SANY

Load Charts

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WARNING

Read and follow the safety precautions and instructions in this manual and on the machine decals. Failure to do so can cause serious injury, death or property damage. Keep this manual with the machine for reading and future reference.

1 General

1.1.Calculation of Rated Capacity

Rated capacity in the load charts are determined either by strength or by stability.
Rated capacity determined by stability is calculated according to ASME B30.5 Mobile and Locomotive Cranes -- Determination of Stability and these rated capacity are always within the 75% of tipping load.

1.2.Use the Load Charts Properly

1) Ground conditions: rated capacity in the load charts is calculated in the conditions that the crane is on firm, level and evenly-supported ground with gradient smaller than 1%. If these condition are not met, the working capacity must be decreased based on the load chart.
2) Actual Lifting Capacity: the weight of hook blocks, lifting devices, and wire ropes reeving between the hooks and boom head must be deducted from the rate capacity to achieve the actual lifting capacity.
Note: the wire rope winding between the hook (main hook, auxiliary hook) is calculated as 3.5 kg/m.

Table 1 Hook blocks/parts of line and max. rated capacity

Hooks	Weight (t)	No. of sheaves	No. of lines and max. rated capacity (unit: t)									
			1	2	3	4	5	6	7	8	9	10
100	1.36	5				48	60	72	84	96	100	100
50	1.04	3				48	50	50	50			
25	0.79	1		24	25							
13.5	0.47	0	12									

Table 2 Hook blocks/parts of line and max. rated capacity of main load hoist unit:Klb (t)

Parts of line	1	2	3	4	5	6	7	8	9	10
Max. rated capacity(t)	12	24	36	48	60	72	84	96	100	100

Table 3 Rope Specifications

Use	Rope spec.	Min. breaking force: kN	Rope dia. : mm	Rope length : m	Max. line pull: t	Type
Main load hoist winch	35W x K7 Righ-hand lang lay	621	φ26	240	12	Rotation resis-tant
Auxiliary load hoist winch	35W x K7 Righ-hand lang lay	621	φ26	180	12	Rotation resis-tant
Boom hoist winch	8×K26WS Right-hand ordi-nary lay	353	φ20	140	9	Rotation
3rd winch (optional)	34W x K7 Right-hand ordi-nary lay	491	φ22	130	8	Rotation resis-tant

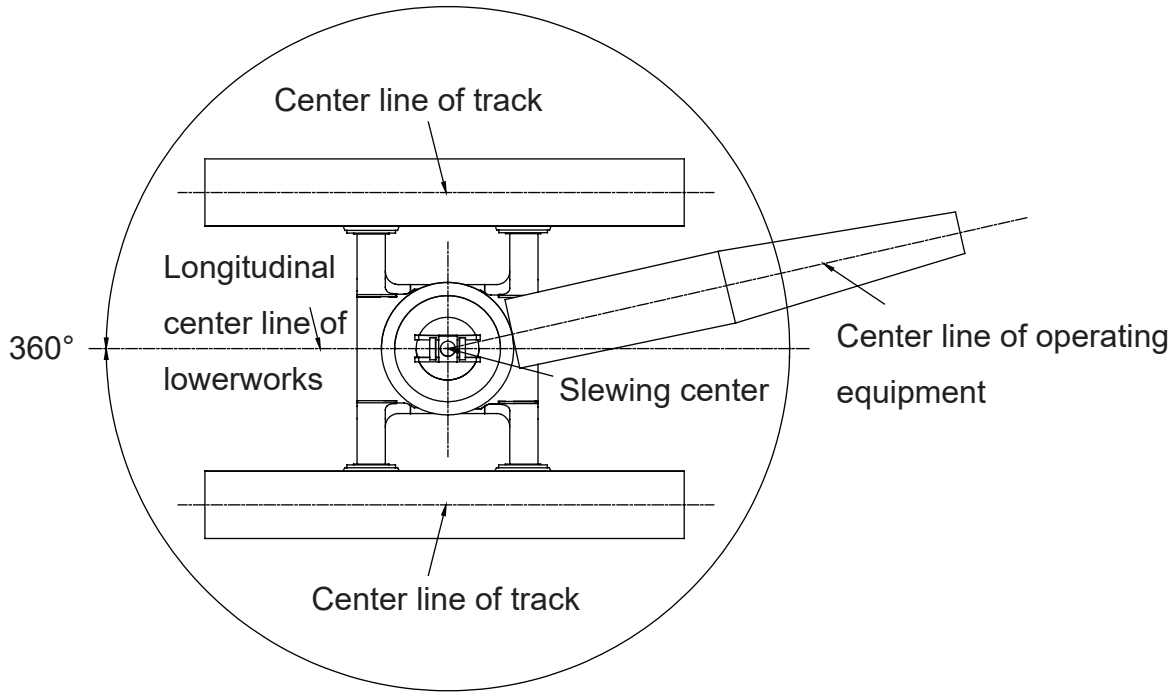
3) Wind Speed: Calculating rated capacity also takes allowable wind speed of each operating condition into consideration. The machine is allowed to operate when the speed of stable wind or gust is no more than 16m/s, which means the maximum allowable wind speed is 10m/s~16.0m/s (equivalent to 60~160 N/m^{2}dynamic pressure); when the wind speed is higher than 16m/s and lower than 22m/s, the crane is not allowed to operate; when wind speed is higher than 22m/s and lower than 30m/s, the boom system shall lower down to the ground or anchored with weight; when the wind speed is higher than 30m/s, the boom system must be lowered onto the ground.

Table 4 Maximum permissible wind speed for operation

Boom condition			
Boom length（m）	<36	36-60	>60
Rated load coefficient	Wind speed m/s		
100%	12	10	10
90%	14	12	12
80%	15	14	14
70%	16	16	16
Fixed jib condition			
Boom length （m）	<36	36-60	>196.9 (60)
Fixed jib length	Min. to Max.		
Rated load coefficient	Wind speed Mph（m/s）		
100%	12	10	10
90%	14	14	12
80%	15	15	14
70%	16	16	16

If the wind speed at operating site cannot fulfill the requirements listed above, the crane capacity must be reduced according to the actual situation before it is allowed to operate.
Please see The Impact of Wind Speed in Operating Manual for details.

4) Working scope: rated capacity listed in the load charts are all applicable for the whole 360° slewing range.



5)Capacity for crane in traveling: rated capacity listed in the load chart is the value at non-traveling state, which should be decreased accordingly when the crane is traveling. The extent varies with the operating conditions. For traveling steadily at low speed, 90% of the rated capacity is allowed in H operating condition when traveling in straight line, 70% when turning; 50% of the rated capacity is allowed in FJ operating condition when traveling in straight line.

Notices requiring special care for traveling with load:
a) It is suggested to move the load in an area as small as possible and lift the load close to the ground (with a maximum distance of 500mm above the ground);
b) Only the low speed can be used if possible, and proper measures should be taken to prevent the load swinging.
For detailed requirements on traveling, please refer to the “Traveling Operation” in this manual.

