

100 ton capacity ZCC100H



ZOOMLION

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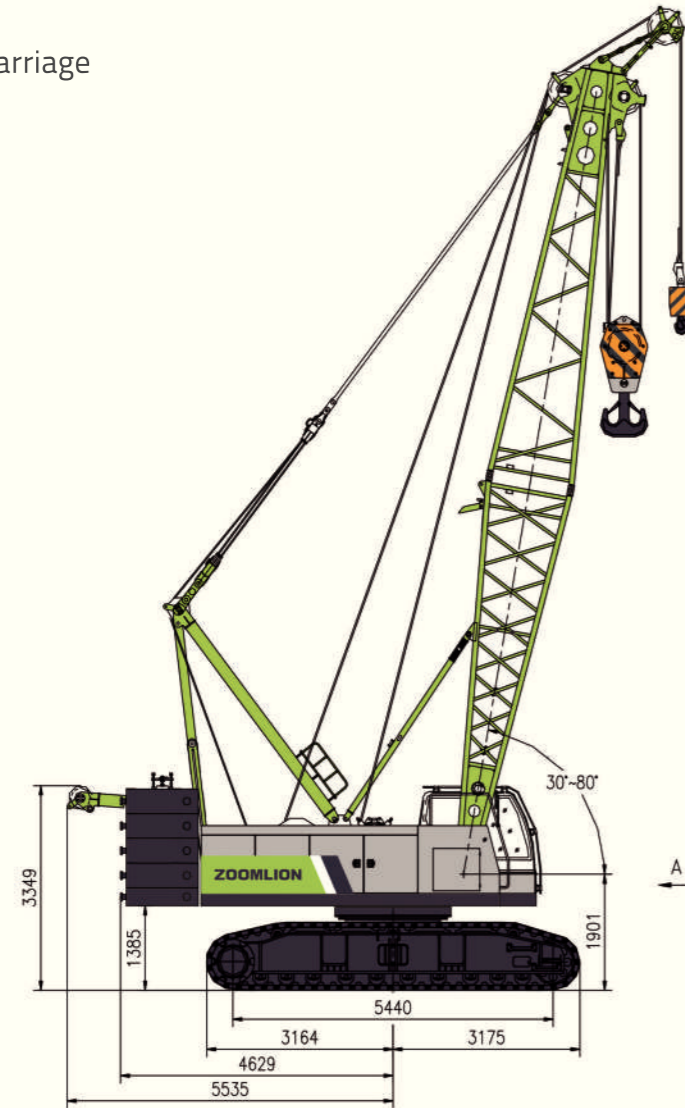
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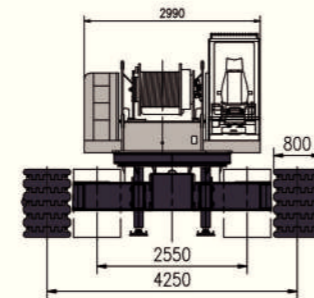


DIMENSIONS

Basic machine with undercarriage



A view (crane with boom removed)



Operating weight

The operating weight includes the basic machine with crawlers, 2 main winches including wire ropes (200m and 150m) and 13m main boom, consisting of FA-frame, boom foot (6.5m), boom head (6.5m), 32 t rear counterweight, and 100t hook block.

Total weight-----approx.85.2t

Equipment

Main boom Max. Length -----64m
 Fixed jib -----7-19m
 Max. combination-----main boom 52m
 -----fixed jib 19m
 Max. lifting moment-----390t.m
 Max. lifting capacity on fixed jib-----12t(single line)

TECHNICAL FEATURE

Excellent lifting performance

- Large gauge track crawler chassis guarantees excellent stability of whole crane over 360 degrees. Max. Load moment is 390 t.m, and the max. rated load in fixed jib mode is 12 t (with single line). Comprehensive lifting capacity is higher than 100 tonnage competing models.

High work efficiency

- All simultaneous movements can be achieved and no deceleration will occur during the switching of crane movements.
- Single rope speed on the outmost layer of hoisting winch I is 141m/min.
- Hoisting winch with free-fall function is available for an option, and the single rope force on the 3rd rope layer can reach 11t.

Optimization of transportation, assembly and dismantling

- A-frame can be erected by itself without the help of oil cylinder, thus achieving rapid assembly of the crane.
- The weight of single counterweight plate is less than 6.75t, so that the counterweight can be assembled by use of a small-sized auxiliary crane.
- The crawler carriers can be extended and retracted, and the maximum transport width of the crane is 3.0m.

