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Crown Model DTD-550PB-118-300

Workover/Drilling Rig

Stewart & Stevenson's Crown line of drilling, workover and well servicing equipment serves the global oilfield service industry. Quality engineered with the latest advances in oilfield technology, innovative Crown rigs meet the rigorous industry standards established by the American Petroleum Institute (API) and the International Standards Organization (ISO), and are at the forefront of making the recovery process safer and more efficient.



Specifications

Carrier

- Self-propelled, back-in carrier
- Driller's side and off-driller's side folding walkways and handrails
- Highway lighting package
- Three front non-drive steering axles with rear wheel drive tandem axles, and one non-drive pusher/tag axle
- All axles to be equipped with air braking system
- Caterpillar C15 540 hp ACERT diesel engine
- Allison Model 5610 Series
- One 5,000 lb air winch mounted on rig floor
- One 12,000 lb hydraulic winch mounted on carrier deck
- Two tool boxes, one mounted on the underside of the carrier frame and one on the deck

Mast

- 118 ft x 300,000 lb API guyed telescoping mast with fixed base
- Equipped with ladder, safety platform, handrails, fall arrest post, block cradle, two belly lines and two load lines
- Automatic erecting racking board for use with 18 ft substructure
- Make and break cylinders mounted on back of mast
- Adjustable stabbing board with 20 ft of adjustment above the rig floor in 12-inch increments

Drawworks

- Double drum conventional style drawworks with band brakes
- One Eaton Model WCBD-324 assist brake, water cooled
- Main drum Lebus grooving
- Heavy duty reversing box designed to be coupled to the right angle gear box, complete with disconnect clutch and gear drive
- Automatic Crown Saver safety shutoff device to limit block travel, installed on drawworks
- Hydraulic system including winch, power tongs circuit, raising and telescoping cylinders

Substructure

- 18 ft skid mounted hydraulically raised telescoping substructure
- 20 ton BOP handling system
- Chain driven rotary with 2-piece case with adapters for 17½ inch rotary table
- Mud boat including steel checker plated tire guide rails and heavy duty lugs for pinning to the load beam
- Load beam to match the mast loading requirements

Hoisting Equipment

- One each 1-1/8 inch OD, 6 x 19, RR, EIPS, IWRC, 2,500 ft drilling line
- 12,500 ft of 9/16 inch sandline
- One 150 ton swivel
- One each, minimum 150 ton, traveling block and hook
- One set, 150 ton 1¾ inch x 96 inch API elevator links
- One 17½ inch rotary table
- One each SMB split pin drive master bushing assembly

Mud Pumps

- One 800 hp triplex mud pump, unitized with single engine independent cross-mounted pump drive for rear mounting Caterpillar C27 875 hp engine and PTO
- Remote air control with hose to driller's panel, includes throttle, clutch control and emergency shutdown
- One 5x6 supercharging pump driven by AC motor

Mud System

- 143 m³ (900 bbl active) mud tank system
- Shaker tank skid, suction tank skid, trip tank, mud reserve tank
- Mixing skid with provisions for mixing hoppers
- Electric driven centrifugal pumps for solids control functions
- Equipment includes 3-panel shaker, de-sander, de-silter, mud agitators, poorboy mud gas separator, vacuum de-gasser (optional centrifuge), bell nipple
- Oilfield type skid and required plumbing

Drilling Instrumentation

- One 2-bay drillers console
- Tong torque indicator, weight indicator, rotary torque, rpm meter, SPM meter, mud gauge, drilling recorder, auto-driller assembly, ton mile / km indicator, advanced driller monitoring system (ADMS), DAC box assembly

Rig Power Equipment, Lighting and Electrical Rig Up

- Two Caterpillar model C15 ACERT packaged generator sets on three point skid rated for 456/3 65 kVA, 365/292 kWe, 480/400 V, 0.8PF, 3-phase, 60 Hz prime power service
- Generator building complete with MCC and generator synchronization
- Includes all necessary wiring and electrical rig-up from AC generators to MCC in generator/power control house
- Lighting includes fluorescent, flood and Crown lights for mast, carrier substructure, area lighting and S&S furnished building/equipment lighting
- Rig intercom system includes 4 hazardous area telephones, 1 talk-back system, and 2 wireless telephones
- Lighting designed in accordance with API RP 500/505

Additional Equipment

- Doghouse mounted on rig floor
- Brake water cooling system used for cooling main drum brakes and assist brake
- Manual catwalk assembly
- 300 bbl cylindrical diesel fuel tank
- Two rotary screw compressors with dryers and receivers