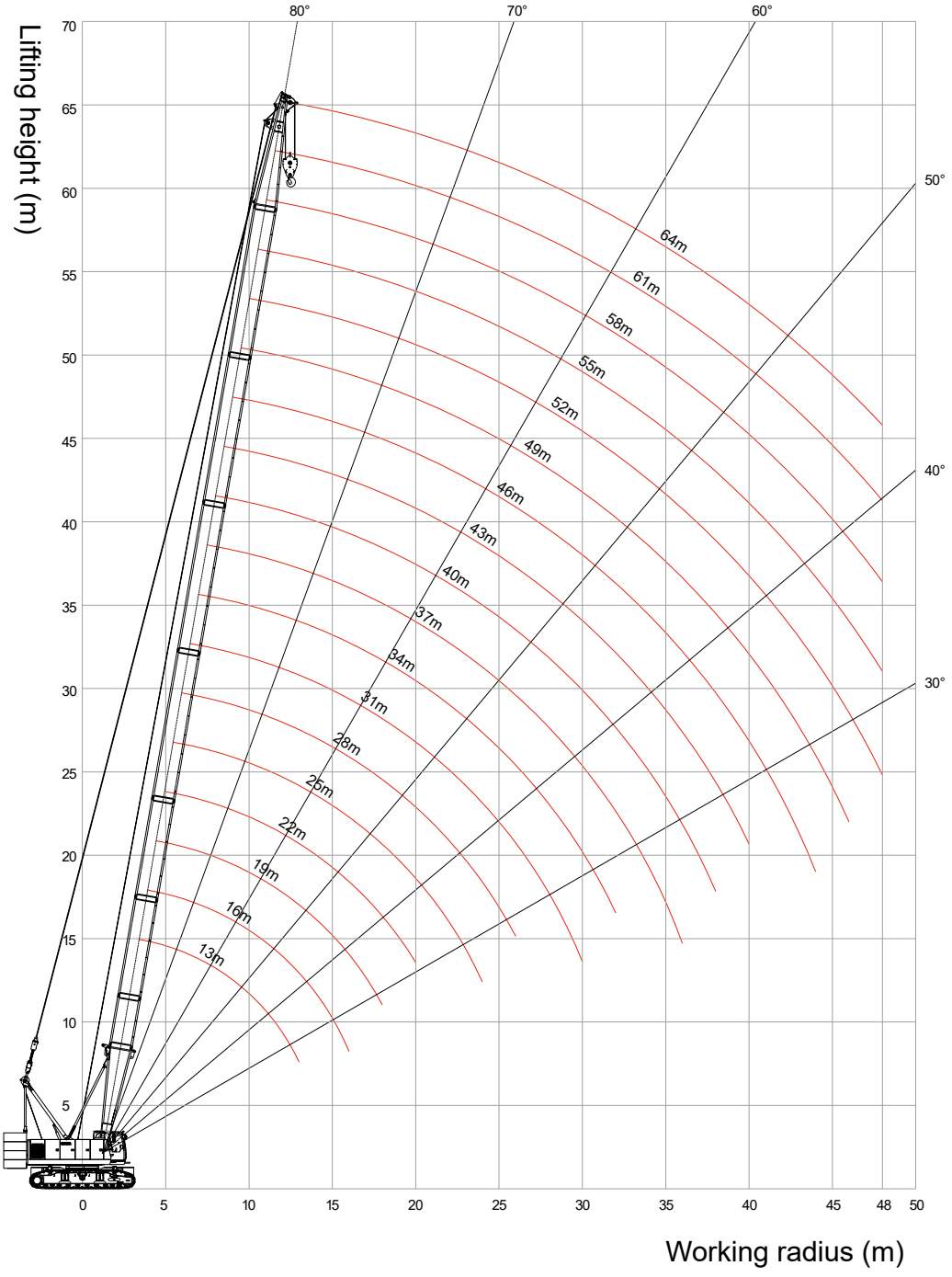
2 Operating Condition Codes

Operating Condition Codes

NO.	Operating Condition	Code
1	Main Boom	H
2	Main Boom + Fix Jib	FJ
3	Main Boom + Extension Jib	HC

