



# EK60

MULTI-PURPOSE PILING RIG

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## MULTI-PURPOSE PILING RIG



The GEAX EK60 is a multi-purpose piling rig designed to achieve the highest levels of versatility, manoeuvrability, ease of use, transportation, production and reliability. It is configured to operate in various different piling modes. For each drilling mode a special kit is designed to optimize the performances. However, the modularity of the components makes the conversion among the different kits extremely easy, fast and low-cost.

The GEAX EK60's outstanding production capability is comparable to machines of a much larger size. Its excellent stability allows easy manoeuvrability on job sites and ensures fast and safe operating movements. Its compactness and low weight allows easy transportation without special permits. The Hitachi Zaxis 130 or JCB JS130 base carrier, constructed to GEAX specifications, ensures excellent reliability and maintenance with operator cabin comfort not available on proprietary machines. The GEAX EK60 (in common with other GEAX machines) has an articulation structure similar to a

normal excavator with a long boom supporting the mast. This allows a wide range of mast positioning and independent adjustment of the vertical position of the mast. Wire rope positions are not dependent on the position of the mast as the winches are mounted on the mast itself. This design, compared to other machines, usually with parallelogram type mast supports, ensures the following:

- Excellent rigidity and lightness
- More precise movements
- Fast setup time
- Wide range of tool positioning
- Simpler maintenance
- Better visibility for the operator

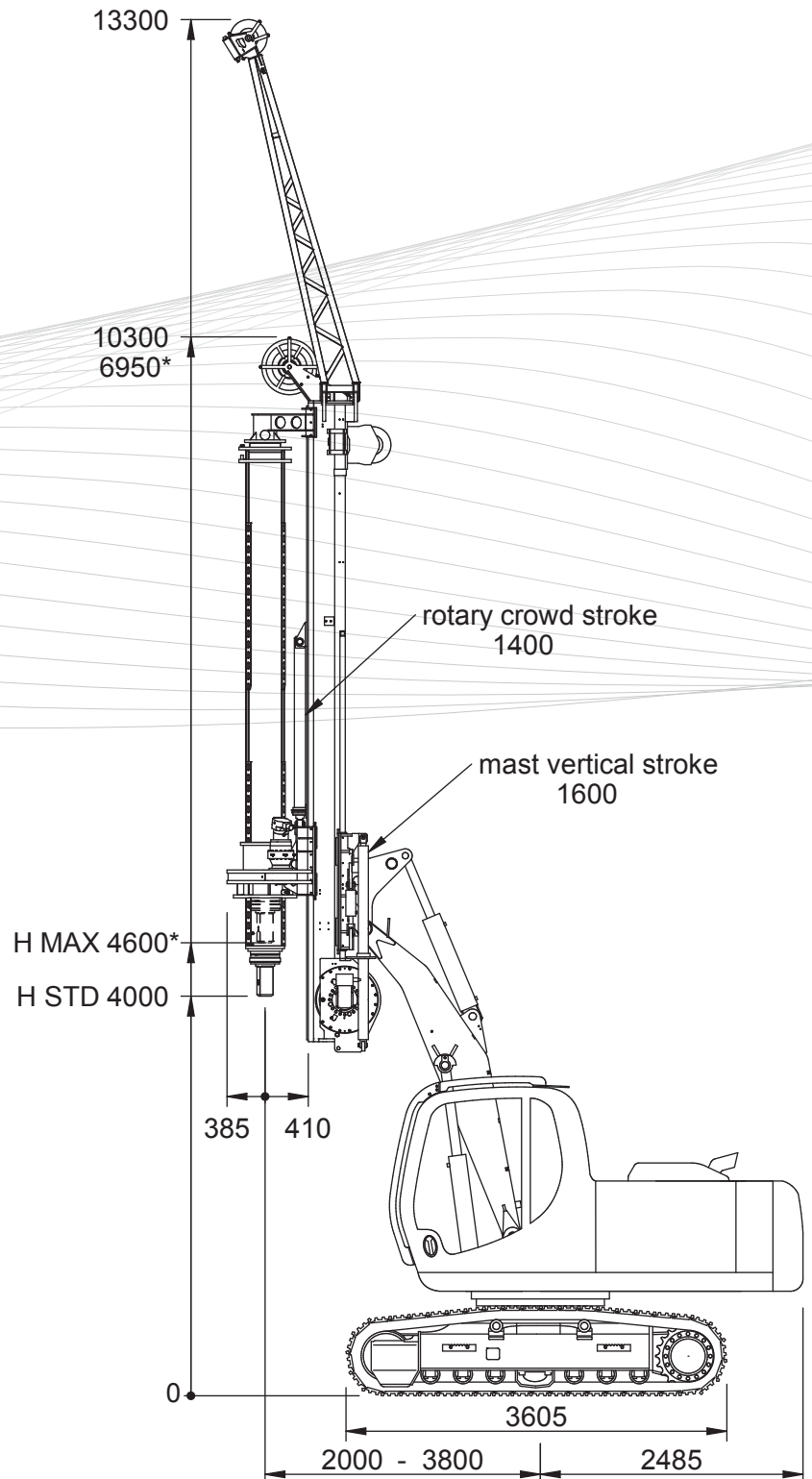
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## LARGE DIAMETER PILES

