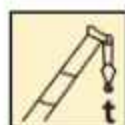


# XCT160L8\_Y

Truck Crane



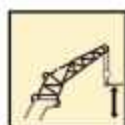
## Technical specifications



160 t



88 m



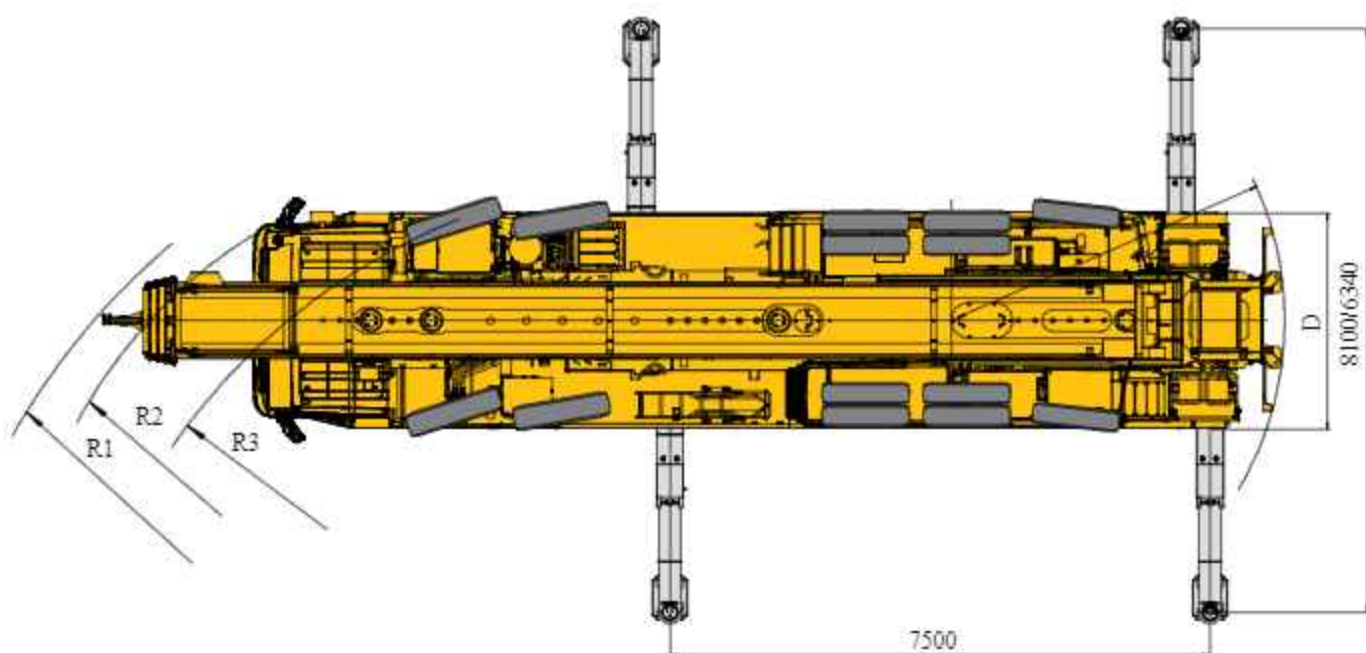
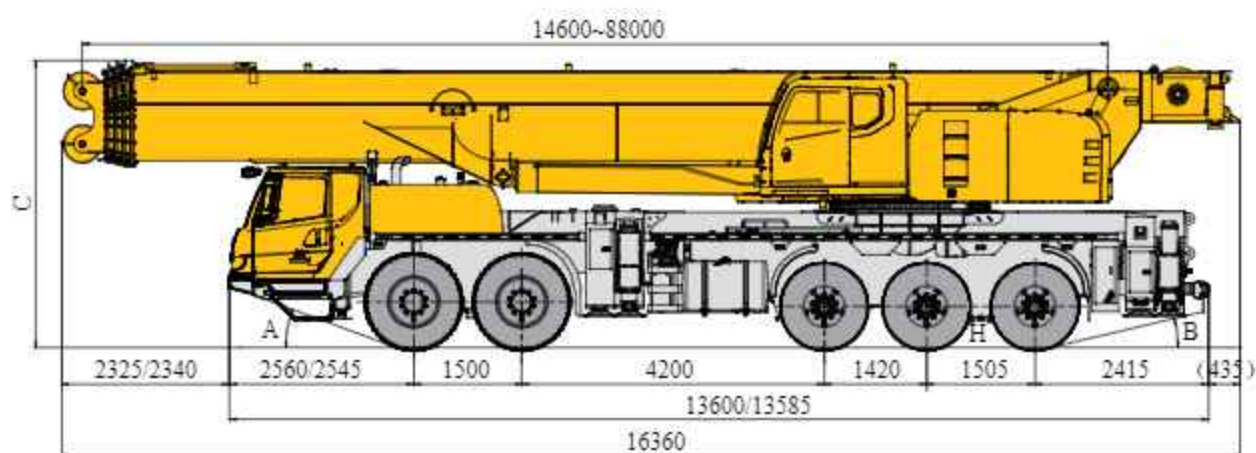
116 m



(H-shaped outriggers)  
First edition, June 2023

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## Dimensions




	A	B	C	D	R1	R2	R3	H
Front axles: 385/95R25								
Rear axles: 325/95R24 or 12.00R24	20°	13°	3995	3000	14500	13500	12000	310

Notes: When the crane is equipped with Qixing driver's cab, the front extension is 2325mm, and the front overhang is 2560 mm. When the crane is equipped with XCMG Automobile driver's cab, the front extension is 2340mm, and the front overhang is 2545 mm.


## Technical specifications


	Chassis
Frame	The frame, designed and manufactured by XCMG, is made of high-strength steel with fully-covered walking surface and anti-torsion box-typed structure.
Outriggers	Four outriggers arranged in H-shape are hydraulically controlled by control levers. Double-stage outrigger beams are adopted. There are outrigger control levers located at each side of the chassis, and there is a level gauge, LED illuminator and speed buttons in each control panel. There is a check valve fitted in each outrigger cylinder, and a double-way hydraulic lock fitted in each jack cylinder. Float dimension: 480mm× 615mm Reaction force of outrigger at max. lifting load: 985KN
Engine	WP10.5H460E62, in-line, 6-cylinder, water cooled, electric control diesel engine, made by Weichai, with rated power of 338kW/1900rpm and max. torque of 2100Nm/1000-1400rpm, compliant with China VI emission standard. Max. reference torque: 2256N.m Fuel tank capacity: 470 L. AdBlue/DEF tank capacity: 34.3 L
Transmission	Manual transmission, 10 forward speeds and 2 reverse speeds.
Axle	High strength axles, 1st, 2nd and 5th axles are for steering, and 3rd, 4th and 5th axles are for driving.
Suspension system	Leaf springs are adopted for front suspensions; double trailing arm type suspensions are adopted for rear suspensions.
Tires	Double Coin/Techking/Tongli tires; 14 tires and 1 spare tire, 1st, 2nd and 5th axles are equipped with single tire, 3rd and 4th axles are equipped with double-tire. Tire specifications: Front axles: 385/95R25 Rear axles: 325/95R24 or 12.00R24

