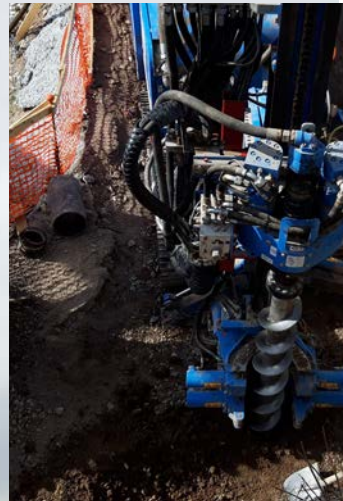


SM-6 MICROPILES



SM-6, your next mid-size drilling rig!

This compact rig is able to perform a wide range of technologies such as micropiles, anchors, soil investigation and consolidations with jet grouting.





Flexible and powerful at your service

- Swiveling boom articulation by slew ring on the base machine enables parallel drilling on the tracks up to +/- 90°, slew ring on mast for +/- 180° rotation, along with the sliding mast operated by cylinder makes the machine able to perform a wide variety of angles and positions.
- Powered by the most advanced Stage V Deutz Diesel engines (*Stage III version are also available*).
- Range of rotary heads with different torques and speeds to suit the various drilling needs.



Safety First, No Compromise

Complies with the latest international Safety standards.

- Hydraulic openable cages
- Additional trip wires devices
- Emergency stop buttons
- ROM and SPM operation modes

