



SC-40

Hydraulic
Crawler Crane

- LIFTING
- CASING
- OSCILLATOR
- VIBRO
- DWG
- CLAMSHELL
- TREMIE PIPE

Hydraulic Crawler Crane

SC-40

soilmec 
Drilling and Foundation Equipment

High engine power

Powerful, heavy-duty engine providing high power density. Outstanding efficiency: very favorable fuel consumption and long maintenance intervals. Low noise emission: less use of sound deadening material. Smooth running and exceptional power output ensure optimum operating comfort.

Winches with high line pull

Free fall winches with high performances even in most demanding conditions. Nominal line pull at 1st layer = 155 kN; max rope speed = 70 m/min. Available also a 16 ton controlled descent winch.

Working configurations

SC-40 is an heavy-duty crane, with robust construction, suitable for different working configurations: with hooks (for lifting or concrete tremie pipes), mechanical and hydraulic diaphragm grabs, vibratory drivers, clamshell grab.

Safe design

SC-40 is equipped with several safety devices: the Load Limiter System that, meeting all international safety standards, prevents hoist rope overloads and overhoists (on boom or hook); limit micro-switches to protect on rope unwinding; lever micro-switches to limit the max boom angle; protection for undue activation of cab controls; dead-man button; emergency stop button.

Winch controls are designed to be compliant with safety standards and, in the meantime, to reduce the operator fatigue. Negative and positive free fall control system both available. Free-fall operations can only be activated turning a key switch.

Enhanced hydraulic and electric systems

Hydraulic and electric systems have been designed to be flexible, good for different potential uses required by Customers. The diesel engine provides additional Power-Take Offs allowing, through the installation of one or more hydraulic pumps, the oil flow supply for additional working tools.

Quick assembly and efficient transport

Counterweight with a self-handling system (service crane not required). Crawlers can be retracted to 2.55 meters wide in transport. Transport weight less than 41 ton. The removable counterweight allows to reduce transport weight under 34 ton.

The Soilmec advantage

- A real multifunctional machine, designed from scratch to give you the best excavation solution.
- Long life expectancy with a high residual value.
- Best price/performance ratio.
- Built with the customer in mind.