	Chassis
Brakes	Service brake: dual-circuit air pressure brake acting on all wheels. Parking brake: spring-loaded brake, acting on wheels of axles 2~5. Auxiliary brake: engine in-cylinder retarder brake.
Steering	Axles 1, 2 and 5 are for steering; axles 1 and 2 are mechanically steered + hydraulic power assistance, axles 5 are steered through cylinder control, various steering modes to meet the requirements under different operation modes.
Driver's cab	New full-dimension enclosed cab is ergonomically designed for safe and comfortable operation. It features outstanding leak-proof, anti-corrosion and shock-proof performance. It is equipped with wide-view windshield, rear-view mirror, electric wiper-washer, electric window glass lifter, air heater with defrosting function, heater, air conditioner, radio and new material mat. A mechanical shock absorber seat is supplied for driver and a simple sleeper for co-driver. A fire extinguisher of 3 kg is available. Heater and air conditioner are standard.
Electrical system	24 V DC, two sets of 12 V battery in series. Generator: 28 V-80 A



## Technical specifications

	Superstructure
Structure	Designed and manufactured by XCMG, made of high strength steel.
Hydraulic system	Electric proportional variable pump is used for lifting, elevating and telescoping operations. A closed pump is used to drive slewing operation. The proportional solenoid directional control valve; air-cooled hydraulic oil radiator.
Operating method	The pilot electric proportional control system is equipped with two levers on left and right sides controlling the main movements of the crane, and stepless slewing speed regulation is available.
Main winch	Hydraulic control is used for speed regulation. The system is driven by a hydraulic motor through a planetary gear reducer, with a normally closed brake, a balanced valve and a grooved drum equipped.
Auxiliary winch	Hydraulic control is used for speed regulation. The system is driven by a hydraulic motor through a planetary gear reducer, with a normally closed brake, a balanced valve and a grooved drum equipped.
Engine	WP7G300E473, in-line, 6-cylinder, water cooled, electric control diesel engine, made by Weichai, with rated power of 221kW/2200rpm and max. torque of 1200Nm/1400-1600rpm, compliant with China III emission standard. Fuel tank capacity: approx. 330 L. AdBlue/DEF tank capacity: 35 L.
Slewing system	A single-row, four-point contact-ball external toothed slewing bearing is driven by hydraulic motor through planetary gear reducer. A built-in constant-closed brake is equipped. It may continuously slew 360°. Power control and free slewing function as well as stepless speed regulation are available.
Luffing system	Single luffing cylinder and the luffing counterbalance valve with the load compensation function. Balance valve-controlled boom gravity combined with power for lowering boom is used for boom luffing down.

	Superstructure
Operator's cab	Steel cab with a full-view windshield, safety glass, sliding door, adjustable seat with electric heating function; it can tilt backward about 20°; double-layer sun shield is adopted for roof window; sun shield is also equipped at the windshield and rear window; wipers, roof guardrails, pull-out step, LMI, human-machine interactive control panel, electric controlled armrest, engine accelerator pedal, engine start switch, etc. are also available. Heater, air conditioner and fire extinguisher of 2 kg are standard.
Safety devices	Hydraulic counterbalance valve, hydraulic relief valve, LMI, lowering limiter, anti-two block, anemometer, winch monitoring device.
Combined counterweight	60 t in total, 14 combinations of 0 t, 3 t, 10 t, 13 t, 17 t, 24 t, 27 t, 34 t, 37 t, 41 t, 48 t, 51 t and 57 t.
Hook block	75 t, 8 t
Boom	8-section boom with U cross-section, welded structure with single-plate boom head and compact boom tail. Single-cylinder pinning telescoping system Boom length: 14.6 m ~ 88 m.
Jib	The jib consists of a connecting bracket, an offsetting bracket and two lattice sections. Three offset angles of 0°, 15° and 30° are available. It is stowed along the side of the boom. Jib length: 11 m, 18.5 m.

## Configuration and optional equipment

Configuration	Function description	Selection
Standard	8-section boom of 88 m, fixed jib of 18.5 m.	

Note: only standard configuration is available for this model.

Optional equipment		Selection
Hook block	130 t	
Boom extension	Two-section lattice welded structure, attached to boom head. Length of boom extension: 2×8 m.	
Independent jib head	Lattice welding structure, attached to boom head. Length of independent jib head is 2.9 m.	
Auxiliary sheave	Installed at the boom top, used for single line operation. Its lifting performance is the same as that for boom, but the max. lifting load could not exceed 8 t.	
Auxiliary winch	Hydraulic control is used for speed regulation. The system is driven by a hydraulic motor through a planetary gear reducer, with a normally closed brake, a balanced valve and a grooved drum equipped.	
Counterweight slab E	3 t	
Counterweight slab F	4.5 t× 2	
Engine preheating device		
Transport bracket		
OBU device		

## Weight



Axle	1	2	3	4	5	Total weight
t	9.5	9.5	13	13	9.99	54.99 <sup>1)</sup>
t	14.7	14.7	22.6	22.6	17.4	92 <sup>2)</sup>

1) Superstructure: 5th-8th boom sections, hook block, jib and its brackets, auxiliary sheave, counterweight, auxiliary winch and wire rope are excluded; Chassis: spare tire and its bracket are excluded.

Drive/steer mode: 10×6×6. Tire specifications: front axles: 385/95R25, rear axles: 325/95R24 or 12.00R24.

2) Short-distance jobsite transfer: max. speed of 20 km/h, 75 t hook block, jib and its brackets, auxiliary sheave, 27 t counterweight are carried on board.

Drive/steer mode: 10×6×6; Tire specifications: front axles 385/95R25, rear axles 325/95R24 or 12.00R24.



Hook block	Parts of line	Weight of hook block	Hook dimension	Remark
130t	12	1017	1785× 730× 560	Dual hook (optional)
75t	7	640	1500× 590× 324	Dual hook (standard)
8t	1	370	782× 475× 475	Single hook (standard)

## Working speed



Front axles: 385/95R25

Rear axles: 325/95R24

or 12.00R24



1~80



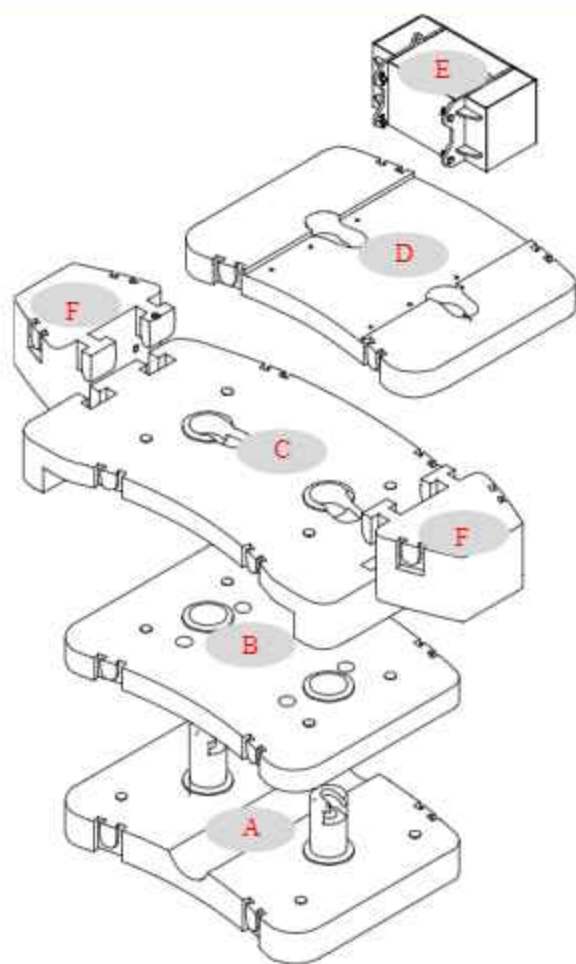
45%



Operation mechanism	Working speed	Max. single line pull	Rope diameter/ length
	0-130 m/min, single line, 4th layer	114 kN	22mm/300 m
	0-90 m/min, single line, 4th layer	89KN	22 mm/240 m
	0-1.5 r/min		
	Approx. 65 s for boom luffing from -1° to 82°		
	Approx. 900 s for boom extending from 14.6m to 88m		



