

CH 150

Self-Erecting Hydraulic Piling Rig



 **COMACCHIO**

CH 150

MULTIPURPOSE PILING RIG

The winning solution for job sites of short duration that require frequent operations of transport and setting up.

Truly self-erecting. The machine is self-erecting, and can be transported in one piece/fully assembled with the rotary head and kelly bar on. Once on site, the rig is easily off loaded from the truck and set up without the need for crane service.

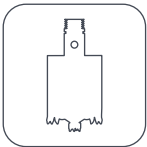
Range of drilling technologies. The CH 150 allows for the use of the following drilling technologies:

BP (Bored Piles) uncased bored piles, excavated by dry method or stabilized by drilling fluid;

CBP (Cased Bored Piles) bored piles with casing installation by rotary drive;

CFA (Continuous Flight Auger) piles that are drilled by the use of a continuous hollow auger stem.

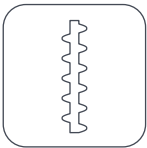
Performance



	m.s.	i.s.	BP (Bored Piles)		CBP (Cased Bored Piles)	
Max. pile diameter	mm	ft-in	750 / 1.000 ⁽¹⁾	2' 6" / 3' 3" ⁽¹⁾	750	2' 6"
Max. pile depth	m	ft-in	27 ⁽²⁾	88' 7" ⁽²⁾	-	-

(1) tool below mast.

(2) using 9-elements locking kelly bar.



	m.s.	i.s.	CFA (Continuous Flight Auger)	
Max. pile diameter	mm	ft-in	750	2' 6"
Max. pile depth	m	ft-in	12,1 ⁽³⁾	39' 8"

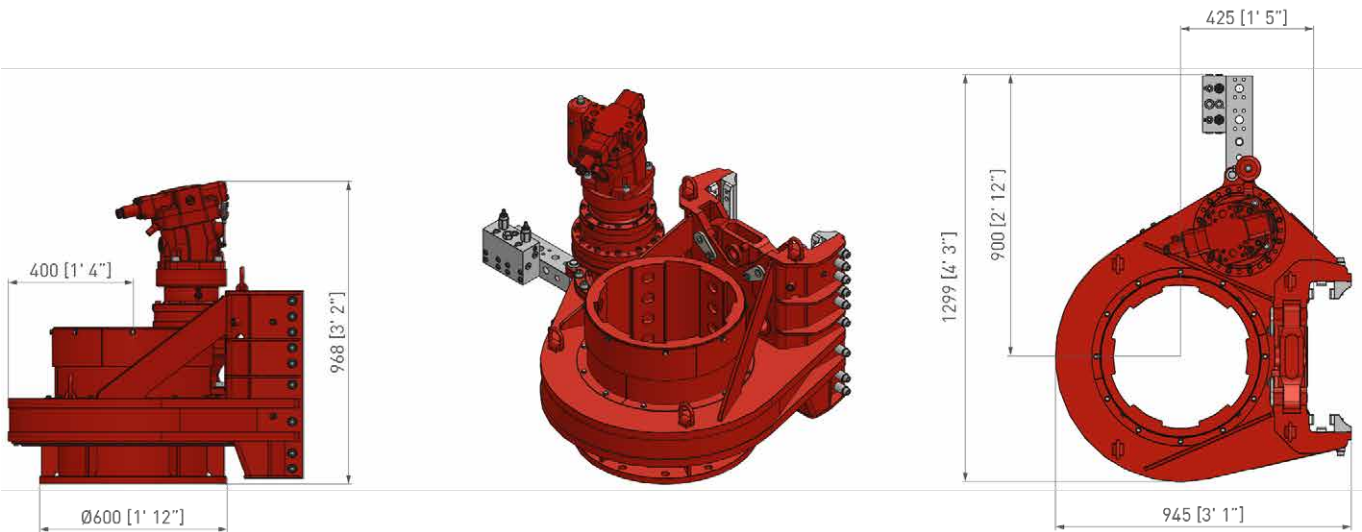
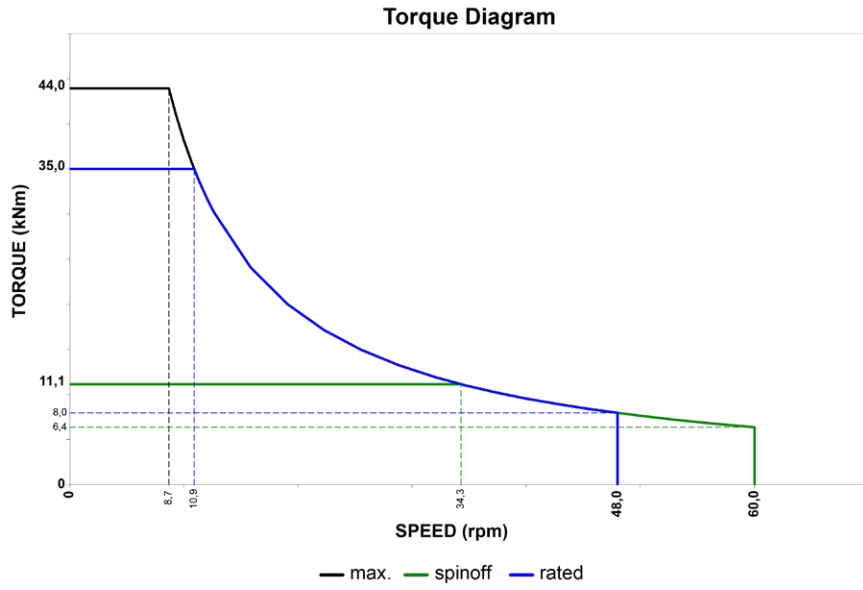
(3) with 4,0 (13' 1") m auger extension.



