

EDM 47K Series Drill

Diamond / Multipurpose, Truck / Track Mounted Drill Rig



The EDM47K is a light and versatile exploration drill rig with diamond or multipurpose configurations.

The EDM47K is versatile and simple to operate and maintain.

The EDM47K borrows many characteristics of a broad range of drill rigs on the market today which have never before been offered in one stand alone drill.

A popular option for the multipurpose configuration is the EDM RC Rod Handler for hands free handling of Dual Wall RC Pipe up to 5½" and 200 kg (440 lbs).

Rod spinner, rod spin guard, wireline automatic rope spooler, WLO - winch limiter overrun on main and wireline winches prevents winches from drawing the overshot or rods into sheave or drum.

The drill has been fitted with most modern break and make tools from Metzke, Airdrill etc for world class performance and safety.

Technical Specifications

Diesel Engine

Cummins QSC 8,3 Tier III
290 HP @ 2.100 RPM
Tier IV options are available on request

Truck -Optional

Six-wheel drive (6WD or 6x6) or 6x4 drivetrain

Crawler -Optional

Track Sejin 14T
Two Speed 4.5kph (2.8mph) Hi , 2.5kph (1.56 mph) Low
Caterpillar D3 Compatible Running Gear
Brevini Final Drives

Drill Mast

Heavy Duty two piece tubular section mast structure
Capable of angles from vertical to 45°
2.000 mm (6,6 ft) mast dump
Standard hydraulic mast raise cylinders with counter balance valves.

Rotation Top Drive Head

Hollow Floating spindle ID: 70 mm – 3 1/2" API IF pin thread
Two speed, Low/High gear change
Low gear Max. displacement 6.713 Nm (4.952 Lbft) @ 190 rpm
Low gear Min. displacement 4.364 Nm (3.219 Lbft) @ 300 rpm
High gear Max. displacement 1.610 Nm (1.188 Lbft) @ 817 rpm
High gear Min. displacement 1.047 Nm (772 Lbft) @ 1.250 rpm

Head Traverse

Driven by single hydraulic cylinder
Max speed up cylinder 830 mm/s (33 in/s)
Max speed down cylinder 550 mm/s (21,5 in/s)
7,6 m (25 ft) stroke with rotation head

Capacity

Pulldown 78 kN (17.500 Lbf)
Pullback 209 kN (47.000 Lbf)

Main Winch

Mounted on top of mast (Type Braden RW300)
Max pull 147 kN (33.000 Lbf)
Max speed 75 m/min (246 ft/min/)
Failsafe brake mechanism (spring applied, hydraulic release)
6 m (20 ft) pull for diamond pipe and casing
Winch limiter system to prevent rod being pulled into drum

Main Winch -Optional

Mounted on top of mast (Type Braden RW300)
Max pull 178 kN (40.000 Lbf)

Wire Line Winch Mounted on Mast Dump Plate

Capacity of 2.000 m (6.562 ft) of 6 mm (1/4") wire rope
Max average pull from full to empty drum 16,4 kN (3.680 lbf)
Max average speed from full to empty drum 7 m/s (23 ft/s)
Automatic rope spooling device
Wireline override to prevent overshot being pulled over mast.

Control Cabinet

Pivoting Control Cabinet off rear right corner of machine
Good visibility at all mast angles
Folding drillers jump up stand and protective roof
Slews behind for transport
Easy self explanatory layout
Easy access for basic maintenance and repairs
Fully sealed control panel with all electrical instrumentation.

Hydraulic System

Main Hydraulic Pump Parker 145 cc Piston Pump
Secondary Hydraulic pump Parker 105 cc Piston Pump
300 L Hydraulic Tank
Main Hydraulic Valve Danfoss PVG2 56 Pilot operated
Secondary Hydraulic Valve Danfoss PVG 32

Water Pump

American (Bean) AW1122BCD
140 l/min @ 7.000 kPa
(37 gal/min @ 1.000 psi)

Rod Break Out

Hydraulic cylinder mounted EDM wrap Spanner for N+, H+, P+ and casing
Metzke Makorbreak Hydraulic breakout wrench.
Adjustable height (optional)

Rod Clamps & Slip Table

Maximum table opening of 304 mm (12")
Hydraulically operated, self energizing rod clamp (UDR Type)
Easy to remove jaws
Common jaws (B+, N+, H+ and P+ casing)

Jib Boom -Optional

Actuated by hydraulic cylinder for raise/lower & hourglass worm for left/right
Independent winch with lifting capacity of 200 kg (440 lb)

EDM RC Rod Handler -Optional

Direct hydraulic actuation from rod handler console
Remote control

Handling Capability for rods 4" & 4 1/2" (optional 5 1/2")

Rod Spinner 4 1/2" (5 1/2" Optional)

Hydraulic slew in/out of mast
Self adjusting jaws ranging from N+ to PWT
2.980 kNm (2.200 Lbft) breaking torque
Adjustable torque control

Rod Spin Guard

Cage off the rotating rods from operator/helper
Hydraulically interlocked with rotation
Can be set to either reduce rotation speed to 150 rpm or a complete stop when cage is opened

Theoretical rated diamond core depth on a vertical, clean and dry hole with a 10% capacity allowance

B+	3.000 m (9.842 ft)
N+	2.460 m (8.070 ft)
H+	1.668 m (5.472 ft)
P+	1.103 m (3.618 ft)

Theoretical rated RC depth on a vertical and clean hole with a 45% capacity allowance

4" dual wall RC pipe	500 m (1.640 ft)
4 1/2" dual wall RC pipe	365 m (1.196 ft)

Dimensions

Platform Width:	2.500 mm (8 ft 2 in)
Rig Overall Length:	12.000 mm (39 ft 6 in)
Height:	4.600 mm (5 ft 1 in)
Mast length:	10.100 mm (33 ft 2 in)
Approx. Weight:	32.000 kg (70.548 lb)

Safety Features

Guards on all rotating equipment
Anti slip grid mesh on all work platforms
Hand rails on all work platforms
Emergency stops in control cabin and on all corners of machine
Rod spin guard with hydraulic interlock.
Reduces rotation to 150 rpm when opened.
Heat guards on all exhaust manifolds and piping
Shut down system which protects the following
Low engine oil pressure
High engine temperature
Low hydraulic tank oil level, low coolant level
Hydraulic Rod Spinner
Winch Limiter
Wire line winch limiter

Warranty

6 Months or 1.500 hrs Diesel engine

Rig performance is directly related to conditions encountered in the field.

Please contact an Exploration Drill Masters representative for detailed product information.