



Breaking Ground, Building Trust.



- EXPLORATION ■
- SHALLOW OIL ■
- WATER WELL ■

T685WS

BUILT TO TAKE ON THE TOUGHEST DRILLING PROJECTS.

The T685WS is the drilling contractor's rig of choice for mineral exploration, shallow oil and deep water well applications.

Heavy duty factory installed components and accessories are available to meet a wide range of arctic, desert and tropical conditions.

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

- Up to 94,000 lbf (428 kN) pullback
- Drill compressor selectable air at 1,150 cfm @ 500 psi or 1,350 cfm @ 350 psi (32.6 m³/min @ 35.5 bar or 38 m³/min @ 24.1 bar)
- Sliding angle mast available
- Automated pipe handling available
- RC drilling and sampling equipment available



Available in a Track Mounted System

45° SLIDING ANGLE MAST



TOP HEAD DRIVE

Multiple options available, including a combination side inlet and 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 Lazy Susan improves safety, reliability and production.



T685WS

Truck Mounted Top Head Drive Rotary Rig

REVERSE CIRCULATION SPECIFICATIONS

DECK ENGINE

- MTU V-2000 TA, V-12
- 220 gallons (832 l) fuel tank capacity

STANDARD COMPRESSOR

- Variable volume, two-stage, oil flooded rotary screw
- Selectable 1,150 cfm @ 500 psi or 1,350 cfm @ 350 psi
- (32.6 m³/min @ 35.5 bar, 38 m³/min @ 24.1 bar)
- Mechanical clutch
- Schramm patented air-Control®

COOLING

- 122°F (50°C) ambient design temperature
- Variable speed cooling fan

CONTROL SYSTEM

- Located on the left hand side, the swing-out control panel stores under the mast for transport
- Digital display on driller's control panel includes: tachometer, oil pressure, oil temp., water temp., and voltmeter with separate hourmeter
- Gauges include: compressor discharge temp., air pressure, interstage pressure, rotation pressure, holdback pressure, downfeed pressure, water injection and lubricator pressure

TRUCK

- Separate drill rig subframe design allows mounting on various trucks or special purpose vehicles other than Schramm specified truck
- Standard truck: International 7600 8x4
- 20,000 lb (9,072 kg) front axle
- 20,000 lb (9,072 kg) pusher axle
- 46,000 lb (20,866 kg) full locking rear axle
- 86,000 lb (39,010 kg) GVWR

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: 5.25 inch ID (133.3 mm)
- Maximum Torque: 12,565 ft-lbs (17,083 N-m)
- Rotation Speed: 0-104 RPM

OUTRIGGERS

- Dual Front – 4 inch (102 mm) bore x 41 inch (1.04 m) stroke
- Dual Rear – 5 inch (127 mm) bore x 41 inch (1.04 m) stroke

FEED SYSTEM

- Top head driven by hydraulic cylinders through heavy roller chain
- 30 ft (9.1 m) head travel
- 94,000 lbf (428 kN) pullback
- 113 fpm (34.4 m/min) pullback speed
- 28,000 lb (124.5 kN) pulldown
- 89 fpm (27.1 m/min) pulldown speed
- Slow feed drillup valve

SLIDING ANGLE MAST

- Tubular steel, all welded, lattice type structure
- Operating Angle: 0-45° manually locks in 5° increments
- Mast Slide Travel: 8 ft (2.44 m)

DRILL TABLE

- Table Opening: 22 in (560 mm)
- Hydraulic holding fork

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 in (1.02 m)
- Capacity: 1,000 lbf (4.45 kN) vertical pull

WINCH

- 9,600 lbf (42.7 kN) bare drum line pull (Derated when used with Exploration Jib Boom)
- 216 fpm (66 m/min) bare line speed
- Planetary design with spring applied hydraulic release brake

HYDRAULIC SYSTEM

- Open loop load sensing system
- 160 gallon (606 l) system capacity
- 7 micron filtration

WATER INJECTION SYSTEM

- 25 gpm (95 lpm) water pump
- 13.2 maximum gpm (50 lpm) foam pump
- 800 psi (55 bar)

TOOL LUBRICATOR

- Positive displacement, air operated piston type pump variable to 5.0 gph (19 lph)

LIGHTING & ELECTRICAL SYSTEM - 24 VOLT

- Mast - (3) 60 watt floodlights
- Control Panel - (2) floodlights
- Work - (3) 70 watt halogen

STANDARD ACCESSORIES

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

OPTIONAL EQUIPMENT

- Cummins QSK 19-C Deck Engine
- 74,000 lbf (329 kN) hoist mast
- 1,150 cfm @ 350 psi compressor (32.6 m³/min @ 35.5 bar)
- Top head drive to meet various speed and torque requirements
- Mud pump, multiple configurations available
- Track mount, with or without bulldozer blade
- Side inlet and discharge swivel
- Power breakout
- 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.