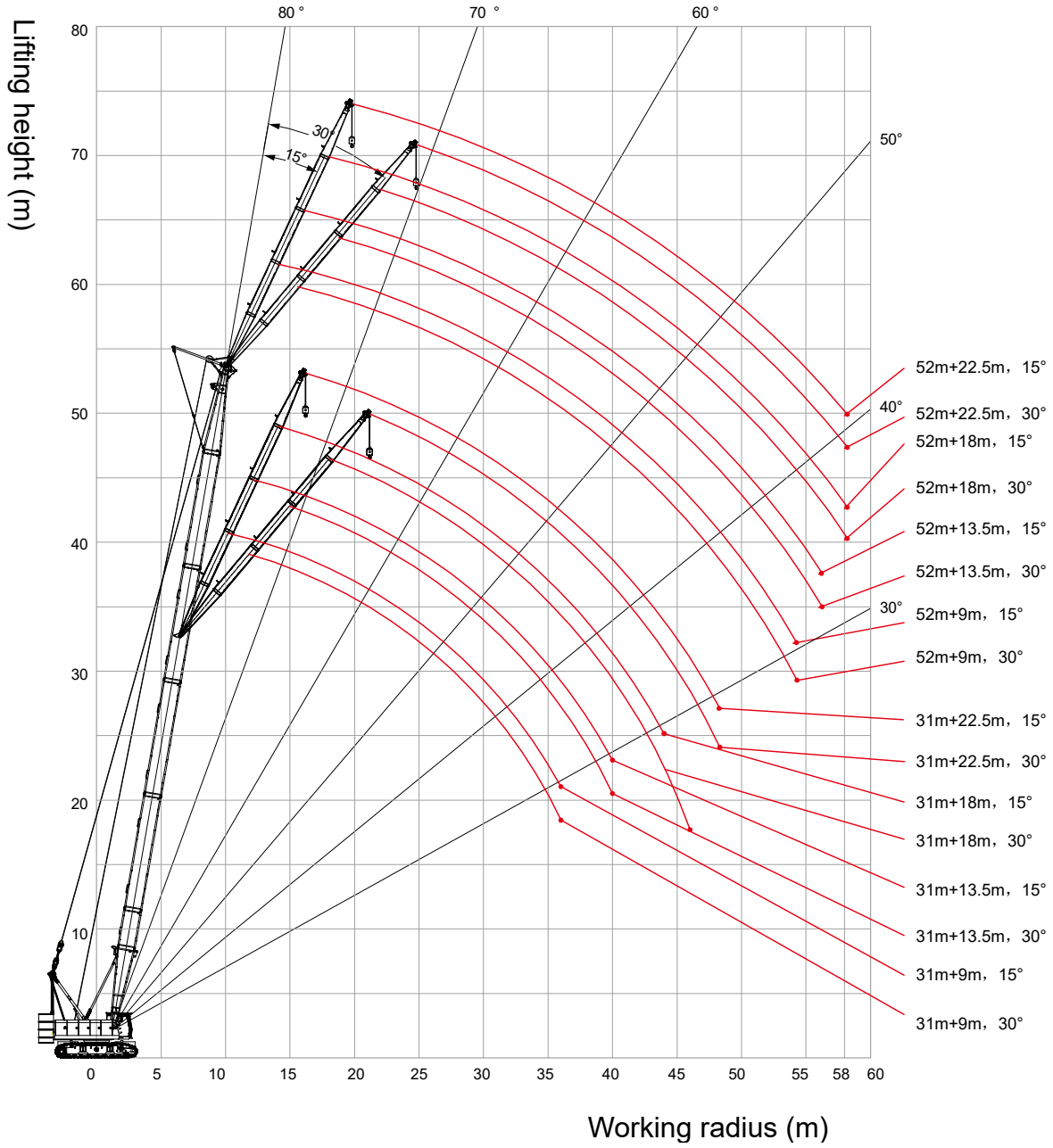
3 Operating Range Curve

3.1 Main boom operating condition (H)



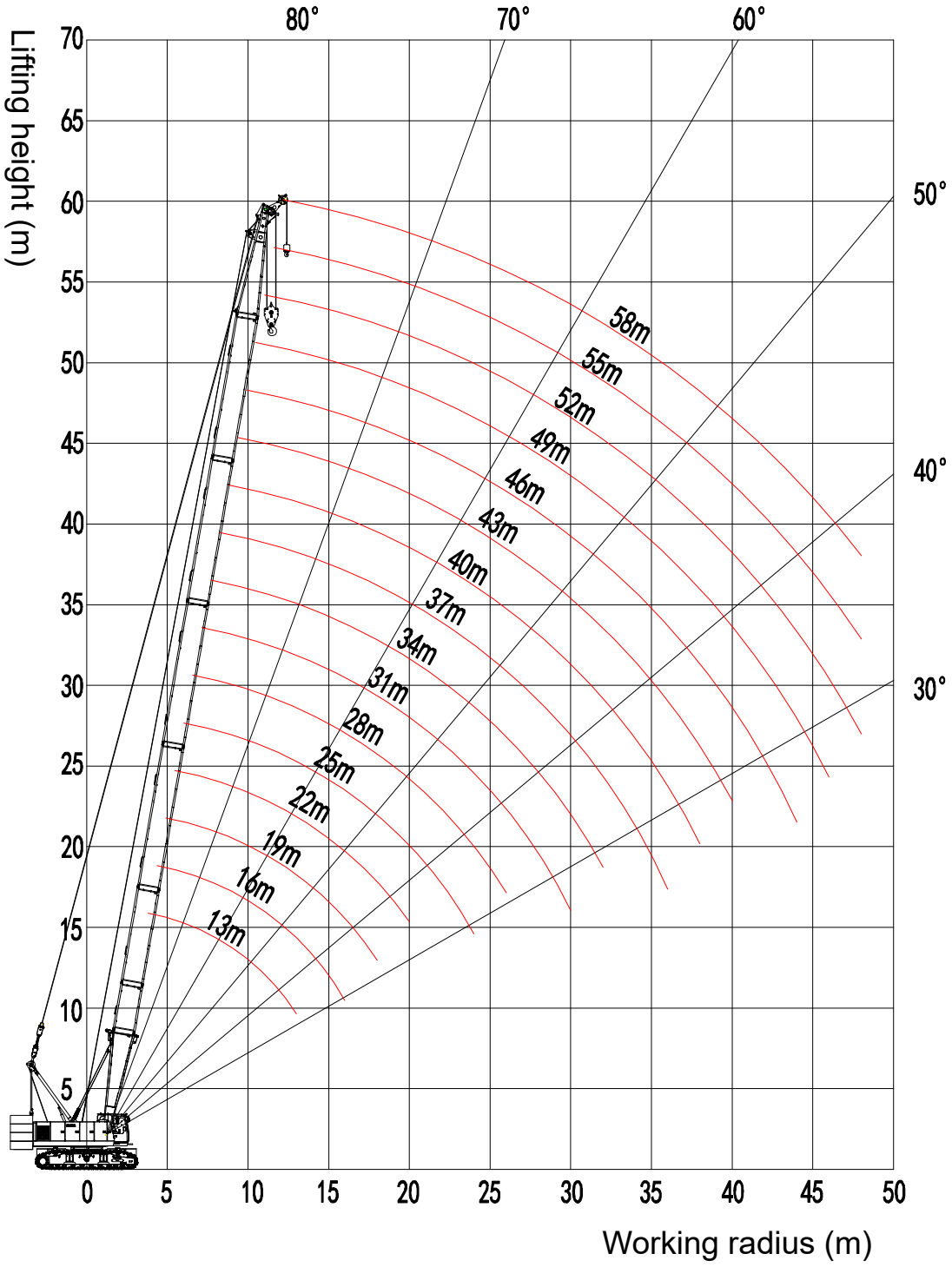
H Work Radius

3.2 Main Boom + Fixed Jib Operating Condition (FJ)

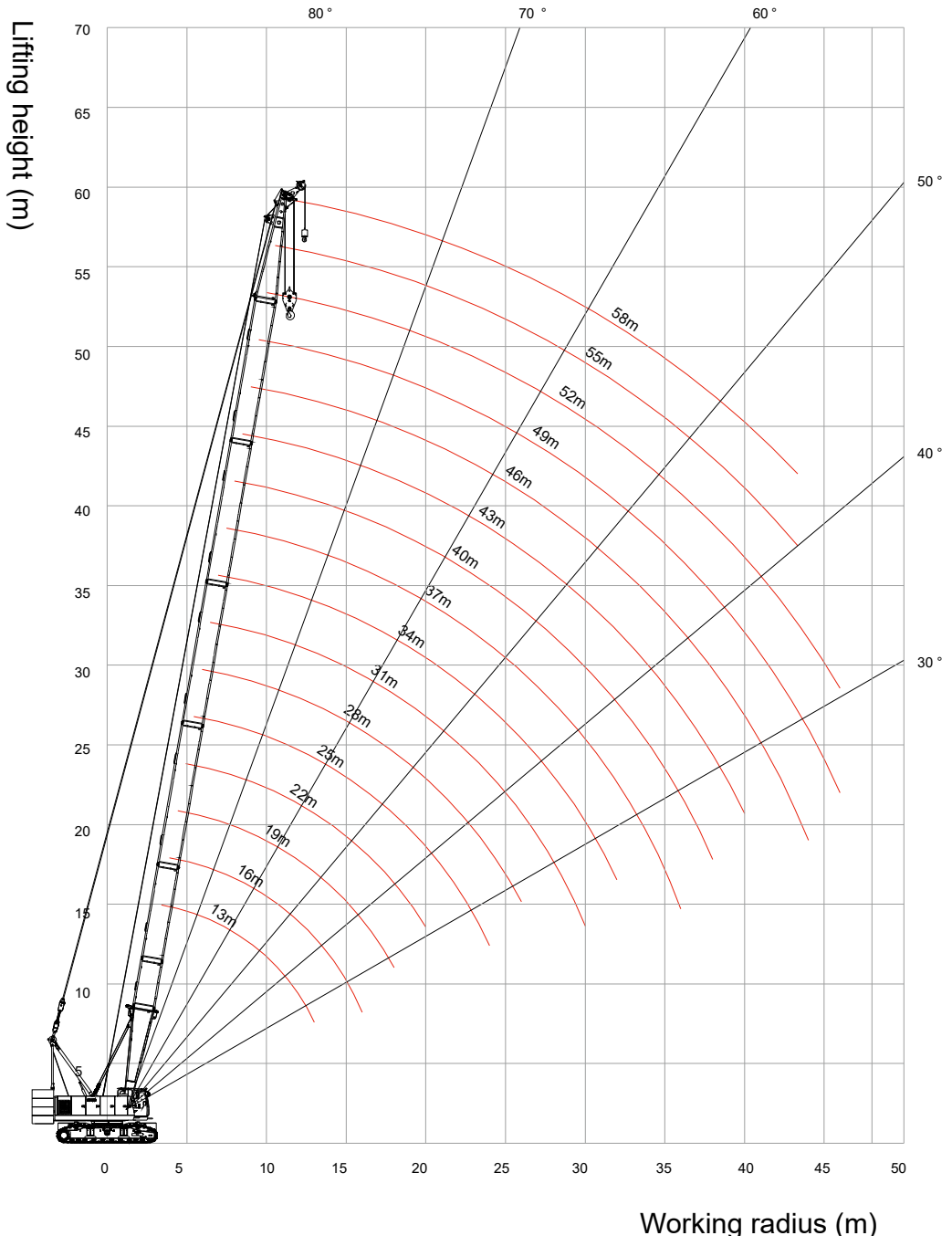


FJ Work Radius

3.3 Main boom + Extension Jib operating condition (HC)



HC Aux. Hook Work Radius

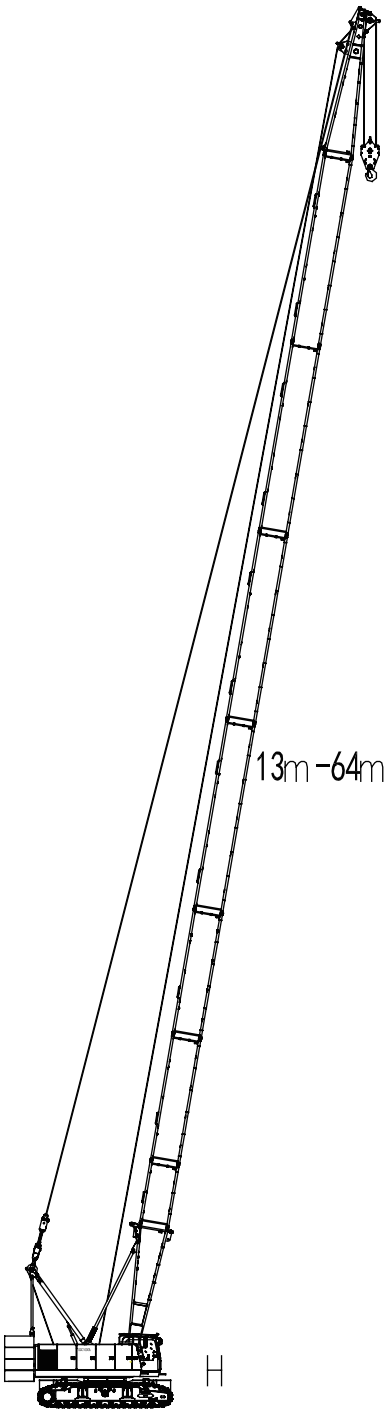


HC Main Hook Work Radius

4 Load Charts

4.1 Load Charts of Hook for H Operating Condition

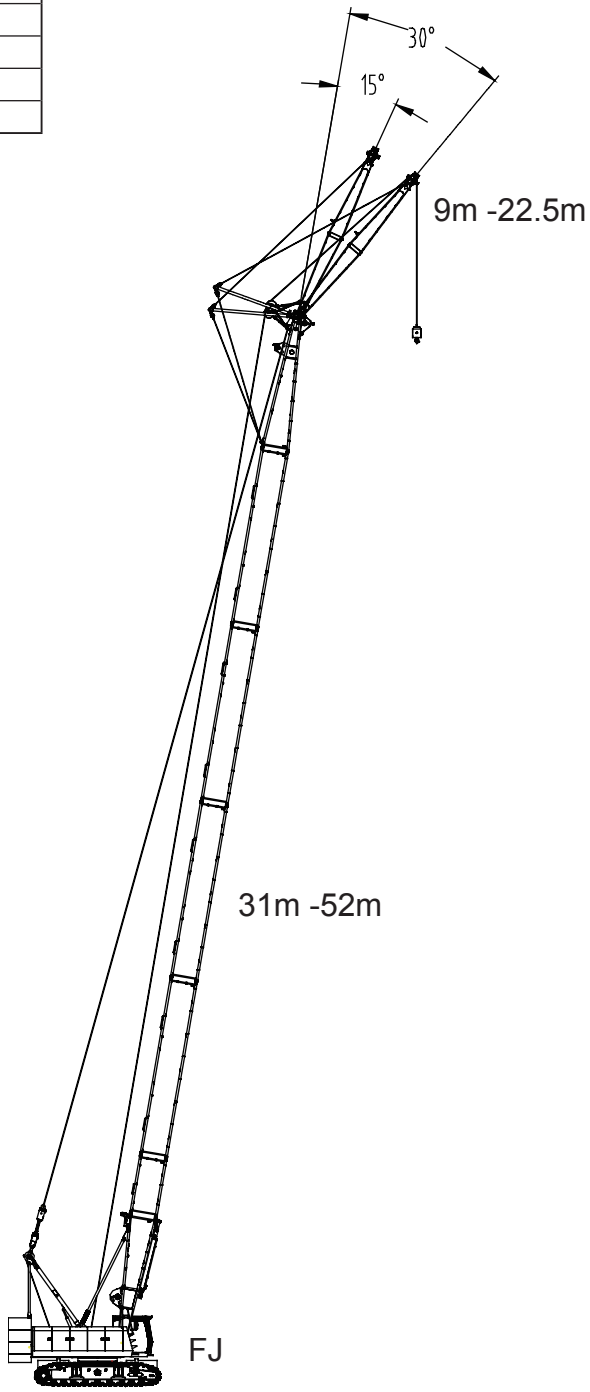
Boom length (m)	Boom insert		
	3 m	6 m	9m
13	-	-	-
16	1	-	-
19	-	1	-
22	-	-	1
25	1	-	1
28	-	1	1
31	1	1	1
	-	-	2
34	1	-	2
37	-	1	2
40	1	1	2
	-	-	3
43	1	-	3
46	-	1	3
49	1	1	3
	-	-	4
52	1	-	4
55	-	1	4
58	1	1	4
61	-	2	4
64	1	2	4