<b>Pull down force</b>	80 kN - 18.000 lbf
<b>Extraction force</b>	180 kN - 40.470 lbf
<b>Mast vertical stroke</b>	1.600 mm - 5.25 ft
<b>Total rotary stroke</b>	3.000 mm - 9.85 ft
<b>Max pile diameter</b>	1.200 mm - 48 in
<b>Max pile depth</b>	up to 28.5 m - 93.5 ft
<b>Min working height</b>	6950* mm - 22.8 ft
<b>Weight (w/o tool)</b>	19.000 kg - 42.400 lb

<b>KELLY BAR OPTIONS</b>	Depth	H
6 x 4 m *	21 m	4600 mm
6 x 4.6 m Standard	25 m	4000 mm
6 x 5.2 m	28.5 m	3400 mm
5 x 4.6 m Heavy Duty	21 m	4000 mm
5 x 5.2 m Heavy Duty	24 m	3400 mm

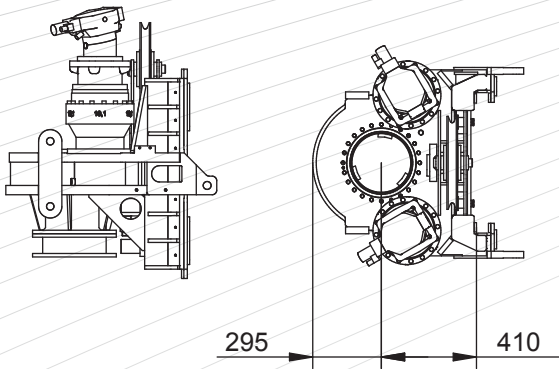
All the kelly bars are round interlocking  
Custom measures available upon request