Undercarriage		m.s.	i.s.		
Type		-		Variable gauge	
Track shoe width	mm	ft-in	450	1' 5" ¹¹ / ₁₆	
Track shoe type		-		Triple grouser	
Overall width (retracted side frames)	mm	ft-in	2.320	7' 7" ⁵ / ₁₆	
Overall width (extended side frames)	mm	ft-in	2.920	9' 6" ¹⁵ / ₁₆	
Overall length	mm	ft-in	3.076	14' 1"	
Centre idler to centre sprocket	mm	ft-in	2.480	8' 1" ⁵ / ₈	
Upperframe					
Width	mm	ft-in	2.235	7' 4"	
Operators' cabin		-		ROPS - TOPS & FOPS-1 certified, 1030 mm (3' 4") wide	
Control system type		-		CAN-BUS	
User interface		-		5" Touch Screen	
Tail swing radius	mm	ft-in	1.300	4' 3" ³ / ₁₆	
Diesel Engine		High Tech Line			
Make and model		-		YANMAR 4TNV98CT	
Emission certification		-		EU stage V / US EPA Tier 4f	
Aspiration		-		Turbocharged	
Power rating (2.100 rpm)	kW	HP	54	73	
Displacement	cc	in ³	3.319	203	
Fuel tank	l	gal	105	28	
Hydraulic System					
Main pumps flow	l/min	gal/min	180	48	
Main pump working pressure	MPa	Psi	28	4,061	
Hydraulic oil tank capacity	l	gal	90	24	
Main Winch					
Type		-		Controlled descent	
1 st layer line pull	kN	lbs	65	14,612	
1 st layer rope speed	m/min	ft/min	64	210'	
Rope diameter	mm	in	15	⁹ / ₁₆ "	
Rope layers		-		2	
FEM classification		-		M5-L2-T5	
Service Winch					
Type		-		Controlled descent	
1 st layer line pull	kN	lbs	27	6,069	
1 st layer rope speed	m/min	ft/min	55	180'	
Rope diameter	mm	in	10	³ / ₈ "	
Rope layers		-		4	