## Counterweight



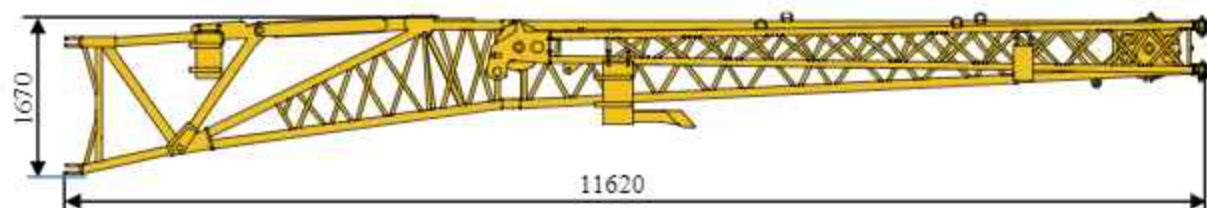
Counterweight	A	B	C	D	E (optional)	F (optional)
Dimensions (L×W×H) (mm)	2990× 1979× 84 0	2990× 1979× 1 73	2990× 1757× 2 77	1100× 1307× 6 82	833× 571× 6 18	1100× 1307× 6 82
Weight (t)	14	10	14	10	3	4.5× 2

Operation modes	60t	57t	51t	48t	41t	37t	34t
Combinations	A+B+C+D+E+ F×2	A+B+C+D+F× 2	A+B+C+D+E	A+B+C+D	A+B+C+E	A+B+D+E	A+B+D

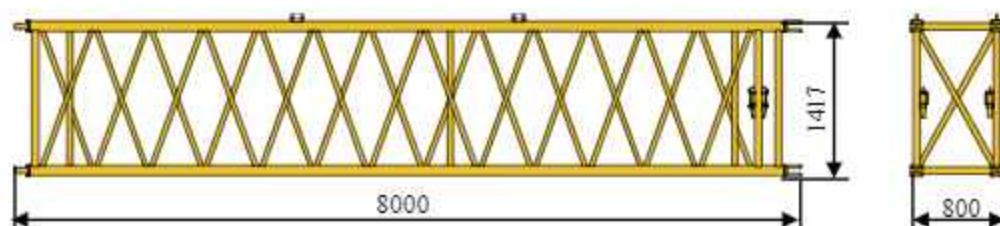
Operation modes	27t	24t	17t	13t	10t	3t	0t
Combinations	A+B+E	A+B	A+E	D+E	D	E	/

## Dimensions of parts to be transported

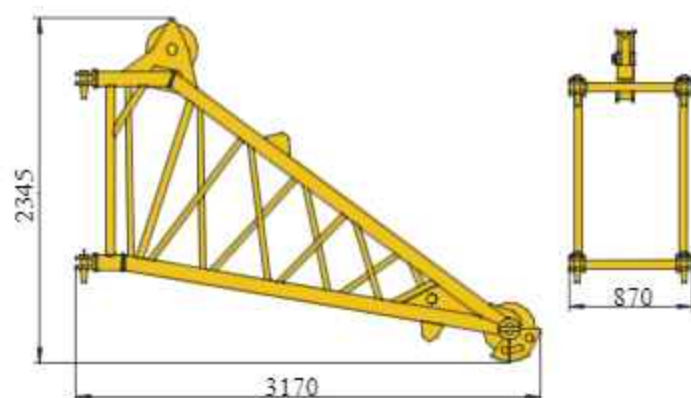
Jib and its bracket s 1750 kg



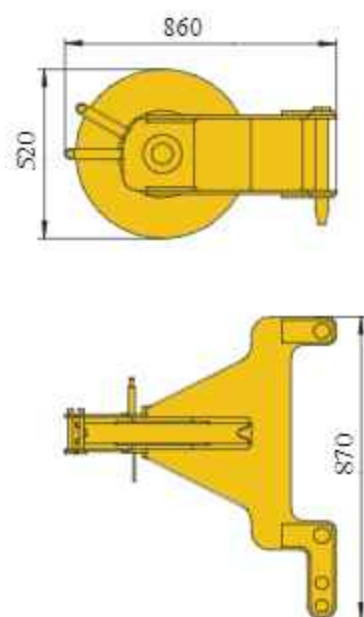
Boom extension 600kg



Independent jib head 475 kg

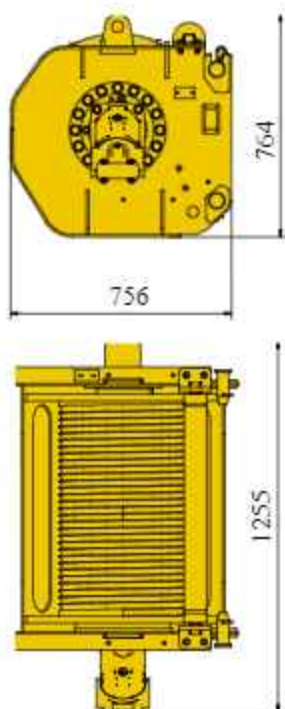


Auxiliary sheave 83 kg

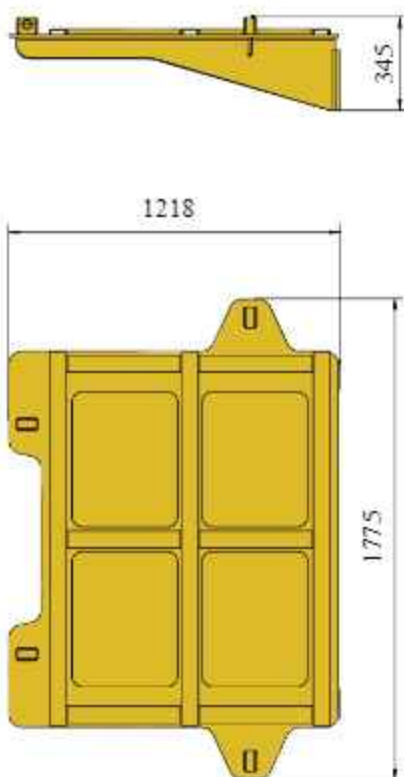


## Dimensions of parts to be transported

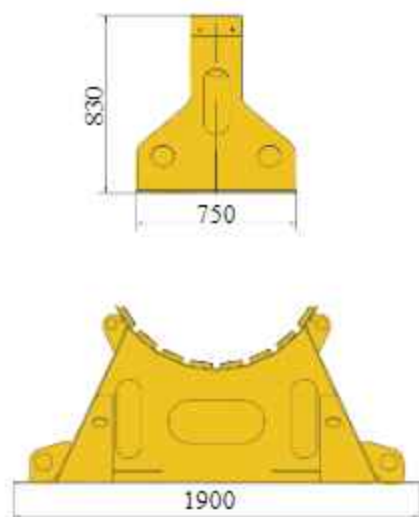
Auxiliary winch system (wire rope included)  
1300 kg