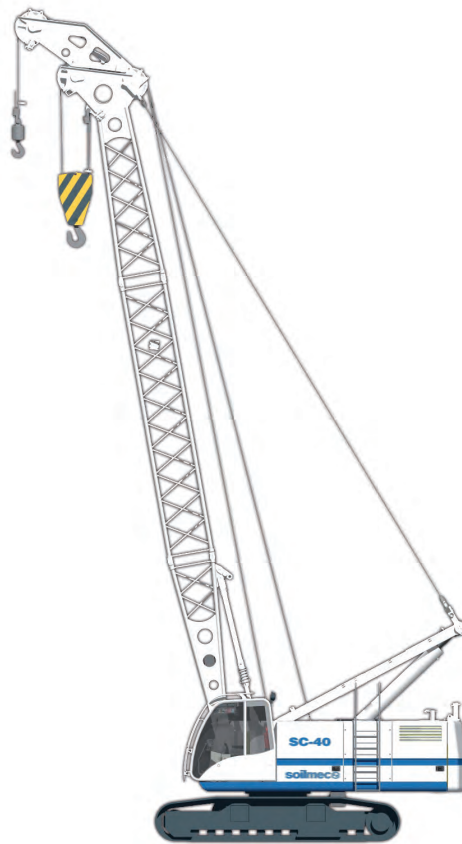




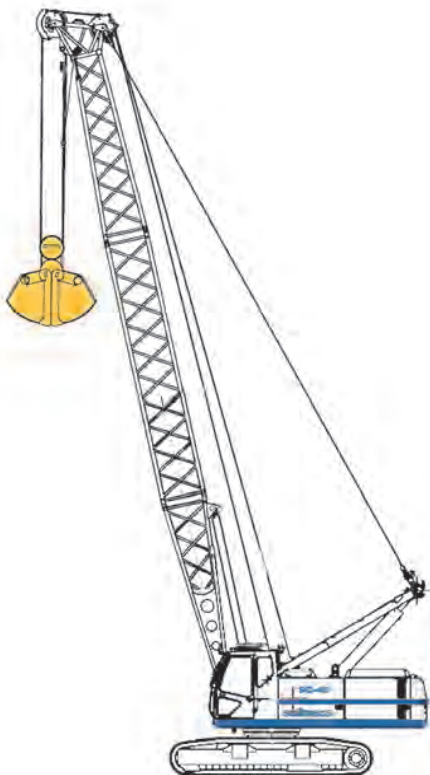
- 1** Undercarriage
- 2** Turret
- 3** Winch
- 4** Boom hoist
- 5** Lattice boom
- 6** Cathead
- 7** Jib
- 8** Hook
- 9** Swivel
- 10** Counterweight
- 11** Cab

Deutz TCD 2013 V06 Engine		
Power @ 2000 rpm	220 kW	295 HP
Operating weight	43000 kg	94799 lb
Max lifting capacity	40 ton @ 3 m	88185 lb @ 9.8 ft
Max boom length	30 m	98.4 ft
Max line pull	155 kN	34845 lb _f

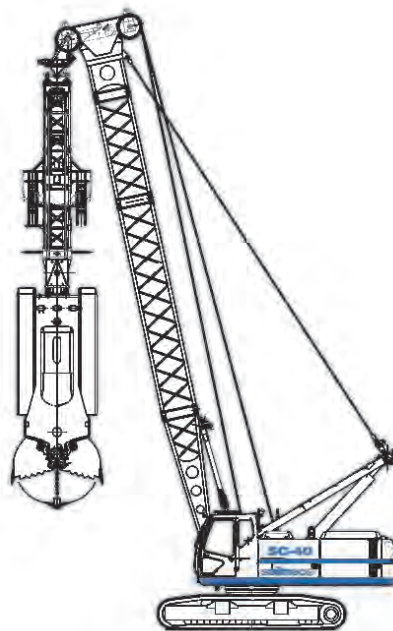
WORKING CONFIGURATIONS



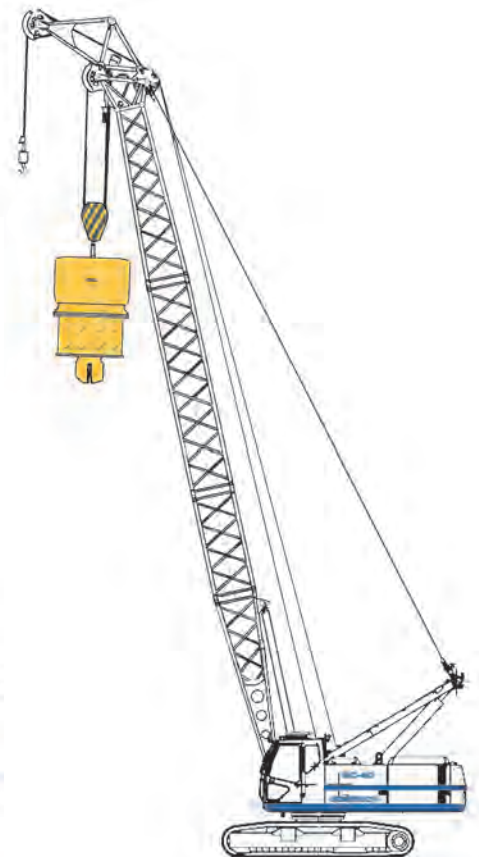
SC-40 for lifting
with crane equipment



**SC-40 for digging
and material handling**
with clamshell




SC-40 for diaphragm walls
with DW grab




SC-40 for driving profiles
with vibratory drivers

TECHNICAL SPECIFICATIONS

DIESEL ENGINE

	Model	DEUTZ TCD 2013 V06	
	Max rated power @ 2200 rpm	220 kW	<i>295 HP</i>
	Displacement	7,2 liters	<i>1.9 US gal</i>
	Number of cylinders and Arrangement	6 in V - configuration	
	Aspiration	turbocharged, air to air intercooled	
	Cooling	water cooled	
	Electric system	24 V	
Emissions	US EPA/CARB Tier 3, EU 97/68 EC Stage IIIA		


