



# RIG 516

## 1,500 hp Triple Mast Drilling Rig

### SUBSTRUCTURE

One Piece Step Down  
 Floor Height: 16'-2" (4.93m)  
 : 20'-2" (6.1m) with optional 4' pony sub  
 Clear Height (beneath rotary beams): 13'-10" (4.22m)  
 : 17'-10" (5.4m) w/opt 4' pony sub  
 Rotary Capacity: 500,000 lbs (227 Metric Tons)  
 Max Pipe Setback: 380,000 lbs (172 Metric Tons)  
*Note: All floor heights above are based on the substructure sitting on 6" Mats and a 14" Skidding System Beams*

### MAST

142' (43.3m) telescoping lattice design  
 Static Hook Load: 500,000 lbs (227 Metric Tons)  
 Drill Line: 1-1/4"  
 Racking Capacity: 22,500' of 4" DP (6,858m of 102mm DP)  
 18,500' of 5" DP (5,639m of 127mm DP)

### DRAWWORKS

RIGMASTER E80AC 500,000 lbs (227 Metric Tons) w/ 8 lines  
 Input Power: 1,500 hp AC Traction motor  
 Main Brake: 1,500 hp AC traction motor (Dynamic)  
 Aux Parking Brakes: Easton armature brake & drum / band brake system

### MUD PUMP #1

F-1600 Type Triplex Pump Rated Power: 1,600 hp  
 Stroke: 12" (305 mm)  
 Input Power: (1) 1,500 hp AC traction motor  
 Pressure Rating: 7,500 psi (51.7 MPa)

### MUD PUMP #2

F-1600 Type Triplex Pump Rated Power: 1,600 hp  
 Stroke: 12" (305 mm)  
 Input Power: (1) 1,500 hp AC traction motor  
 Pressure Rating: 7,500 psi (51.7 MPa)

### MUD TANKS

Two Tanks "Covered" w/ 1,000 bbls (159 m<sup>3</sup>) total capacity  
 Shakers: (2x) MI Swaco Mongoose 4 panel dual-motion  
 Mud Gas Separator: (x1) MI Swaco SMGS 6' (183cm) OD x 22.3' (681cm) tall  
 Pressured operation: 85 MMscf/d Gas - 59,000 bbl/d  
 Trip Tanks: 20 bbls (3.2 m<sup>3</sup>)

### SCALPING TANK

Main Tank 280 bbls (33 m<sup>3</sup>)  
 Trip Tank 80 bbls (9.5 m<sup>3</sup>) Capacity  
 Shakers: (x2) MI Swaco Mongoose 4 panel dual motion

### BOP (NACE Standards)

CTI 11" (280mm) x 5,000 psi (34.5 MPa) WP Spherical Annular  
 CTI 11" (280mm) x 5,000 psi (34.5 MPa) WP Double Ram  
 CTI 11" (280mm) x 5,000 psi (34.5 MPa) WP Single Ram  
 BOP Handling System  
*Note: 13-5/8" (346mm) x 5,000 psi (34,475 kPa) BOP Sizes are available*

### MANIFOLD

Total Oilfield Equipment 3-1/8" x 4-1/16" 5,000 psi (34.5 MPa) Manual Chokes

### ACCUMULATOR

CTI 120 Gallons (454 Liters) 5 station, N2 Backup

### TOP DRIVE

Tesco EX1 600 AC 350 Ton (317 Metric Tons) Max Speed: 220 rpm  
 Continuous Drill Torque: 30,000 ft-lbs (40 kN-m)  
 Max Torque (Make/Break): 45,000 ft-lbs (61 kN-m)  
 600 hp AC induction motor & drive system w/ PLC  
 Integral 250 ton 4 x 36" (910 mm) split block assembly

### IRON ROUGHNECK

NOV ST-80C Conn. Range: 4-3/4" (108 mm) to 8-1/2" (216 mm)  
 Spin Speed: 75 RPM - nominal on 5" (127 mm) Drill Pipe  
 Spin Torque: 1,750 ft-lbs (2,373 Nm)  
 Maximum Make-Up Torque: 60,000 ft-lbs (81,500 Nm)  
 Maximum Break-Out Torque: 80,000 ft-lbs (108,500 Nm)

### ROTARY TABLE

ENID 27-1/2" (700 mm) - 250 Ton with hydraulic drive for positioning tools only, Round Opening: 27-1/2" (70 cm)

### ROTARY MOUSEHOLE

90' (27.4 m) hydraulic assembly

### CATWALK MACHINE

Ja-Co Power Catwalk Tubular max length: 45 feet (13.7m)  
 Max OD 13-5/8" (346 mm) Max Weight 10,000 lbs (4,536 kg)

### POWER SYSTEM

VFD, MCC, (4) Caterpillar 3508 w/Kato 1050 kW (1,400 hp) Generators.  
 Total power available: 4,200 kW continuous.