Pad support 166 kg



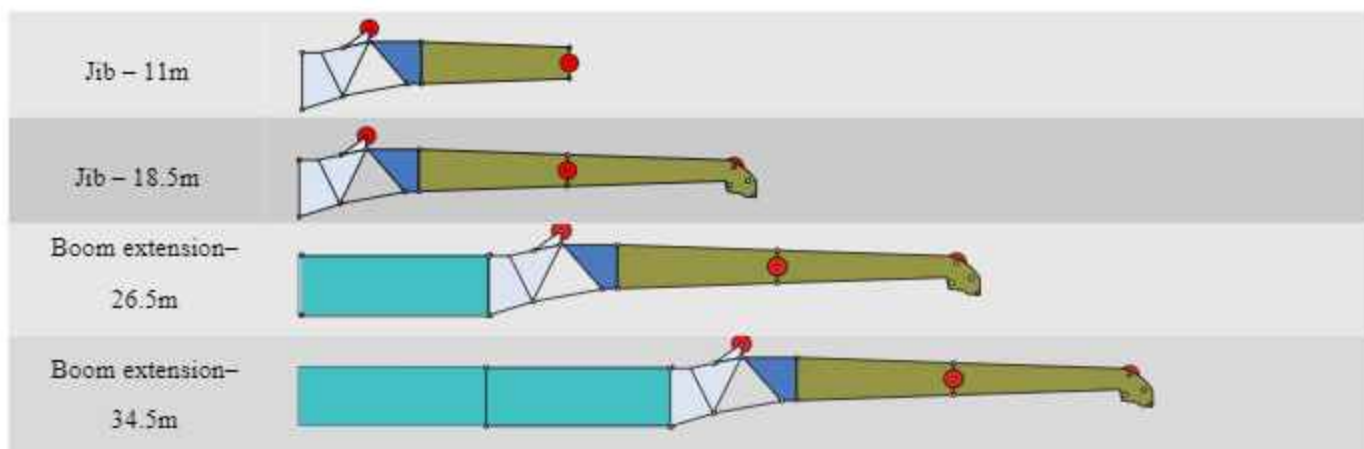
Transport bracket 408 kg



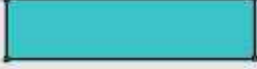

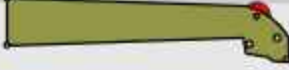


Spare tire and its bracket 260 kg  
1356 mm × 1356 mm × 555 mm



## Boom / Jib combinations



Part name	Structure	Dimensions (L × W × H) (mm)	Weight (kg)
Connecting bracket		2100 × 800 × 1820	353
Offsetting bracket		3050 × 700 × 1260	311
Boom extension		8000 × 800 × 1310	600
1st jib section assembly		7380 × 550 × 750	477
2nd jib section assembly		7000 × 410 × 410	320





Boom

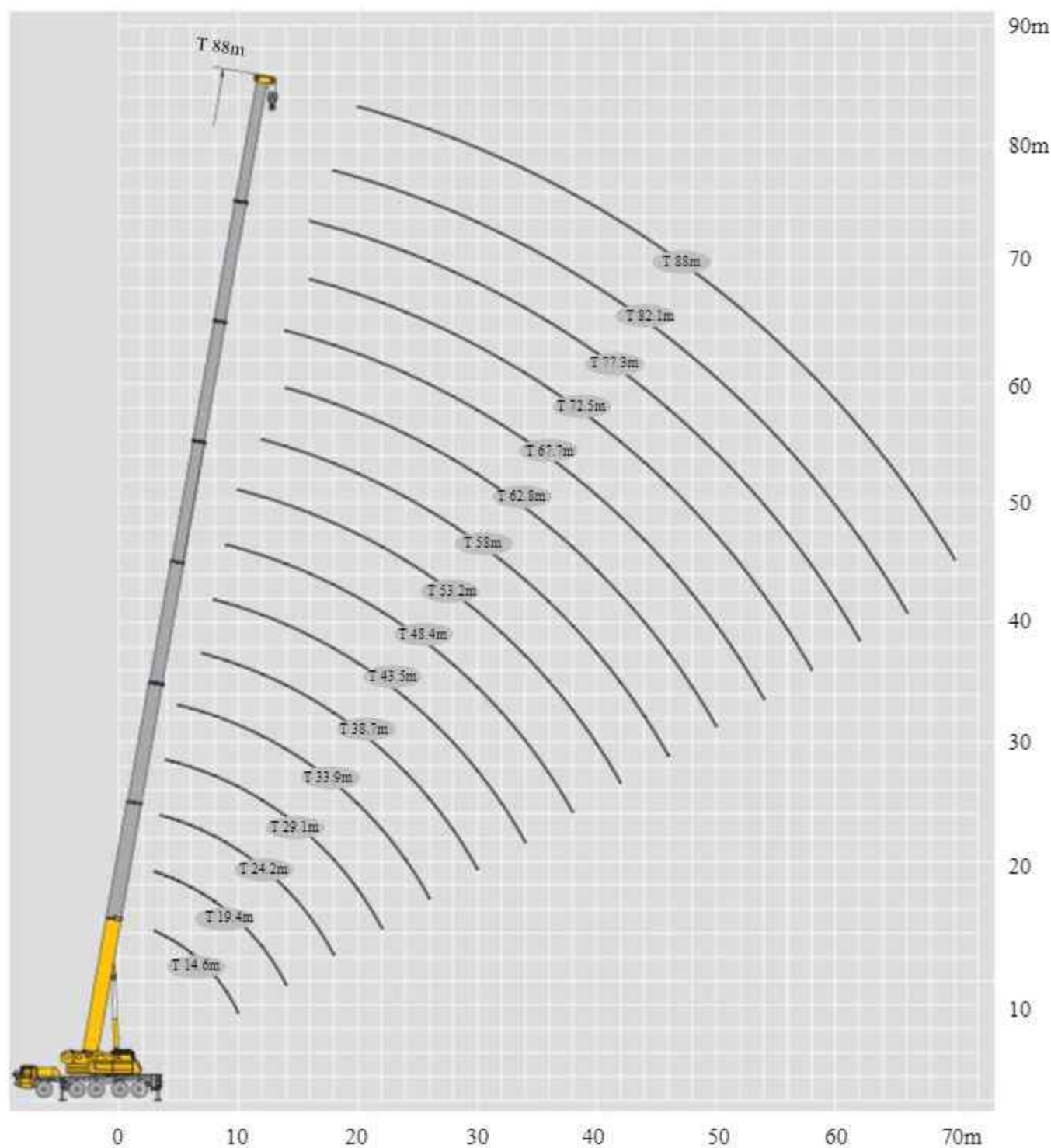
Jib






Boom extension


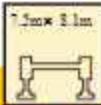
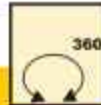