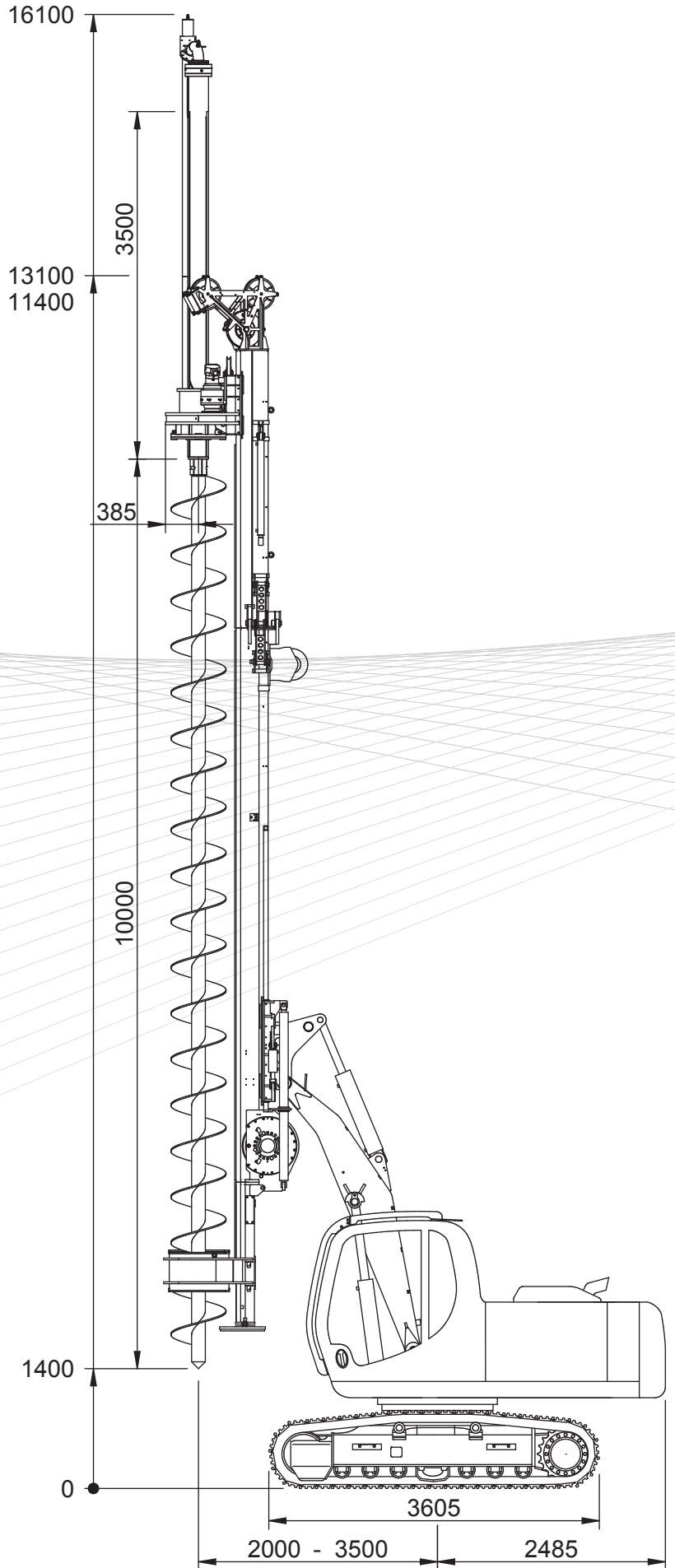
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CFA

<b>Pull down force</b>	80 kN - 18.000 lbf
<b>Extraction force</b>	240 kN - 54.000 lbf
<b>Mast vertical stroke</b>	1.600 mm - 5.25 ft
<b>Total rotary stroke</b>	11.100 mm - 36.4 ft
<b>Max pile diameter</b>	600 mm - 24 in
<b>Max pile depth</b>	13.5 m - 44.3 ft
<b>Min working height</b>	11.400 mm - 37.4 ft
<b>Weight (w/o tool)</b>	17.500 kg - 38.560 lb



Front of the wall Rotary (optional)



