

Heavy Duty Crawler Crane

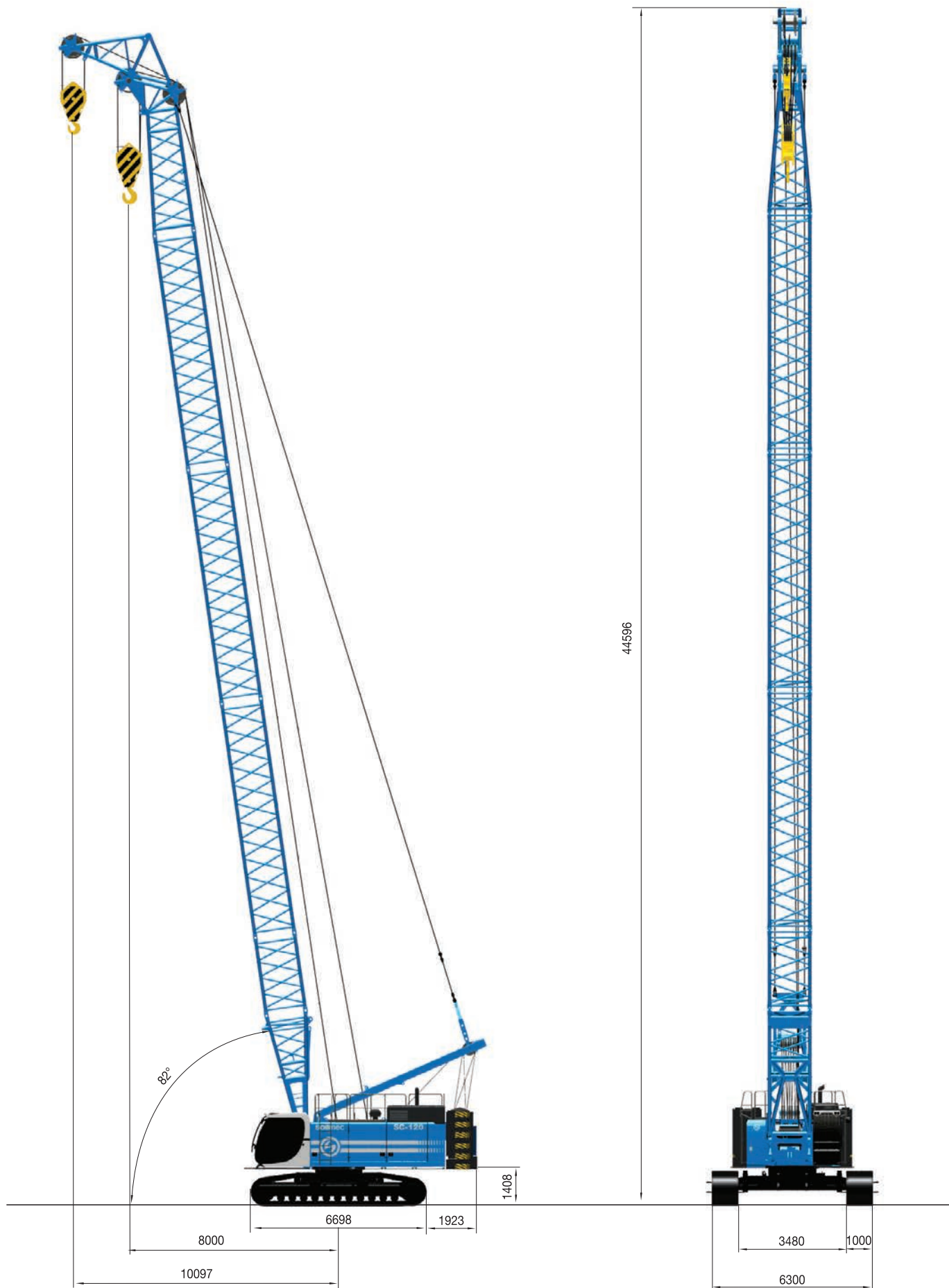
SC-120 HD



soilmeco 
Drilling and Foundation Equipment

SC-120 HD Heavy Duty Crawler Crane

MAIN BOOM EQUIPMENT



SC-120 HD Heavy Duty Crawler Crane

TECHNICAL DATA SHEET

Operating weight (c/w 11 m boom and jib)	117400 kg	258822 lb
Diesel engine	CAT C18 with ACERT™ Technology	CAT C18 with ACERT™ Technology
- Max Rated Power	470 kW @ 1800 rpm	630 HP @ 1800 rpm
- Engine conforms to exhaust emissions standard	EU Stage IIIB- EPA Tier 4i	EU Stage IIIB- EPA Tier 4i
- Displacement	18,1 l	4,8 US gal
- Aspiration	Turbocharged	Turbocharged
Hydraulic system		
- Main pums max oil flow	3x 360 + 2x 325 l/min	3x 95.1 2x 235 US gal
Service refill capacity		
- Fuel Tank	800 l	211 US gal
- Hydraulic Tank	840 l	222 US gal
Main winches	2 x LFF300	2 x LFF300
- 1st layer line pull (effective line pull)	357 kN	80255 lbf
- Rope diameter	300 kN	67442 lbf
- Rope speed	90 m/min	296 ft/min
- Rope capacity 1st layer	38 m	124.7 ft
Boom		
- Length min-max	11 - 56 m	36.1 - 183.7 ft
- Tubolar (horizontal x vertical)	1500 x 1500 mm	59.1 x 59.1 in
- Boom extension length	3 - 6 m	9.8 - 19.7 ft
Upper Frame		
- Slewing speed	3 rpm	3 rpm
- Slewing bear type	Triple row roller bearing	Triple row roller bearing
- Counterweight	36030 kg	79433 lb
Undercarriage	Fixed gauge, removable sides	Fixed gauge, removable sides
- Overall width	6000 mm	236.22 in
- Overall length of crawlers	6698 mm	263.70 in
- Track shoe width - Triple grouser	1000 mm	39.37 in
- Travel speed	0,8 - 1,6 km/h	0.5 - 1.0 mph

STANDARD EQUIPMENT

BASE MACHINE

- 2 x 225 Ah capacity batteries for low temperature