4.2 Load Charts of Jib Hook for FJ Operating Condition

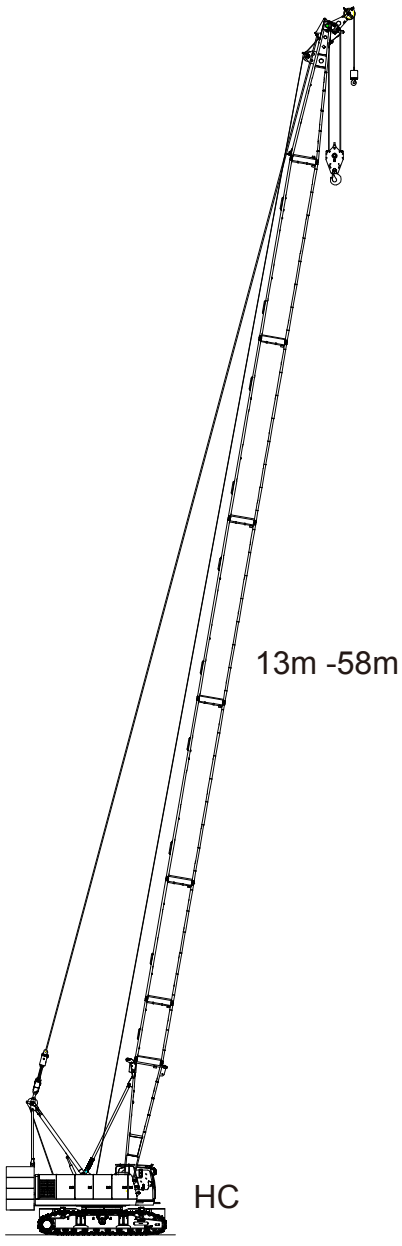
Combination of Fixed Jib

Jib Length (m)/	Jib insert
	4.5m
9	-
13.5	1
18	2
22.5	3



4.3 Load Charts of Hook for HC Operating Condition

Boom length (m)	Boom insert		
	3 m	6 m	9m
13	-	-	-
16	1	-	-
19	-	1	-
22	-	-	1
25	1	-	1
28	-	1	1
31	1	1	1
	-	-	2
34	1	-	2
37	-	1	2
40	1	1	2
	-	-	3
43	1	-	3
46	-	1	3
49	1	1	3
	-	-	4
52	1	-	4
55	-	1	4
58	1	1	4



Notes:

1. The rated load values listed in the Load Chart are calculated on the conditions that the machine is parking on firm and level ground, with load lifted up slowly and steadily, not when it is walking. Level ground means ground within 1% grade.

2. The weight of hook block, riggings, slings and wire ropes from boom point to the load are considered as part of the rated load, which must be substracted from the rated load to obtain the weight that can be lifted.

3. The rated load indicated in the table refers to the value obtained from calculation by 75% tipping load when the wind speed is below 9.8m/s.

4. The ratings are calculated when the load is freely suspended in ideal operating conditions, without considering the effect of excessive wind load, ground condition, levelness, operation speed or any other negative effect on safety operation. Therefore, the operator has the responsibilities to judge the site condition, reduce the load and slow down the speed accordingly;

5. Load radius is horizontal distance from axis of rotation to center of gravity of the freely suspended load. Boom angle is angle between horizontal and centerline of boom base and inserts, and is an indication of radius. In all cases, operating radius shall govern capacity.

6. The least stable position is over the side of the machine.

7. Lifting capacities listed apply only to the machine as originally manufactured and designed. Modifications to this machine or use of equipment other than that specified can reduce operating capacity.

8. The A-frame must stay at work position.

9. The shaded value in main boom load chart is determined by the stability.

10. Travel with load:

(1). When the load exceed more than 50% rated load, the crane upperworks shall be in line with crawlers, and the Swing lock switch is turned to the lock position. Grade in any direction must not exceed 1%, (0.5 degree)

(2) Travel surface must be firm, level and uniformly supporting.When traveling with load, the boom hoist drum must be at the brake state. The load shall be close to the ground as possible, and can not exceed 0.5m. Stabalize the load with taglines. Travel the machine smoothly and slowly, to prevent the machine tipping over due to the inertia caused by the abrupt shaking.

SCE1000A Crawler Crane - H 1/2

Rear Counterweight 31.2t+Carbody Counterweight 11t

Unit: t

Boom length (m) / Radius (m)	13	16	19	22	25	28	31	34	37	40	43	46	49	52	55	58	61	64	Boom length (m) / Radius (m)
3.8	100																		3.8
4	90																		4
4.5	84.2	82																	4.5
5	75	73																	5
5.5	69	68.8	68.2																5.5
6	62.9	62.2	61.4	59.2															6
6.5	55.6	55.1	54.6	53.8	52														6.5
7	49.9	49.4	49	48.6	47.6	46.2													7
7.5	45.1	44.7	44.3	44	43.6	42.7	41.5												7.5
8	41.2	40.8	40.5	40.2	39.8	39.5	38.6	37.5											8
9	35.1	34.7	34.4	34.2	33.9	33.6	33.4	32.9	32.1	31.4									9
10	30.5	30.1	29.9	29.7	29.4	29.2	28.9	28.7	28.4	27.9	27.2								10
11	26.9	26.6	26.4	26.2	25.9	25.7	25.5	25.2	25	24.8	24.5	23.9	23.4						11
12	24	23.7	23.5	23.4	23.1	22.9	22.7	22.5	22.3	22.1	21.9	21.7	21.2	20.7					12
13	21.7	21.4	21.2	21	20.8	20.6	20.4	20.2	20	19.9	19.6	19.5	19.3	18.9	18.1	16			13
14		19.5	19.3	19.1	18.9	18.7	18.5	18.3	18.2	18	17.8	17.6	17.4	17.2	16.9	15.4	14.2		14
15		17.8	17.7	17.5	17.3	17.1	16.9	16.7	16.6	16.4	16.2	16	15.9	15.6	15.5	14.8	13.6	11.8	15
16		16.4	16.3	16.1	15.9	15.7	15.6	15.3	15.2	15	14.8	14.7	14.5	14.3	14.1	13.9	12.9	10.5	16
18			14	13.8	13.6	13.5	13.3	13.1	12.9	12.8	12.6	12.4	12.3	12.1	11.9	11.7	11.6	9.8	18
20				12.1	11.8	11.7	11.6	11.3	11.2	11.1	10.8	10.7	10.6	10.3	10.2	10	9.9	8.8	20
22					10.4	10.3	10.1	9.9	9.8	9.7	9.4	9.3	9.2	9	8.8	8.6	8.5	7.8	22
24					9.3	9.1	9	8.8	8.6	8.5	8.3	8.2	8	7.8	7.7	7.5	7.4	6.8	24

SCE1000A Crawler Crane - H 2/2

Rear Counterweight 31.2t+Carbody Counterweight 11t

Unit: t

Boom length (m) / Radius (m)	13	16	19	22	25	28	31	34	37	40	43	46	49	52	55	58	61	64	Boom length (m) / Radius (m)
26						8.2	8	7.8	7.7	7.6	7.3	7.2	7.1	6.9	6.7	6.5	6.4	5.8	26
28							7.2	7	6.9	6.7	6.5	6.4	6.3	6.1	5.9	5.7	5.6	5.2	28
30							6.5	6.3	6.2	6	5.8	5.7	5.6	5.4	5.2	5	4.9	4.5	30
32								5.7	5.6	5.4	5.2	5.1	5	4.8	4.6	4.4	4.3	3.9	32
34									5	4.9	4.7	4.6	4.4	4.2	4.1	3.9	3.8	3.4	34
36									4.6	4.4	4.2	4.1	4	3.8	3.6	3.4	3.3	2.9	36
38										4	3.8	3.7	3.6	3.3	3.2	3	2.9	2.5	38
40											3.4	3.3	3.2	3	2.9	2.6	2.5	2.1	40
42												3	2.8	2.6	2.5	2.3	2.2	1.8	42
44												2.7	2.5	2.3	2.2	2	1.9	1.5	44
46													2.3	2.1	1.9	1.7	1.6	1.2	46
48														1.8	1.7	1.5	1.3	1	48

