



# RIG 90

## 3,000 hp Triple Mast Pad Drilling Rig

### SUBSTRUCTURE

Lee C. Moore HMRII hydraulically raised, self-elevating, w/ integrated Columbia Moving System  
 Floor Height: 30 (9.14m)  
 Clear Height: 24' (7.35m)  
 Rotary Capacity: 1,315,000 lbs (584,956 daN)  
 Max Pipe Setback: 1,000,000 lbs (444,800 daN)  
 Casing Capacity: 1,250,000 lbs (556,000 daN) irrespective of setback

### MAST

145' (44.2m) Lee C. Moore HMRII hydraulically raised design  
 Static Hook Load: 1,250,000 lbs (556,000 daN)  
 Drill Line: 1-5/8"  
 Racking Capacity: 26,200' of 5-1/2" DP (8,000m of 140mm DP)

### BLOCK-HOOK

Lee C Moore 650 Tons Becket rated at 1,300,000 lbs (578,268 daN)

### ROTARY TABLE

HHF 37-1/2 37-1/2" (952.5 mm) round opening.  
 Rotary Load Capacity: 1,315,000 lbs (584,956 daN)

### DRAWWORKS

Pacific Rim Engineered Products 3,000 Hp AC Drawworks, Grooved for 1-5/8" (41.3mm) drilling line  
 Input Power: (2x) Amerimex 1,500 hp induction motor  
 (2x) Svenborg BSKF series caliper brakes for emergency braking

### MUD PUMPS (3)

Gardner Denver PZ-2400 Triplex Pump Rated Power: 2,400 hp  
 Stroke: 14" (356 mm)  
 Input Power: (1) 2,400 hp (1,790 kW) AC induction motor  
 Pressure Rating: 7,500 psi (51.7 MPa)

### MUD TANKS SYSTEM

Three Tanks w/ 1,761 bbls (280 m<sup>3</sup>) total capacity  
 (6x) Centrifugal Pump 6" (152mm) x 8" (203mm) x 14" (356mm)  
 Direct drive centrifugal mix pumps.  
 Electric over air operated valves.

### SCALPING TANK

Main Tank 176 bbls (28 m<sup>3</sup>) with two 6" (152mm) x 5" (127mm) x 14" (356mm) direct drive centrifugal transfer pumps.

### SHAKER

(4x) Derrick Dualpool Shakers mounted on the scalping tank.

### MUD GAS SEPARATOR (Degassers)

NACE trim

### BOP (NACE Standards)

13-5/8" (346 mm) x 5,000 psi (34,475 kPa) Annular  
 (3x) 13-5/8" (346 mm) x 10,000 psi (68,950 kPa)  
 Ram Preventer Stack  
 5" - 6-5/8" (127-168mm) variable bore ram blocks

### BOP Handling System- Lee C Moore

Note: Alternate BOP Sizes are available

### ACCUMULATOR

360 gallon, 3,000 psi (21,000kPa) 7 - station, with PLC electric remote.  
 Flare tank with igniter.

### TOP DRIVE

Tesco 500 ton ESI 1350 Max Speed: 220 rpm  
 Hoisting Capacity: 500 tons  
 Input Power Rated: 1350 Hp (1,007 kW)  
 Continuous Drill Torque: 70,000 ft-lbs (9,490 daN-m)  
 Max Torque (Make-Up): 84,000 ft-lbs (11,388 daN-m)  
 Max Torque (Break-Out): 100,000 ft-lbs (13,588 daN-m)

### IRON ROUGHNECK

Varco ST-100 Conn. Range: 4" (101 mm) to 9-3/4" (247 mm)  
 Spin Speed: 80 RPM -nominal on 5" (127 mm) Drill Pipe  
 Spin Torque: 3,000 ft-lbs (4,070 Nm)  
 Maximum Make-Up Torque: 100,000 ft-lbs (135,582 Nm)  
 Maximum Break-Out Torque: 120,000 ft-lbs (162,698 Nm)

### FLOOR TOOLS

Weatherford S3 Iron Derrickman, Blohm and Voss PS-500 power slips, Blohm and Voss rotating mouse hole.

### SELF MOVING SYSTEM - WALKING

Lee C. Moore Rig Rover walking system capable of moving in the x, y and rotate. 200' (61m) in utility suitcases.