- PLC system for electric-hydraulic controls
- Steps for crawlers
- Tracks with chain tensioning device
- Grease lubricated tracks
- Automatic swing parking brake and automatic travel parking brake
- Two front working lights
- Rear view mirror
- Counterweight self-removal
- Swivel for main rope
- Hydro-clean micro filtration with water separation
- Electric refuelling pumps for diesel and hydraulic oil with automatic stop system.

CAB / CONTROL

- Air conditioner, heater and defroster with automatic climate control
- Beverage/Cup holder
- Radio and CD player
- High brightness led internal to the cab
- Courtesy lights in the cab
- Signal/warning horn
- Floor mat
- Lockable glove compartment
- Retracted seat belt
- Stationary skylight
- Sunshade for windshield
- Travel control pedals with removable hand levers
- Parallelogram wiper including a washer nozzle mounted below the cab windshield

- Warning in cab of hydraulic oil contamination
- Tempered safety glass panel
- Armrests

SAFETY DEVICE

- Load Moment Indicator (with boom lowering slow stop function)
- Fire extinguisher
- Cab top guard
- Catwalk (on side and in front of operator's cab)
- Depthmeter on both main winches
- State-of-the-art safety load indicator with graphic display
- Rope and Load limit switch.
- Hoist limit switch on both main winches

OPTIONAL EQUIPMENT

- Track triple grouser: 900 mm
- Flat track shoes
- Windshield guards
- Reversible cooling fan including protective screen
- Bio lubrication engine oil
- "CAT BIO HYD ADVANCED" hydraulic bio-oil (compliant with European directive 2005/360/EC).
- GSM modem
- Hydraulic arrangement for Casing oscillator

