



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.

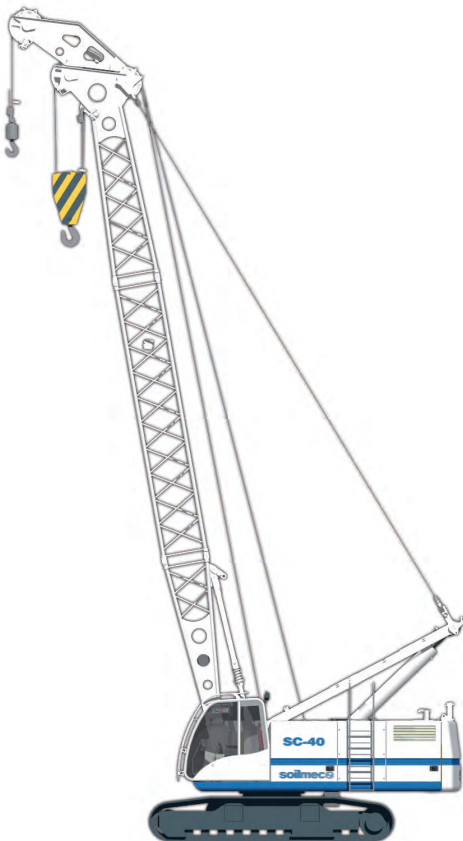


- 1 Undercarriage
- 2 Turret
- 3 Winch
- 4 Boom hoist
- 5 Lattice boom
- 6 Cathead
- 7 Jib
- 8 Hook
- 9 Swivel
- 10 Counterweight
- 11 Cab

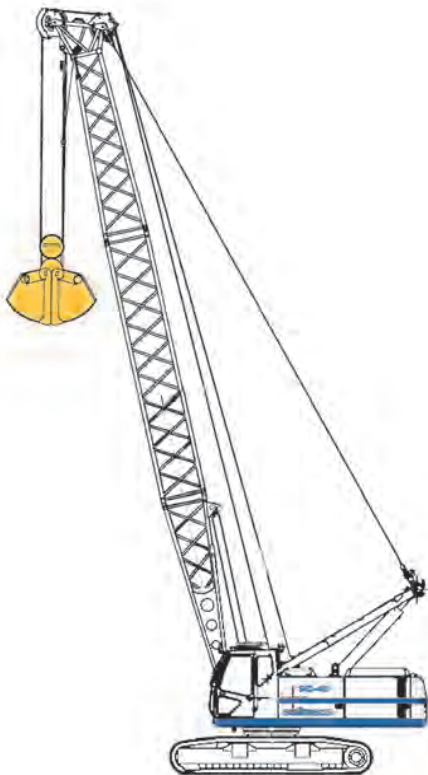
| | | |
|---------------------------|--------------|-----------------------|
| Deutz TCD 2013 V06 Engine | | |
| Power @ 2000 rpm | 220 kW | 295 HP |
| Operating weight | 43000 kg | 94799 lb |
| Max lifting capacity | 40 ton @ 3 m | 88185 lb @ 9.8 ft |
| Max boom lenght | 30 m | 98.4 ft |
| Max line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