T: 14.6~88m

T: 72.5~82.1m  
J: 11~18.5m


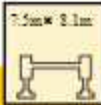



T: 72.5~82.1m  
I: 8m/16m  
J: 11~18.5m


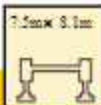
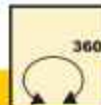
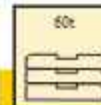



													
	14.6	19.4	19.4	19.4	19.4	19.4	24.2	24.2	24.2	24.2	24.2	24.2	
3	160*	53.8	100	110	110	110							3
3.5	115	50.9	98	105	105	105	68.1	88	90	90	92		3.5
4	105	48.2	95	100	100	100	51.8	82	83	83	86		4
4.5	100	46.0	90	95	95	95	49.6	78	80	80	82		4.5
5	92	44.0	83	90	90	88	47.8	74	76	76	78		5
6	81.5	40.2	78	80	76	76	44.2	66	68	68	72		6
7	72	37.3	71	71	68	68	41.0	64	65	65	64		7
8	62	34.6	63	63	60	60	38.6	62	60	60	60		8
9	55.5	32.2	56	56	53	53	36.1	56.5	55	55	54		9
10	49.5	30.1	52	52	50	50	33.4	52	51	50	50		10
12		27.1	44	42	42	40	29.1	44	43	42	40		12
14		24.5	36	35	33	32.5	25.7	36	35	34	33		14
16							23.0	31	29	28.5	26.5		16
18							20.6	26.5	25	24	22		18
Code	0000000	0000001	0000100	0001000	0010000	0100000	0000011	0001100	0011000	0110000	1100000		Code


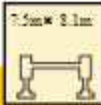



													
	29.1	29.1	29.1	29.1	29.1	33.9	33.9	33.9	33.9	33.9	38.7		
4	59.2	75.0	82	82	83								4
4.5	52.1	72.9	80	80	81								4.5
5	50.3	69.3	76	76	78	56.4	70	72	70	72			5
6	46.8	62.8	68	68	72	48.7	63	68	65	68			6
7	43.7	57.6	65	63	63	45.9	58	64	62	64	47.0		7
8	40.6	53.1	62	60	58	43.2	55	59	56	59	44.9		8
9	37.5	49.2	55.5	54	53	40.5	50	54	52	54	42.6		9
10	33.9	45.9	51.5	50	48	37.8	48.0	52	48	52	40.0		10
12	29.7	40.3	44	42	40.5	32.3	40.0	43.5	40	42	34.3		12
14	26.3	35.5	36	34	32	28.9	36	35	33.5	33.5	30.9		14
16	23.6	31.5	30.0	28.5	27.0	26.1	31.5	30	27.5	28	28.2		16
18	21.3	27.0	26	24	23	23.8	27.5	26	23.5	24	25.8		18
20	19.5	23.5	22	21	19.2	21.8	23.8	22	19	20.5	24.2		20
22	17.8	20.5	19.6	18.5	16.7	20.1	21	19.5	16.9	18	21		22
24						18.7	18.5	17	14	14	19		24
26						16.5	16.2	14.7	11.5	12.9	17		26
28											14.2		28
30											12.6		30
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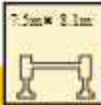



\*\*Only indicates lifting capacity level.






													
	38.7	38.7	38.7	38.7	43.5	43.5	43.5	43.5	43.5	48.4	48.4		
7	62	55.0	58	62								7	
8	58	50.0	54	58	46.0	18.1	47.1	50	50			8	
9	55	45.0	52	55	43.8	16.9	43.7	48	48	42	17.8	9	
10	52	41.0	50	52	41.5	15.9	40.5	45	45	40.4	15.9	10	
12	44	38.0	41	42.5	37.2	14.1	34.6	40.5	42	38	14.2	12	
14	37	33.0	33	35	32.7	12.6	30.6	34	35.5	34	13.5	14	
16	31	29.3	28	29	29.8	11.2	27.2	29	31	30.5	11.7	16	
18	26.5	24.2	23	24	27.4	10.1	24.4	24.5	25	26.8	10.6	18	
20	23.4	22.2	20.2	20.7	24	9.3	22.1	21.1	21.5	23	9.7	20	
22	19.8	19	17	18.2	21	8.5	20.0	17.5	19	20.5	8.9	22	
24	17.5	16.7	15	15.3	18.5	7.8	17.5	15	17.2	18.5	8.2	24	
26	15.5	14.4	13	13	16.8	7.2	15.2	13.4	14.8	16.3	7.6	26	
28	14	12.4	11	11.5	15	6.6	13.6	11.5	13	14.2	7.0	28	
30	12.5	10.7	9.9	10.3	13.2	6.1	12	10.7	11.2	15	6.6	30	
32					12.3	5.7	11.1	9.3	10.7	11.5	6.2	32	
34					11	5.3	9.8	8.1	9.5	10.3	5.8	34	
36										9.2	5.4	36	
38										8.2	5.0	38	
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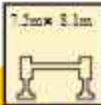
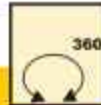


													
	48.4	48.4	48.4	53.2	53.2	53.2	53.2	53.2	58	58	58		
9	41.5	42.0	42									9	
10	36	40.1	40.5	35.0	16.2	34.3	32.4	31.9				10	
12	31.8	36.1	38	33	14.8	32	27.4	31	27.0	14.6	25.5	12	
14	28	30.5	30.3	30	13.5	30	26.9	29	25.2	12.5	24	14	
16	25.6	28	29.2	27.5	11.7	26	24.4	26.3	23.3	11.9	22	16	
18	23.1	24	25	24	11.1	23.9	21.7	23.5	21.4	11.1	20.5	18	
20	20.9	19.6	20.8	22	9.7	21.9	19.4	21.6	19	9.9	18.9	20	
22	19.1	17.8	18.8	19	9.0	19	17.6	19	17.5	9.2	17.1	22	
24	17.5	15.8	16.6	17	8.3	17	15.9	16.6	15.9	8.7	15.2	24	
26	16.1	13.5	14.2	15.2	7.7	15.2	13.4	14.5	14.5	8.1	13.8	26	
28	15	12.3	13.2	13.6	7.1	13.6	12.2	12.8	13	7.6	12.6	28	
30	13.2	10.6	11.6	12.4	6.6	12.7	10.8	11.4	12.1	7.0	11.5	30	
32	12	9.2	10.1	10.9	6.2	11.2	9.4	9.9	10.7	6.6	10	32	
34	10.5	8	8.9	9.7	5.8	9.8	8.1	8.7	9.4	6.2	8.8	34	
36	9.6	6.9	7.8	8.6	5.4	9	7	7.6	8.3	5.8	7.7	36	
38	8.6	5.9	6.8	7.6	5.1	8.1	6.1	6.6	7.4	5.4	6.7	38	
40				6.7	4.7	7.2	5.2	5.8	6.5	5.1	5.8	40	
42				5.9	4.5	6.3	4.4	5	5.7	4.8	5.1	42	
44									5	4.6	4.4	44	
46									4.4	4.3	3.7	46	
48									3.8	4.1	3.2	48	
Code	02111111	22111100	21111110	21111111	0002222	12111111	22211100	22111110	22111111	0012222	22211110	Code	