HYDRAULIC SYSTEM

	Max working pressure	30 MPa	<i>4351 psi</i>
	Max oil flow	Main pumps: 2 x 280 l/min	<i>2 x 74 US gal/min</i>
	Cooling	oil-to-air heat exchanger	

MAIN WINCHES

Winch type	LFF-130	LW-130	LW-160	LW-80
Type	free fall	control descent	control descent	control descent
Drum groove type	Lebus	Lebus	Lebus	Lebus
Line pull (nominal load)	155 kN 34845 lb_r	153 kN 34463 lb_r	188 kN 42308 lb_r	116 kN 26167 lb_r
Rope diameter	26 mm 1 in	26 mm 1 in	26 mm 1 in	26 mm 1 in
Rope speed	70 m/min 230 ft/min	70 m/min 230 ft/min	80 m/min 262 ft/min	70 m/min 230 ft/min
Rope capacity 1st layer	32 m 105 ft/min	32 m/min 105 ft/min	40 m/min 131 ft/min	21 m/min 69 ft/min


SWING

	Swing bearing	Double-row ball type with external teeth
	Swing drives	Type: planetary 2 stages Hydraulic motor: fixed displacement piston Swing brake type: multiple disc
	Max swing speed	3.1 rpm


UNDERCARRIAGE

	Type	Variable gauge, class D5 (removable sides as optional)	
	Overall width (retr./ext.)	2550 / 4000 mm	<i>100.4 / 157.5 in</i>
	Overall length	5210 mm	<i>205.2 in</i>
	Track shoe width	700 mm	<i>27.5 in</i>
	Travel speed	1,1 - 2,2 km/h	<i>0.7 - 1.4 mph</i>