- attachment
- Positive or negative free fall controls
- Satellite system for remote transmission of operating data
- Electric hand throttle
- Auxiliary winch
- Tagline winch
- Automatic lubrication system
- Winch synchronisation (both winches work with

- the same speed)
- Potentiometer to tune the load between main winches during 2-rope grab operation
- 3-color percentage indicator
- Swing and travel alarm
- Lights for overall dimensions
- LCD cameras monitor multi-display
- EU Stage IIIA - EPA Tier III
- EU Stage IV- EPA Tier 4f

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LOAD CHART

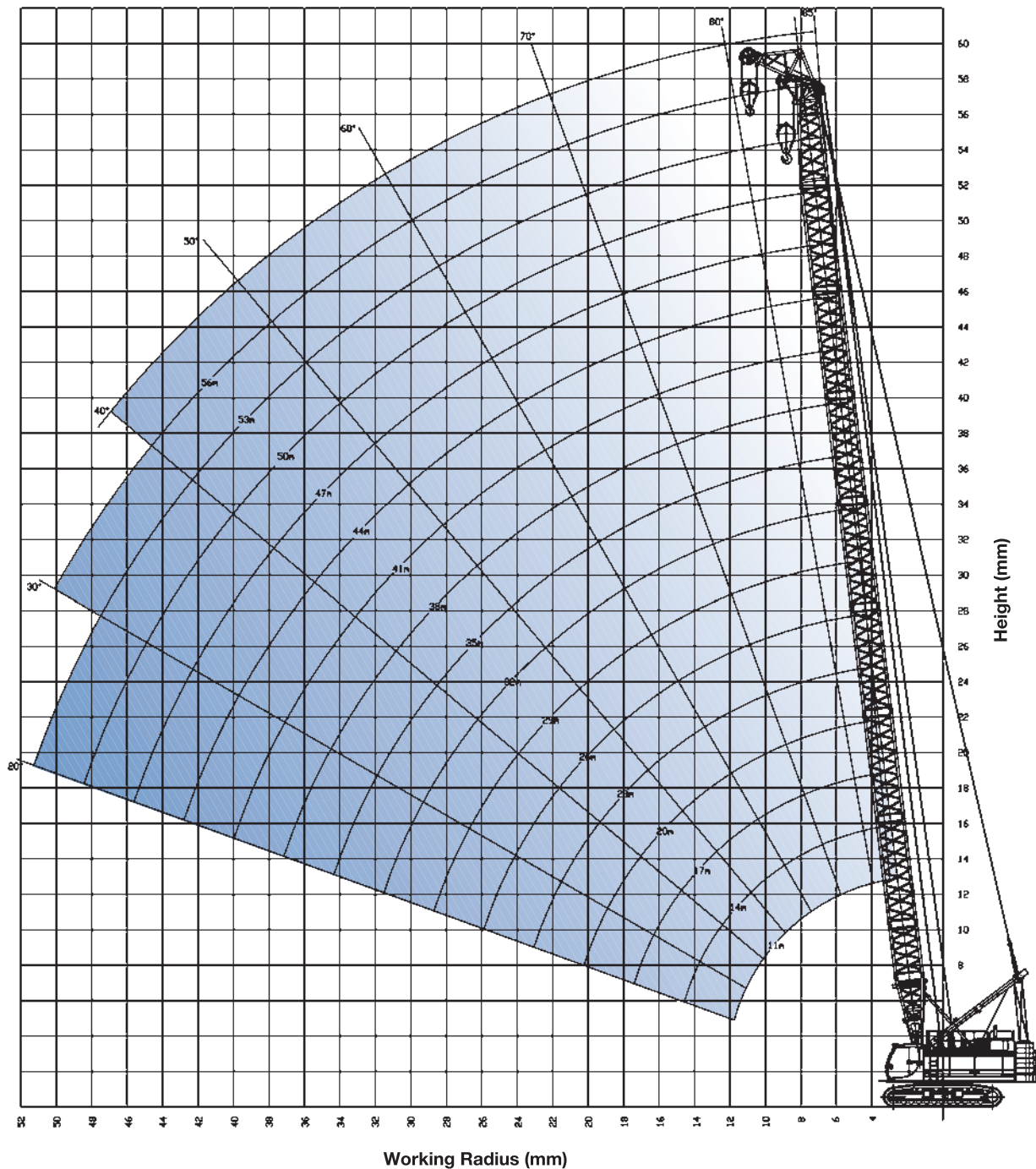
Capacity (t)																	
Boom Length (m)																	
	11	14	17	20	23	26	29	32	35	38	41	44	47	50	53	56	
3,8	120,0																
4,0	120,0	120,0															
5,0	92,3	92,2	90,7	83,9													
6,0	74,6	74,5	74,6	72,4	67,9	63,9	60,0										
7,0	62,5	62,4	62,5	62,3	60,2	57,0	53,9	51,5	45,4	39,6							
8,0	53,2	53,2	53,2	53,0	53,2	51,2	49,0	46,9	45,1	39,6	35,9	31,6					
9,0	46,7	46,7	46,8	46,5	46,1	46,0	44,8	42,9	41,2	39,6	35,9	31,6	29,4	26,1	23,6		
10,0	40,3	41,3	41,3	41,1	41,1	40,6	40,7	39,8	38,3	37,1	35,6	31,6	29,4	26,1	23,6	22,1	