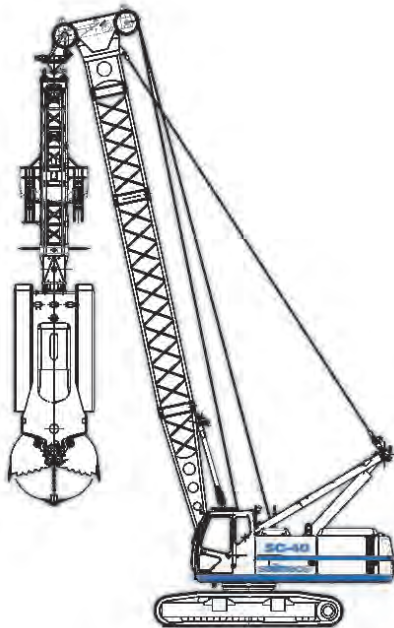
WORKING CONFIGURATIONS



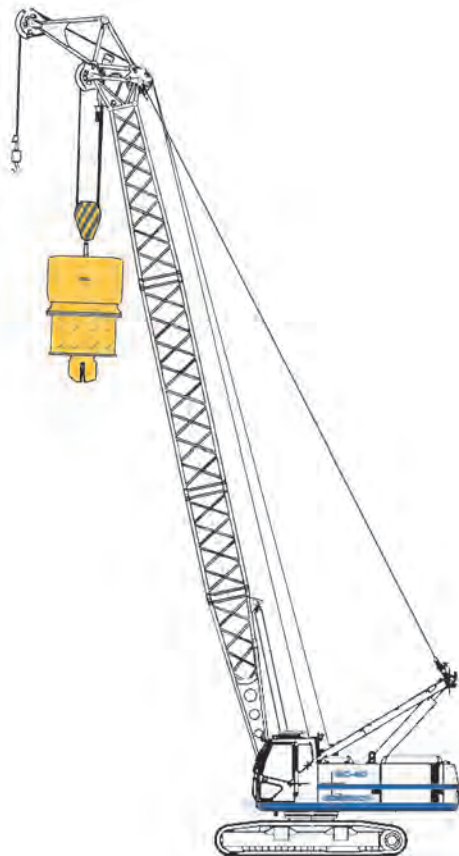
SC-40 for lifting
with crane equipment



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 | 295 HP |
| | Displacement | 7,2 liters | 1.9 US gal |
| | 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 | 4351 psi |
| | Max oil flow | Main pumps: 2 x 280 l/min | 2 x 74 US gal/min |
| | 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 widht (retr./ext.) | 2550 / 4000 mm | 100.4 / 157.5 in |
| | Overall lenght | 5210 mm | 205.2 in |
| | Track shoe width | 700 mm | 27.5 in |
| | Travel speed | 1,1 - 2,2 km/h | 0.7 - 1.4 mph |

SERVICE REFILL CAPACITIES

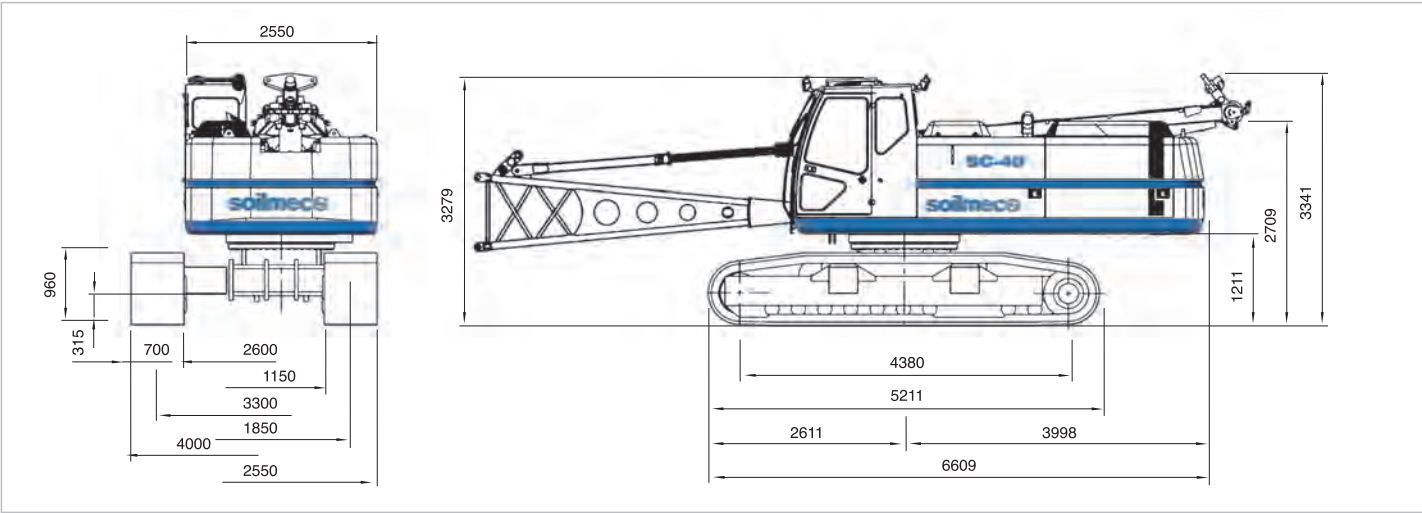
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|--|--------------------|-------|--------------|
| | Fuel tank | 650 l | 171.7 US gal |
| | Hydraulic oil tank | 600 l | 158.5 US gal |