Note: The shaded values are determined by boom strength,

SCE1000A Crawler Crane - FJ

Rear Counterweight 31.2t, Carbody Counterweight 11t

Unit: t

Boom length (m) / Radius (m)	31								34								Boom length (m) / Radius (m)
Jib Length (m)	9		13.5		18		22.5		9		13.5		18		22.5		Jib Length (m)
Boom to jib angle	15°	30°	15°	30°	15°	30°	15°	30°	15°	30°	15°	30°	15°	30°	15°	30°	Boom to jib angle
12	11																12
13	11								11								13
14	11	11	11						11	11							14
15	11	11	11						11	11	11						15
16	11	11	11	10.3	11				11	11	11		11				16
18	11	11	11	9.7	10.5		7.1		11	11	11	9.7	10.5		7.2		18
20	11	11	11	9.1	9.7	7.2	6.7		11	11	11	9.1	9.7	7.2	6.8		20
22	10.4	10.5	10.5	8.7	9	6.8	6.3	5.7	10.2	10.4	10.3	8.7	9	6.8	6.4	5.8	22
24	9.2	9.3	9.3	8.3	8.4	6.4	6	5.3	9	9.2	9.1	8.3	8.4	6.4	6.1	5.5	24
26	8.2	8.3	8.3	7.9	7.9	6.1	5.7	5	8	8.2	8.1	7.9	7.9	6.1	5.8	5.2	26
28	7.4	7.5	7.5	7.6	7.4	5.9	5.5	4.8	7.2	7.3	7.3	7.5	7.3	5.9	5.6	5	28
30	6.7	6.8	6.7	6.9	6.8	5.6	5.2	4.6	6.5	6.6	6.6	6.8	6.6	5.6	5.3	4.8	30
32	6	6.1	6.1	6.3	6.1	5.4	5	4.4	5.8	5.9	5.9	6.1	6	5.4	5.1	4.6	32
34	5.5	5.5	5.6	5.7	5.6	5.2	4.8	4.3	5.3	5.4	5.4	5.5	5.4	5.2	4.9	4.4	34
36	5	5	5.1	5.2	5.1	5.1	4.6	4.2	4.8	4.9	4.9	5	4.9	5.1	4.7	4.3	36
38			4.7	4.7	4.7	4.8	4.5	4	4.4	4.4	4.5	4.6	4.5	4.7	4.5	4.1	38
40			4.3	4.3	4.3	4.4	4.3	3.9			4.1	4.2	4.1	4.2	4.2	4	40
42					3.9	4	4	3.8			3.7	3.8	3.8	3.9	3.9	3.9	42
44					3.6	3.7	3.7	3.7				3.4	3.4	3.5	3.6	3.7	44
46						3.3	3.5	3.5					3.1	3.2	3.4	3.4	46
48							3.2	3.2					2.9	2.9	3.1	3.1	48

Note: The shaded values are determined by boom strength or single line pull.

SCE1000A Crawler Crane - FJ

Rear Counterweight 31.2t, Carbody Counterweight 11t

Unit: t

Boom length (m) / Radius (m)	37								40								Boom length (m) / Radius (m)
Jib Length (m)	9		13.5		18		22.5		9		13.5		18		22.5		Jib Length (m)
Boom to jib angle	15°	30°	15°	30°	15°	30°	15°	30°	15°	30°	15°	30°	15°	30°	15°	30°	Boom to jib angle
13	11																13
14	11								11								14
15	11	11	11						11								15
16	11	11	11						11	11	11						16
18	11	11	11	9.7	10.5				11	11	11		10.5				18
20	11	11	11	9.1	9.7		6.9		11	11	11	9.1	9.7		6.9		20
22	10	10.3	10.1	8.7	9	6.8	6.5		9.9	10.1	10	8.7	9	6.8	6.6		22
24	8.9	9.1	9	8.3	8.4	6.4	6.2	5.6	8.7	8.9	8.8	8.3	8.4	6.4	6.3	5.6	24
26	7.9	8	8	7.9	7.9	6.1	5.9	5.3	7.7	7.9	7.9	7.9	7.9	6.1	6	5.4	26
28	7.1	7.2	7.2	7.4	7.2	5.9	5.7	5.1	6.9	7.1	7	7.3	7.1	5.9	5.8	5.2	28
30	6.3	6.5	6.4	6.6	6.5	5.6	5.5	4.9	6.2	6.3	6.3	6.5	6.4	5.6	5.6	5	30
32	5.7	5.8	5.8	6	5.9	5.4	5.2	4.7	5.6	5.7	5.7	5.9	5.7	5.4	5.3	4.8	32
34	5.2	5.3	5.3	5.4	5.3	5.2	5	4.5	5	5.2	5.1	5.3	5.2	5.2	5.1	4.7	34
36	4.7	4.8	4.8	4.9	4.8	5	4.8	4.3	4.6	4.7	4.6	4.8	4.7	4.9	4.7	4.5	36
38	4.3	4.3	4.3	4.5	4.4	4.6	4.4	4.2	4.1	4.2	4.2	4.4	4.3	4.5	4.3	4.3	38
40	3.9	3.9	4	4.1	4	4.1	4	4.1	3.7	3.8	3.8	3.9	3.9	4	3.9	4.1	40
42	3.5	3.6	3.6	3.7	3.6	3.8	3.7	3.8	3.4	3.4	3.5	3.6	3.5	3.7	3.6	3.8	42
44			3.3	3.3	3.3	3.4	3.4	3.5	3.1	3.1	3.2	3.2	3.2	3.3	3.3	3.5	44
46			3	3	3	3.1	3.1	3.3			2.9	2.9	2.9	3	3	3.2	46
48					2.7	2.8	2.8	3			2.6	2.6	2.6	2.7	2.7	2.9	48
50					2.5	2.5	2.6	2.7					2.4	2.5	2.5	2.6	50
52							2.3	2.4					2.1	2.2	2.2	2.3	52
54														2	2	2.1	54

Note: The shaded values are determined by boom strength or single line pull.

SCE1000A Crawler Crane - FJ

Rear Counterweight 31.2t, Carbody Counterweight 11t

Unit:t

Boom length (m) / Radius (m)	43								46								Boom length (m) / Radius (m)
Jib Length (m)	9		13.5		18		22.5		9		13.5		18		22.5		Jib Length (m)
Boom to jib angle	15°	30°	15°	30°	15°	30°	15°	30°	15°	30°	15°	30°	15°	30°	15°	30°	Boom to jib angle
14	11																14
15	11								11								15
16	11	11	11						11								16
18	11	11	11		10				11	11	11						18
20	11	11	11	9.1	9.7		7		11	11	11	9.1	9.6				20
22	9.7	10	9.8	8.7	9	6.8	6.7		9.6	9.9	9.7	8.7	8.9		6.8		22
24	8.5	8.8	8.7	8.3	8.4	6.4	6.4	5.7	8.4	8.7	8.5	8.3	8.4	6.4	6.5	5.8	24
26	7.6	7.8	7.7	7.9	7.8	6.1	6.1	5.5	7.4	7.6	7.6	7.9	7.6	6.1	6.2	5.6	26
28	6.7	6.9	6.8	7.1	6.9	5.9	5.9	5.3	6.6	6.8	6.7	7	6.8	5.9	5.9	5.4	28
30	6	6.2	6.1	6.4	6.2	5.6	5.6	5.1	5.9	6.1	6	6.3	6.1	5.6	5.7	5.2	30
32	5.4	5.5	5.5	5.7	5.6	5.4	5.4	4.9	5.3	5.4	5.4	5.6	5.4	5.4	5.4	4.9	32
34	4.9	5	5	5.2	5	5.2	5	4.8	4.7	4.9	4.8	5	4.9	5.2	4.9	4.6	34
36	4.4	4.5	4.5	4.6	4.5	4.8	4.6	4.6	4.2	4.4	4.3	4.5	4.4	4.7	4.4	4.4	36
38	3.9	4	4	4.2	4.1	4.3	4.1	4.4	3.8	3.9	3.9	4.1	4	4.2	4	4.2	38
40	3.6	3.6	3.6	3.8	3.7	3.9	3.8	4	3.4	3.5	3.5	3.7	3.6	3.8	3.7	3.9	40
42	3.2	3.3	3.3	3.4	3.3	3.5	3.5	3.6	3.1	3.2	3.2	3.3	3.2	3.4	3.4	3.6	42
44	2.9	2.9	3	3.1	3	3.2	3.1	3.3	2.8	2.8	2.8	3	2.9	3.1	3	3.2	44
46	2.6	2.6	2.7	2.8	2.7	2.9	2.8	3	2.5	2.5	2.6	2.7	2.6	2.8	2.7	2.9	46
48			2.4	2.5	2.4	2.6	2.5	2.7	2.2	2.3	2.3	2.4	2.3	2.5	2.4	2.6	48
50			2.2	2.2	2.2	2.3	2.2	2.4		2	2	2.1	2.1	2.2	2.2	2.3	50
52				2	2	2.1	2	2.2			1.8	1.9	1.9	2	1.9	2.1	52
54					1.8	1.8	1.8	1.95			1.6	1.6	1.6	1.7	1.7	1.8	54
56					1.6	1.6	1.6	1.7					1.4	1.5	1.5	1.6	56
58							1.4	1.5					1.3	1.3	1.3	1.4	58

Note: The shaded values are determined by boom strength or single line pull.