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Rotary Head



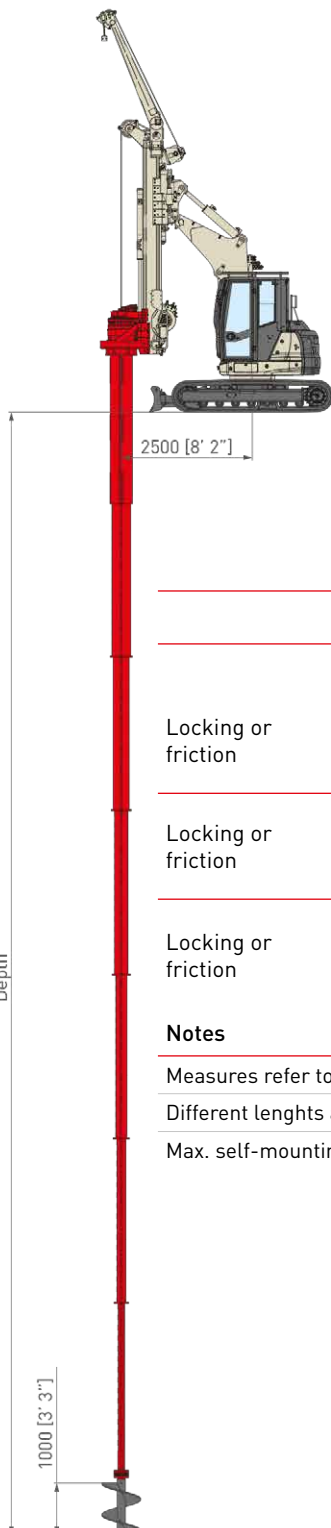
Rotary Head	m.s.	i.s.	CR 4	
Nominal max. torque	kNm	lbf-ft	44 at 35 MPa	32,450 at 5,076 psi
Max. torque	kNm	lbf-ft	35 at 28 MPa	25,800 at 4,060 psi
Max. drilling speed	rpm		48	
Hydraulic power	kW	HP	40	54
Spin-off speed	rpm		60	

Comacchio Innovative Kelly bar system

Kelly bar sizes	m.s.	i.s.	Outer diameter	
		mm	in	419

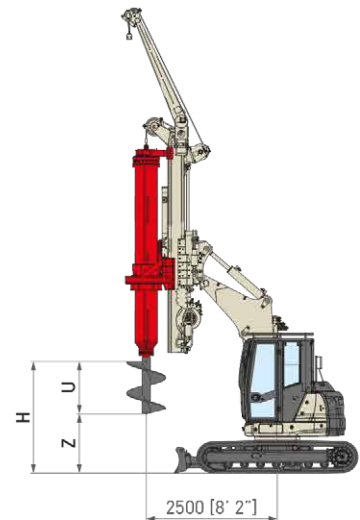
Note

Different sizes upon request.



$$U \text{ (approx.)} \quad \text{mm} \quad \text{ft-in} \quad 1.000 \quad 3' 3''$$

$$Z = H - U$$



	Kelly bar				CPD				
	N.	Length		Weight		Depth		H ⁽¹⁾	
		(m)	(ft-in)	(kg)	(lbs)	(m)	(ft-in)	(m)	(ft-in)
Locking or friction	5	2,7	8' 10"	1.260	2,780	11,25	36' 11"	2,9	9' 6"
	5	3,5	11' 6"	1.530	3,370	15,25	50'	2,1	6' 11"
Locking or friction	7	2,7	8' 10"	1.530	3,370	15,85	52'	2,9	9' 6"
	7	3,5	11' 6"	1.880	4,140	21,45	70' 4"	2,1	6' 11"
Locking or friction	9	2,7	8' 10"	1.650	3,640	20,40	66' 11"	2,9	9' 6"
	9	3,5	11' 6"	2.040	4,500	27,60	90' 7"	2,1	6' 11"

Notes

Measures refer to 2.500 mm [8' 2"] working radius.

Different lengths available upon request.

