

Heavy Duty Crawler Crane

SC-50 HD



soilmec 
Drilling and Foundation Equipment

SC-50 HD Heavy Duty Crawler Crane

LIFTING APPLICATION



Operating weight (c/w 11 m boom and jib)

49000 kg

258822 lb

SC-50 HD Heavy Duty Crawler Crane

TECHNICAL DATA SHEET

Diesel engine	Cummins QSB6.7	Cummins QSB6.7
- Max Rated Power	201 kW @ 2000 rpm	269 HP @ 2000 rpm
- Engine conforms to exhaust emissions standard	EU Stage IV- EPA Tier 4f or EU Stage IIIA - EPA Tier 3	EU Stage IV- EPA Tier 4f or EU Stage IIIA - EPA Tier 3
- Aspiration	Turbocharged and charged air cooled	Turbocharged and charged air cooled
Hydraulic system		
- Main pums max oil flow	2x 280 + 1x 120 l/min	2x 74 + 1x 32 US gal
Service refill capacity		
- Fuel Tank	500 l	110 US gal
- Hydraulic Tank	560 l	148 US gal
Main winches	Free Fall	Free Fall
- 1st layer line pull (effective line pull)	150 kN	33721 lbf
- Rope diameter	26 mm	1,02 in
- Rope speed	110 m/min	361 ft/min
- Rope capacity 1st layer	40 m	131,2 ft
Swing system		
- Max swing speed	2 rpm	2 rpm
- Tail swing radius	3890 mm	153 in
Boom		
- Length min-max	11 - 40 m	36,1-131,2 ft
- Boom extension length	2,9 + 5,8 m	9.5 + 19 ft
Undercarriage	Variable gauge	Variable gauge
- Overall width	4450 mm	175,20 in
- Overall length of crawlers	5344 mm	210,39 in
- Track shoe width - Triple grouser	750 mm	29,53 in
- Travel speed	2 km/h	1.2 mph

STANDARD EQUIPMENT

BASE MACHINE

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

CAB/CONTROL

- Beverage/Cup holder
- Stationary skylight
- Radio and CD player
- Sunshade for windshield
- High brightness led internal to the cab
- Travel control pedals with removable hand levers
- Courtesy lights in the cab
- Parallelogram wiper including a washer nozzle mounted below the cab windshield
- Signal/warning horn
- Hydraulic oil contamination warning inside the cab
- H-Cab with sliding doors
- Retracted seat belt
- 7" Easy DMS screen

- Tempered safety glass panel
- Armrests

SAFETY DEVICE

- Load Moment Limiter (with boom lowering slow stop function)
- Fire extinguisher
- State-of-the-art safety load indicator with graphic display and 3 color percentage indicator traffic light
- Cab top guard
- Catwalk (on side and in front of operator's cab)
- Hoist limit switch on both winches
- Safety 3 rope turns unwinding limited switch on winches

OPTIONAL EQUIPMENT

- Air conditioner, heater and defroster with automatic climate control
- Track triple grouser: 800 mm
- Electric hand throttle
- Flat track shoes
- Tagline winch
- Reversible cooling fan including protective screen
- Automatic lubrication system
- Bio lubrication engine oil

- Boom walk ways with personal fall arrest system
- Winch synchronisation (both winches work at the same speed) for 2 rope grab operations
- "CAT BIO HYD ADVANCED" hydraulic bio-oil (compliant with European directive 2005/360/EC).
- GSM modem
- Hydraulic arrangement for Casing oscillator attachment
- Swing and travel alarm
- Positive or negative free fall controls

- Lights for overall dimensions
- Satellite system for remote transmission of operating data
- LCD cameras monitor multi-display
- Removable tracks
- Swing limitation system
- Depthmeter on both winches