BOOM COMBINATION

Description of Boom Assembly Codes			
Code	Type	Operation mode parameters	Mode description
S-1	Main boom	13-64m	Main boom, lifting with main boom
S-3	Main boom	13-64m	Main boom, lifting with tip boom
S-2	Main boom	13-64m	Main boom+ fixed jib ,lifting with main boom
SF-1	Fixed jib	7-19m	Main boom+ fixed jib ,lifting with aux hook without main hook
SF-2	Fixed jib	7-19m	Main boom+ fixed jib ,lifting with aux hook ,with main hook



S-1

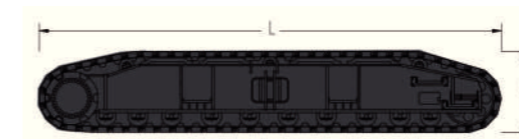
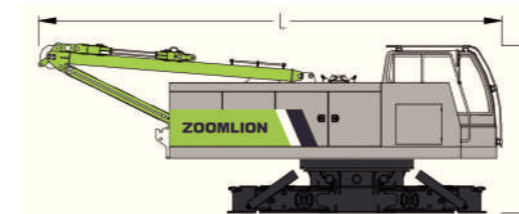
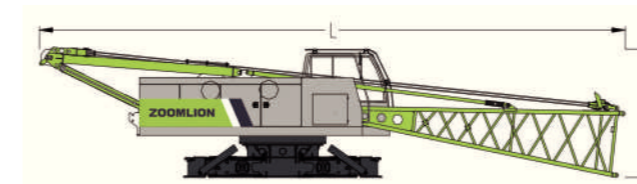
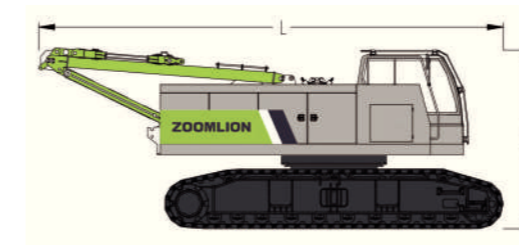
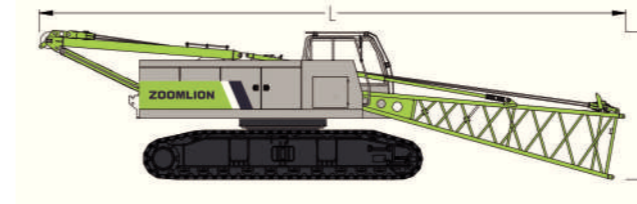
S-3

S-2

SF-1

SF-2

TRANSPORT DIMENSIONS AND WEIGHTS



Basic machine (with main boom pivot section)		1x
Length	13330mm	
Width	3380mm	
Height	3340mm	
Weight	41300kg	

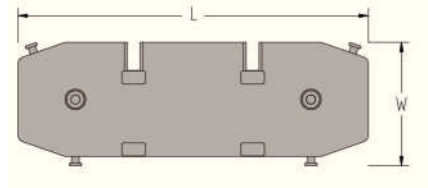
Basic machine (without main boom pivot section)		1x
Length	8590mm	
Width	3380mm	
Height	3340mm	
Weight	40230kg	

Basic machine (with main boom pivot section,without crawlers)		1x
Length	8710mm	
Width	3000mm	
Height	2900mm	
Weight	24200kg	

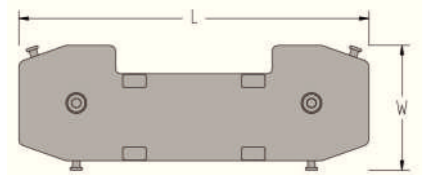
Basic machine (without main boom pivot section and crawlers)		1x
Length	8060mm	
Width	3000mm	
Height	2900mm	
Weight	23130kg	

Crawler carrier assembly		2x
Length	6340mm	
Width	1090mm	
Height	1130mm	
Weight	8560kg	

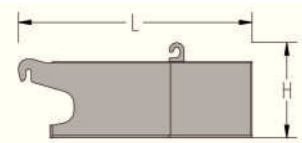
TRANSPORT DIMENSIONS AND WEIGHTS



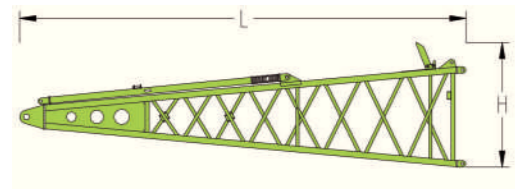
Counterweight base plate	1x
Length	3720mm
Width	1320mm
Height	550mm
Weight	5000kg



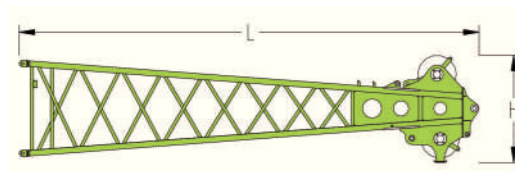
Counterweight plate	4x
Length	3720mm
Width	1320mm
Height	450mm
Weight	6750kg



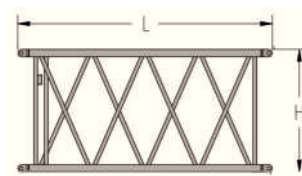
Carbody counterweight	2x
Length	1860mm
Width	1330mm
Height	755mm
Weight	4500kg