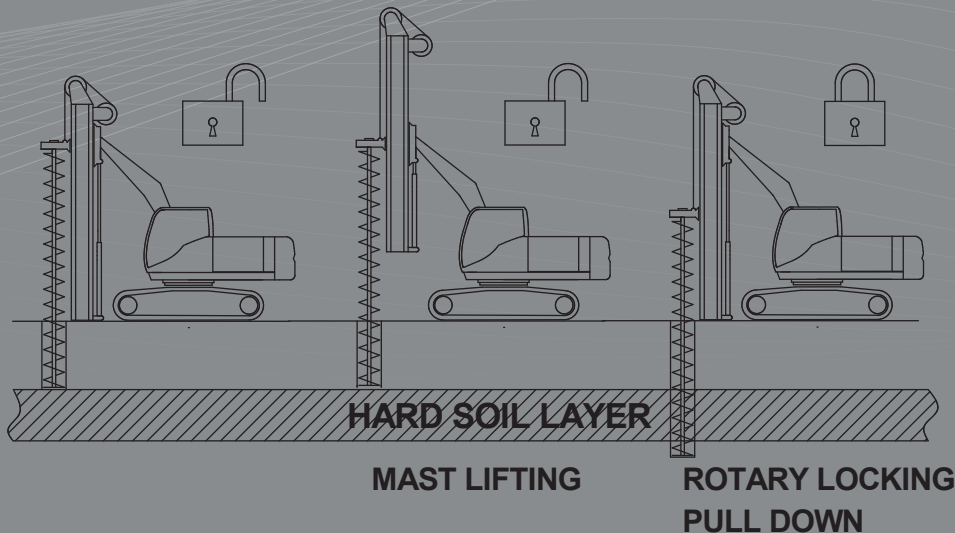
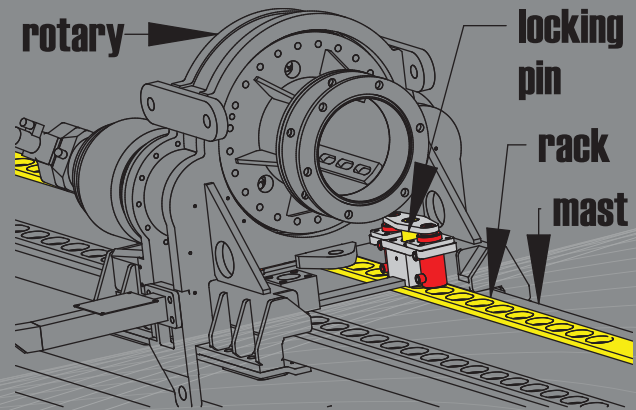
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## BPS patented crowd system for CFA piles

The pull-down system type BPS is GEAX's patented crowd system for CFA piling, providing a mechanical locking system between the rotary head and the mast which creates a crowd force on the auger and the crowd force is available along the entire length of the mast.

The pull-down system is activated only when needed by the operator and requires no pulleys or ropes.

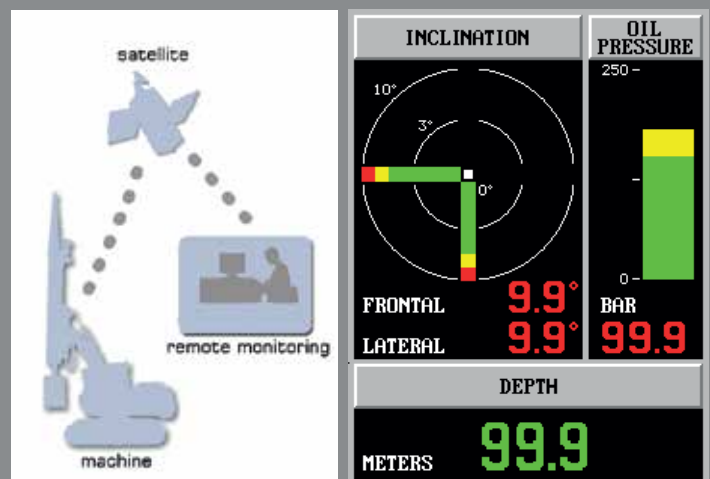


## Electronic devices

EK series machines are equipped with an electronic system which controls and displays several functions and parameters.