													
	58	58	62.8	62.8	62.8	62.8	62.8	67.7	67.7	67.7	67.7		
12	25.0	23.0										12	
14	23.6	21.6	17.5	13	20.5	19.7	16	15.0	13.0	16.3	15.9	14	
16	21.7	20.8	17	12.6	20	19	15.4	14	11.0	16	15.5	16	
18	19.7	19.1	15.2	11.3	19	17.2	14	13.5	10.7	15.8	15	18	
20	17.2	17.4	14.2	10.5	17.2	16	13.3	13.1	10.6	15.5	14.4	20	
22	16.0	15.9	12.2	9.0	16	13.7	11.5	12.3	10.0	14.7	13.4	22	
24	14.8	13.9	11.3	8.7	14.8	12.8	10.7	10.3	8.6	13.9	11.3	24	
26	13.9	12.7	10.4	8.5	13.6	12.0	9.8	9.2	8.4	12.8	10.6	26	
28	12.9	11.6	9.6	8.2	12.5	11.2	9.1	8.6	8.2	11.8	9.6	28	
30	12.1	10.6	8.8	7.3	11.2	10.4	8.6	8.1	8	10.8	8.9	30	
32	11.2	9.6	8.2	6.9	10.7	9.6	8.1	7.6	7.5	9.9	8.5	32	
34	9.9	8.5	7.7	6.5	9.5	9.0	7.6	7.1	7	9.3	8.4	34	
36	8.8	7.4	7.2	5.7	8.4	8.4	7.1	6.7	6.6	8.6	8.3	36	
38	8.2	6.4	6.8	5.3	7.4	8	6.7	6.3	6.2	7.6	7.8	38	
40	7.3	5.5	6.4	5.0	6.5	7.2	6.4	5.9	5.8	6.7	7.2	40	
42	6.3	4.8	6.0	4.6	5.7	6.4	6.0	5.6	4.9	5.9	6.6	42	
44	5.7	4.1	5.7	4.3	5	5.7	5.7	5.2	4.6	5.2	6	44	
46	5.3	3.4	5.3	4.0	4.4	5	5.4	4.8	4.4	4.6	5.3	46	
48	4.7	2.9	4.9	3.8	3.8	4.5	5.0	4.6	4.1	4	4.7	48	
50			4.5	3.5	3.3	3.9	4.6	4.3	3.9	3.5	4.2	50	
52			4	3.3	2.8	3.4	4.2	4.2	3.6	3	3.7	52	
54								3.8	3.4	2.5	3.3	54	
56								3.5	3.3	2.1	2.9	56	
Code	1221111	2222100	1122211	0022222	2221111	1222111	1112221	1122221	0122222	2222111	1222211	Code	


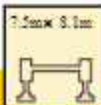
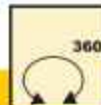
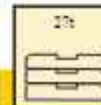

													
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14	12.1											14	
16	11.5	12.0	10.6	12.5	11.9							16	
18	11.4	11.8	9.8	12.3	10.3	9.5	10					18	
20	11.2	11.3	9.1	12	9.4	9	9.8	8.0				20	
22	10.3	10.8	8.7	11.8	8.9	8.4	9.5	7.9	7.2	6.2	6.0	22	
24	8.8	10.0	8.4	11.4	8.4	8.1	9.3	7.8	7.1	6.1	5.9	24	
26	8.4	9.1	8.3	10.8	8.1	7.8	9.1	7.6	7.0	6.0	5.8	26	
28	8.0	8.6	8.1	10.3	7.8	7.5	8.8	7.5	6.7	5.9	5.7	28	
30	7.6	8.5	7.9	9.5	7.4	7.4	8.6	7.3	6.4	5.8	5.6	30	
32	7.2	8.4	7.5	8.8	7.1	7.3	7.9	7.1	6.2	5.6	5.5	32	
34	6.8	7.9	7	8.2	6.7	7.2	7.4	6.7	5.8	5.4	5.4	34	
36	6.5	7.4	6.6	7.6	6.3	6.7	6.9	6.4	5.4	5.1	5.3	36	
38	6.1	7	6.2	7.1	5.9	6.3	6.5	6	5.1	4.7	5.2	38	
40	5.8	6.4	5.8	6.6	5.6	5.9	6.1	5.6	4.7	4.5	5.0	40	
42	5.5	6	5.4	6.2	5.2	5.6	5.7	5.2	4.4	4.1	4.6	42	
44	5.3	5.6	5.1	5.5	4.9	5.3	5.3	5	4.1	3.7	4.4	44	
46	5.0	5.4	4.9	4.9	4.7	5	4.9	4.6	3.8	3.4	4.1	46	
48	4.8	5.1	4.6	4.3	4.4	4.7	4.6	4.4	3.5	3.2	3.8	48	
50	4.5	4.6	4.4	3.8	4.2	4.5	4.1	4.1	3.2	3.0	3.6	50	
52	4.3	4.1	4.2	3.3	3.9	4.3	3.6	3.9	3.0	2.8	3.4	52	
54	4.2	3.6	3.6	2.8	3.7	4	3.2	3.7	2.8	2.5	3.1	54	
56	3.9	3.2	3.4	2.4	3.5	3.5	2.8	3.4	2.6	2.3	3.0	56	
58		2.8	3.2	2	3.3	3.2	2.4	3.0	2.5	2.2	2.8	58	
60		2.5	3.1	1.7	3.1	2.9	2	2.6	2.3	2.0	2.6	60	
62						2.6	1.8	2.3	2.1	1.9	2.3	62	
64						2.3	1.5	2.0	1.9	1.7	2.0	64	
66								1.7	1.6	1.5	1.7	66	
68								1.4	1.4	1.4	1.4	68	
70									1.2	1.3	1.2	70	
72										1.0	1.0	72	
74											0.8	74	
Code	1112222	1222221	0222222	2222211	1122222	1222222	2222221	2222222	2222233	2233333	3333333	Code	

												
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3	120	53.8	100	100	100	110						3
3.5	105	50.9	98	98	98	100	68.1	88	90	90	92	3.5
4	100	48.2	95	95	95	95	51.8	82	83	83	86	4
4.5	92	46.0	90	90	90	90	49.6	78	80	80	82	4.5
5	86.4	44.0	83	87.7	87	86.2	47.8	74	76	76	78	5
6	70.3	40.2	72.2	71.6	71	70.1	44.2	66	68	68	69.3	6
7	58.8	37.3	60.7	60.1	59.4	58.6	41.0	61.3	60.3	59.2	57.8	7
8	50.2	34.6	52	51.4	50.8	50	38.6	52.7	51.7	50.5	49.2	8
9	43.4	32.2	45.2	44.7	44.0	43.3	36.1	45.9	44.9	43.8	42.5	9
10	38.0	30.1	39.8	39.3	38.6	37.9	33.4	40.4	39.5	38.4	37.1	10
12		27.1	30.4	29.8	29.1	28.2	29.1	31.1	30.1	28.8	27.4	12
14		24.1	23.2	22.6	22.0	21.1	25.5	23.9	22.9	21.7	20.3	14
16							20.4	18.9	17.9	16.8	15.5	16
18							16.8	15.3	14.4	13.2	12.0	18
Code	0000000	0000001	0000100	0001000	0010000	0100000	0000011	0001100	0011000	0110000	1100000	Code