Main boom pivot section	1x
Length	6650mm
Width	1690mm
Height	1860mm
Weight	1070kg

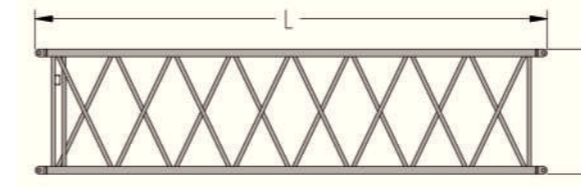


Main boom head	1x
Length	7130mm
Width	1690mm
Height	1675mm
Weight	1250kg

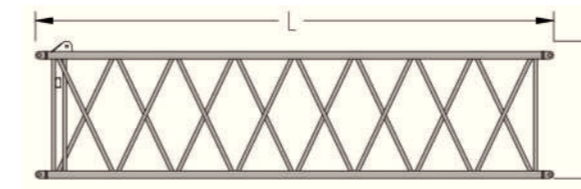


3m main boom intermediate section	2x
Length	3090mm
Width	1690mm
Height	1500mm
Weight	265kg

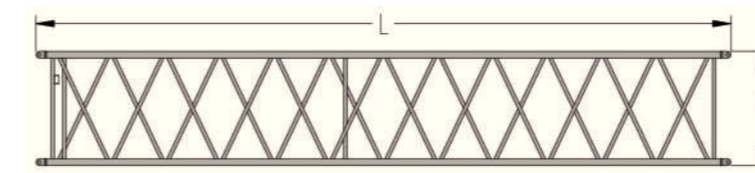
TRANSPORT DIMENSIONS AND WEIGHTS



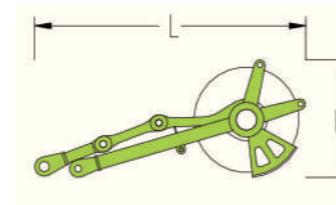
6m main boom intermediate section	1x
Length	6090mm
Width	1690mm
Height	1500mm
Weight	455kg



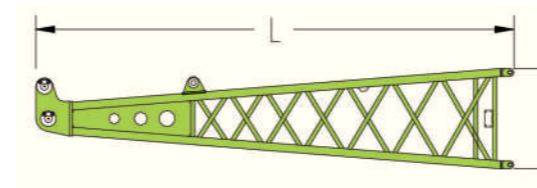
9m main boom intermediate section A	1x
Length	6090mm
Width	1690mm
Height	1610mm
Weight	545kg



9m main boom intermediate section	4x
Length	9090mm
Width	1690mm
Height	1500mm
Weight	645kg

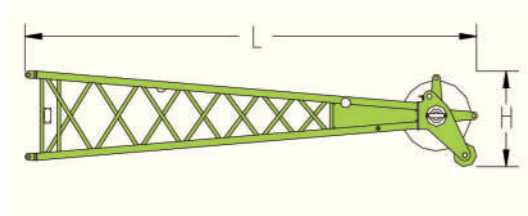


Tip boom	1x
Length	1550mm
Width	590mm
Height	670mm
Weight	120kg

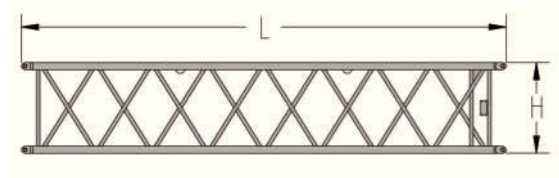


Fixed jib pivot section	1x
Length	3630mm
Width	960mm
Height	760mm
Weight	190kg

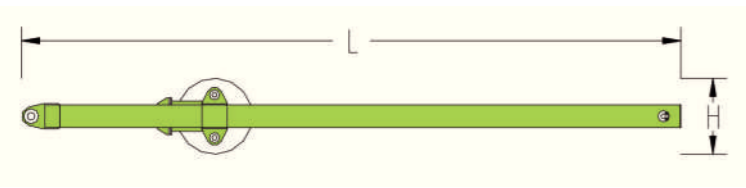
TRANSPORT DIMENSIONS AND WEIGHTS



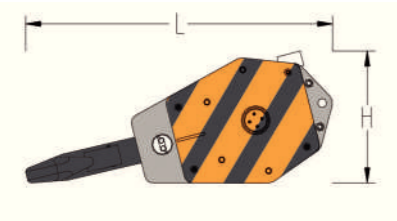
Fixed jib head	1x
Length	3875mm
Width	960mm
Height	760mm
Weight	280kg



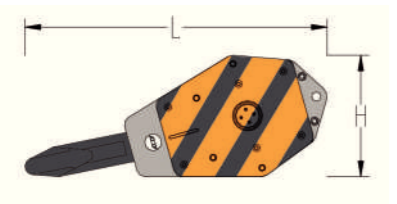
4m fixed jib intermediate section	3x
Length	4060mm
Width	960mm
Height	760mm
Weight	165kg