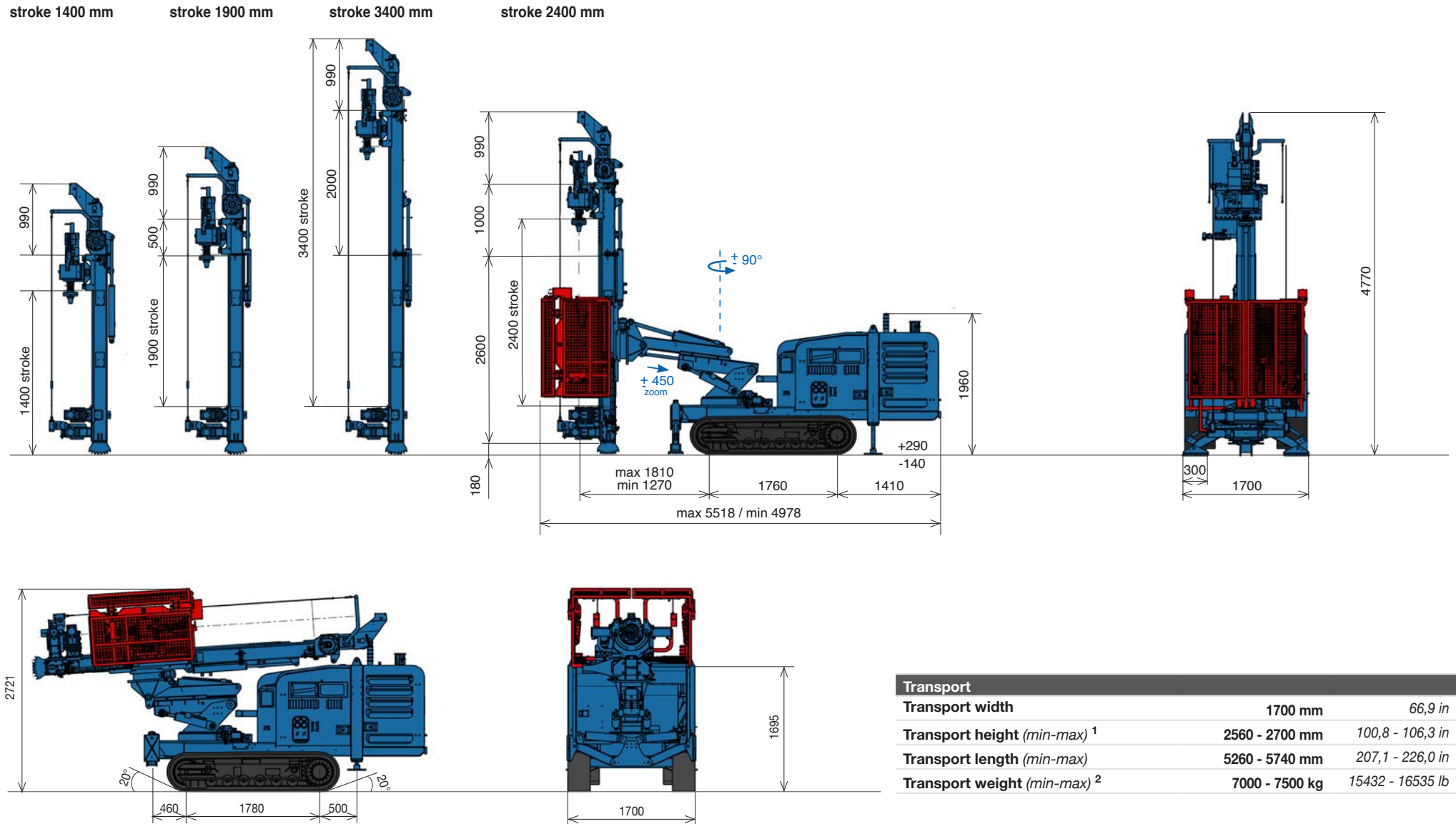


Excellent versatility and increased manoeuvrability

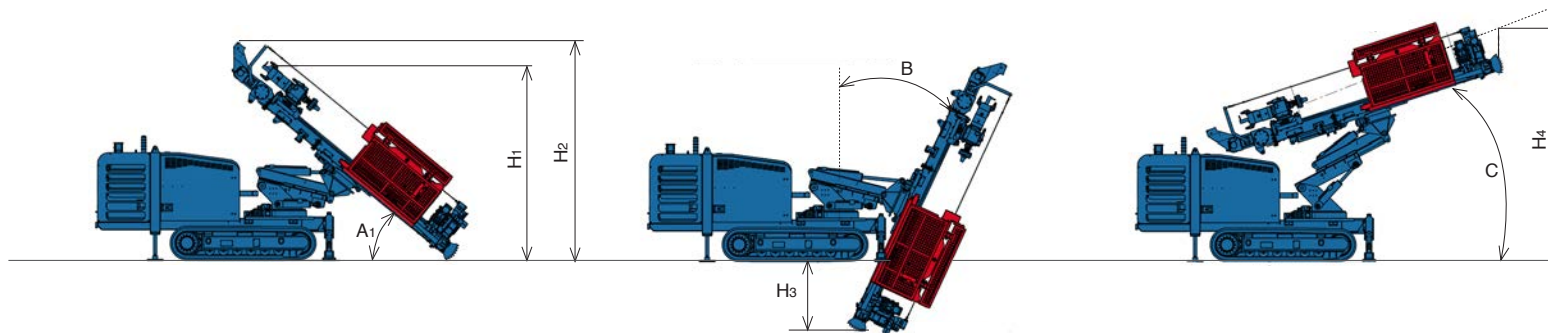
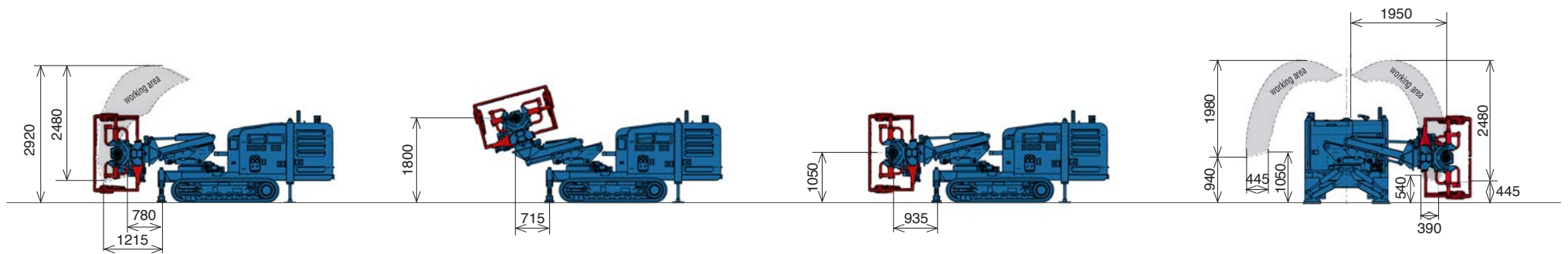
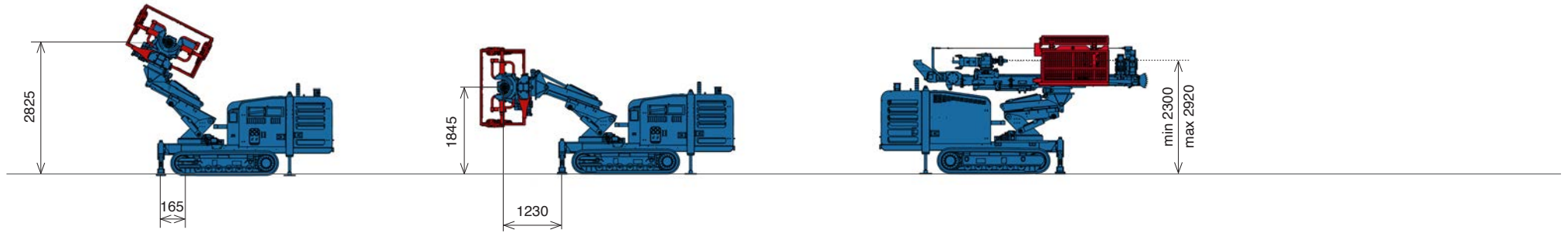
- Modular mast with motoreducer crowd system.
- Radio remote control for drilling, positioning and tramming or hydraulic/proportional panel mounted on pivotal support arm for drilling operations.
- The rig is fitted with proportional, hydraulic servo-assisted controls that make operations smooth.
- Featured with Load Sensing System, it has lower running costs and a reduced wear and tear on components.