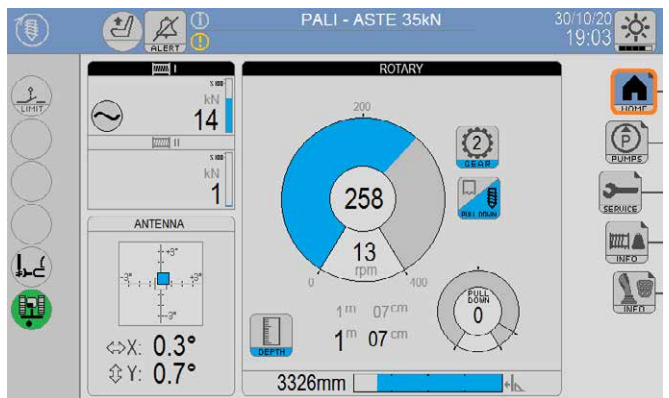
Max. self-mounting kelly length 2,7 m [8' 10"].

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Options and Accessories

Standard equipment

Hoist and lowering limit switches on main and service ropes	Diagnostic panel for hydraulic, electrical and electronic functions
Mast inclination measurement on X & Y axes (digital and analog display)	Rollover, front and top cabin protective grate (FOPS-1 certified)
Depth measuring device on main winch	Radio CD player
Rpm measuring device on rotary	Phone charger
Crowd pressure setting	CCS Comacchio Controlling System - 5" Touch Screen
Heating & air conditioning system	Spinoff and shaker tool dump systems
Engine diagnostic panel	Rotary auto speed management & interactive multiple gear
Transport securing lugs on crawler unit	Tool box
Work lights	



CCS: Home page

Optional equipment

Biodegradable oil	Flange for casing driving
Swivel for auxiliary rope	Washing kit
CFA cleaner (star or hydraulic type)	ComNect system
Flange for bucket opening	Data logger