11,0	31,2	36,9	36,9	36,9	36,8	36,5	36,3	35,8	35,6	34,5	33,5	31,6	29,4	26,1	23,6	22,1	
12,0		33,2	33,5	33,1	33,0	32,8	32,6	32,5	32,3	31,9	31,0	30,2	28,9	26,1	23,6	22,1	
13,0		30,3	30,4	30,3	30,1	29,8	29,7	29,5	29,3	29,0	28,2	27,5	26,7	25,7	23,6	22,1	
14,0		25,1	27,8	27,7	27,5	27,3	27,1	27,0	26,7	26,4	25,8	25,1	24,4	23,5	22,9	22,1	
16,0			23,6	23,5	23,4	23,2	23,0	22,8	22,6	22,3	21,9	21,3	20,7	19,9	19,4	18,7	
18,0				20,2	20,1	20,0	19,8	19,6	19,4	19,0	18,8	18,3	17,6	17,1	16,5	15,9	
20,0				17,3	17,3	17,2	17,0	16,8	16,5	16,3	16,0	15,7	15,1	14,7	14,2	13,7	
22,0					14,8	14,7	14,6	14,5	14,2	14,0	13,8	13,5	13,3	12,4	12,0	11,6	
24,0						13,0	12,9	12,7	12,5	11,8	11,6	11,4	11,2	11,1	10,7	10,2	
26,0						11,4	11,3	11,1	10,9	10,6	10,3	10,2	9,9	9,3	9,4	8,9	
28,0							9,9	9,8	9,6	9,3	9,1	8,6	8,3	8,3	7,9	7,5	
30,0								8,6	8,5	8,2	8,0	7,6	7,4	7,0	6,9	6,7	
32,0								7,4	7,2	7,0	6,8	6,5	6,3	6,2	5,6	5,4	
34,0									6,4	6,2	6,0	5,7	5,1	5,1	5,1	4,8	
36,0										5,4	5,2	4,7	4,7	4,6	4,2	3,9	
38,0										4,8	4,6	4,2	4,1	3,7	3,7	3,4	
40,0											3,7	3,8	3,3	3,3	3,0	2,8	
42,0												3,1	2,9	2,9	2,4	2,3	
44,0													2,7	2,4	2,3	2,1	1,8
46,0														2,1	1,9	1,7	