FA-frame	1x
Length	5210mm
Width	640mm
Height	600mm
Weight	445kg

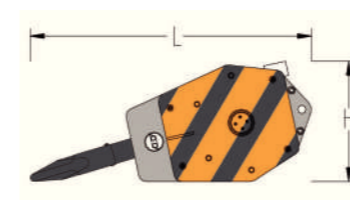


100t load hook	1x
Length	1925mm
Width	845mm
Height	820mm
Weight	1630kg

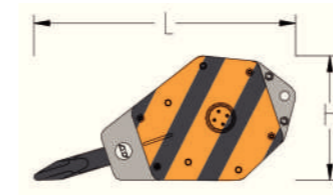


80t load hook	1x
Length	1820mm
Width	725mm
Height	730mm
Weight	1250kg

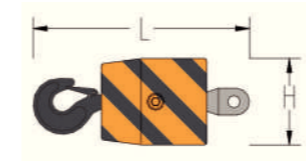
TRANSPORT DIMENSIONS AND WEIGHTS



50t load hook	1x
Length	1910mm
Width	675mm
Height	810mm
Weight	1360kg



30t load hook	1x
Length	1550mm
Width	550mm
Height	740mm
Weight	763kg



12t load hook	1x
Length	965mm
Width	385mm
Height	385mm
Weight	470kg

Note:

1.The components above are only schematic, and they are not drawn according to a fixed scale. The length dimension is overall dimension.

2.The weight listed in above table does not include the weight of package. The actual weight of component may be different from the weight listed in above table due to manufacturing error.

3.The components above may be improved, which will result in changes in dimensions and weight. Therefore, the actual weight and dimension should be subject to factory products.

TECHNICAL DESCRIPTION



Engine

Engine type-----WEICHAI WP7G270E301
 Rated power-----199KW/2000rpm
 Maximum output torque----1200N.m/(1200-1500)rpm
 Fuel tank-----400L
 Exhaust emission complies with China national 3 Emission Standards.



Hydraulic system

The crane adopts a series-connected hydraulic system with hydraulic pilot proportional control. The high-speed hydraulic motor drives the planet reducer to realize the movements of the mechanisms. The system has the advantages of high efficiency, energy-saving, smooth and safe simultaneous movements.
 Oil cooler for hydraulic system-----40 kW
 Hydraulic oil tank capacity-----520L



Hoisting winch

The axial piston variable displacement motor drives hoisting winches 1 and 2 via a built-in planet reducer. Brake the winch via the spring on the winch motor, which is controlled by balance valve. The winding drum is a kind of cast drum with LEBUS groove, which can ensure that the multi-layer wire rope will not be wound disorderly.

Main winch

Line pull-----Max.120KN
 Rope diameter-----26mm
 Rope speed -----0-141m/min
 Rope length-----200m

Aux winch

Line pull----- Max.120KN
 Rope diameter----- 26mm
 Rope speed----- 0-130m/min
 Rope length-----150m

Hoisting winch 1with free-fall function is available for an option, and the single rope force on the 3rd rope layer can reach 11t.



Boom winch

The axial piston motor drives the boom winch via a built-in planet reducer. Brake the winch via the spring on the winch motor. The winding drum can be locked by the ratchet wheel and ratchet pawl.

Boom winch

Line pull-----Max.71KN
 Rope diameter-----20mm
 Rope speed ----- 0-109m/min
 Rope length----- 155m



Swing

The axial piston constant displacement motor drives the slewing mechanism via a planet reducer. Free-swing function can effectively reduce the lateral force of the boom.

- Slewing ring
 Single-row ball, four-point contact, internal geared
- Slewing brake

The slewing mechanism is braked via the spring on the slewing motor, which is controlled by balance valve.

- Slewing speed
 Slewing speed-----0-2.4 rpm.



Crane undercarriage

Traveling power

Both left and right crawler carriers are fitted with an independent hydraulic driving system. Each hydraulic driving system has a hydraulic motor, which can drive the drive sprocket via planet reducer. The operator can use hand levers or travel gear pedals to control the traveling movements, such as traveling straight ahead / backwards, turning with a crawler, differential steering and turning on spot. Track roller(Maintenance-free, sealed structure)
 Distance between track center (extended)-----4250mm.
 Distance between track center (retracted)----- 2550 mm.
 Track pad width-----800mm.
 Traveling speed -----0-1.3 km/h.

TECHNICAL DESCRIPTION



Main boom

Main boom length: 13m – 64m;
 Consisting of 6.5m main boom pivot section, 6.5m main boom head, and main boom intermediate sections of 3m, 6m and 9m as well as tip boom.