SCE1000A Crawler Crane - FJ

Rear Counterweight 31.2t, Carbody Counterweight 11t

Unit:t

Boom length (m) / Radius (m)	49								52								Boom length (m) / Radius (m)
Jib Length (m)	9		13.5		18		22.5		9		13.5		18		22.5		Jib Length (m)
Boom to jib angle	15°	30°	15°	30°	15°	30°	15°	30°	15°	30°	15°	30°	15°	30°	15°	30°	Boom to jib angle
15	11																15
16	11								11								16
18	11	11	11						11	11	10.4						18
20	10.9	11	10.8	9.1	9				10.7	11	10.1		8.3				20
22	9.4	9.7	9.6	8.7	8.7		6.8		9.3	9.6	9.3	8.7	8.1		7		22
24	8.3	8.5	8.4	8.3	8	6.4	6.5		8.1	8.4	8.2	8.3	7.8	6.4	6.7		24
26	7.3	7.5	7.4	7.8	7.5	6.1	6.3	5.4	7.1	7.4	7.3	7.6	7.4	6.1	6.4	5.4	26
28	6.5	6.7	6.6	6.9	6.7	5.9	6.1	5.2	6.3	6.5	6.4	6.8	6.5	5.9	6.1	5.1	28
30	5.8	5.9	5.9	6.2	6	5.6	5.7	5	5.6	5.8	5.7	6	5.8	5.6	5.8	4.8	30
32	5.1	5.3	5.3	5.5	5.3	5.4	5.3	4.7	5	5.1	5.1	5.4	5.2	5.4	5.2	4.6	32
34	4.6	4.7	4.7	4.9	4.8	5.1	4.8	4.5	4.4	4.6	4.5	4.8	4.6	4.9	4.7	4.4	34
36	4.1	4.3	4.2	4.4	4.3	4.6	4.3	4.3	3.9	4.1	4	4.3	4.1	4.4	4.2	4.2	36
38	3.7	3.8	3.8	4	3.8	4.1	3.9	4.1	3.5	3.6	3.6	3.8	3.7	4	3.8	4	38
40	3.3	3.4	3.4	3.6	3.4	3.7	3.5	3.8	3.1	3.2	3.2	3.4	3.3	3.5	3.4	3.7	40
42	3	3.1	3	3.2	3.1	3.3	3.2	3.5	2.8	2.9	2.9	3	2.9	3.2	3.1	3.4	42
44	2.6	2.7	2.7	2.9	2.8	3	2.9	3.1	2.5	2.5	2.5	2.7	2.6	2.8	2.7	3	44
46	2.4	2.4	2.4	2.6	2.5	2.7	2.6	2.8	2.2	2.2	2.2	2.4	2.3	2.5	2.4	2.7	46
48	2.1	2.1	2.2	2.3	2.2	2.4	2.3	2.5	1.9	2	2	2.1	2	2.2	2.1	2.4	48
50	1.9	1.9	1.9	2	2	2.1	2.1	2.3	1.7	1.7	1.7	1.8	1.8	1.9	1.8	2.1	50
52	1.6	1.7	1.7	1.8	1.7	1.9	1.8	2	1.4	1.5	1.5	1.6	1.6	1.7	1.6	1.8	52
54			1.5	1.5	1.5	1.6	1.6	1.8	1.2	1.3	1.3	1.4	1.3	1.5	1.4	1.6	54
56			1.3	1.3	1.3	1.4	1.4	1.5			1.1	1.2	1.1	1.3	1.2	1.4	56
58					1.1	1.2	1.2	1.3					1	1	1	1.2	58

Note: The shaded values are determined by boom strength or single line pull.

SCE1000A Crawler Crane - HC (with upper boom point) 1/2

Rear Counterweight 31.2t+Carbody Counterweight 11t Unit: t

Boom length (m) / Radius (m)	13	16	19	22	25	28	31	34	37	40	43	46	49	52	55	58	Boom length (m) / Radius (m)
3.8	12																3.8
4	12																4
4.5	12	12															4.5
5	12	12															5
5.5	12	12	12														5.5
6	12	12	12	12													6
6.5	12	12	12	12	12												6.5
7	12	12	12	12	12	12											7
7.5	12	12	12	12	12	12	12										7.5
8	12	12	12	12	12	12	12	12									8
9	12	12	12	12	12	12	12	12	12	12							9
10	12	12	12	12	12	12	12	12	12	12	12						10
11	12	12	12	12	12	12	12	12	12	12	12	12	12				11
12	12	12	12	12	12	12	12	12	12	12	12	12	12	12			12
13	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	13
14		12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	14
15		12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	15
16		12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	16
18			12	12	12	12	12	12	12	12	12	12	12	12	11.9	11.7	18
20				12	11.8	11.7	11.6	11.3	11.2	11.1	10.8	10.7	10.6	10.3	10.2	10	20
22					10.4	10.3	10.1	9.9	9.8	9.7	9.4	9.3	9.2	9	8.8	8.6	22
24					9.3	9.1	9	8.8	8.6	8.5	8.3	8.2	8	7.8	7.7	7.5	24
26						8.2	8	7.8	7.7	7.6	7.3	7.2	7.1	6.9	6.7	6.5	26
28							7.2	7	6.9	6.7	6.5	6.4	6.3	6.1	5.9	5.7	28
30							6.5	6.3	6.2	6	5.8	5.7	5.6	5.4	5.2	5	30
32								5.7	5.6	5.4	5.2	5.1	5	4.8	4.6	4.4	32

SCE1000A Crawler Crane - HC (with upper boom point) 2/2

Rear Counterweight 31.2t+Carbody Counterweight 11t Unit: t

Boom length (m) / Radius (m)	13	16	19	22	25	28	31	34	37	40	43	46	49	52	55	58	Boom length (m) / Radius (m)
34									5	4.9	4.7	4.6	4.4	4.2	4.1	3.9	34
36									4.6	4.4	4.2	4.1	4	3.8	3.6	3.4	36
38										4	3.8	3.7	3.6	3.3	3.2	3	38
40											3.4	3.3	3.2	3	2.9	2.6	40
42												3	2.8	2.6	2.5	2.3	42
44												2.7	2.5	2.3	2.2	2	44
46													2.3	2.1	1.9	1.7	46
48														1.8	1.7	1.5	48

SCE1000A Crawler Crane - HC (Upper boom point, using Main Hook Load Chart) 1/2

Rear Counterweight 31.2t+Carbody Counterweight 11t Unit: t

Boom length (m) / Radius (m)	13	16	19	22	25	28	31	34	37	40	43	46	49	52	55	58	Boom length (m) / Radius (m)
3.8	99																3.8
4	89																4
4.5	83.2	81															4.5
5	74	72															5
5.5	68	67.8	67.2														5.5
6	61.9	61.2	60.4	58.2													6
6.5	54.6	54.1	53.6	52.8	51												6.5
7	48.9	48.4	48	47.6	46.6	45.2											7
7.5	44.1	43.7	43.3	43	42.6	41.7	40.5										7.5
8	40.2	39.8	39.5	39.2	38.8	38.5	37.6	36.5									8
9	34.1	33.7	33.4	33.2	32.9	32.6	32.4	31.9	31.1	30.4							9
10	29.5	29.1	28.9	28.7	28.4	28.2	27.9	27.7	27.4	26.9	26.2						10
11	25.9	25.6	25.4	25.2	24.9	24.7	24.5	24.2	24	23.8	23.5	22.9	22.4				11
12	23	22.7	22.5	22.4	22.1	21.9	21.7	21.5	21.3	21.1	20.9	20.7	20.2	19.7			12
13	20.7	20.4	20.2	20	19.8	19.6	19.4	19.2	19	18.9	18.6	18.5	18.3	17.9	17.1	15	13
14		18.5	18.3	18.1	17.9	17.7	17.5	17.3	17.2	17	16.8	16.6	16.4	16.2	15.9	14.4	14
15		16.8	16.7	16.5	16.3	16.1	15.9	15.7	15.6	15.4	15.2	15	14.9	14.6	14.5	13.8	15
16		15.4	15.3	15.1	14.9	14.7	14.6	14.3	14.2	14	13.8	13.7	13.5	13.3	13.1	12.9	16
18			13	12.8	12.6	12.5	12.3	12.1	11.9	11.8	11.6	11.4	11.3	11.1	10.9	10.7	18
20				11.1	10.8	10.7	10.6	10.3	10.2	10.1	9.8	9.7	9.6	9.3	9.2	9	20
22					9.4	9.3	9.1	8.9	8.8	8.7	8.4	8.3	8.2	8	7.8	7.6	22
24					8.3	8.1	8	7.8	7.6	7.5	7.3	7.2	7	6.8	6.7	6.5	24
26						7.2	7	6.8	6.7	6.6	6.3	6.2	6.1	5.9	5.7	5.5	26
28							6.2	6	5.9	5.7	5.5	5.4	5.3	5.1	4.9	4.7	28
30							5.5	5.3	5.2	5	4.8	4.7	4.6	4.4	4.2	4	30
32								4.7	4.6	4.4	4.2	4.1	4	3.8	3.6	3.4	32