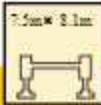



												
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4	59.2	75.0	82	82	83							4
4.5	52.1	72.9	80	80	81							4.5
5	50.3	69.3	76	76	78	56.4	68	70	68	70		5
6	46.8	62.8	68	68	69.9	48.7	63	66	63	66		6
7	43.7	57.6	61.4	60	58.4	45.9	58	60	55.9	57.2	47.0	7
8	40.6	53.1	52.7	51.3	49.8	43.2	54	52.2	49.3	50.6	44.9	8
9	37.5	47.0	45.9	44.6	43.1	40.5	46.8	45.5	42.5	43.8	42.6	9
10	33.9	41.6	40.5	39.2	37.7	37.8	41.4	40.0	37.2	38.4	40.0	10
12	29.7	32.4	31.2	29.7	28.0	32.3	32.2	30.7	27.5	28.9	33.3	12
14	26.1	25.1	23.9	22.5	21.0	26.2	24.9	23.5	20.3	21.8	25.8	14
16	21.1	20.1	19.0	17.6	16.1	21.1	19.9	18.5	15.6	16.8	20.8	16
18	17.4	16.4	15.3	14.0	12.6	17.4	16.3	14.9	12.1	13.3	17.1	18
20	14.6	13.7	12.6	11.3	9.9	14.6	13.5	12.2	9.5	10.6	14.3	20
22	12.3	11.5	10.4	9.3	7.8	12.4	11.3	10.1	7.4	8.6	12.2	22
24						10.6	9.5	8.3	5.7	6.8	10.4	24
26						9.2	8.1	6.9	4.2	5.4	8.9	26
28											7.7	28
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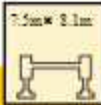










													
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8	50	47.5	47.5	48.4	43.0	18.1	44.0	47	47			8	
9	44.0	43.0	41.3	41.7	40.8	16.9	40.7	41.1	42.5	40.0	17.8	9	
10	39.0	37.7	34.9	36.3	39.0	15.9	38.0	35.7	37.1	38.4	15.9	10	
12	31.7	30.3	28.3	29.8	32.7	14.1	31.2	29.2	30.8	30.0	14.2	12	
14	24.4	23.1	21.2	22.6	25.3	12.6	23.9	22.0	23.6	24.5	13.5	14	
16	19.4	18.2	16.3	17.7	20.3	11.2	19.0	17.1	18.6	19.4	11.7	16	
18	15.8	14.6	12.8	14.1	16.6	10.1	15.4	13.6	15.0	15.8	10.6	18	
20	13.1	11.9	10.1	11.4	13.9	9.3	12.6	10.9	12.2	13.1	9.7	20	
22	10.9	9.7	8.0	9.4	11.6	8.5	10.5	8.8	10.2	10.9	8.9	22	
24	9.1	8.0	6.3	7.7	9.9	7.8	8.7	7.1	8.4	9.2	8.2	24	
26	7.7	6.6	5.0	6.2	8.5	7.2	7.3	5.7	7.0	7.7	7.6	26	
28	6.5	5.4	3.8	5.0	7.2	6.6	6.1	4.5	5.8	6.6	7.0	28	
30	5.5	4.4	2.8	4.1	6.2	6.1	5.1	3.5	4.8	5.6	6.6	30	
32					5.3	5.7	4.2	2.6	3.9	4.7	6.2	32	
34					4.6	5.3	3.5	1.9	3.2	3.9	5.8	34	
36										3.2	5.4	36	
38										2.6	5.0	38	
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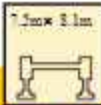
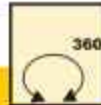


													
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9	40.0	40.0	40.0									9	
10	34.0	36.6	36.5	33.0	14.2	32.5	29.4	30.0				10	
12	30.0	27.1	27.2	29.1	13.8	29.4	25.4	27.0	23.0	14.6	21.5	12	
14	24.8	21.9	22.9	22.0	12.6	22.1	20.1	20.7	21.6	12.5	20.8	14	
16	19.8	17.0	18.0	18.8	11.7	19.2	17.2	17.8	18.5	11.9	17.9	16	
18	16.2	13.5	14.4	15.2	10.6	15.5	13.7	14.2	14.9	11.1	14.3	18	
20	13.4	10.8	11.7	12.5	9.7	12.8	11.0	11.5	12.2	9.9	11.6	20	
22	11.3	8.6	9.5	10.4	9.0	10.6	8.8	9.4	10.1	9.2	9.5	22	
24	9.5	7.0	7.8	8.6	8.3	8.9	7.1	7.7	8.4	8.7	7.7	24	
26	8.1	5.6	6.5	7.2	7.7	7.5	5.8	6.3	6.9	8.1	6.4	26	
28	6.8	4.4	5.2	6.0	7.1	6.3	4.6	5.1	5.8	7.6	5.1	28	
30	5.9	3.4	4.2	5.0	6.6	5.2	3.6	4.1	4.8	7.0	4.1	30	
32	5.0	2.5	3.4	4.1	6.2	4.4	2.7	3.2	3.9	6.6	3.3	32	
34	4.2	1.8	2.6	3.3	5.8	3.6	2.0	2.4	3.2	6.0	2.5	34	
36	3.5	1.2	2.0	2.7	5.4	3.0	1.3	1.8	2.4	5.4	1.9	36	
38	3.0		1.4	2.1	5.0	2.3		1.3	1.9	4.8	1.4	38	
40				1.5	4.5	1.8			1.4	4.2		40	
42				1.1	4.0	1.4				3.8		42	
44										3.3		44	
46										3.0		46	
48										2.6		48	
Code	02111111	22111100	21111110	21111111	0002222	12111111	22211100	22111110	22111111	0012222	22211110	Code	


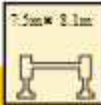

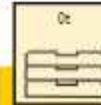




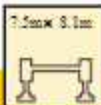
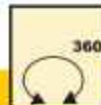
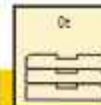