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LOAD CHART

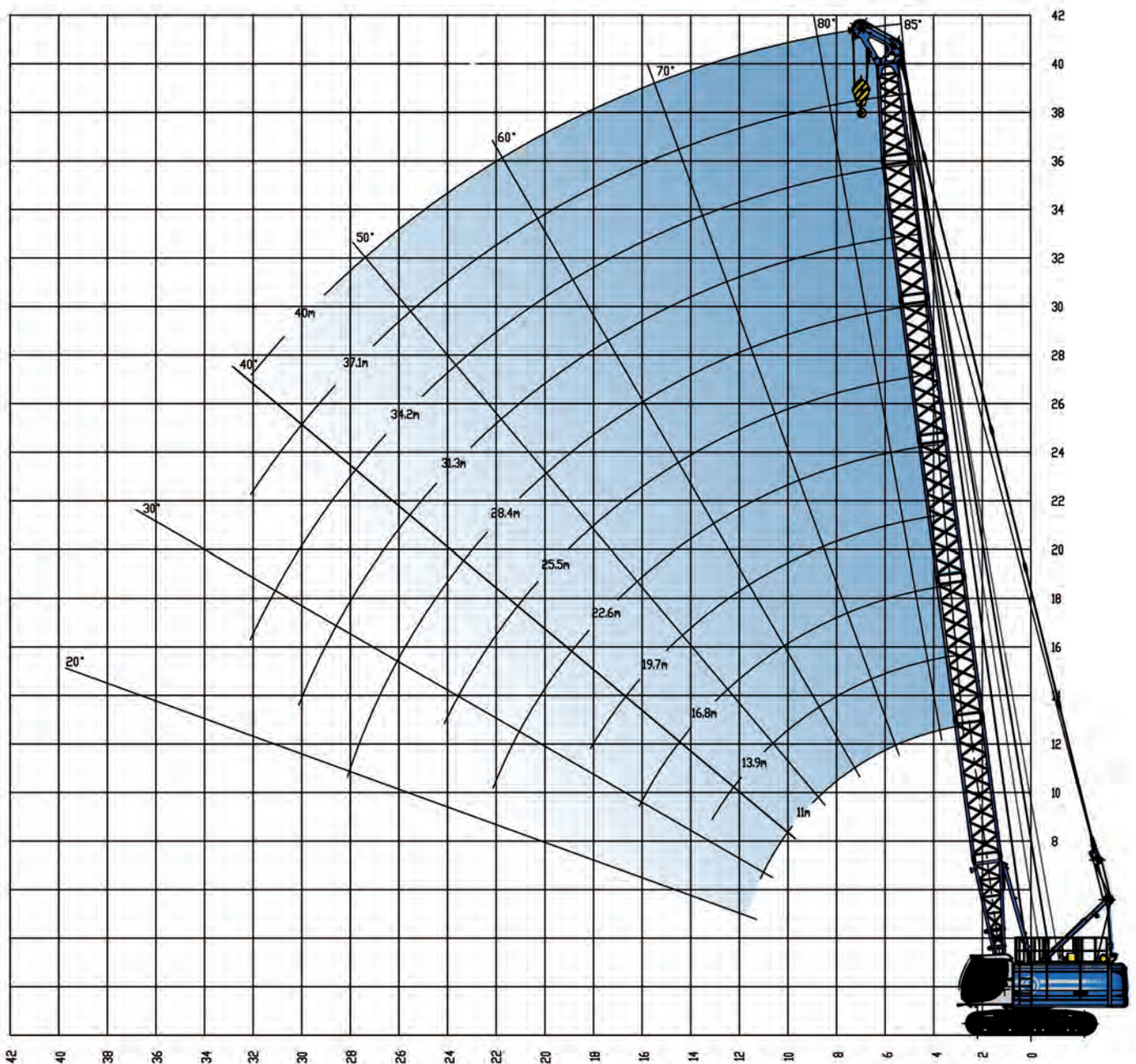
SC-50HD Load chart (t) for lifting operation											
Boom Length (m)											
Radius (m)	11	13,9	16,8	19,7	22,6	25,5	28,4	31,3	34,2	37,1	40
3,6	48,8	43,6	-	-	-	-	-	-	-	-	-
4	41,1	38,5	36	-	-	-	-	-	-	-	-
5	30,2	28,9	27,3	26,1	24,7	23,4	-	-	-	-	-
6	23,6	22,6	21,3	20,4	20,2	19,2	18,4	17,6	-	-	-
7	19,2	19,1	18	17,2	16,7	16,2	15,5	14,9	14,2	13	13
8	15,7	15,6	15,2	14,5	14,1	13,6	12,6	12,1	11,5	11,8	11,4
9	13,3	12,7	12,3	12,9	12,5	12	11,4	10,9	10,8	10,3	9,3
10	10,8	11,3	11,2	11,3	11,1	10,6	10,2	9,7	9,5	9,1	8,7
11	9,8	10	9,9	9,2	9,7	9,5	9,1	8,7	8,4	8,1	7,7
12	-	8,8	8,8	8,6	8,6	8,4	8,2	7,9	7,5	7,2	6,8
13	-	7,9	7,8	7,7	7,7	7,5	7,3	7	6,6	6,3	5,9
14	-	-	6,8	6,7	6,7	6,6	6,4	6,1	5,7	5,5	5,2
16	-	-	5,6	5,5	5,4	5,3	5,2	5	5	4,8	4,5
18	-	-	-	4,4	4,4	4,3	4,2	4	4,1	3,9	3,7
20	-	-	-	-	3,9	3,8	3,7	3,5	3,3	2,9	2,8
22	-	-	-	-	2,9	2,8	2,8	2,7	2,5	2,2	2,1
24	-	-	-	-	-	2,1	2,1	2	1,9	2,2	2,1
26	-	-	-	-	-	-	2,1	2	1,9	1,6	1,6
28	-	-	-	-	-	-	1,6	1,5	0,9	0,8	0,8
30	-	-	-	-	-	-	-	0,7	0,9	0,8	0,8
32	-	-	-	-	-	-	-	-	0,9	0,8	0,8
34	-	-	-	-	-	-	-	-	-	-	-