Main boom length (m)	Main boom pivot section	Main boom head	3m main boom section	6m main boom section	9m main boom section
13	1	1	0	0	0
16	1	1	1	0	0
19	1	1	0	1	0
22	1	1	1	1	0
25	1	1	2	1	0
28	1	1	1	2	0
31	1	1	1	1	1
34	1	1	2	1	1
37	1	1	1	2	1
40	1	1	1	1	2
43	1	1	2	1	2
46	1	1	1	2	2
49	1	1	1	1	3
52	1	1	2	1	3
55	1	1	1	2	3
58	1	1	1	1	4
61	1	1	2	1	4
64	1	1	1	2	4



Fixed jib

Fixed jib length: 7m – 19m;
 Consisting of 3.5m fixed jib pivot section, 3.5m fixed jib head and 4m fixed jib intermediate sections.

Fixed jib length (m)	Fixed jib pivot section	Fixed jib head	4m fixed jib section
7	1	1	0
11	1	1	1
15	1	1	2
19	1	1	3



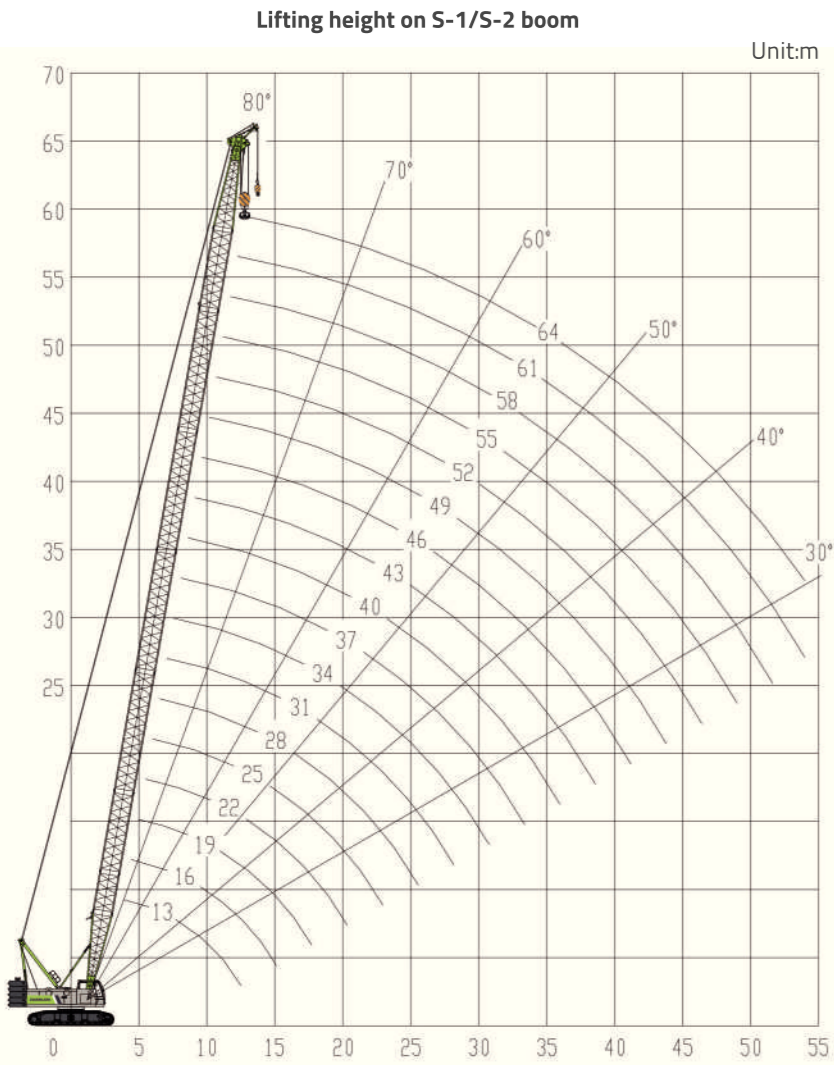
Load hook

Five kinds of load hook are available.

Specification of load hook	Weight (kg)	Number of pulleys
100 t	1630	5
80 t	1250	4
50 t	1360	2
30 t	763	1
12t	470	0