Boom configuration

Type	Length		N° of boom extensions (*)															
Boom foot	5 m	16.4 ft	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Boom insert	3 m	9.84 ft	-	1	-	-	-	-	-	-	-	1	-	1	-	-	1	1
Boom insert	6 m	19.68 ft	-	-	1	-	2	1	-	2	1	1	2	2	3	2	2	3
Boom insert	9 m	29.52 ft	-	-	-	1	-	1	2	1	2	2	2	2	3	3	3	3
Boom head	6 m	19.68 ft	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Boom length (m)			11	14	17	21	24	26	29	32	35	38	41	44	47	50	53	56
Boom length (ft)			36	46	56	59	79	85	95	105	115	125	135	144	154	164	174	184

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MAIN BOOM



Auxiliary Jib

standard

Max capacity

30 t 66138.7 lb

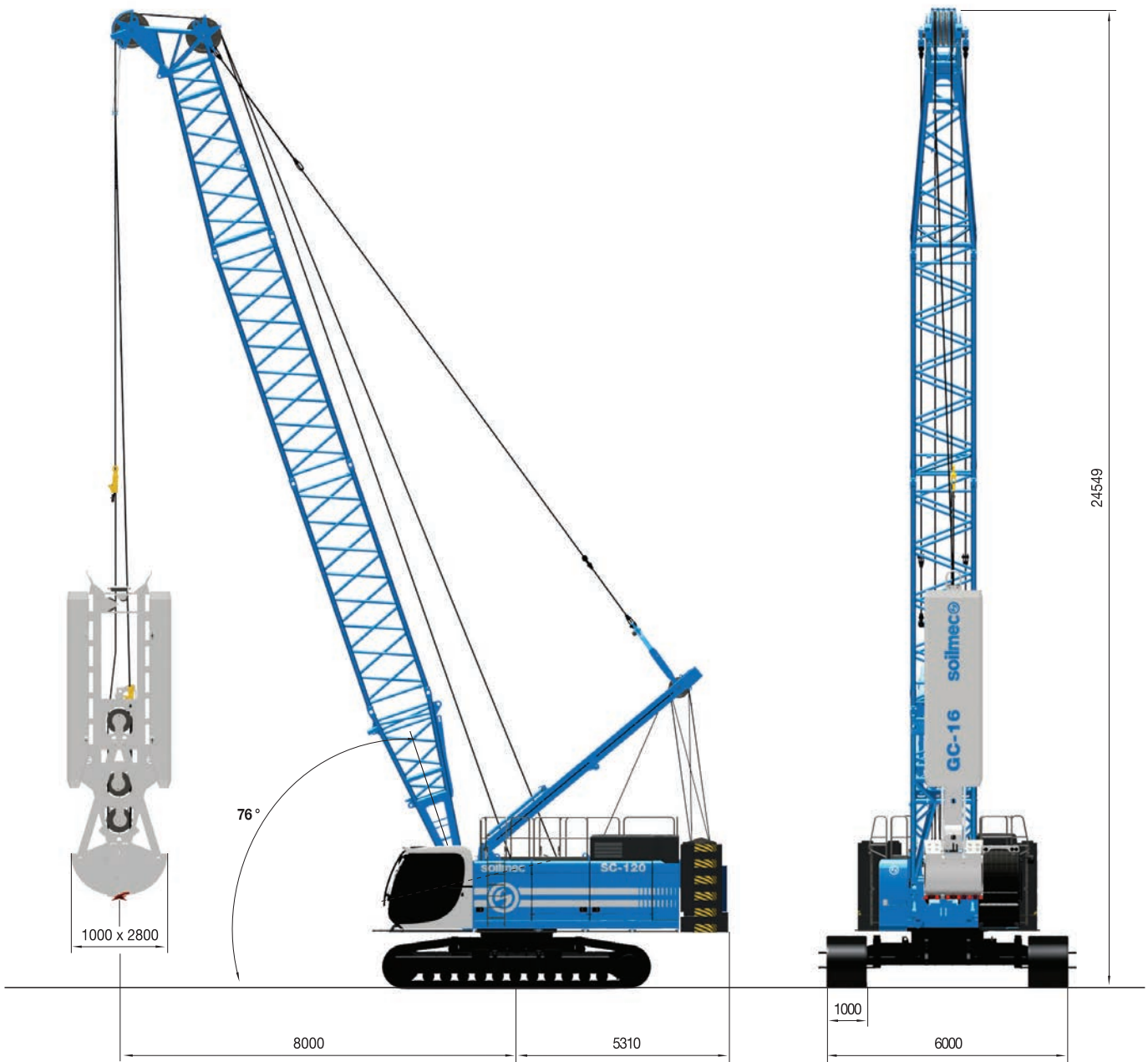
Load chart programmed in Load moment indicator