SCE1000A Crawler Crane - HC (Upper boom point, using Main Hook Load Chart) 2/2

Rear Counterweight 31.2t, Carbody Counterweight 11t Unit: t

Boom length (m) / Radius (m)	13	16	19	22	25	28	31	34	37	40	43	46	49	52	55	58	Boom length (m) / Radius (m)
34									4	3.9	3.7	3.6	3.4	3.2	3.1	2.9	34
36									3.6	3.4	3.2	3.1	3	2.8	2.6	2.4	36
38										3	2.8	2.7	2.6	2.3	2.2	2	38
40											2.4	2.3	2.2	2	1.9	1.6	40
42												2	1.8	1.6	1.5	1.3	42
44												1.7	1.5	1.3	1.2	1	44
46													1.3	1.1			46

SCE1000A Crawler Crane - FJ, using Main Hook Load Chart

Rear Counterweight 31.2t, Carbody Counterweight 11t

Unit:t

Boom length (m) / Radius (m)	31				34				37				40				Boom length (m) / Radius (m)
Jib length	9	13.5	18	22.5	9	13.5	18	22.5	9	13.5	18	22.5	9	13.5	18	22.5	Jib length
7.5	39.9	39.5	39	38.3													7.5
8	37	36.6	36.1	35.4	35.9	35.5	35	34.3									8
9	31.8	31.4	30.9	30.2	31.3	30.9	30.4	29.7	30.5	30.1	29.6	28.9	29.8	29.4	28.9	28.2	9
10	27.3	26.9	26.4	25.7	27.1	26.7	26.2	25.5	26.8	26.4	25.9	25.2	26.3	25.9	25.4	24.7	10
11	23.9	23.5	23	22.3	23.6	23.2	22.7	22	23.4	23	22.5	21.8	23.2	22.8	22.3	21.6	11
12	21.1	20.7	20.2	19.5	20.9	20.5	20	19.3	20.7	20.3	19.8	19.1	20.5	20.1	19.6	18.9	12
13	18.8	18.4	17.9	17.2	18.6	18.2	17.7	17	18.4	18	17.5	16.8	18.3	17.9	17.4	16.7	13
14	16.9	16.5	16	15.3	16.7	16.3	15.8	15.1	16.6	16.2	15.7	15.0	16.4	16	15.5	14.8	14
15	15.3	14.9	14.4	13.7	15.1	14.7	14.2	13.5	15	14.6	14.1	13.4	14.8	14.4	13.9	13.2	15
16	14	13.6	13.1	12.4	13.7	13.3	12.8	12.1	13.6	13.2	12.7	12.0	13.4	13	12.5	11.8	16
18	11.7	11.3	10.8	10.1	11.5	11.1	10.6	9.9	11.3	10.9	10.4	9.7	11.2	10.8	10.3	9.6	18
20	10	9.6	9.1	8.4	9.7	9.3	8.8	8.1	9.6	9.2	8.7	8.0	9.5	9.1	8.6	7.9	20
22	8.5	8.1	7.6	6.9	8.3	7.9	7.4	6.7	8.2	7.8	7.3	6.6	8.1	7.7	7.2	6.5	22
24	7.4	7	6.5	5.8	7.2	6.8	6.3	5.6	7	6.6	6.1	5.4	6.9	6.5	6	5.3	24
26	6.4	6	5.5	4.8	6.2	5.8	5.3	4.6	6.1	5.7	5.2	4.5	6	5.6	5.1	4.4	26
28	5.6	5.2	4.7	4	5.4	5	4.5	3.8	5.3	4.9	4.4	3.7	5.1	4.7	4.2	3.5	28
30	4.9	4.5	4	3.3	4.7	4.3	3.8	3.1	4.6	4.2	3.7	3.0	4.4	4	3.5	2.8	30
32					4.1	3.7	3.2	2.5	4	3.6	3.1	2.4	3.8	3.4	2.9	2.2	32
34									3.4	3	2.5	1.8	3.3	2.9	2.4	1.7	34
36									3	2.6	2.1	1.4	2.8	2.4	1.9	1.2	36
38													2.4	2	1.5		38

1. This Load Chart has considered the fixed jib ball hook weight, and it is also used for boom-to-jib (fixed jib) angle at 15° and 30°.

SCE1000A Crawler Crane - FJ, using Main Hook Load Chart

Rear Counterweight 31.2t, Carbody Counterweight 11t

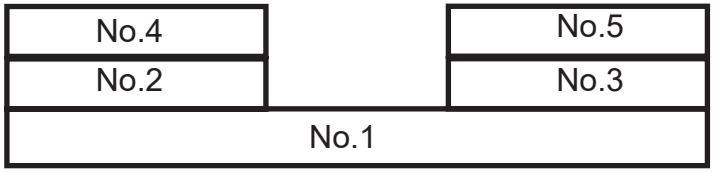
Unit:t

Boom length (m) / Radius (m)	43				46				49				52				Boom length (m) / Radius (m)
Jib length	**9**	**13.5**	**18**	**22.5**	**9**	**13.5**	**18**	**22.5**	**9**	**13.5**	**18**	**22.5**	**9**	**13.5**	**18**	**22.5**	**Jib length**
10	25.6	25.2	24.7	24													10
11	22.9	22.5	22	21.3	22.3	21.9	21.4	20.7	21.8	21.4	20.9	20.2					11
12	20.3	19.9	19.4	18.7	20.1	19.7	19.2	18.5	19.6	19.2	18.7	18	19.1	18.7	18.2	17.5	12
13	18	17.6	17.1	16.4	17.9	17.5	17	16.3	17.7	17.3	16.8	16.1	17.3	16.9	16.4	15.7	13
14	16.2	15.8	15.3	14.6	16	15.6	15.1	14.4	15.8	15.4	14.9	14.2	15.6	15.2	14.7	14	14
15	14.6	14.2	13.7	13	14.4	14	13.5	12.8	14.3	13.9	13.4	12.7	14	13.6	13.1	12.4	15
16	13.2	12.8	12.3	11.6	13.1	12.7	12.2	11.5	12.9	12.5	12	11.3	12.7	12.3	11.8	11.1	16
18	11	10.6	10.1	9.4	10.8	10.4	9.9	9.2	10.7	10.3	9.8	9.1	10.5	10.1	9.6	8.9	18
20	9.2	8.8	8.3	7.6	9.1	8.7	8.2	7.5	9	8.6	8.1	7.4	8.7	8.3	7.8	7.1	20
22	7.8	7.4	6.9	6.2	7.7	7.3	6.8	6.1	7.6	7.2	6.7	6	7.4	7	6.5	5.8	22
24	6.7	6.3	5.8	5.1	6.6	6.2	5.7	5	6.4	6	5.5	4.8	6.2	5.8	5.3	4.6	24
26	5.7	5.3	4.8	4.1	5.6	5.2	4.7	4	5.5	5.1	4.6	3.9	5.3	4.9	4.4	3.7	26
28	4.9	4.5	4	3.3	4.8	4.4	3.9	3.2	4.7	4.3	3.8	3.1	4.5	4.1	3.6	2.9	28
30	4.2	3.8	3.3	2.6	4.1	3.7	3.2	2.5	4	3.6	3.1	2.4	3.8	3.4	2.9	2.2	30
32	3.6	3.2	2.7	2	3.5	3.1	2.6	1.9	3.4	3	2.5	1.8	3.2	2.8	2.3	1.6	32
34	3.1	2.7	2.2	1.5	3	2.6	2.1	1.4	2.8	2.4	1.9	1.2	2.6	2.2	1.7	1	34
36	2.6	2.2	1.7	1	2.5	2.1	1.6		2.4	2	1.5		2.2	1.8	1.3		36
38	2.2	1.8	1.3		2.1	1.7	1.2		2	1.6	1.1		1.7	1.3			38
40	1.8	1.4			1.7	1.3			1.6	1.2			1.4				40
42					1.4				1.2								42

1. This Load Chart has considered the fixed jib ball hook weight, and it is also used for boom-to-jib (fixed jib) angle at 15° and 30°.

SCE1000A Crawler Crane - H (less counterweight)

Assembling the 23.7t rear counterweight (No.1-No.5), without carbody counterweight



Counterweight blocks

SCE1000A Crawler Crane - H (less counterweight)

23.7t rear counterweight, reduce one left and one right counterweight block, no car-body counterweight Unit: t