Working Configuration



Movements



Stroke	A	H ₁	H ₂
1400 - Zoom in/out	53°/48°	2910/2780 mm 114/109 in	3315/3145 mm 130/124 in
1900 - Zoom in/out	40°/35°	2815/2665 mm 111/104 in	3115/2935 mm 122/115 in
2400 - Zoom in/out	40°/35°	3130/2955 mm 123/116 in	3430/3225 mm 135/127 in
3400 - Zoom in/out	40°/35°	3765/3540 mm 148/139 in	4065/3810 mm 160/150 in

Stroke	B	H ₃
1400 - Zoom in/out	25°/35°	625/720 mm 24.5/28 in
1900 - Zoom in/out	25°/35°	1075/1030 mm 42.3/40.6 in
2400 - Zoom in/out	25°/35°	1075/1030 mm 42.3/40.6 in
3400 - Zoom in/out	25°/35°	1075/1030 mm 42.3/40.6 in

Stroke	C	H ₄
1400	25°	3660 mm 144 in
1900	25°	3880 mm 153 in
2400	18°	3660 mm 144 in
3400	10°	3350 mm 132 in

Technical data

Undercarriage



Undercarriage		
Type	fixed gauge	<i>fixed gauge</i>
Triple grouse track shoe width	300 mm	<i>11.8 in</i>
Wheel base (centre idler to centre sprocket)	1780 mm	<i>70.1 in</i>
Overall length	2303 mm	<i>90.7 in</i>
Overall width (not extendable crawler)	1700 mm	<i>66.9 in</i>
Travelling speed	1,8 km/h	<i>1.1 mph</i>
Average ground pressure	0,070 MPa	<i>10.2 psi</i>
Ground stabilizers	N°2 pivoting on front + N°2 fixed on rear	<i>N°2 pivoting on front + N°2 fixed on rear</i>

Diesel engine



Diesel Engine		
	Option 1	
Make and model	Deutz TCD3.6 L4	<i>Deutz TCD3.6 L4</i>
Emission certification ¹	EU stage V - US EPA Tier 4f	<i>EU stage V - US EPA Tier 4f</i>
Diesel engine power rating	100 kW @ 2000 rpm	<i>134 HP @ 2000 rpm</i>
Fuel tank capacity	160 l	<i>42 US gal</i>
AD Blue tank capacity	20 l	<i>5 US gal</i>
	Option 2	
Make and model	Deutz TCD3.6 L4	<i>Deutz TCD3.6 L4</i>
Emission certification	EU stage III - US EPA Tier 3	<i>EU Stage III - US EPA Tier 3</i>
Diesel engine power rating	100 kW @ 2000 rpm	<i>134 HP @ 2000 rpm</i>
Fuel tank capacity	160 l	<i>42 US gal</i>