NOISE EMISSION

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

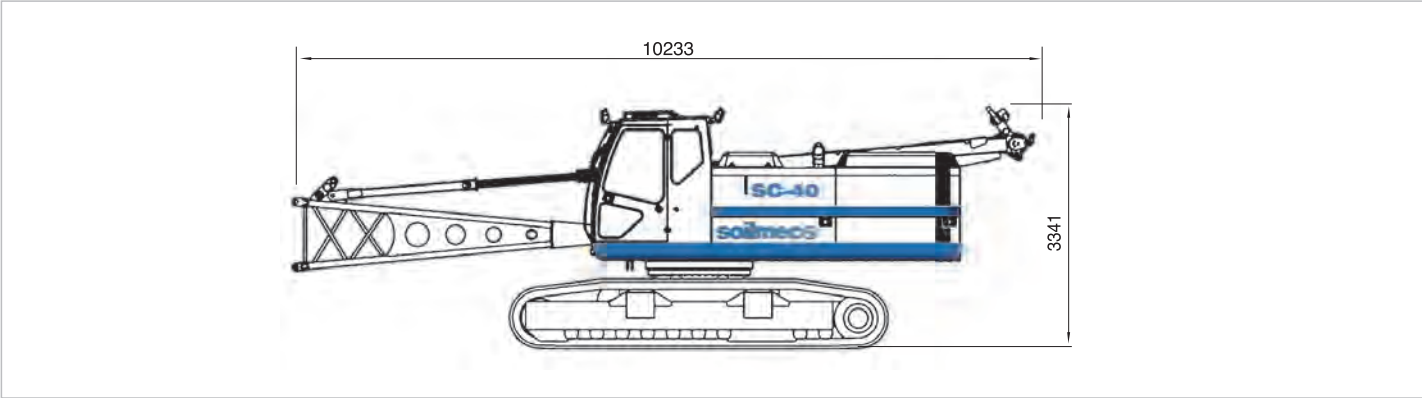


TRANSPORT DIMENSIONS AND WEIGHTS



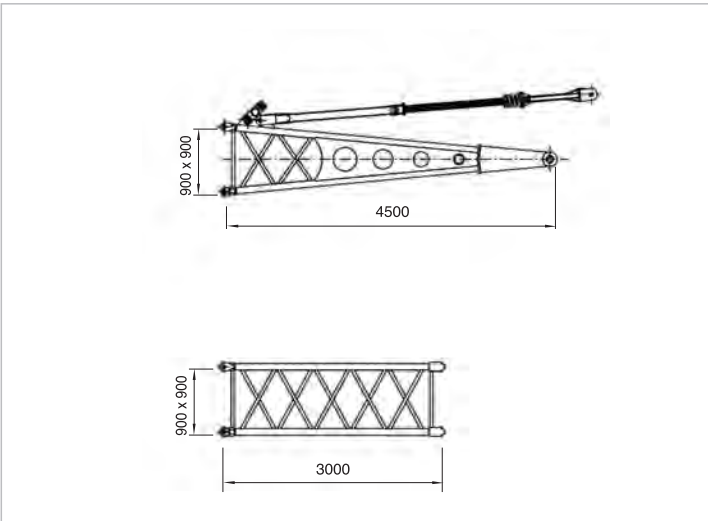
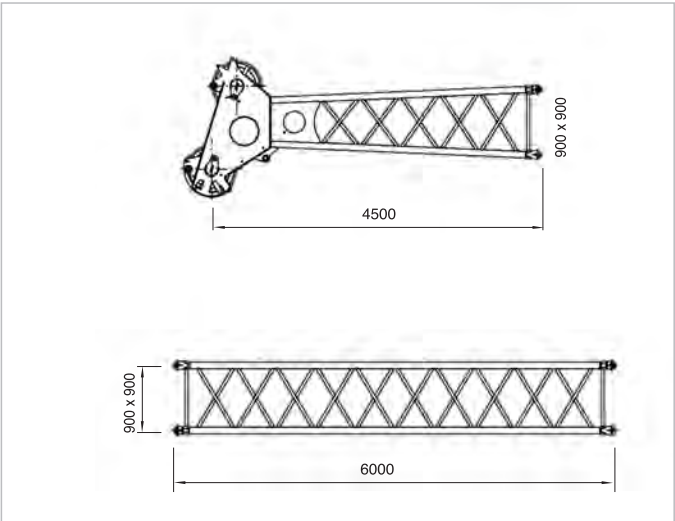
Base machine