Boom length (m) / Radius (m)	13	16	19	22	25	28	31	34	37	40	43	46	49	52	55	Boom length (m) / Radius (m)
4	90															4
4.5	76															4.5
5	65.1	62.2														5
5.5	55.4	54.7	52.5													5.5
6	48.2	47.7	47	45.2												6
6.5	42.6	42.2	41.8	41	39.6											6.5
7	38.2	37.8	37.4	37.1	36.2	35.1										7
7.5	34.5	34.1	33.8	33.6	33.2	32.4	31.5									7.5
8	31.5	31.1	30.9	30.6	30.3	30	29.2	28.3								8
9	26.7	26.4	26.2	26	25.7	25.5	25.2	24.7	24.1							9
10	23.2	22.9	22.7	22.5	22.2	22	21.8	21.6	21.4	20.8	20.2					10
11	20.4	20.1	19.9	19.8	19.5	19.3	19.2	18.9	18.7	18.6	18.1	17.7	17.2			11
12	18.2	17.9	17.8	17.6	17.3	17.2	17	16.8	16.6	16.4	16.2	15.9	15.5	15.1		12
13	16.4	16.1	16	15.8	15.6	15.4	15.2	15	14.9	14.7	14.5	14.3	14.1	13.7	13.3	13
14		14.6	14.5	14.3	14.1	13.9	13.8	13.6	13.4	13.3	13	12.9	12.7	12.5	12.1	14
15		13.4	13.2	13.1	12.8	12.7	12.5	12.3	12.2	12	11.8	11.7	11.5	11.3	11.1	15
16		12.3	12.1	12	11.7	11.6	11.5	11.2	11.1	11	10.7	10.6	10.5	10.2	10.1	16
18			10.4	10.2	10	9.9	9.7	9.5	9.4	9.2	9	8.9	8.7	8.5	8.4	18
20				8.8	8.6	8.5	8.4	8.1	8	7.9	7.7	7.5	7.4	7.2	7.1	20
22					7.5	7.4	7.3	7.1	6.9	6.8	6.6	6.5	6.3	6.1	6	22
24					6.6	6.5	6.4	6.2	6	5.9	5.7	5.6	5.4	5.2	5.1	24
26						5.8	5.6	5.4	5.3	5.2	5	4.8	4.7	4.5	4.4	26
28							5	4.8	4.7	4.5	4.3	4.2	4.1	3.9	3.7	28
30							4.4	4.2	4.1	4	3.8	3.7	3.5	3.3	3.2	30
32								3.8	3.6	3.5	3.3	3.2	3.1	2.9	2.7	32
34									3.2	3.1	2.9	2.8	2.6	2.4	2.3	34

SCE1000A Crawler Crane - H (less counterweight)

23.7t rear counterweight, reduce one left and one right counterweight block, no car-body counterweight Unit: t

Boom length (m) / Radius (m)	13	16	19	22	25	28	31	34	37	40	43	46	49	52	55	Boom length (m) / Radius (m)
36									2.9	2.7	2.5	2.4	2.3	2.1	2	36
38										2.4	2.2	2.1	2	1.8	1.6	38
40											1.9	1.8	1.7	1.5	1.3	40
42												1.5	1.4	1.2	1.1	42

SCE1000A Crawler Crane --HC (Boom with Extension Jib, less counterweight)

23.7t rear counterweight, reduce one left and one right counterweight block, no car-body counterweight Unit: t

Boom length (m) / Radius (m)	13	16	19	22	25	28	31	34	37	40	43	46	49	52	Boom length (m) / Radius (m)
4	12														4
4.5	12														4.5
5	12	12													5
5.5	12	12	12												5.5
6	12	12	12	12											6
6.5	12	12	12	12	12										6.5
7	12	12	12	12	12	12									7
7.5	12	12	12	12	12	12	12								7.5
8	12	12	12	12	12	12	12	12							8
9	12	12	12	12	12	12	12	12	12						9
10	12	12	12	12	12	12	12	12	12	12	12				10
11	12	12	12	12	12	12	12	12	12	12	12	12	12		11
12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
13	12	12	12	12	12	12	12	12	12	12	12	12	12	12	13
14		12	12	12	12	12	12	12	12	12	12	12	12	12	14
15		12	12	12	12	12	12	12	12	12	11.8	11.7	11.5	11.3	15
16		12	12	12	11.7	11.6	11.5	11.2	11.1	11	10.7	10.6	10.5	10.2	16
18			10.4	10.2	10	9.9	9.7	9.5	9.4	9.2	9	8.9	8.7	8.5	18
20				8.8	8.6	8.5	8.4	8.1	8	7.9	7.7	7.5	7.4	7.2	20
22					7.5	7.4	7.3	7.1	6.9	6.8	6.6	6.5	6.3	6.1	22
24					6.6	6.5	6.4	6.2	6	5.9	5.7	5.6	5.4	5.2	24
26						5.8	5.6	5.4	5.3	5.2	5	4.8	4.7	4.5	26
28							5	4.8	4.7	4.5	4.3	4.2	4.1	3.9	28
30							4.4	4.2	4.1	4	3.8	3.7	3.5	3.3	30
32								3.8	3.6	3.5	3.3	3.2	3.1	2.9	32
34									3.2	3.1	2.9	2.8	2.6	2.4	34

SCE1000A Crawler Crane--HC (Boom with Extension Jib, less counterweight)

23.7t rear counterweight, reduce one left and one right counterweight block, no car-body counterweight Unit: t

Boom length (m) / Radius (m)	13	16	19	22	25	28	31	34	37	40	43	46	49	52	Boom length (m) / Radius (m)
36									2.9	2.7	2.5	2.4	2.3	2.1	36
38										2.4	2.2	2.1	2	1.8	38
40											1.9	1.8	1.7	1.5	40
42												1.5	1.4	1.2	42

SCE1000A Crawler Crane (Extension Jib,using Main Hook, less counterweight)

23.7t rear counterweight, reduce one left and one right counterweight block, no car-body counterweight Unit: t

Boom length (m) / Radius (m)	13	16	19	22	25	28	31	34	37	40	43	46	49	52	Boom length (m) / Radius (m)
4	89														4
4.5	75														4.5
5	64.1	61.2													5
5.5	54.4	53.7	51.5												5.5
6	47.2	46.7	46	44.2											6
6.5	41.6	41.2	40.8	40	38.6										6.5
7	37.2	36.8	36.4	36.1	35.2	34.1									7
7.5	33.5	33.1	32.8	32.6	32.2	31.4	30.5								7.5
8	30.5	30.1	29.9	29.6	29.3	29	28.2	27.3							8
9	25.7	25.4	25.2	25	24.7	24.5	24.2	23.7	23.1						9
10	22.2	21.9	21.7	21.5	21.2	21	20.8	20.6	20.4	19.8	19.2				10
11	19.4	19.1	18.9	18.8	18.5	18.3	18.2	17.9	17.7	17.6	17.1	16.7	16.2		11
12	17.2	16.9	16.8	16.6	16.3	16.2	16	15.8	15.6	15.4	15.2	14.9	14.5	14.1	12
13	15.4	15.1	15	14.8	14.6	14.4	14.2	14	13.9	13.7	13.5	13.3	13.1	12.7	13
14		13.6	13.5	13.3	13.1	12.9	12.8	12.6	12.4	12.3	12	11.9	11.7	11.5	14
15		12.4	12.2	12.1	11.8	11.7	11.5	11.3	11.2	11	10.8	10.7	10.5	10.3	15
16		11.3	11.1	11	10.7	10.6	10.5	10.2	10.1	10	9.7	9.6	9.5	9.2	16
18			9.4	9.2	9	8.9	8.7	8.5	8.4	8.2	8	7.9	7.7	7.5	18
20				7.8	7.6	7.5	7.4	7.1	7	6.9	6.7	6.5	6.4	6.2	20
22					6.5	6.4	6.3	6.1	5.9	5.8	5.6	5.5	5.3	5.1	22
24					5.6	5.5	5.4	5.2	5	4.9	4.7	4.6	4.4	4.2	24
26						4.8	4.6	4.4	4.3	4.2	4	3.8	3.7	3.5	26
28							4	3.8	3.7	3.5	3.3	3.2	3.1	2.9	28
30							3.4	3.2	3.1	3	2.8	2.7	2.5	2.3	30
32								2.8	2.6	2.5	2.3	2.2	2.1	1.9	32
34									2.2	2.1	1.9	1.8	1.6	1.4	34

SCE1000A Crawler Crane (Extension Jib,using Main Hook, less counterweight)

23.7t rear counterweight, reduce one left and one right counterweight block, no car-body counterweight Unit: t

Boom length (m) / Radius (m)	13	16	19	22	25	28	31	34	37	40	43	46	49	52	Boom length (m) / Radius (m)
36									1.9	1.7	1.5	1.4	1.3	1.1	36
38										1.4	1.2	1.1	1	0.8	38
40											0.9	0.8			40

SCE1000A Crawler Crane-H, load chart for assisting lifting

No Rear Counterweight , No Carbody Counterweight Unit: t

Boom length (m) / Radius (m)	13	16	19	22	25	28	31
4	38.5						
4.5	31.5						
5	25.9	25.5					
5.5	21.9	21.6	21.3				
6	19	18.7	18.5	18.2			
6.5	16.7	16.4	16.2	16	15.8		
7	14.8	14.6	14.4	14.2	14		
7.5	13.3	13.1	12.9	12.8	12.5	12.4	
8	12.1	11.9	11.7	11.5	11.3	11.2	11
9	10.1	9.9	9.8	9.6	9.4	9.3	9.1
10	8.7	8.5	8.3	8.2	8	7.9	7.7
11	7.5	7.3	7.2	7.1	6.9	6.7	6.6
12	6.6	6.4	6.3	6.2	6	5.8	5.7
13	5.9	5.7	5.5	5.4	5.2	5.1	5
14		5	4.9	4.8	4.6	4.5	4.4
15		4.5	4.4	4.3	4.1	4	3.8
16		4.1	3.9	3.8	3.6	3.5	3.4
18			3.2	3.1	2.9	2.8	2.7
20				2.5	2.3	2.2	2.1
22					1.9	1.8	1.6
24					1.5	1.4	1.3
26						1.1	1