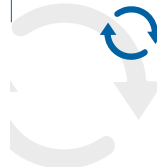
¹ Tier 3 also available

Hydraulic system



Hydraulic System		
Main pumps: <i>variable axial pumps</i>	200 l/min	<i>53 US gal/min</i>
Auxiliary pumps: <i>gear pumps</i>	86 + 23 l/min	<i>23 + 6 US gal/min</i>
Hydraulic oil tank capacity	270 l	<i>71 US gal</i>

Rotary head



Rotary	HR9F	HR9F	HT1700	HT1700
Gear box type	Double speed	<i>Double speed</i>	Double speed	<i>Double speed</i>
Maximum torque	785 daNm	<i>5790 lbf*ft</i>	1953 daNm	<i>14405 lbf*ft</i>
Maximum rotation	136 rpm	<i>136 rpm</i>	110 rpm	<i>110 rpm</i>
Inner passage	117 mm	<i>4,6 in</i>	134 mm	<i>5,3 in</i>
	HR16F	HR16F	HR16	HR16
Gear box type	Double speed	<i>Double speed</i>	Double speed	<i>Double speed</i>
Maximum torque	927 daNm	<i>6837 lbf*ft</i>	1570 daNm	<i>11580 lbf*ft</i>
Maximum rotation	230 rpm	<i>230 rpm</i>	136 rpm	<i>136 rpm</i>
Inner passage	117 mm	<i>4,6 in</i>	117 mm	<i>4,6 in</i>

Clamp & hydraulic joint breaker



	HR7G	HR7G	HR9F	HR9F
Gear box type	6 Speed	<i>6 Speed</i>	Double speed	<i>Double speed</i>
Maximum torque	696 daNm	<i>5133 lbf*ft</i>	785 daNm	<i>5790 lbf*ft</i>
Maximum rotation	862 rpm	<i>862 rpm</i>	136 rpm	<i>136 rpm</i>
Inner passage	56 mm	<i>2,2 in</i>	117 mm	<i>4,6 in</i>
	HR9F	HR9F	HR6G	HR6G
Gear box type	Double speed	<i>Double speed</i>	Double speed (+2 Man)	<i>Double speed (+2 Man)</i>
Maximum torque	785 daNm	<i>5790 lbf*ft</i>	664 daNm	<i>4897 lbf*ft</i>
Maximum rotation	136 rpm	<i>136 rpm</i>	305 rpm	<i>305 rpm</i>
Inner passage	117 mm	<i>4,6 in</i>	56 mm	<i>2,2 in</i>

Clamp & Hydraulic joint breaker		
	Option 1	
Nominal size	50 - 220 mm	
Maximum clamping force	141 kN	
Maximum breaking torque	3038 daNm	
	<i>22407 lbf*ft</i>	
	Option 2-3	
Nominal size (Option 2)	50 - 320 mm	
Nominal size (Option 3)	50 - 360 mm	
Maximum clamping force	141 kN	
Maximum breaking torque	4111 daNm	
	<i>30321 lbf*ft</i>	

Service winch



Service winch		
Type	Controlled descent	<i>Controlled descent</i>
1° layer line pull	5 kN	<i>1124 lbf</i>
Rope diameter	6 mm	<i>0,2 in</i>
Rope speed	42 m/min	<i>138 ft/min</i>

Hoist & Feed System



Hoist & Feed System		
	Modular mast	
Type	gear motor	<i>gear motor</i>
Feed Stroke (Option 1)	1400 mm	<i>55,1 in</i>
Feed Stroke (Option 2)	1900 mm	<i>74.8 in</i>
Feed Stroke (Option 3)	2400 mm	<i>94.5 in</i>
Feed Stroke (Option 4)	3400 mm	<i>133.9 in</i>
Max Hoist pull	52 kN	<i>11690 lbf</i>
Max Feed force	52 kN	<i>11690 lbf</i>

Technologies

TOP HAMMER

Model	RH5X	<i>RH5X</i>
Weight	350 kg	<i>772 lb</i>
Maximum torque	435 daNm	<i>3208 lbf*ft</i>
Blow frequency @ Impact energy	2400/min @ 320 Nm	<i>2500/min @ 369 lb*ft</i>