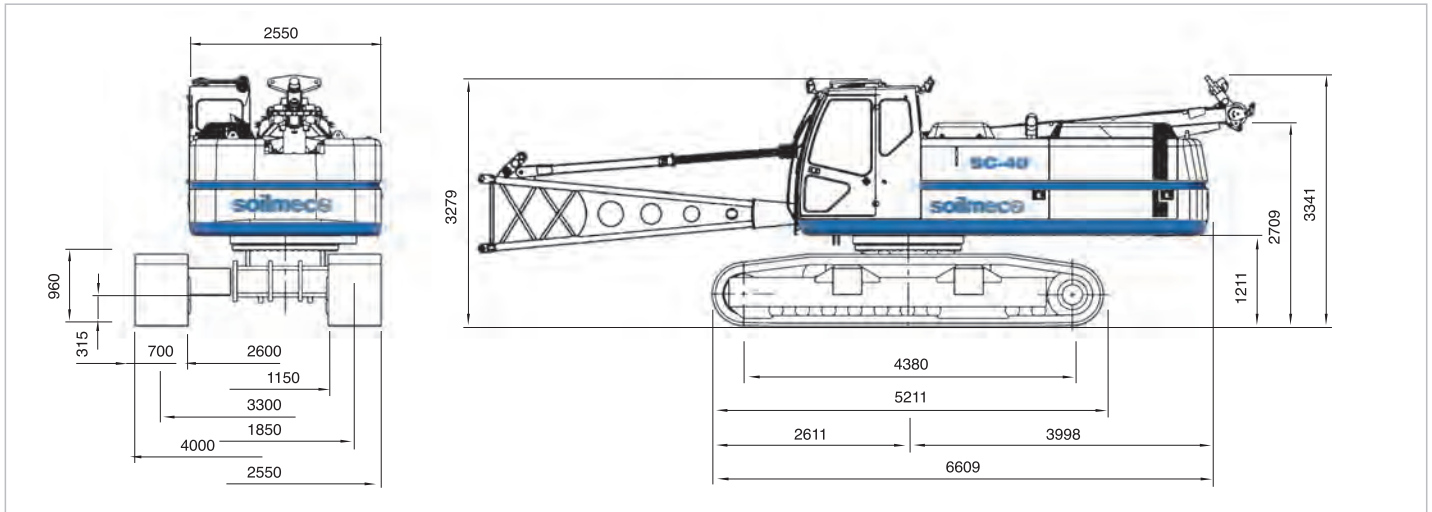
SERVICE REFILL CAPACITIES

	Fuel tank	650 l	<i>171.7 US gal</i>
	Hydraulic oil tank	600 l	<i>158.5 US gal</i>

NOISE EMISSION

 Noise emissions correspond with 2000/14/EC directive on noise emission by equipment used outdoors.