SC-50HD Load chart (t) for duty cycle operation								
Boom Length (m)								
Radius (m)	11	13,9	16,8	19,7	22,6	25,5	28,4	31,3
4	28,9	28,9	-	-	-	-	-	-
5	28,9	28,9	28,9	28,5	27,5	-	-	-
6	22,1	22,0	22,0	22,0	21,9	20,7	19,5	18,9
7	17,5	17,5	17,4	17,4	17,3	17,1	16,5	16,0
8	14,4	14,4	14,4	14,3	14,2	14,2	13,9	13,0
9	12,2	12,2	12,2	12,1	12,0	11,9	11,9	11,8
10	10,6	10,5	10,5	10,4	10,4	10,3	10,2	10,1
11	9,3	9,2	9,2	9,1	9,1	9,0	8,9	8,8
12	-	8,2	8,2	8,1	8,0	7,9	7,9	7,8
13	-	7,3	7,3	7,2	7,2	7,1	7,0	6,9
14	-	-	6,6	6,5	6,4	6,4	6,3	6,2
16	-	-	5,5	5,4	5,3	5,2	5,2	5,1
18	-	-	-	4,5	4,5	4,4	4,3	4,2
20	-	-	-	-	3,8	3,7	3,6	3,5
22	-	-	-	-	2,9	2,9	2,8	2,8
24	-	-	-	-	-	2,1	2,1	2,0
26	-	-	-	-	-	-	2,1	2,0
28	-	-	-	-	-	-	1,6	1,5
30	-	-	-	-	-	-	-	0,8

Boom Configuration					
Boom Length		Boom foot	Boom insert	Boom insert	Boom head
m	length	5,5 m	2,9 m	5,8 m	5,5 m
11	n. boom extension	1	-	-	1
13,9		1	1	-	1
16,8		1	-	1	1
19,7		1	1	1	1
22,6		1	-	2	1
25,5		1	1	2	1
28,4		1	-	3	1
31,3		1	1	3	1
34,2		1	-	4	1
37,1		1	1	4	1
40		1	-	5	1

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LIFTING APPLICATION WORKING RANGE



Boom configuration

- Rated loads are in metric tons valid for 360 degrees working area.
- Lifting capacities are in compliance with ISO 4305 (Table 1+2) + tipping angle 4° for dynamic effect
- Working radius are measured from the swing center of the machine and under load.
- 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.
- Load charts are valid with maximum undercarriage track.
- Optional equipment on boom (e.f. boom catwalks; jib; etc.) must be deducted from rated load to get net lifting value.
- Lifting capacities are based on freely suspended loads. Rated loads and operating speeds must be reduced in case of adverse conditions (e.g.: wind, soft ground, out-of-level, pendulum action, sudden load stopping, operating speeds, etc.)
- Load chart above 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.

