SCHRAMM

Breaking Ground, Building Trust.

EXPLORATION

T685EX

BIG AIR REVERSE CIRCULATION MINERAL EXPLORATION.

The T685EX is the drilling contractor's rig of choice for reverse circulation mineral exploration applications where big air is required in a highly mobile, heavy duty package.

A sliding angle mast and a variety of RC accessories, combined with track or truck mounting offer site specific equipment solutions for almost any application. Automated pipe handling systems are also available to provide hands-free operation for loading and unloading drill rods. Power breakout systems are available to complete the pipe handling package.

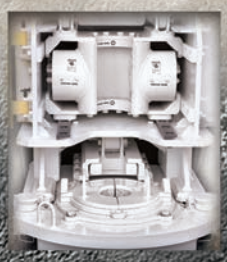
Schramm's patented air-Control monitors cooling system temperature and compressor volume requirements to provide maximum power efficiency and fuel savings up to 12 percent.

Any climate, any terrain, Schramm rigs are built your way, delivering maximum performance and reliability in the most extreme environments on earth.

- Hoist packages available from 40,000 lbf (177.9 kN) to 90,000 lbf (400.3 kN)
- On-board compressor 1,350 cfm @ 500 psi (38 m^3/min @ 34.5 bar)
- MTU 12V-2000 engine 905 bhp (675 kw) with V-Pack cooling system
- 45° sliding angle mast
- Automated pipe handling packages available
- RC accessories and sampling equipment available
- Track or truck mount configuration

TOP HEAD DRIVE

Multiple top head options are available, including combination side inlet/ discharge swivel.



POWER BREAKOUT

Hands-free power breakout with up to 16,000 ft-lbs (21,693 N-m) of torque is available for drill pipe up to 5 ½ inches (140 mm) OD.

PIPE HANDLING

Hydraulic pipe arm & racks or available pipe carousel improves safety, reliability and production.

T685EX Track Mounted Mineral Exploration Rig

REVERSE CIRCULATION SPECIFICATIONS

DECK ENGINE
- MTU 12V-2000 Tier 2
- 905 bhp (675 kw) @ 1,800 rpm
- 315 gallons (1,198 l) fuel tank capacity

STANDARD COMPRESSOR
- Variable volume, two-stage oil flooded rotary screw
- 1,350 cfm @ 500 psi (38 m^3/min @ 34.5 bar)
- Schramm patented air-Control

COOLING
- Four core, V-Pack heat exchanger with variable speed cooling fan
- 130° F (54.4° C) ambient design temperature

CONTROL SYSTEM
- Rugged 7 inch day-light readable screen provides critical rig information with selectable screens that provide in depth system information without complex interface.
- Drill screen provides top head speed, compressor data (temperature, pressure and hours) and values for string weight & hook load, fuel and hydraulic temperature.
- Two external dual range gauges indicate weight on bit and rotation torque. Status indicators provided for water injection, tool lubrication and string weight.
- Rig system diagnostics include engine, compressor and rig shut down circuits. Pressure and temperature sensors are incorporated into the screen with appropriate warnings and stop lights.

TRACK MOUNTING
- Standard model: Cat 330C
- Hydraulically driven with two speed, axial piston type motors, spring applied parking brake, 750 mm triple cleated grousers, full length rock guards and tram warning alarm
- Radio remote and back-up manual hydraulic tramming system
- Tramming station is mounted at left front of the machine

TOP HEAD DRIVE
- Heavy duty single reduction gearbox with disc valve, low speed, high torque hydraulic motors
- Infinitely variable rotation speed via HRC control
- Spindle Thru Hole: 2- 11/16 inch ID (68.3 mm)
- Maximum Torque: 12,565 ft-lb (17,083 N-m)
- Rotation Speed: 0-102 RPM

OUTRIGGERS
- Dual Front & Rear – 4.5 inch (114 mm) bore x 41 inch (1.04 m) stroke

FEED SYSTEM
- Top head driven by hydraulic cylinders through heavy roller chain
- 40,000 lbf (177.9 kN) pullback
- 250 fpm (76.2 m/min) pullback speed
- 23,000 lbf (102.7 kN) pulldown
- 130 fpm (39.6 m/min) pulldown speed

SLIDING ANGLE MAST
- Steel tube box beam
- Operating Angle: 0-45° manually locks in 5° increments
- Top Head Travel: 27.5 ft (8.38 m)
- Mast Slide Travel: 8 ft (2.44 m)

DRILL TABLE
- Table Opening: 16 ½ inches (419 mm)
- Hydraulic slip box

EXPLORATION JIB BOOM
- For handling drill pipe on angles up to 45° from vertical, an extended dipper stick is mounted to a (swing and extend) hydraulic jib boom
- Swings: 140°
- Extends: 40 inches (1.02 m)
- Capacity: 1,000 lbf (4.45 kN) vertical pull

WINCHES
- Rod handling winch w/ 125 ft (38 m) of 7/16 inch (11mm) cable
- Sandline winch w/ 1,000 ft (304 m) of ¼ inch (6.4 mm) cable

HYDRAULIC SYSTEM
- Open loop load sensing system
- 150 gallon (570 l) system capacity
- 7 micron filtration

WATER INJECTION SYSTEM
- 18 gpm (68.1 lpm) water pump
- 13.2 gph (50 lph) foam pump
- 700 psi (48.3 bar)

TOOL LUBRICATOR
- Positive displacement, air operated piston type pump
- Oil flow: 0-5 g/hr (0-19 l/hr)
- Max pressure: 1,000 psi (69 bar)

LIGHTING & ELECTRICAL SYSTEM - 24 VOLT
- Mast - (3) 60 watt floodlights
- Control Panel - (2) floodlights
- Work - (3) 70 watt halogen

RIG WEIGHT & DIMENSIONS
Note: For general illustration only, varies with rig configuration
- OA length, transport: 43 ft 6 inch (13.3 m)
- OA width: 10 ft (3 m)
- OA height, transport: 14ft 2 inch (4.32 m)
- Typical GVWR less drill pipe: 93,500 lb (42,500 kg)

STANDARD ACCESSORIES
- Tool box, pipe handling sling, breakout wrench, 50 hour maintenance kit

OPTIONAL EQUIPMENT
- Mast capacities to 90,000 lbf (400.3 kN)
- Top head drive to meet various speed and torque requirements
- Pipe handling, multiple configurations available
- Mud pump, multiple configurations available
- Truck mount
- Full Walkways
- CE mark for European requirements
- See your Schramm representative for additional available options

Rig performance is directly related to geological conditions encountered in the field. Rig specifications presented here illustrate equipment performance under factory test 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.

SCHRAMM, INC. | 800 E. Virginia Avenue | West Chester, PA 19380 USA
Phone: 610-696-2500 • **Fax:** 610-696-6950 • www.schramminc.com

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