Boom configuration

- Rated loads are in metric tons valid for 360 degrees working area.
- Lifting capacities are in compliance with DIN 15019/part 2/chart 1 and ISO 4305 and do not exceed 75% of tipping load
- Working radius are measured from the swing center of the machine.
- Rated loads are calculated with the machine on firm and level ground, without travelling
- Weights of lifting attachments (e.g.: hook, ropes, bucket, etc.) are included in the rated load: therefore their weights must be subtracted from rated load to obtain net lifting value.
- This load chart is valid if crawler frames are extended.
- Lifting capacities are based on freely suspended loads. Operator must reduce lifted loads and operating speeds in case of adverse conditions (e.g.: wind, soft ground, out-of-level, pendulum action, sudden load stopping, operating speeds, etc.)
- This load chart are only for reference. For actual lifting capacities please refer to load chart in operator's manual.
- Instruction in the "Operator's Manual" must be strictly observed during machine operations.
- Operations are not approved for working radius and boom lengths that have no ratings associated on load chart

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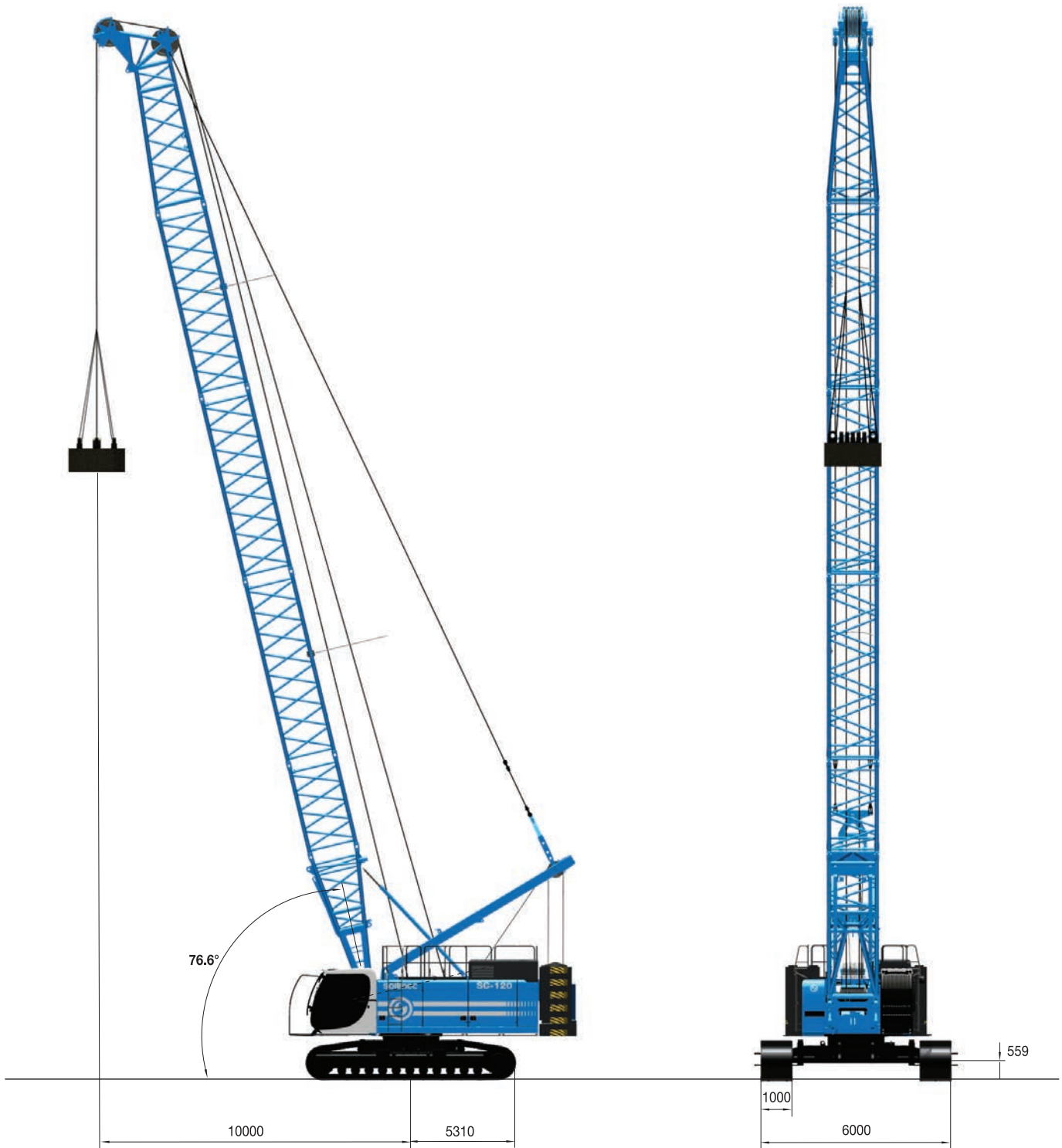
MECHANICAL GRAB APPLICATIONS



