STRING

5,000 ft. 5½" 21.90 lbs/ft grade S-135 with DSTJ double shouldered connections

30 jts. 5 ½" Hevi-Wate

24 jts. 8 ¼" OD spiral Drill Collars, 6 5/8" Reg. with zip lift

30 jts. 7" OD spiral Drill Collars, NC-50 connections with zip lift

BOP EQUIPMENT

all API 16A H2S rated

Diverter System

One (1) 49½" 500 psi WP fixed ABB Vetco KFDJ diverter system with 14" lines running port/stb with 24" and 32" risers

High Pressure BOP Stack (18¾", 15,000 psi WP)

One (1) 18¾" 10,000 psi WP Spherical annular BOP

Two (2) 18¾" 15,000 psi CIW Type "TL" Double ram BOPs

Two (2) 3-1/16" 15,000 psi hydraulic double acting fail safe and two (2) hydraulic double acting 3 1/16" 15,000 psi 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 designed to CAP 437 regulations

Cranes

One (1) LeTourneau 220SS with 140 ft. boom rated at 50 tones SWL at 25 ft boom radius; and two (2) LeTourneau 120 SS cranes with 120 ft. booms Rated at 41.6 tons SWL w/ 25ft boom radius

Air Hoists

Nine (9) total

Hydraulic Power Unit

HPU unit with distribution manifold with individual flow rates and pressures supply up to twelve (12) different units of hydraulic equipment

Watermaker

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

Air Compressors

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

Fire/Gas Detection System

Total Safety system for fire, combustible and H2S gas

Sewage Treatment

One (1) sewage treatment system rated for 110 person crew compliment

Lifeboats

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

Liferafts

Six (6) 25 person inflatable liferafts

Rescue Boat

One (1) Schat Harding Mob 17 crane deployed

Mooring Equipment

Four (4) LeTourneau winches with levelwind; two (2) located on the bow and two (2) on the stern. Each with 2,500 ft. of 1½" wire rope and 10,000 lb. LWT anchor or equivalent