LIFTING PERFORMANCE

Main boom configuration



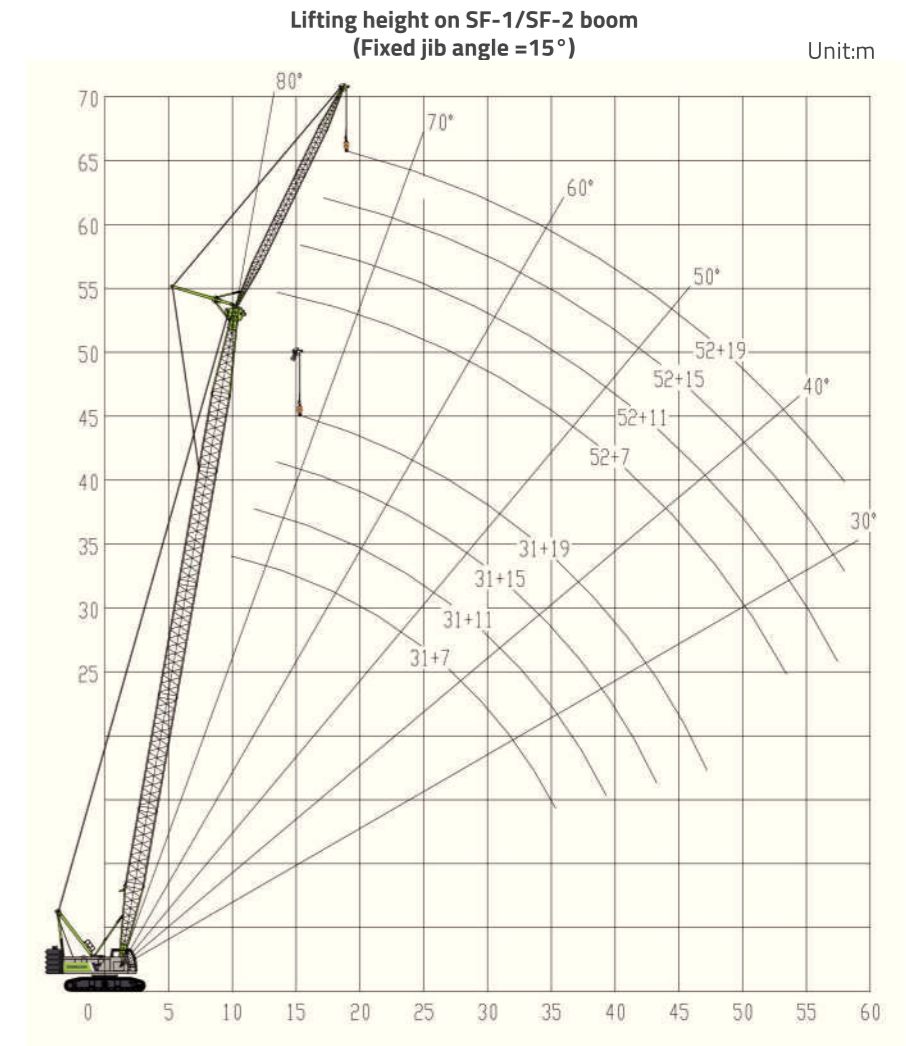
Lifting capacity on main boom(S-1,1/2)									
Rear ctwt.:32000kg 75% 360° (UNIT:T)									
MAIN BOOM RATED LOADS									
Boom Length(m)									
Load Radius(m)	13	16	19	22	25	28	31	34	37
3.9	100								
4	95								
4.5	84.5	83.2							
5	76	74.3							
5.5	69.1	68.5	68.1	67.6					
6	63.2	62.5	61.8	58.9					
6.5	56.9	56.3	55.5	54.6	53.4	52.3			
7	50.7	50.2	49.8	49.3	48.5	47	45.5		
8	41.6	41.6	41.4	41	40.3	39.5	39	38.2	
9	35.6	35.3	34.7	34.4	34.2	33.9	33.6	33.2	32.6
10	30.5	30.4	30.3	30.2	29.8	29.5	29.2	28.9	28.4
11	27	26.8	26.5	26.5	26.4	26.4	26.1	25.7	25.3
12	24.1	23.9	23.6	23.4	23.2	23.1	23	22.8	22.6
14	19.7	19.3	19.3	19.2	19.2	19.2	19.1	18.8	18.7
16		16.4	16.3	16.2	15.9	15.8	15.7	15.6	
18			14.1	13.8	13.7	13.6	13.5	13.4	
20			12.3	12	11.9	11.8	11.6	11.5	
22				10.6	10.5	10.3	10.3	10.2	
24					9.3	9.3	9.2	9	
26						8.2	8.1	8	
28							7.4	7.3	7.2
30								6.7	6.6
32									5.9