with counterweight Weight **40680 kg** 89683 lb



Transport configuration

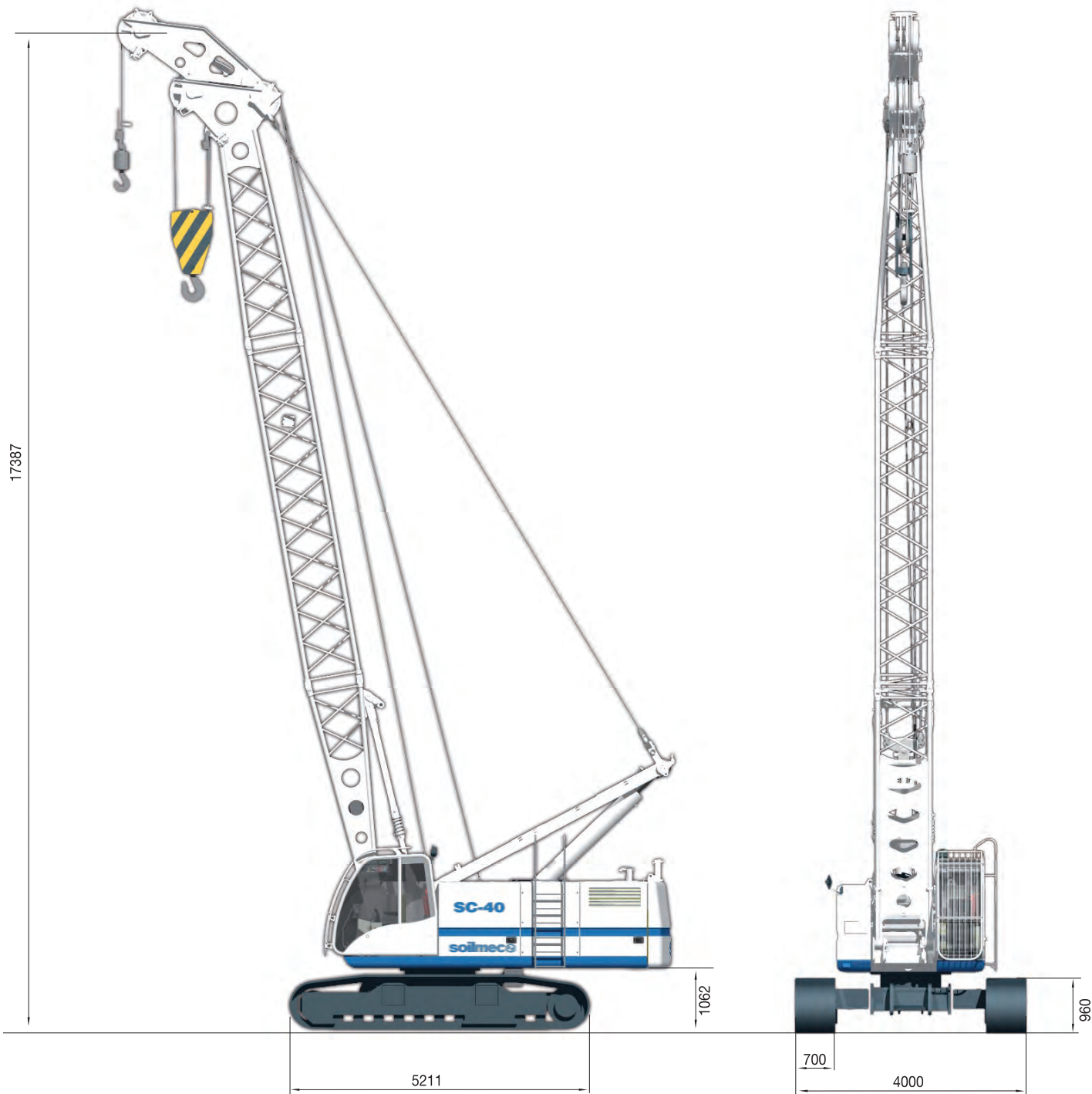
without counterweight Width **2550 mm** 100 in
Weight **33500 kg** 73867 lb



