

# Crawler drill rig AN 140

The crawler drill rig AN 140 has been developed in particular for drilling applications with doublehead systems and rod changer.

The machine frame houses a robust 191 hp liquid-cooled Deutz diesel engine BF 6M 1013 C with latest turbocharger and intake-air cooling system. This power unit features an eco-friendly fuel-saving EMR (electronic engine control) speed governor which means no exhaust-smoke discharge when load changing. The emission values correspond to the standards of European COM2 and EPA2 US Stage 2 off-highway regulations.

The hydraulic unit operates on the load-sensing principle and can run on biologically degradable fluids.

The sufficient engine power ensures that the drill heads can work always at their maximum capacity.

The drill mast on the AN 140 is designed with a hydraulic motor feed system. The feed and retraction forces are up to 80 kN. Optionally a drill mast with cylinder feed can be supplied. A new type of patented rod/ casing magazine KBM allows the drill string to be fitted and removed quickly and safely. The magazine can hold as many as 7 double rod units comprising 118 inch long sections of inner rods 3.00 inch and outer casings up to 5.24 inch in diameter.





The drill strings are lifted from the magazine racks by a hydraulic manipulator, which then swings them into the drilling axis. The same procedure is applied for drill string removal, with the manipulator returning the inner rods and outer casings to their racks.

For overburden drilling, as used for example for anchor jobs, the inner string is detached first and replaced in the rack. After the anchors have been inserted in their holes the outer casings are placed back into the racking system over the inner rods. The sections are then ready for the next twin-rod drilling phase. A time-consuming part of the working cycle is eliminated and the overall drilling time is significantly reduced.



Figure: KBM rod handler

## Technical data:

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Drive engine	Deutz BF6 M 1013 C; liquid-cooled
	191 hp at 1,900 rpm
Diesel tank capacity	92.5 gal
Pump output	2x 60.8 gal /min at 4,621.21 psi
	1x 6.4 gal /min at 3,190.83 psi
Hydraulic tank capacity	158.5 gal
Hydraulic fluids	mineral oils, biologically degradable fluids
Length	326 inch
Width	98 inch
Height (in parking position)	114 inch
Weight	15.75 l.tn
Specific ground pressure	10.2 psi
Ground clearance	13.8 inch
Pendulum range of crawlers	+15° / -15°
Travel speed	1.55 mph
Max. traction	135 kN
Mast length	311 inch
Feed travel (single sled)	221 inch
Feed travel (double head)	172 inch
Feed force	80 kN
Retraction force	80 kN
Feed rate	49 foot/ min
Retraction rate	49 foot/ min
Rapid feed	197 foot/ min
Rapid retraction	197 foot/ min
Hydraulic drifters (recommended)	B 1000 R / B 1500 R / B 2000 R
Rotary heads (recommended)	DK 1300 / DK 2000
<b>Recommended rod/casing magazine</b>	KBM 130 / KBM 150
<b>Additional equipment</b>	auxiliary winch with deflection displaceable sleds clamp/break device for up to Ø 17.7 inch

\* without attachments