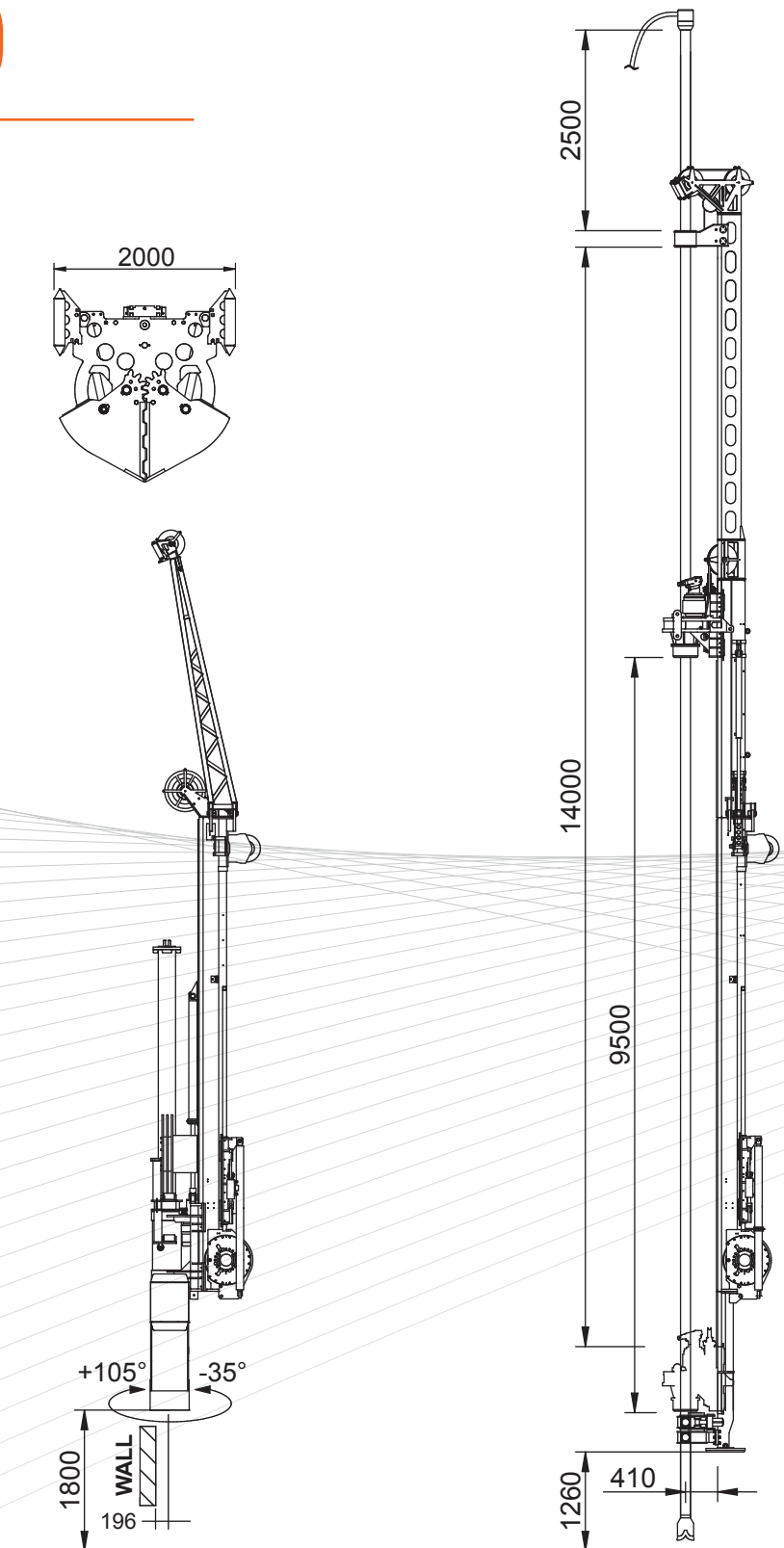
- Automatic alignment of the mast
- Mast inclination display
- Depth measuring device
- Pressure gauge for an auxiliary input

A GPS system enables GEAX owners to monitor and manage their machines remotely by a PC connected to the Internet



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## DRILLING KITS



### Diaphragm wall

Max Depth 16 m  
Trench width 300 ÷ 600 mm  
Trench lenght 2000 mm  
Grab closing force 120 kN  
Grab rotation +105° ÷ -35°