| Boom head | | | Boom insert (6m) | | | Boom insert (3m) | | |
|-----------|----------------|---------|------------------|---------------|---------|------------------|---------------|--------|
| Lenght | 4500 mm | 177 in | Width | 900 mm | 35 in | Width | 900 mm | 35 in |
| Weight | 1170 kg | 2579 lb | Weight | 535 kg | 1179 lb | Weight | 325 kg | 716 lb |

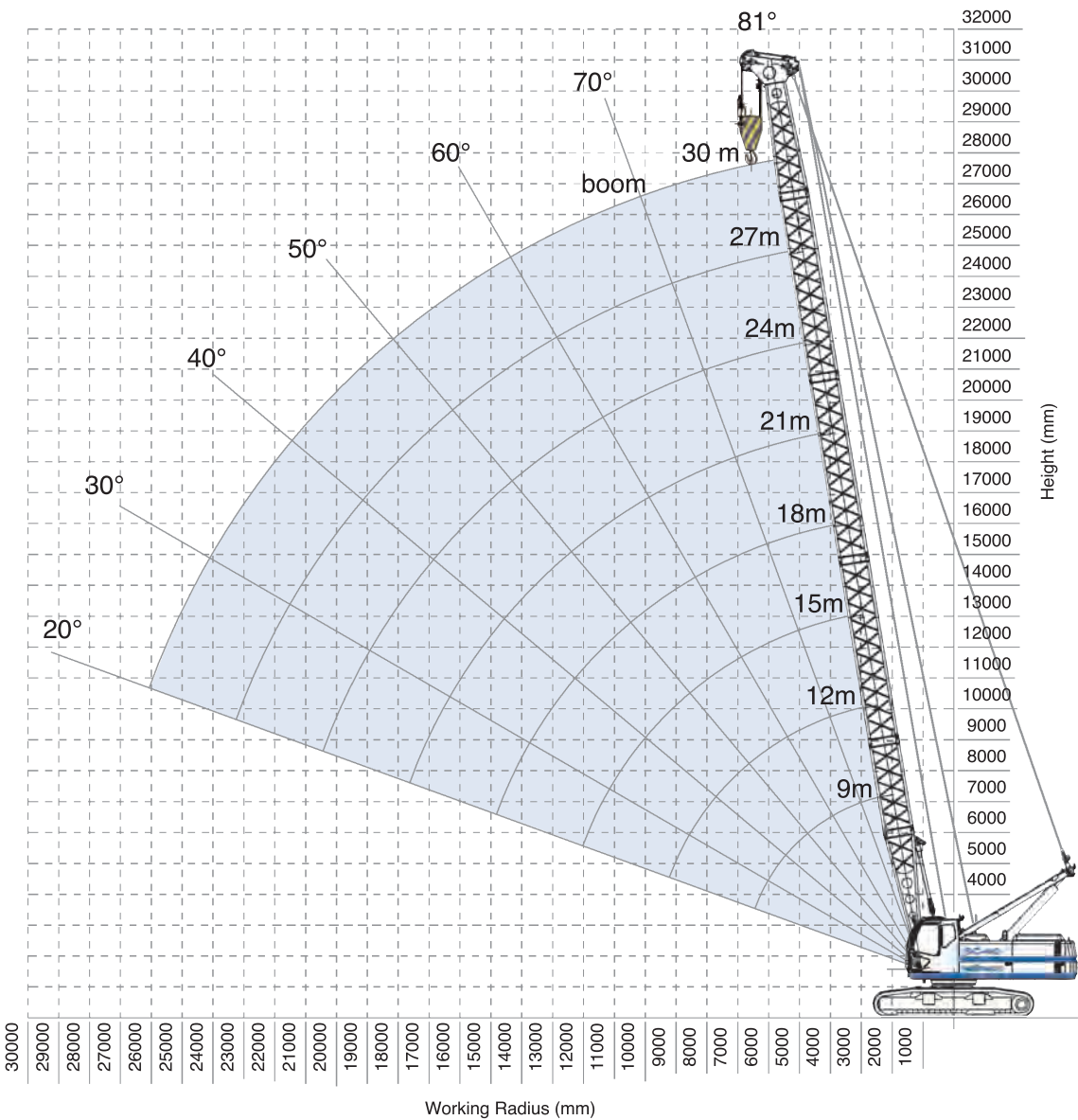


MAIN BOOM EQUIPMENT





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

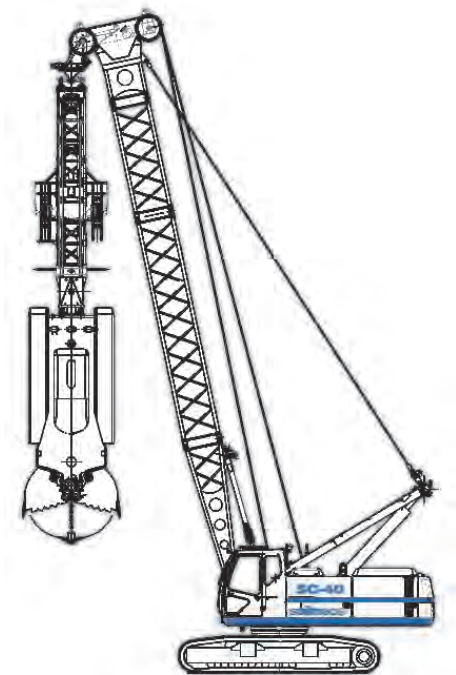
| Capacity (t) | | | | | | | | | |
|-----------------|------|------|------|------|------|------|------|------|------------|
| Boom Length (m) | | | | | | | | | |
| Radius (m) | 9 m | 12 m | 15 m | 18 m | 21 m | 24 m | 27 m | 30 m | Radius (m) |
| 3,0 | 40,0 | | | | | | | | 3,0 |