### TUBULARS

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

### MOVING SYSTEM

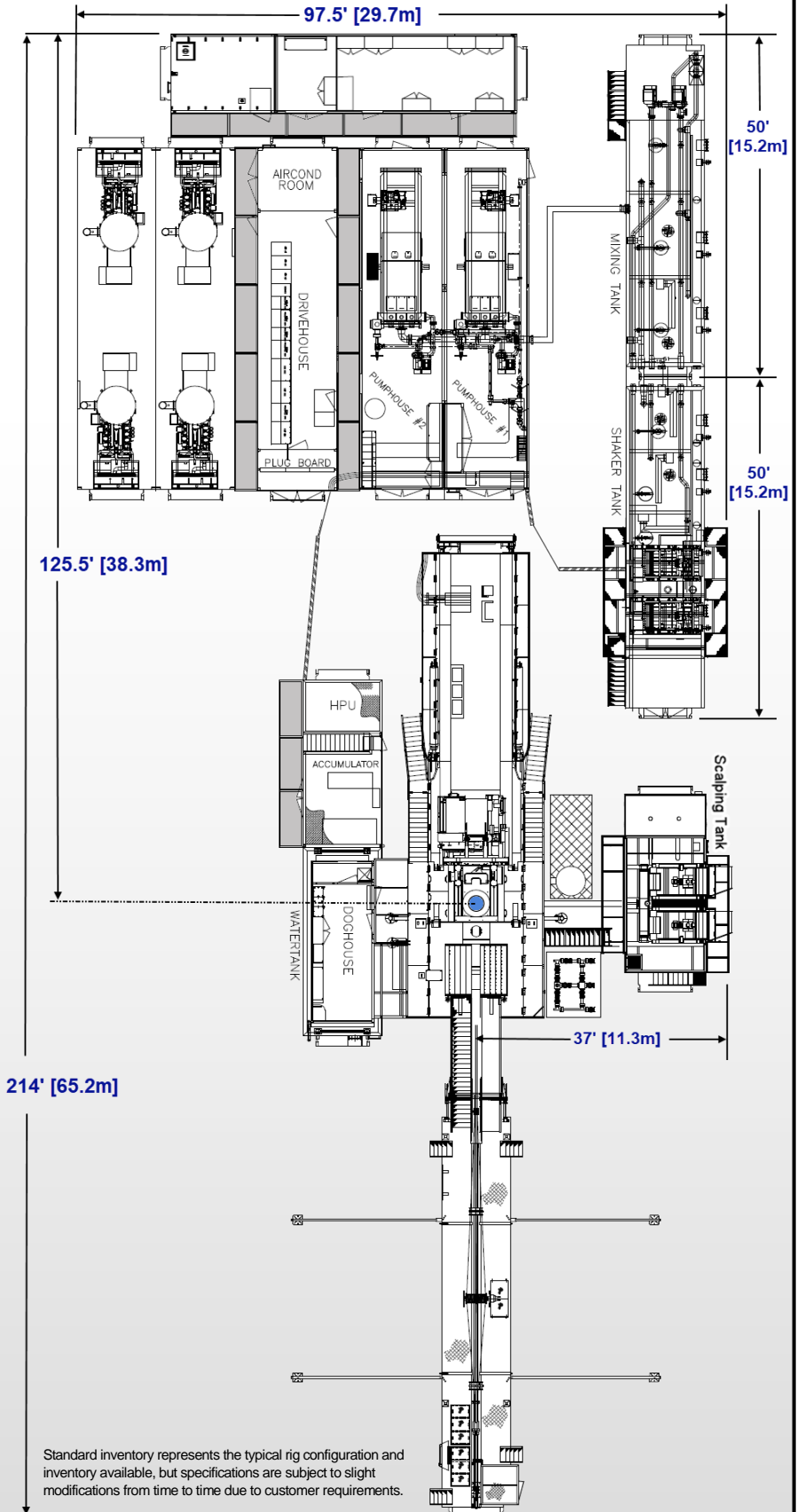
Hydraulic skidding system with rams and integrated skid beams. Dual zipper (x2) style umbilical [220 ft (67 m) displacement] connection for hydraulic and electrical supply.

### Miscellaneous

Water Tank: 400 bbls (47.7 m<sup>3</sup>) Fuel Tank: 10,000 Gals (37,854 Liters)  
 Screw Compressor (x1) Boiler and Full Winterization

### TOOL / STORAGE / CAMP

Parts Storage Room and Tool House Room  
 Rig Manager Trailer: One 14' x 44' (4.3m x 13.4m) Skid mounted



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.