TRANSPORT DIMENSIONS AND WEIGHTS

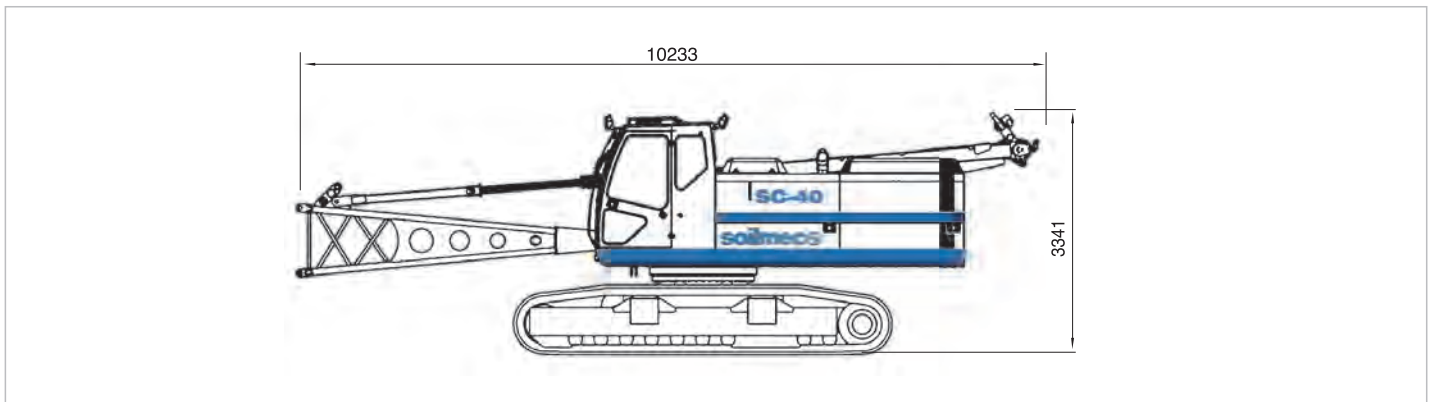


Base machine

with counterweight

Weight

40680 kg 89683 lb



Transport configuration

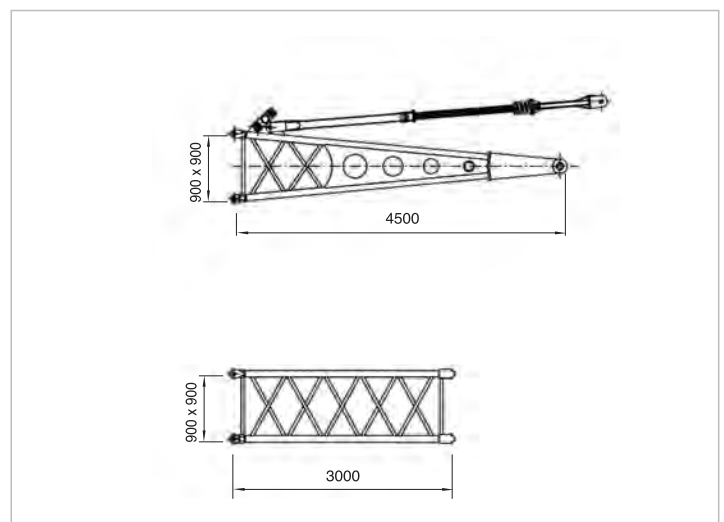