Lifting capacity on main boom(S-1,2/2)									
Rear ctwt.:32000kg 75% 360° (UNIT:T)									
MAIN BOOM RATED LOADS									
Boom Length(m)									
Load Radius(m)	40	43	46	49	52	55	58	61	64
9	31.9								
10	28	27.5	25.9						
11	24.9	24.4	24.1	23.6	20				
12	22.4	22.2	22	21.3	19.3	17.6	16		
14	18.6	18.4	18	17.8	17.5	16.5	15	13.5	10.8
16	15.5	15.4	15.2	15	14.6	14.3	14	12.6	10.1
18	13.3	13.2	13.1	13	12.8	12.5	12.3	11.8	9.5
20	11.4	11.3	11.2	11.1	10.9	10.6	10.4	10.1	8.9
22	10.1	10	9.8	9.8	9.7	9.5	9.2	9	8.2
24	8.9	8.8	8.7	8.6	8.5	8.4	8.2	8	7.5
26	7.9	7.8	7.7	7.6	7.5	7.4	7.3	7.2	6.8
28	7.1	7	6.9	6.8	6.7	6.6	6.5	6.4	6.2
30	6.4	6.3	6.2	6.1	6	5.9	5.8	5.7	5.6
32	5.8	5.7	5.6	5.5	5.4	5.3	5.2	5.1	4.9
34	5.3	5.2	5.1	4.9	4.8	4.7	4.6	4.5	4.4
36	4.8	4.7	4.6	4.4	4.3	4.2	4.1	4	3.9
38		4.3	4.1	4	3.9	3.8	3.7	3.6	3.4
40			3.8	3.7	3.6	3.4	3.3	3.2	3.1
42				3.4	3.3	3.1	3	2.9	2.8
44					2.9	2.8	2.7	2.6	2.4
46					2.6	2.5	2.4	2.3	2.2
48						2.3	2.1	2	1.9
50							1.9	1.8	1.7
52								1.6	1.5
54									1.4

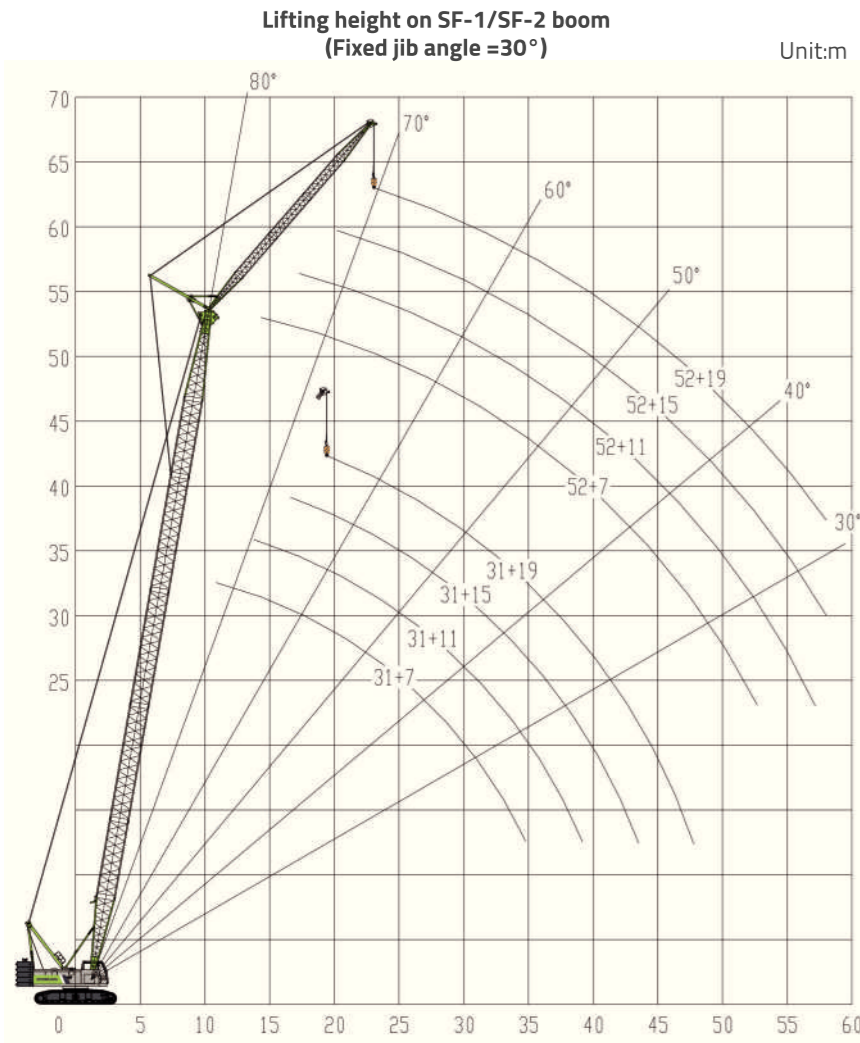
Note:
In S-1 boom configuration, main boom can be fitted with tip boom, whose rated load is the same as that on main boom. But the maximum lifting capacity on tip boom cannot exceed 11.0t.