GC-16 Grab type		
Excavation dimension (width x length)	800/1200 x 2800/3500 mm	31.5/47 x 110/138 in
GC-16 grab weight	16 t	35274 lb
Winches	2 x 300 kN	2 x 67443 lbf
Max rope speed at first layer (m/min)	90 m/min	295 ft/min
Rope diameter	36 mm	1.4 in
Nr. of rope lines	5	5
Max grab weight	25 t	55115 lb

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DYNAMIC COMPACTION APPLICATIONS



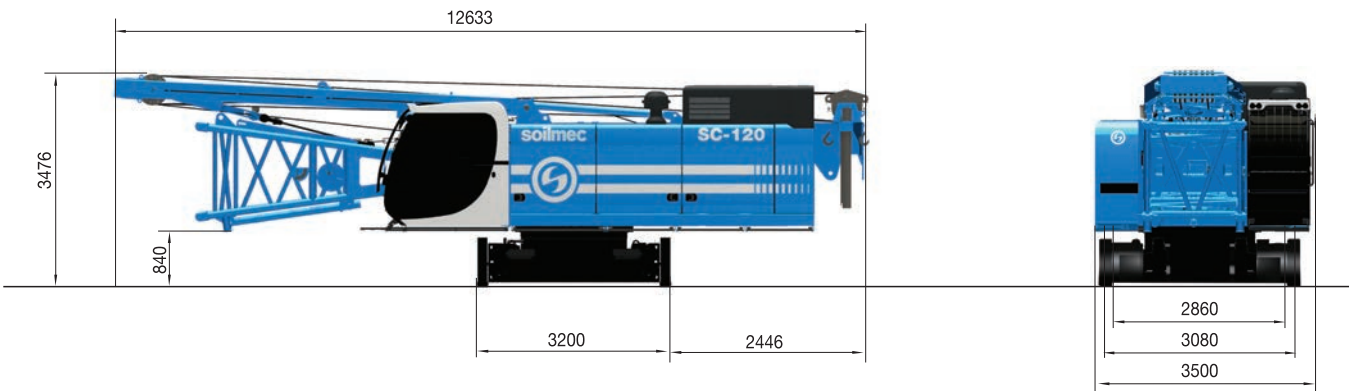
		Capacity Table Dynamic Compaction							
		20 m 65.6 ft		23 m 75.5 ft		26 m 85.3 ft		29 m 95.1 ft	
Working Radius	8 m 26.2 ft	25 t 55115 lb	25 t 55115 lb	25 t 55115 lb	25 t 55115 lb	20 t 44092 lb			
	9 m 29.5 ft	23 t 50706 lb	23 t 50706 lb	23 t 50706 lb	23 t 50706 lb	18 t 39683 lb			
	10 m 32.8 ft	20 t 44092 lb	20 t 44092 lb	20 t 44092 lb	20 t 44092 lb	16 t 35274 lb			