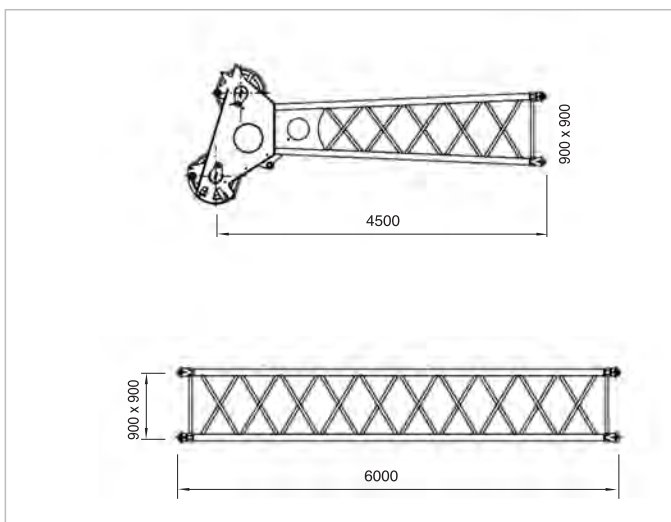
without counterweight

Width

2550 mm 100 in

Weight

33500 kg 73867 lb



Boom head

Boom insert (6m)

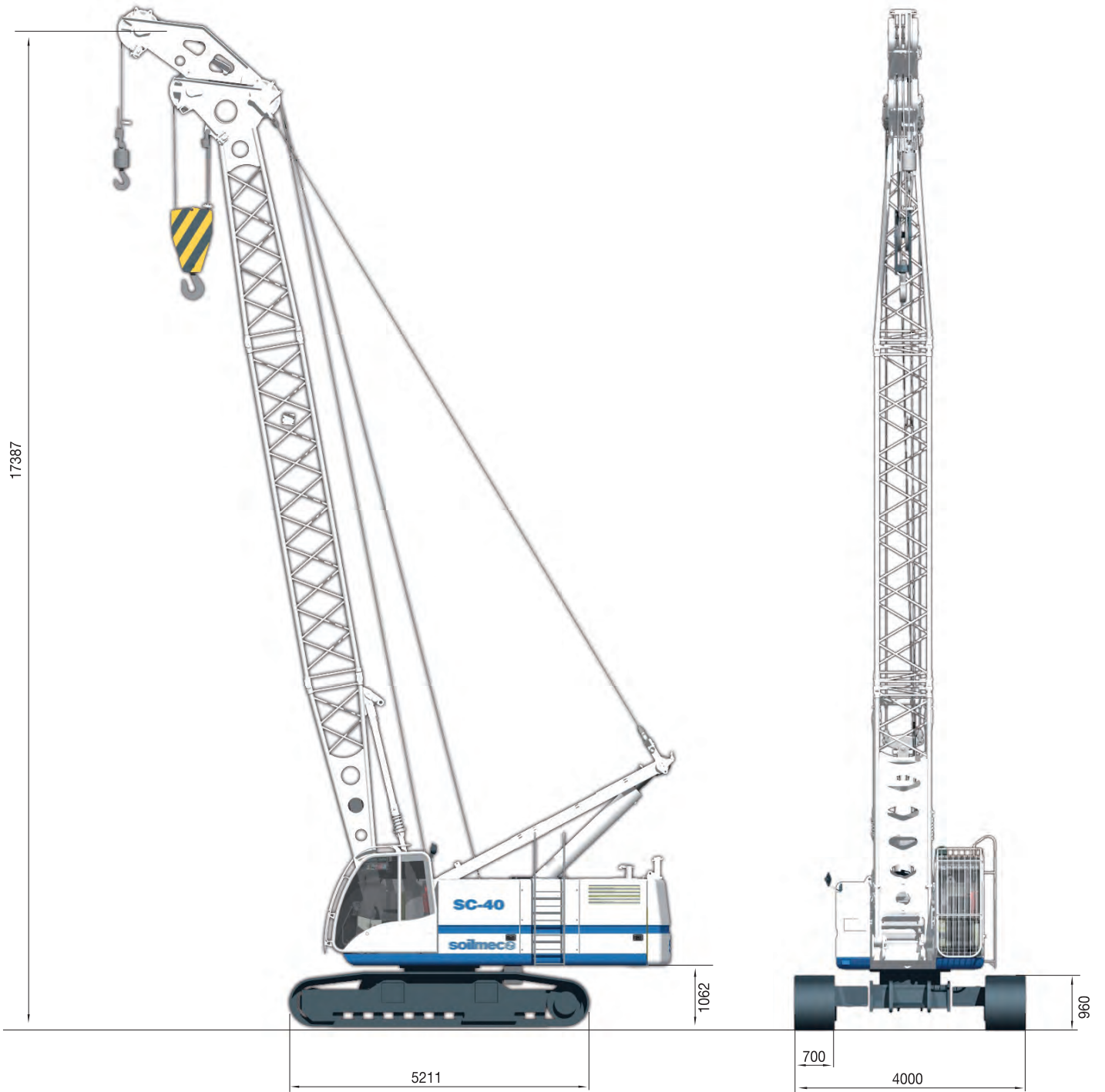
Boom insert (3m)

