

SCHRAMM

T450GT

Compact, light weight and maneuverable track mounted drill rig ideally suited for geothermal heat pump loop installations. Equipped with up to 700' of onboard drill pipe storage and fast, efficient pipe handling systems.

ROTADRILL



- Equipped with 1050 cfm @ 350 psi air compressor with clutch
- Reliable, fuel efficient deck engine powers compressor & load sensing hydraulic system
- Top head drive standard with floating sub and off-hole slide
- Lazy Susan carousel for 12 pcs of 4-1/2" pipe or 15 pcs of 3-1/2" pipe

TRACK MOUNTED GEOTHERMAL HEAT LOOP RIG

T450GT ROTADRILL SPECIFICATIONS

Engine

Caterpillar C-15 DIT ATAAC - (ACERT)
Advanced Combustion Emissions Reduction Technology
580 bhp (432 kw) @ 1,800 rpm w/250 gal (946.3l) fuel tank

Compressor

Sullair 20/12 STR two-stage, oil-flooded rotary screw
1050 CFM (27.0 cu. m/min) @ 350 psig (24.1 bar)
Manually operated clutch between the engine and compressor.

Cooling

Cooling System - Four core, side by side, 122°F (50°C) ambient rating, 54" (1,371 mm) hydraulically driven variable speed fan.

Dimensions

Dimensions - mounted on Cat 315L tracks
OA length - transport: 37' 9" (11.51 m)
OA width: 8' 7-1/2" (2.6 m)
OA height - transport w/Lazy Susan: 12' 4" (3.8 m)
OA height - mast up: 40' 2" (12.2 m)
Weight - less drill pipe w/15 pipe Lazy Susan: 47,950 lb (21,746 kg)

Track Mounting

Model: Cat 315L
Hydraulically driven axial piston type motors, spring applied parking brake, 500 mm triple cleated grousers, full length rock guards, tram warning alarm and remote tramming controls.
Maximum Speed: 1.62 mph (2.6 kph)
Ground Pressure (SAE J1309): 9.2 psi (.6 bar) unloaded

Top Head Rotation

Single reduction oil bath gearbox with a heavy duty, single speed, disc valve type motor. Infinitely variable rotation speed.
2-11/16" diameter (68.3 mm) spindle thru hole
0-146 rpm with 29.2 cu. in motor
53,305 in-lb (6,023 N-m) torque
Dual rotation torque limiters
Floating sub

Outriggers

Front outrigger: (2) 4" Bore x 2" Rod x 48" Stroke
(102 mm x 50.8 mm x 1,219 mm)
Rear outrigger: (2) 4" Bore x 2" Rod x 48" Stroke
(102 mm x 50.8 mm x 1,219 mm)

Feed System

Feed System - The top head is driven by a hydraulic traverse cylinder through heavy duty leaf chain.
30,000 lb (13,605 kg) hoist
216 fpm (65.8 mpm) hoist rapid & slow feed
17,100 lb (7,755 kg) pulldown
161 fpm (49 mpm) pulldown rapid & slow feed

Mast

Tubular steel, all welded, lattice type structure
37' 9" (11.51 m) OA length
Manual mast locks
28' 6" (8.68 m) head travel

Drill Pipe and Casing

20' (6.1 m) drill pipe length
16-1/2" (419 mm) max. diameter through slipbox

Pipe Handling

Lazy susan carousel, 15 pipe breakout style 3-1/2" x 20'
Sliding top head
Hands free pipe spinner
Hydraulic swing & extend jib boom
6" hammer holder
Stabilizer support bars
60" breakout wrench
Angled pipe rack with rod slide holds 20 pcs of 3-1/2" pipe or 12 pcs of 4-1/2" pipe

Winches

Planetary with spring applied hydraulic release brake.
15,000 lb (6802 kg) bare drum pull
194 fpm (59.15 mpm) bare drum line speed
Additional helpers side control for standard winch and jib boom
Sandline winch w/700' of 1/4" cable

Hydraulic System

Open loop load sensing w/7 micron filtration
140 gallon (530 l) system capacity

Water Injection System

Pump Model: FMC Bean E0413C
Maximum Flow: 18 gpm (68.1 l pm) @ 700 psig (48.3 bar)

Tool Lubricator

Positive displacement, air operated piston pump provides "rock drill" oil for DTH operations.
Oil Flow: 0 - 5 g/hr (0 -18.9 l/hr)
Max Pressure: 1,000 psi (69 bar)
Reservoir Capacity: 18.1 gal (68.5 l)

Lighting and Electrical System - 24V

Alternator: 24V DC - 75 amp
Batteries: (2) 12V connected in series
Mast Lights: (3) 60 Watt Floodlight
Control Panel: (1) Floodlight
Work Area: (1) 70 Watt Halogen Floodlight, (2) 70 Watt Halogen Spotlight

Accessories

Slow feed drill up valve, hyd table assembly, foam injection, pipe handling sling and 50 hour maintenance kit

Optional Equipment

Many modifications are available including:
4-1/2" lazy susans for both 20' and 25' lengths
CAT water pump
Rotation tachometer
Two motor top head
Split or square table
Compressor volumetric control
Hydraulic welder

These specifications are based on theoretical calculations and industry standards. Performance will vary according to actual drilling conditions. Schramm, Inc. continuously improves its products and reserves the right to change specifications, design, prices and terms at any time without notification or obligation. These specifications do not extend any warranty, expressed or implied, nor do they or Schramm, Inc. make or imply any representation of the machine's merchantability or fitness for a particular purpose.



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