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TRANSPORT DIMENSIONS AND WEIGHTS

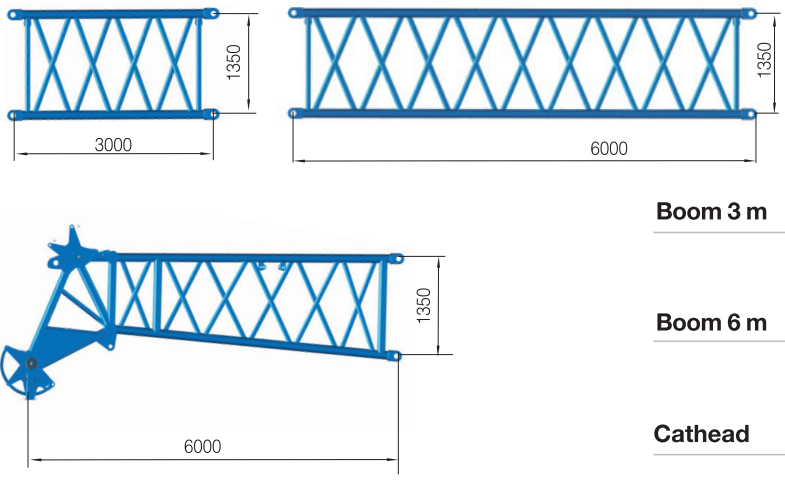
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Main machine



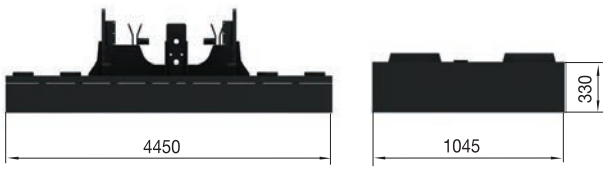
Width	3500 mm	<i>137.8 in</i>
Weight	48000 kg	<i>105821 lb</i>

Boom



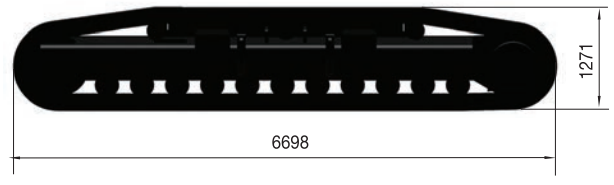
Boom 3 m	Width	1500 mm	<i>59 in</i>
	Weight	930 kg	<i>2050 lb</i>
Boom 6 m	Width	1500 mm	<i>59 in</i>
	Weight	1950 kg	<i>7700 lb</i>
Cathead	Width	1500 mm	<i>59 in</i>
	Weight	3397 kg	<i>7489.1 lb</i>

Counterweight (36 t / 79366 lb)



Base width	1125 mm	<i>44.3 in</i>
Base weight	10000 kg	<i>22046.2 lb</i>
Block width	996 mm	<i>39.2 in</i>
Block weight	1400 kg	<i>3086.5 lb</i>

Sideframes



Width	1000 mm	<i>39.4 in</i>
Weight	14000 kg	<i>30864.7 lb</i>

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