Lenght **4500 mm** 177 in
Weight **1170 kg** 2579 lb

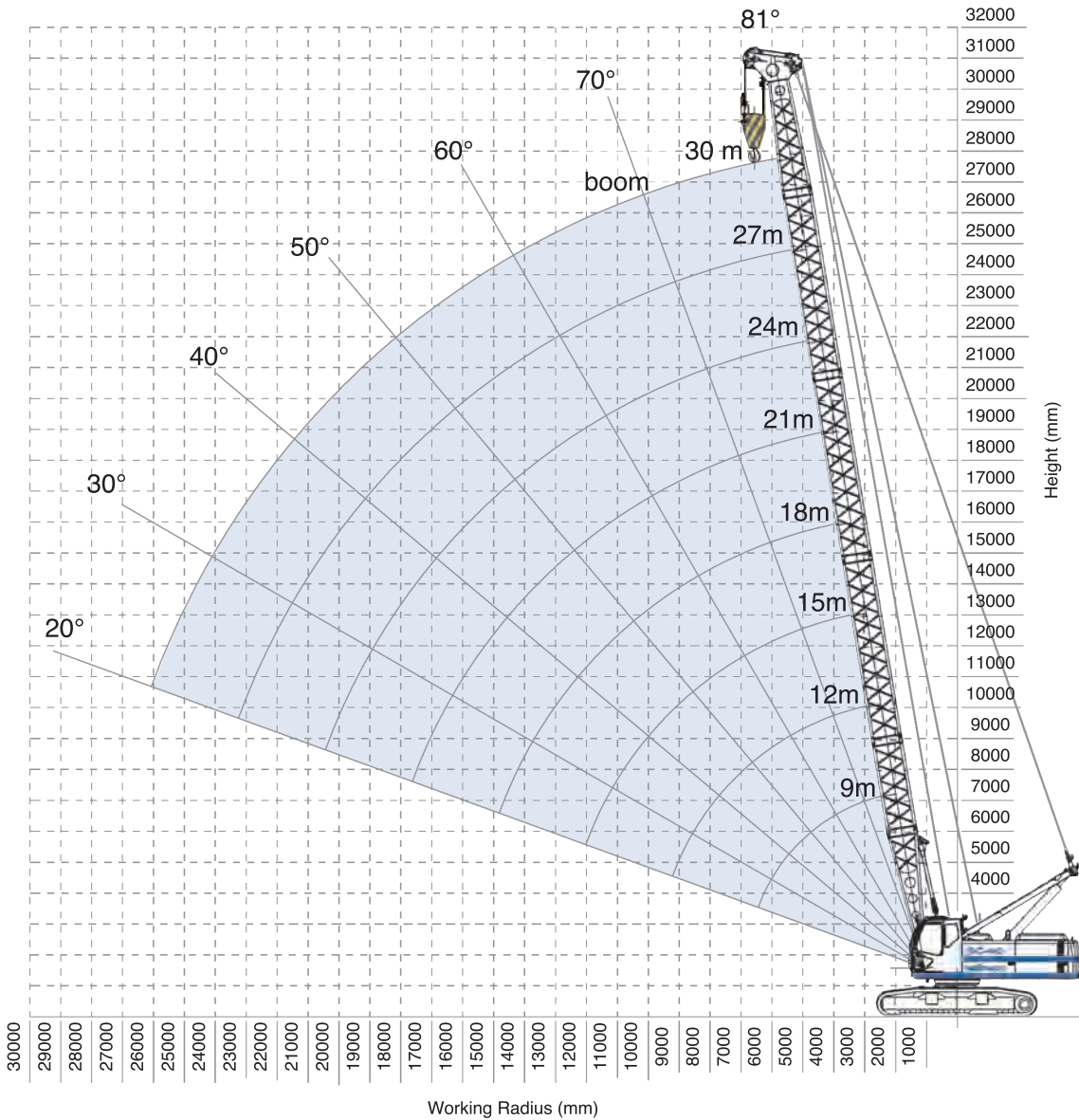
Width **900 mm** 35 in
Weight **535 kg** 1179 lb