LIFTING PERFORMANCE

Main boom with fixed jib configuration



LIFTING PERFORMANCE



Lifting capacity on fixed jib(SF-1,1/2)																
Rear ctwt.:32000kg 75% 360° (UNIT:T)																
FIXED JIB RATED LOADS																
Main boom length	34								40							
Fixed jib	7		11		15		19		7		11		15		19	
Radius/angle	15°	30°	15°	30°	15°	30°	15°	30°	15°	30°	15°	30°	15°	30°	15°	30°
11	12															
12	12	12	12						12							
14	12	12	12		12				12	12	12					
16	12	12	12	12	12		11.8		12	12	12	12	12			
18	12	12	12	12	12	10.5	11.1		12	12	12	12	12	10.4	11.2	
20	11.6	11.7	11.7	11.9	11.9	10	10.4	8.5	11.3	11.3	11.6	11.7	11.4	10.1	10.6	
22	10.1	10.2	10.2	10.5	10.5	9.6	9.8	8.1	9.8	10	10.1	10.2	10.2	9.7	10	8.1
24	8.9	8.9	9.2	9.2	9.2	9.2	9.3	7.8	8.8	8.8	8.9	8.9	8.9	9.3	8.9	7.8
26	7.8	7.8	8.1	8.1	8.2	8.3	8.3	7.5	7.7	7.7	7.8	8.1	8.1	8.2	8.1	7.6
28	7	7	7.3	7.3	7.4	7.4	7.4	7.2	6.9	6.7	7	7	7.2	7.3	7.3	7.3
30	6.3	6.3	6.5	6.6	6.6	6.7	6.7	6.9	6.1	6.1	6.3	6.3	6.3	6.6	6.5	6.7
32	5.7	5.7	5.9	5.9	5.9	6.1	6.1	6.2	5.5	5.5	5.7	5.7	5.7	5.9	5.9	6.1
34	5.2	5	5.3	5.3	5.4	5.5	5.5	5.7	5	4.8	5.1	5.2	5.3	5.3	5.3	5.5
36	4.7	4.6	4.8	4.7	4.8	5	5	5.2	4.5	4.3	4.6	4.6	4.7	4.7	4.8	4.9
38			4.3	4.3	4.5	4.5	4.6	4.6	4.1	3.9	4.2	4.2	4.3	4.3	4.3	4.5
40			3.9	3.9	4.1	4.1	4.2	4.2	3.7	3.5	3.8	3.8	3.9	3.9	3.9	4.1
42					3.8	3.7	3.8	3.8	3.2	3.1	3.4	3.3	3.5	3.5	3.5	3.7
44					3.4	3.3	3.5	3.5			3.1	3	3.2	3.1	3.2	3.2
46							3.2	3.1				2.7	2.8	2.8	3	3
48							2.8	2.8					2.6	2.6	2.7	2.7
50														2.3	2.4	2.4
52															2.2	2.2
54																1.9

LIFTING PERFORMANCE

Lifting capacity on fixed jib(SF-1,2/2)																
Rear ctwt.:32000kg 75% 360° (UNIT:T)																
FIXED JIB RATED LOADS																
Main boom length	46								52							
Fixed jib	7		11		15		19		7		11		15		19	
Radius/angle	15°	30°	15°	30°	15°	30°	15°	30°	15°	30°	15°	30°	15°	30°	15°	30°
14	12	12	12										11.5			
16	12	12	12		12								11	11.1	10.7	
18	12	12	12	12	12								10.4	10.6	10.2	10.3
20	10.9	11.2	10.9	11.3	10.9	9.7	10						9.9	10.1	9.8	10
22	9.6	9.8	9.6	9.8	9.6	9.4	9.1	8					9.2	9.2	9.2	9.6
24	8.5	8.5	8.5	8.9	8.8	8.9	8.5	7.8					8.1	8.1	8.1	8.3
26	7.4	7.4	7.7	7.8	7.8	8.1	7.6	7.5					7.3	7.3	7.3	7.4
28	6.6	6.6	6.7	6.9	7	7.2	7	7.3					6.3	6.3	6.5	6.6
30	5.9	5.9	6.1	6.1	6.1	6.3	6.3	6.6					5.7	5.7	5.8	5.9
32	5.3	5.3	5.4	5.5	5.5	5.7	5.7	5.9					5	5	5.3	5.3
34	4.7	4.6	4.8	4.8	5	5.2	5	5.3					4.5	4.5	4.6	4.7
36	4.2	4.2	4.3	4.3	4.5	4.6	4.6	4.7					4.1	3.9	4.2	4.2
38	3.8	3.8	3.9	3.9	4.1	4.1	4.2	4.3					3.5	3.5	3.8	3.8
40	3.4	3.2	3.5	3.5	3.7	3.7	3.8	3.9					3.2	3.1	3.2	3.2
42	3.1	3	3.2	3.1	3.2	3.2	3.3	3.4					2.8	2.7	3	2.9
44	2.8	2.6	2.8	2.8	3	3	3	3.1					2.5	2.4	2.7	2.6
46	2.4	2.3	2.6	2.4	2.7	2.7	2.7	2.8					2.3	2.1	2.3	2.3
48			2.3	2.2	2.4	2.3	2.4	2.4					2	1.8	2	2
50			2	1.9	2.2	2.1	2.2	2.2					1.8	1.6	1.8	1.8
52					1.9	1.8	1.9	1.9					1.5	1.3	1.6	1.5
54					1.7	1.6	1.8	1.8					1.3	1.2	1.5	1.4
56							1.5	1.5					1.2	1.1	1.2	1.2
58													1.3	1.2		