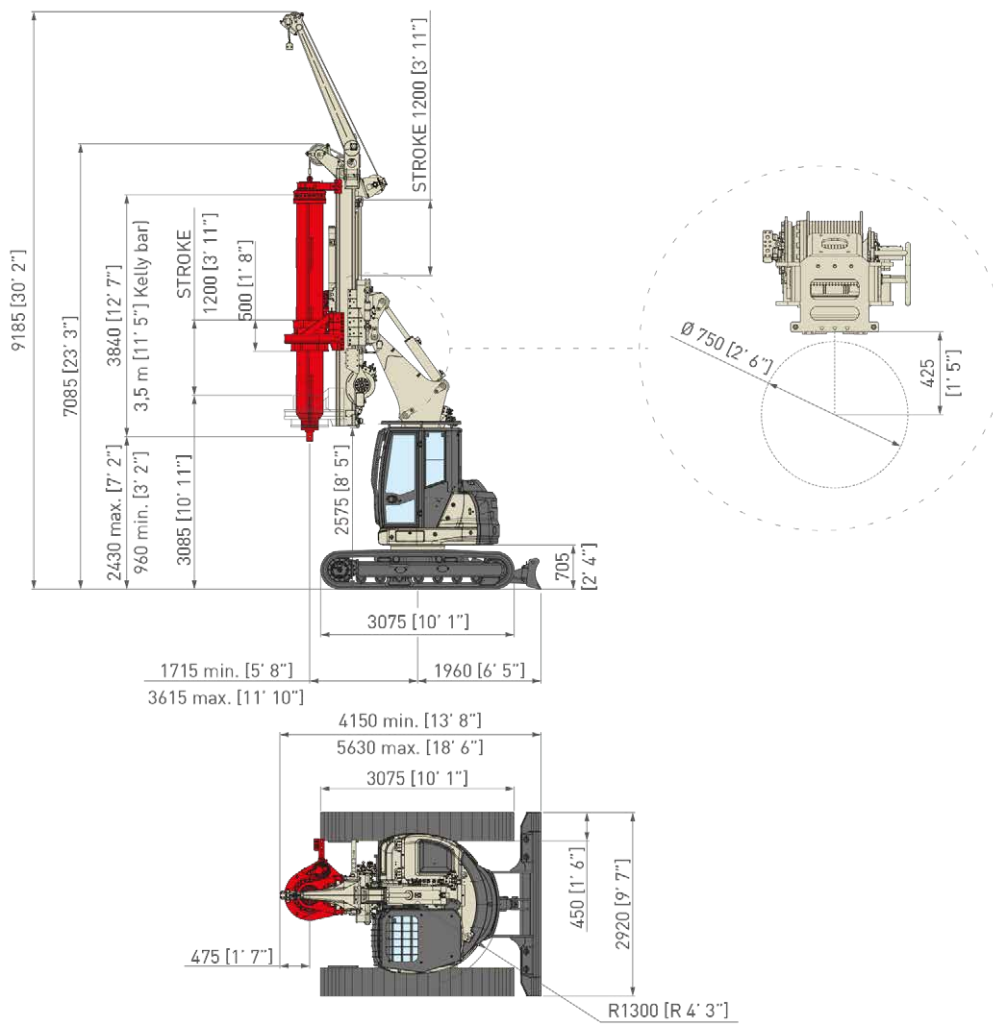
CE conformity kit

Main and aux winch load cells	Rubber strip guards on auger guide
CFA cleaner	



CH 150 - CPD

Overall dimensions



CPD (Cylinder Pull Down)

	m.s.	i.s.		
Stroke	mm	ft-in	1.200	3' 11"
Max. pull up force	kN	lbs	60	13,488
Max. pull down force	kN	lbs	60	13,488
Max. pile diameter	mm	ft-in	750 - 1.000 ⁽¹⁾	2' 6" - 3' 3" ⁽¹⁾
Operating weight w/o tool	kg	lbs	15.000 ⁽²⁾	33,000 ⁽²⁾

