



T455WS

LARGE VOLUME, HIGH PRESSURE AIR RIG

The T455WS is the drilling contractor's rig of choice for water, geothermal, mineral exploration and environmental applications where high pressure, high volume air is required and over-the-road portability is vital.

Schramm's patented air-Control® comes standard, providing fuel savings of up to 12 percent by matching fan speed to meet cooling system temperature and air compressor DTH volume requirements on a continuous basis.

Any climate, any terrain, Schramm rigs are built your way, delivering maximum performance, reliability and operating efficiency to give you the edge you need to stay ahead of your competition.

- WATER WELL
- GEOTHERMAL
- EXPLORATION
- ENVIRONMENTAL

- Tier III/IV
- Up to 40,000 lbf (178 kN) pullback
- Sliding top head drive plus hands-free pipe spinner
- On-board air compressor at 1,050 cfm @ 350 psi (29.7 m³/minute @ 24 bar)
- Schramm patented air-Control®
- 15 pipe 3.5 inch (8.9 cm) or 12 pipe 4.5 inch (11.4 cm) pipe carousels available
- Up to 700 feet (213 m) of 3.5 inch (8.9 cm) pipe on board
- Track-mounted configuration available



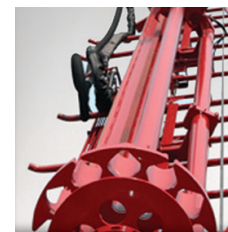
TOP HEAD DRIVE

Multiple options available, including combination side inlet/discharge swivel mounted to a floating shaft.



AIR-CONTROL

Based on actual field test results, fuel savings of up to 12 percent can be achieved with AIR-CONTROL.



PIPE HANDLING

Hydraulic pipe arm or available Pipe Carousel improves safety, reliability and production.

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SPECIFICATIONS

DECK ENGINE

- Caterpillar C-15 DIT ATAAC (ACERT)
- Advanced Combustion Emissions Reduction Technology
- 580 bhp (432 kw) @ 1,800 rpm
- 220 gallon (832 liter) fuel tank

STANDARD COMPRESSOR

- Two-stage, oil-flooded rotary screw
- 1,050 cfm @ 350 psi (27 m³/min @ 24.1 bar)
- Manually operated clutch between the engine and compressor
- Schramm patented air-CONTROL®

COOLING

- 131°F (55°C) ambient design temperature
- Variable speed cooling fan

TRUCK

- Separate drill rig subframe design allows mounting on various trucks or special purpose vehicles other than Schramm specified truck
- Standard truck: Mack, 8x4 or 6x4 available
- 20,000 lb (9,072 kg) front axle
- 46,000 lb (20,865 kg) full locking rear axle
- 20,000 lb (9,072 kg) pusher axle (for 8x4)
- 86,000 lb (39,008 kg) GVWR (for 8x4)

TOP HEAD DRIVE

- Single reduction gearbox with heavy duty dual (2) speed, disc valve type motor
- Infinitely variable rotation speed
- Spindle Thru Hole: 2-11/16 inch ID (68.3 mm)
- Maximum Torque: 0-147 rpm @ 4,750 ft-lb (6,440 N-m)
- Maximum Torque: 0-74 rpm @ 9,480 ft-lb (12,853 N-m)

OUTRIGGERS

- Dual Front – 4 inch (102 mm) bore x 41 inch (1.04 m) stroke
- Dual Rear – 4 inch (102 mm) bore x 41 inch (1.04 m) stroke

FEED SYSTEM

- Top head driven by hydraulic traverse cylinder through heavy duty leaf chain
- 40,000 lbf (178 kN) pullback
- 33 fpm (40.5 mpm) pullback speed
- 18,000 lb (80 kN) pulldown
- 250 fpm (76.2 mpm) pulldown speed

MAST

- Tubular steel, all welded mast
- 38 ft 6 inch (11.73 m) OA length
- 28 ft 6 inch (8.68 m) head travel

DRILL PIPE AND CASING

- Up to 25ft (7.3m) drill pipe length
- 16.5 inch (42 cm) maximum diameter through slipbox

HYDRAULIC SYSTEM

- Open loop load sensing system
- 150 gallon (570 l) system capacity
- 10 micron filtration

PIPE HANDLING

- Pipe carousel, 15 pipe breakout style 3.5 inch (8.9 cm) x 20 ft (6 m)
- Sliding top head
- Hands-free pipe spinner
- Hydraulic swing & extend jib boom
- 6 inch hammer holder
- 60 inch breakout wrench
- Angled pipe rack with rod slide holds 20 pcs of 3.5 inch (8.9 cm) pipe or 12 pcs of 4.5 inch (11.4 cm) pipe

WINCH

- 15,000 lbf (66.7 kN) bare drum pull
- 200 fpm (60.9 m/min) bare line speed
- Additional helpers side control for standard winch and jib boom
- Planetary design with spring applied hydraulic release brake

WATER INJECTION SYSTEM

- 18 GPM (68.1 lpm) water pump
- 700 psi (48.3 bar)

TOOL LUBRICATOR

- Positive displacement, air operated piston pump
- Oil Flow: 0-5 g/hr (0- 18.9/hr)
- Max Pressure: 1,000 psi (69 bar)

LIGHTING & ELECTRICAL SYSTEM – 24 VOLT

- Mast (3) 60 watt floodlights
- Control Panel (2) floodlights
- Work (1) 70 watt halogen floodlight, (2) 70 watt halogen spotlights

DIMENSIONS

Note: dimensions are approximate; for information only:

- OA length-transport: 38 ft 6 inch (11.73 m)
- OA width: 8 ft 6 inch (2.6 m)
- OA height-transport with pipe carousel: 13 ft 1 inch (3.99 m)
- OA height-mast up: 40 ft 2 inch (12.2 m)
- Weight less drill pipe with 15 pipe carousel: 55,000 lb (25,000 kg)

STANDARD ACCESSORIES

- Slow feed drill up valve, hydraulic table assembly, foam injection
- Handling sling and 50 hour maintenance kit

OPTIONAL EQUIPMENT

- 4.5 inch (11.4 cm) 12 pipe carousel
- Sandline winch
- CAT water pump
- Hydraulic welder
- Rotation tachometer
- See your Schramm representative for additional available options

Rig performance is directly related to conditions encountered in the field. Rig specifications presented here are theoretical values based on a 100% efficiency factor. 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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