### CATWALK MACHINE

Axiom Hydraulic Power Catwalk capable of moving tubulars up to 47' (14.3m) and 12,000 lbs (5,455 Kg)

### POWER SYSTEM

Five Caterpillar 3512 generators sets with CAT's bi-fuel system rated at 1,475 Hp (1,100 kW) output each,  
 GE (Convertteam) generator controls and VFD's  
 Total power available: 7,375 Hp (5,500 kW) continuous.  
 Rig is capable of running on highline power through operator supplied transformer.  
 Dual Fuel Compatible (Diesel / Natural Gas)

### TUBULARS

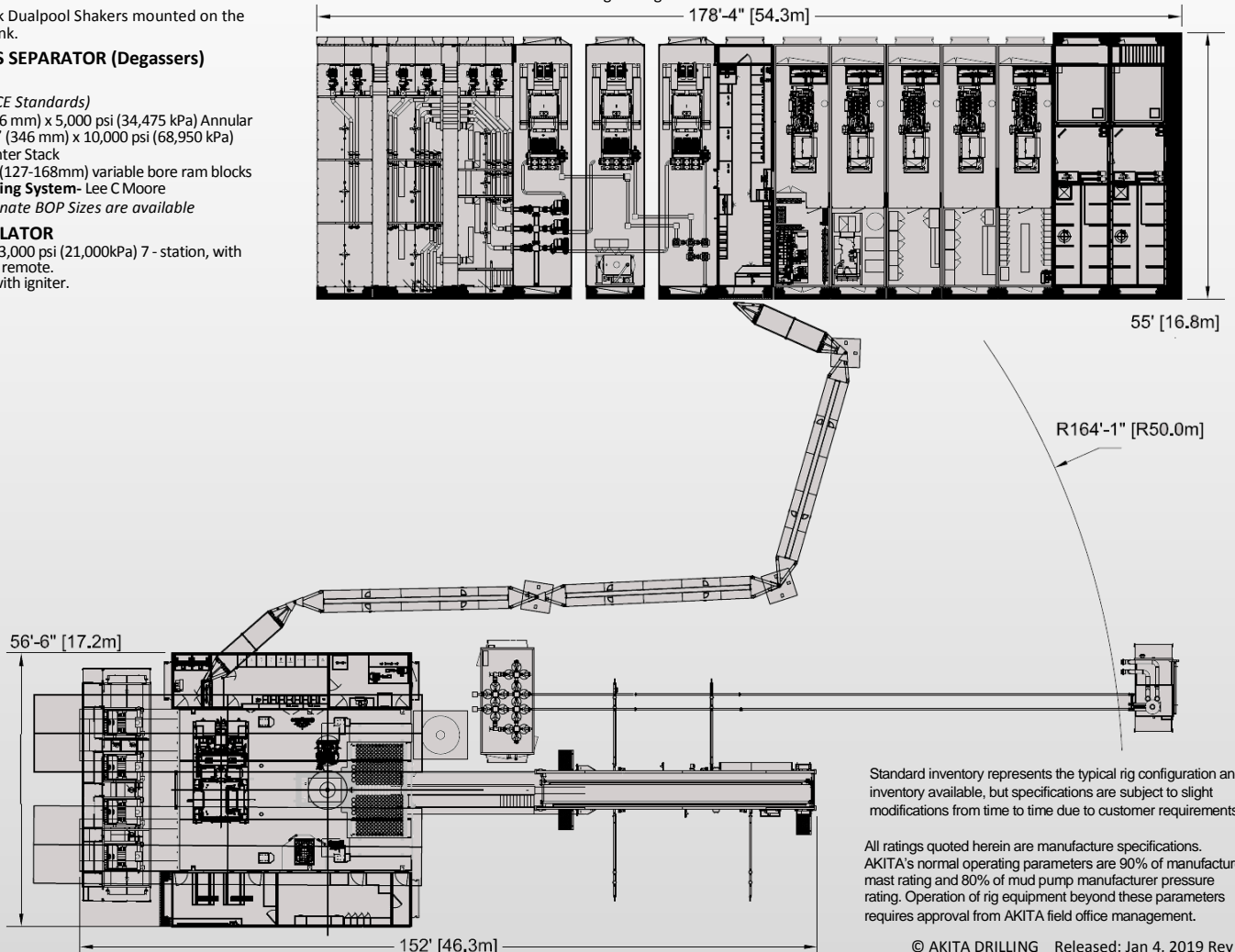
Drill Pipe: Supplied as needed, *per availability*  
 Drill Collars and Heavy Weight: Supplied as needed, *per availability*

### Miscellaneous

Water Tank: 755 bbls (120 m<sup>3</sup>) Fuel Tank: 16,900 Gals (64,000 Liters)  
 Boiler: (2x) 125 Hp steam boilers. Boilers are rigged up for Natural Gas or Diesel Operations.  
 Genie, steel matting for improved load distribution, 240 Gallon Vacuum.

### TOOL / STORAGE / CAMP

Parts Storage Room and Tool House Room  
 Rig Manager Trailer



Standard inventory represents the typical rig configuration and inventory available, but specifications are subject to slight modifications from time to time due to customer requirements.

All ratings quoted herein are manufacture specifications. AKITA's normal operating parameters are 90% of manufactures mast rating and 80% of mud pump manufacturer pressure rating. Operation of rig equipment beyond these parameters requires approval from AKITA field office management.