Width **900 mm** 35 in
Weight **325 kg** 716 lb

MAIN BOOM EQUIPMENT



MAIN BOOM



AUXILIARY JIB

Max capacity
11,5 t (25353 lb)

Load chart programmed
in Load moment indicator

Notes

- Rated loads are in metric tons valid for 360 degrees working area.
- Lifting capacities are in compliance with DIN 15019/part2/chart 1 and ISO 4305 and do not exceed 75% of tipping load.
- Working radius is 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 is 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.

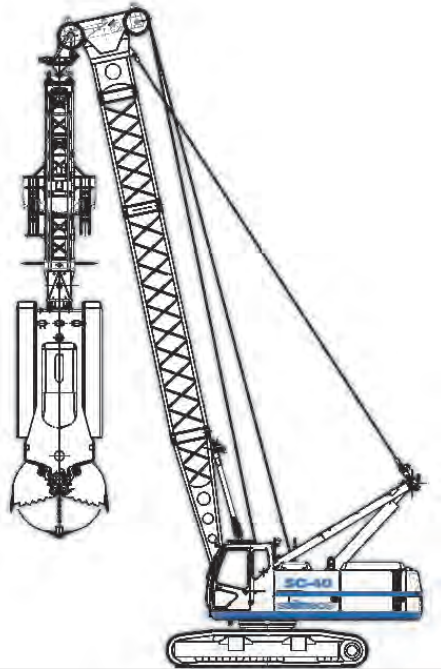
LOAD CHART

Capacity (t)									
Boom Length (m)									
Radius (m)	9 m	12 m	15 m	18 m	21 m	24 m	27 m	30 m	Radius (m)
3,0	40,0								3,0
3,5	34,0	33,6							3,5
4,0	30,3	30,2	30,0						4,0
4,5	26,0	26,0	26,0	26,0					4,5
5,0	21,8	21,8	21,8	21,8	21,7				5,0
5,5	18,7	18,7	18,7	18,7	18,7	18,6			5,5
6,0	16,4	16,4	16,4	16,4	16,3	16,2	16,1		6,0
6,5	14,5	14,5	14,5	14,5	14,4	14,3	14,3	14,1	6,5
7,0	13,0	13,0	13,0	13,0	12,9	12,8	12,8	12,6	7,0
7,5	11,7	11,7	11,7	11,7	11,6	11,5	11,5	11,3	7,5
8,0	10,7	10,7	10,7	10,7	10,6	10,5	10,4	10,3	8,0
9,0	8,9	8,9	8,9	8,9	8,9	8,8	8,7	8,6	9,0
10,0		7,9	7,8	7,7	7,7	7,6	7,4	7,3	10,0
11,0		6,8	6,7	6,7	6,6	6,5	6,5	6,3	11,0
12,0		6,0	5,9	5,9	5,8	5,7	5,7	5,5	12,0
13,0			5,3	5,3	5,2	5,1	5,0	4,8	13,0
14,0			4,7	4,6	4,6	4,5	4,4	4,2	14,0
15,0			4,2	4,2	4,1	4,0	3,9	3,8	15,0
16,0				3,8	3,7	3,6	3,5	3,4	16,0
17,0				3,4	3,4	3,3	3,2	3,0	17,0
18,0					3,0	3,0	2,9	2,7	18,0
19,0					2,8	2,7	2,7	2,4	19,0
20,0					2,5	2,4	2,6	2,2	20,0
21,0						2,2	2,3	1,9	21,0
22,0						2,0	2,1	1,7	22,0
23,0						1,8	1,9	1,6	23,0
24,0							1,7	1,4	24,0
25,0							1,5	1,2	25,0
26,0							1,4	1,1	26,0
27,0							1,3	1,0	27,0
28,0								0,9	28,0
29,0								0,7	29,0
Part line	4	4	4	4	2	2	2	2	Part line

Boom configuration

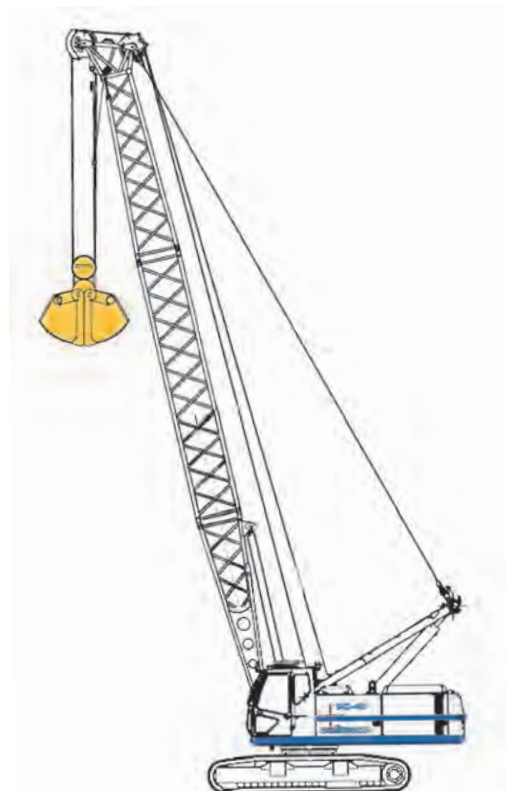
Type	Lenght		N° of boom extensions							
Boom foot	4,5 m	<i>14.7 ft</i>	1	1	1	1	1	1	1	1
Boom insert	3 m	<i>9.8 ft</i>	–	1	–	1	–	1	–	1
Boom insert	6 m	<i>19.7 ft</i>	–	–	1	1	2	2	3	3
Boom head	4,5 m	<i>14.7 ft</i>	1	1	1	1	1	1	1	1
Boom lenght (m)			9	12	15	18	21	24	27	30
<i>Boom lenght (ft)</i>			29.5	39.3	49.2	59	69	79	88.5	98.5

DIAPHRAGM WALL GRAB & CLAMSHELL EQUIPMENT



Diaphragm Wall Grab

Winches	13 t	28660 lb
Max grab weight	9 t	19841 lb
Max allowable weight in two rope operation	15 t	33069 lb



Clamshell

Winches	13 t	28660 lb
Clamshell with one rope	13 t	28660 lb
Clamshell with two ropes	17 t	37478 lb





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