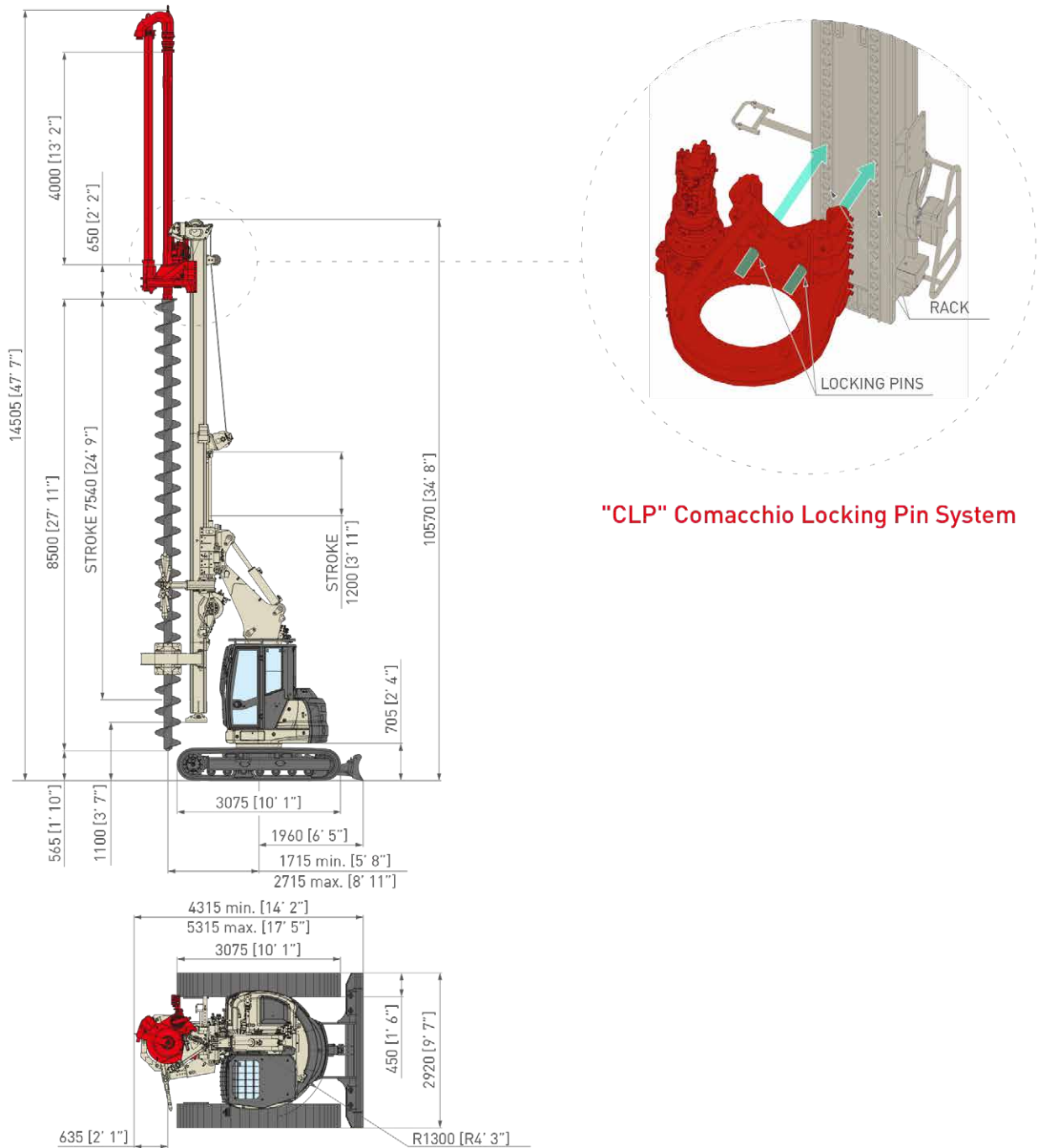
Notes

(1) tool below mast.

(2) c/w 7 x 2,7 m [7 x 8' 10"] long kelly bar.

CH 150 - CFA

Overall dimensions



"CLP" Comacchio Locking Pin System

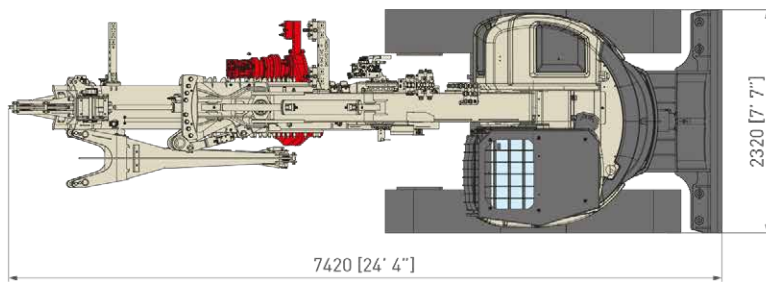
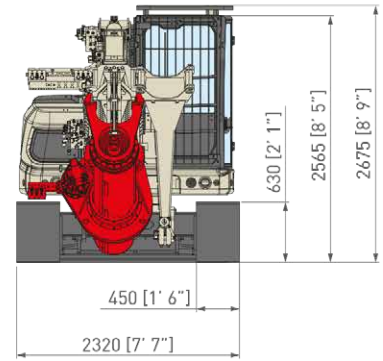
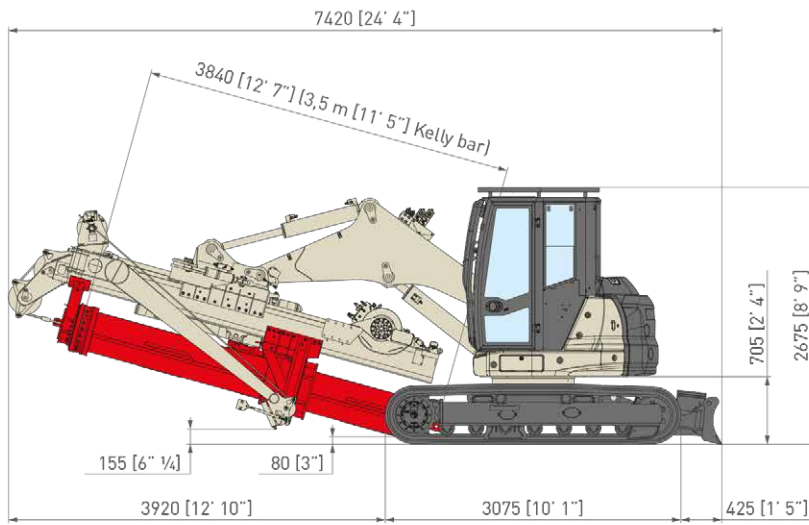
CFA	m.s.	i.s.		
Max. pile diameter	mm	ft-in	750	2' 6"
Max. length of augers	m	ft-in	8,5	27' 11"
Max. length of auger extension	m	ft-in	4,0	13' 1"
Max. pile depth without/with auger extension	m	ft-in	8,1 / 12,1 ⁽¹⁾	26' 7" / 39' 8"
Extraction force	kN	lbs	170	37,217
Crowd force on auger (optional with "CLP System")	kN	lbs	60	13,500