DOUBLE ROTARY

Model	RH200	<i>RH200</i>	RH4X	<i>RH4X</i>
Rotary type	Upper rotary for rods			
Maximum torque	210 daNm	<i>1549 lbf*ft</i>	500 daNm	<i>3688 lbf*ft</i>
Maximum rotation speed	150 rpm	<i>150 rpm</i>	128 rpm	<i>128 rpm</i>
Model	RH4X	<i>RH4X</i>	RH10X	<i>RH10X</i>
Rotary type	Lower rotary for casing			
Maximum torque	500 daNm	<i>3688 lbf*ft</i>	1100 daNm	<i>8113 lbf*ft</i>
Maximum rotation speed	128 rpm	<i>128 rpm</i>	58 rpm	<i>128 rpm</i>

JET GROUTING

Max treatment depth in a single passage (<i>min - max</i>)	7 - 9 m	<i>23 - 30 ft</i>
Drillguide extensions	5,86 m	<i>19 ft</i>
Rod diameter	90 mm	<i>3,5 in</i>

Configurations

Base Machine

Fixed undercarriage	<input checked="" type="checkbox"/>
Upper frame complete with slew ring for 360° rotation	<input checked="" type="checkbox"/>
Wired remote control for tramping only	<input type="checkbox"/>
Full radio remote control	<input checked="" type="checkbox"/>
7" LCD monitor for alarms & diesel engine control and DMS connectivity	<input checked="" type="checkbox"/>
Hydraulic and proportional controls for all operations	<input checked="" type="checkbox"/>
Mast extension kits	<input checked="" type="checkbox"/>
Auxiliary winch, 5 kN (1124 lbf)	<input checked="" type="checkbox"/>
Clamp & breaker 50-220 mm (1.96 - 8.7 in)	<input type="checkbox"/>
Clamp & breaker 50-320 mm (1.96 - 12.6 in)	<input checked="" type="checkbox"/>
Clamp & breaker 50-360 mm (1.96 - 14.26 in)	<input type="checkbox"/>
Fixed boom	<input type="checkbox"/>
Telescopic boom	<input checked="" type="checkbox"/>
Kinematic mechanism - 90° joint	<input type="checkbox"/>
Kinematic mechanism - ± 180° motoreducer	<input checked="" type="checkbox"/>
Diesel engine EU Stage V - US EPA Tier 4f	<input checked="" type="checkbox"/>
Diesel engine EU Stage III - US EPA Tier 3	<input type="checkbox"/>
Load sensing hydraulic system	<input checked="" type="checkbox"/>
Hydraulic prearrangement for auxiliary pumps	<input checked="" type="checkbox"/>
Rotary cradle complete with pads and side shifting movements	<input checked="" type="checkbox"/>
Floating system for rotary head	<input type="checkbox"/>
Air/water system and line lubricator for DTH	<input type="checkbox"/>
Foam pump c/w gauge pressure and safety valve	<input type="checkbox"/>
Water & mud pumps	<input type="checkbox"/>
Centering device	<input type="checkbox"/>
Slow rotation kit and special protective mode	<input type="checkbox"/>
Hydraulic safety cage kit driven by cylinder	<input type="checkbox"/>
Lighting system on mast	<input type="checkbox"/>
Washing kit including with hose rewiner & washing lance	<input checked="" type="checkbox"/>
Fire extinguisher	<input checked="" type="checkbox"/>
Double rotary kit	<input type="checkbox"/>
Jet grouting kit, single fluid	<input type="checkbox"/>
Jet grouting kit, double fluid	<input type="checkbox"/>
Hydraulic chuck complete with gauge pressure and safety device	<input type="checkbox"/>
Extension for jet grouting	<input type="checkbox"/>
Fully hydraulic version prearrangement for Jet Grouting	<input type="checkbox"/>
Full radio version prearrangement for Jet Grouting	<input type="checkbox"/>
Hydraulic pump for foam 30 l/min @ 150 bar (7.9 gallon @ 2176 psi)	<input type="checkbox"/>
Triplex pump for water flushing 200 l/min @ 80 bar (52.8 gallon @ 1160 psi)	<input type="checkbox"/>
RH200 Top hammer Kit and prearrangement	<input type="checkbox"/>
RH4x Top Hammer Kit and prearrangement	<input type="checkbox"/>
RH10x Top Hammer Kit and prearrangement	<input type="checkbox"/>
Start & Slow engine control for radio remote version	<input checked="" type="checkbox"/>
Start & Slow engine control for hydraulic version	<input type="checkbox"/>

standard

optional



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#muddyboots