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MECHANICAL GRAB APPLICATION



Mechanical Grab		
Max grab weight (*)	10000 kg	22046 lb
Winch 1° layer line pull (nominal/effective)	150 kN	33721 lbf
Rope speed (1° layer)	110 m/min	361 ft/min

** Please refer to load chart for duty cycle operation*

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HYDRAULIC VIBRATOR APPLICATION



Hydraulic Vibrator

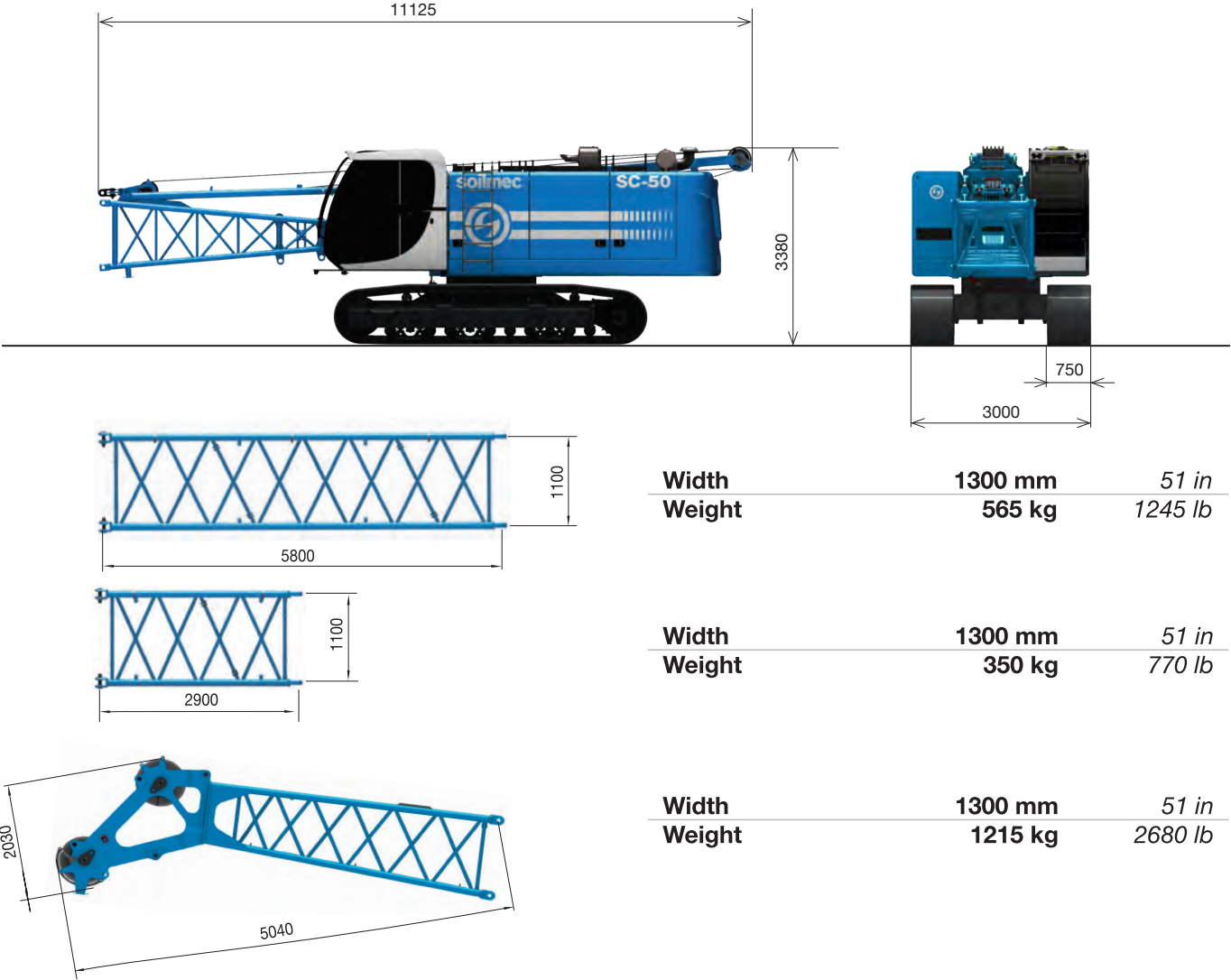
Max vibrator weight	8000 kg	258822 lb
Hydraulic flow for vibrator	210 l/min @ 320 bar	55.5 US gal/min. @ 4641 PSI

Please refer to load chart for duty cycle operation

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TRANSPORT, DIMENSIONS & WEIGHTS

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



Transport configuration		
Transport width	3000 mm	118.11 in
Transport length	11125 mm	437.99 in
Transport height	3380 mm	133.07 in
Transport weight	46000 kg	105821 lb
Transport weight (w/o counterweight)	35500 kg	79366 lb

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Technical data sheet SC-50HD-003 03/2019