Note

(1) with 4,0 m (13' 1") auger extension & star cleaner.

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Transport dimensions



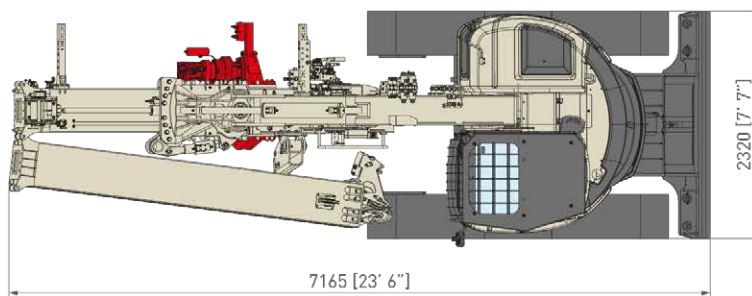
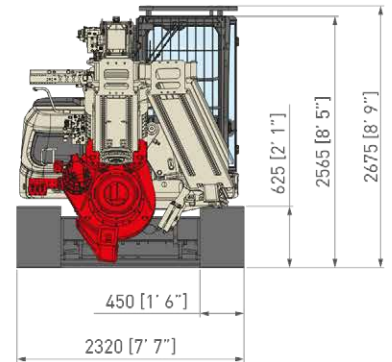
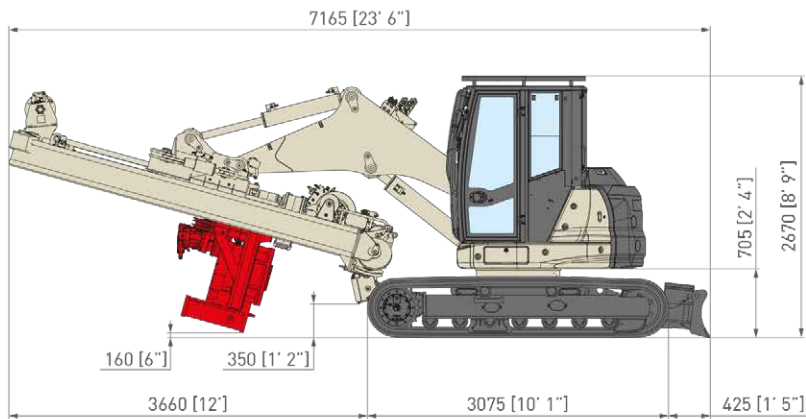
	m.s.	i.s.	CPD	
Transport weight ⁽¹⁾	kg	lbs	15.000	33.000

Note

(1) c/w 7 x 2,5 m [7 x 6' 6"] long Kelly bar.

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Transport dimensions



	m.s.	i.s.	CFA	
Transport weight ⁽²⁾	kg	lbs	14,000	30,000

Note

(2) without augers, auger extension, auger cleaner, auger guide.



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