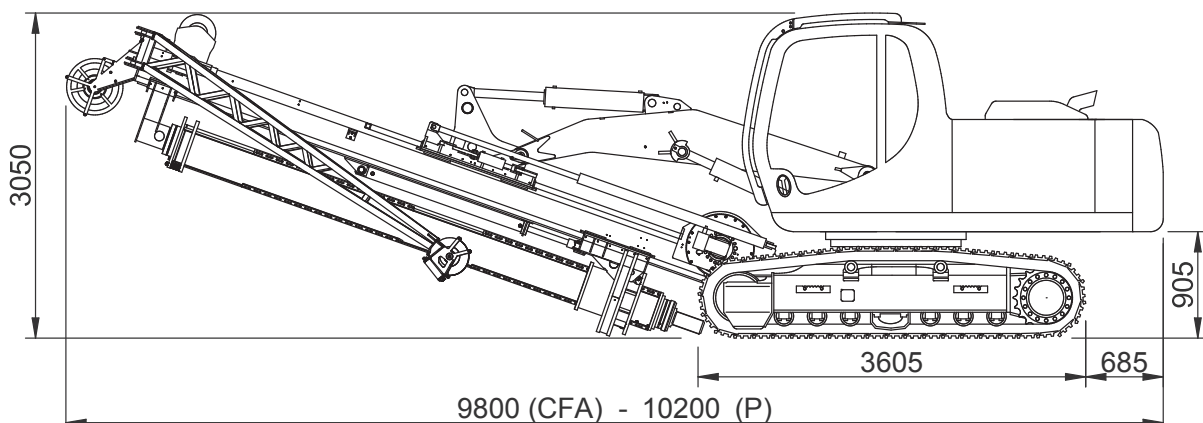
### Jet Grouting

Max depth 17.5 m  
Max torque 12 kNm  
Rotary speed 40÷180 rpm  
Pull down force 80 kN  
Extraction force 160 kN  
Rev. clamps 60÷360 mm  
Mandrel 60÷140 mm

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## TECHNICAL DATA SHEET

<b>BASE</b>		<b>HITACHI ZX130 / JCB JS130</b>	
Engine	<i>type</i>	ISUZU AM-4JJ1X / JCB ECOmax 444	
Engine power	<i>kW (hp)</i>	73.4 (98) / 81 (109)	
Undercarriage length	<i>mm - ft</i>	3580 - 11.75 / 3605 - 11.82	
Width over tracks	<i>mm - ft</i>	2490 - 8.2	
Shoe width	<i>mm - in</i>	500 - 19.7	
<b>HYDRAULIC SYSTEM</b>			
Main pumps	<i>l/min</i>	2x117 / 2x124	
Auxiliary pump	<i>l/min</i>	2x33.6 / 2x20.5	
Hydraulic pressure	<i>bar</i>	320	
<b>MAST</b>			
Forward inclination	<i>deg</i>	20	
Backward inclination	<i>deg</i>	20	
Lateral inclination	<i>deg</i>	6.5	
Mast vertical stroke	<i>mm - ft</i>	1600 - 5.25	
<b>ROTARY</b>			
Nominal torque	<i>kNm - lbf ft</i>	56 - 41.300	
Drilling speed	<i>rpm</i>	10 ÷ 60	
Spin off speed	<i>rpm</i>	60	
<b>WINCHES</b>		<b>KELLY</b>	<b>CFA</b>
Main winch line pull	<i>kN - lbf</i>	80 - 18.000	80x3 - 18.000x3
Aux winch line pull	<i>kN - lbf</i>	25 - 5.600	25 - 5.600
<b>CROWD SYSTEM</b>			
Pull down force	<i>kN - lbf</i>	80 - 18.000	80 - 18.000
Extraction force	<i>kN - lbf</i>	180 - 40.450	240 - 54.000
Total rotary stroke	<i>mm - ft</i>	3.000 - 9.85	11.100 - 36.4
<b>EXCAVATION</b>			
Max pile diameter	<i>mm - in</i>	1.200 - 48	600 - 24
Max pile depth	<i>m - ft</i>	up tp 28.5 - 93.5	13.5 - 44.3
Min working height	<i>mm - ft</i>	6.950* - 22.8	11.400 - 37.4
<b>TRANSPORT</b>			
Length	<i>mm - ft</i>	10.200 - 33.4	9.800 - 32.1
Width	<i>mm - ft</i>	2.490 - 8.2	2.490 - 8.2
Height	<i>mm - ft</i>	3.050 - 10	3.050 - 10
Weight	<i>kg - lbs</i>	19.000 - 42.400	17.500 - 38.560





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