| 3,5 | 34,0 | 33,6 | | | | | | | 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 | 14.7 ft | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Boom insert | 3 m | 9.8 ft | – | 1 | – | 1 | – | 1 | – | 1 |
| Boom insert | 6 m | 19.7 ft | – | – | 1 | 1 | 2 | 2 | 3 | 3 |
| Boom head | 4,5 m | 14.7 ft | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Boom lenght (m) | | | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 |
| Boom lenght (ft) | | | 29.5 | 39.3 | 49.2 | 59 | 69 | 79 | 88.5 | 98.5 |

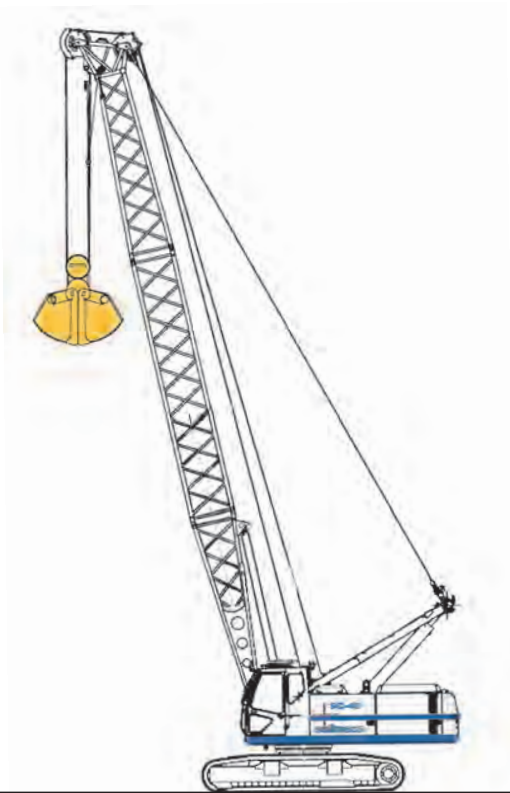


DIAPHRAGM WALL GRAB & CLAMSHELL EQUIPMENT



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 |



WORKING TOOLS



VIBRATORY DRIVERS



VIBRATORY DRIVERS



LIFTING



TREMIE PIPE



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All technical data are purely indicative and subject to change without notice



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