													
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12	21.5	23.0										12	
14	20.6	21.6	16.5	12.0	19.0	18.2	14.8	13.7	12.0	15.3	15.0	14	
16	19.1	17.6	15.3	11.4	17.5	17.1	13.8	13.1	11.0	14.8	14.2	16	
18	15.5	14.0	14.2	10.6	15.0	15.7	13.0	12.4	10.5	14.0	13.8	18	
20	12.8	11.3	13.1	9.9	12.2	13.0	12.3	11.8	9.6	12.5	12.5	20	
22	10.6	9.2	11.3	9.0	10.1	10.8	11.5	11.1	9.0	10.4	11.1	22	
24	8.9	7.5	9.5	8.7	8.4	9.0	10.0	9.9	8.6	8.6	9.4	24	
26	7.5	6.0	8.1	8.5	7.0	7.6	8.6	8.5	8.4	7.2	7.9	26	
28	6.2	4.9	6.9	8.2	5.8	6.4	7.4	7.3	8.2	5.9	6.7	28	
30	5.2	3.9	5.9	7.3	4.8	5.4	6.4	6.3	7.2	5.0	5.7	30	
32	4.3	3.0	5.0	6.7	3.9	4.5	5.5	5.4	6.3	4.1	4.8	32	
34	3.6	2.3	4.2	5.9	3.2	3.8	4.7	4.6	5.5	3.3	4.1	34	
36	3.0	1.6	3.6	5.2	2.5	3.1	4.1	4.0	4.9	2.7	3.3	36	
38	2.3	1.0	3.0	4.6	1.9	2.5	3.4	3.3	4.2	2.1	2.8	38	
40	1.8		2.4	4.1	1.4	2.0	2.9	2.8	3.7	1.5	2.3	40	
42	1.4		2.0	3.5	0.9	1.5	2.4	2.3	3.2	1.1	1.8	42	
44	0.9		1.5	3.2		1.1	2.0	1.9	2.8		1.4	44	
46			1.2	2.7			1.6	1.5	2.3		1.0	46	
48				2.3			1.3	1.2	2.1			48	
50				2.1			0.9		1.7			50	
52				1.7					1.4			52	
54									1.2			54	
Code	1221111	2222100	1122211	0022222	2221111	1222111	1112221	1122221	0122222	2222111	1222211	Code	

													
	67.7	72.5	72.5	72.5	72.5	77.3	77.3	82.1	83.8	86.3	88		
14	12.1											14	
16	11.5	12.0	10.6	12.5	10.9							16	
18	10.8	11.8	9.8	12.3	10.3	8.9	10.0					18	
20	10.1	11.3	9.1	12.0	9.4	8.7	9.8	8.0				20	
22	9.2	10.8	8.7	10.6	8.9	8.4	9.5	7.9	7.2	6.2	5.0	22	
24	8.8	9.6	8.4	8.9	8.4	8.1	9.3	7.8	7.1	6.1	4.8	24	
26	8.4	8.2	8.3	7.5	8.1	7.8	7.8	7.6	7.0	6.0	4.6	26	
28	7.8	7.0	7.9	6.3	7.7	7.4	6.6	7.0	6.7	5.9	4.5	28	
30	6.8	6.0	6.8	5.2	6.7	6.4	5.6	5.9	6.1	5.8	4.3	30	
32	5.9	5.1	5.9	4.4	5.8	5.5	4.7	5.1	5.2	5.2	4.0	32	
34	5.1	4.3	5.2	3.6	5.0	4.8	4.0	4.3	4.4	4.5	3.7	34	
36	4.4	3.7	4.5	3.0	4.3	4.1	3.2	3.7	3.8	3.8	3.3	36	
38	3.9	3.1	4.0	2.3	3.7	3.4	2.7	3.1	3.2	3.2	2.8	38	
40	3.3	2.5	3.4	1.8	3.2	3.0	2.2	2.5	2.6	2.7	2.4	40	
42	2.8	2.1	2.9	1.4	2.7	2.4	1.7	2.1	2.2	2.2	2.1	42	
44	2.4	1.6	2.4	0.9	2.3	2.0	1.3	1.6	1.7	1.8	1.7	44	
46	2.0	1.3	2.1		1.9	1.6		1.3	1.4	1.4	1.3	46	
48	1.6	0.9	1.7		1.5	1.3			1.0	1.0	0.9	48	
50	1.4		1.4		1.2	1.0						50	
52	1.0		1.1		0.9							52	
Code	1112222	1222221	0222222	2222211	1122222	1222222	2222221	2222222	2222233	2233333	3333333	Code	


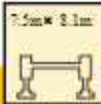

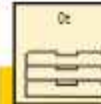

													
	14.6	19.4	19.4	19.4	19.4	19.4	24.2	24.2	24.2	24.2	24.2		
3	95.0	53.8	90.0	95.0	95.0	94.8						3	
3.5	80.4	50.9	82.2	81.6	81.0	80.2	68.1	82.7	81.8	80.7	79.4	3.5	
4	69.4	48.2	71.1	70.6	70.0	69.3	51.8	71.7	70.8	69.8	68.5	4	
4.5	60.9	46.0	62.5	62.0	61.4	60.7	49.6	63.0	62.2	61.2	60.0	4.5	
5	54.0	44.0	55.6	55.1	54.5	53.8	47.8	56.2	55.3	54.3	53.1	5	
6	43.7	40.2	45.2	44.7	44.2	43.5	44.2	45.7	44.9	43.9	42.8	6	
7	36.2	37.3	37.8	37.3	36.7	36.1	39.5	38.2	37.4	36.5	35.4	7	
8	28.0	31.5	30.4	29.7	28.8	27.8	33.1	31.2	29.9	28.5	26.8	8	
9	21.5	24.7	23.7	23.0	22.2	21.4	26.2	24.5	23.3	22.0	20.4	9	
10	17.0	20.0	19.0	18.4	17.7	16.9	21.4	19.8	18.7	17.4	16.0	10	
12		13.8	13.0	12.3	11.6	10.8	15.1	13.6	12.6	11.4	10.0	12	
14		9.8	9.0	8.4	7.7	7.0	11.1	9.6	8.6	7.5	6.2	14	
16							8.3	6.9	5.9	4.9	3.7	16	
18							6.3	5.0	4.1	3.0	1.8	18	
Code	0000000	0000001	0000100	0001000	0010000	0100000	0000011	0001100	0011000	0110000	1100000	Code	




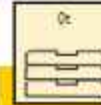

													
	29.1	29.1	29.1	29.1	29.1	33.9	33.9	33.9	33.9	33.9	38.7		
4	59.2	72.7	71.7	70.5	69.0							4	
4.5	52.1	64.1	63.1	61.9	60.6							4.5	
5	50.3	57.1	56.2	55.0	53.7	56.4	57.0	55.8	53.2	54.3		5	
6	46.8	46.7	45.8	44.6	43.4	47.5	46.6	45.4	42.9	44.0		6	
7	40.0	39.2	38.2	37.2	35.9	40.0	39.0	37.9	35.4	36.6	39.8	7	
8	33.9	32.6	31.2	29.5	27.5	33.9	32.4	30.6	26.9	28.6	33.6	8	
9	26.9	25.8	24.5	23.0	21.1	27.0	25.6	23.9	20.5	22.0	26.6	9	
10	22.1	21.0	19.8	18.3	16.6	22.1	20.8	19.3	16.1	17.5	21.8	10	
12	15.7	14.7	13.7	12.2	10.6	15.8	14.6	13.2	10.0	11.4	15.5	12	
14	11.7	10.7	9.6	8.3	6.8	11.7	10.6	9.1	6.2	7.5	11.4	14	
16	8.8	7.9	6.9	5.7	4.2	8.9	7.8	6.5	3.8	5.0	8.6	16	
18	6.8	6.0	5.0	3.8	2.4	6.9	5.8	4.6	1.9	3.1	6.6	18	
20	5.4	4.5	3.5	2.4	1.0	5.4	4.3	3.1		1.8	5.1	20	
22	4.2	3.4	2.4	1.3		4.2	3.2	2.0			3.9	22	
24						3.3	2.2	1.1			3.0	24	
26						2.5	1.5				2.2	26	
28											1.6	28	
30											1.1	30	
Code	0000111	0001110	0011100	0111000	1110000	0001111	0011110	0111100	2110000	1111000	0011111	Code	

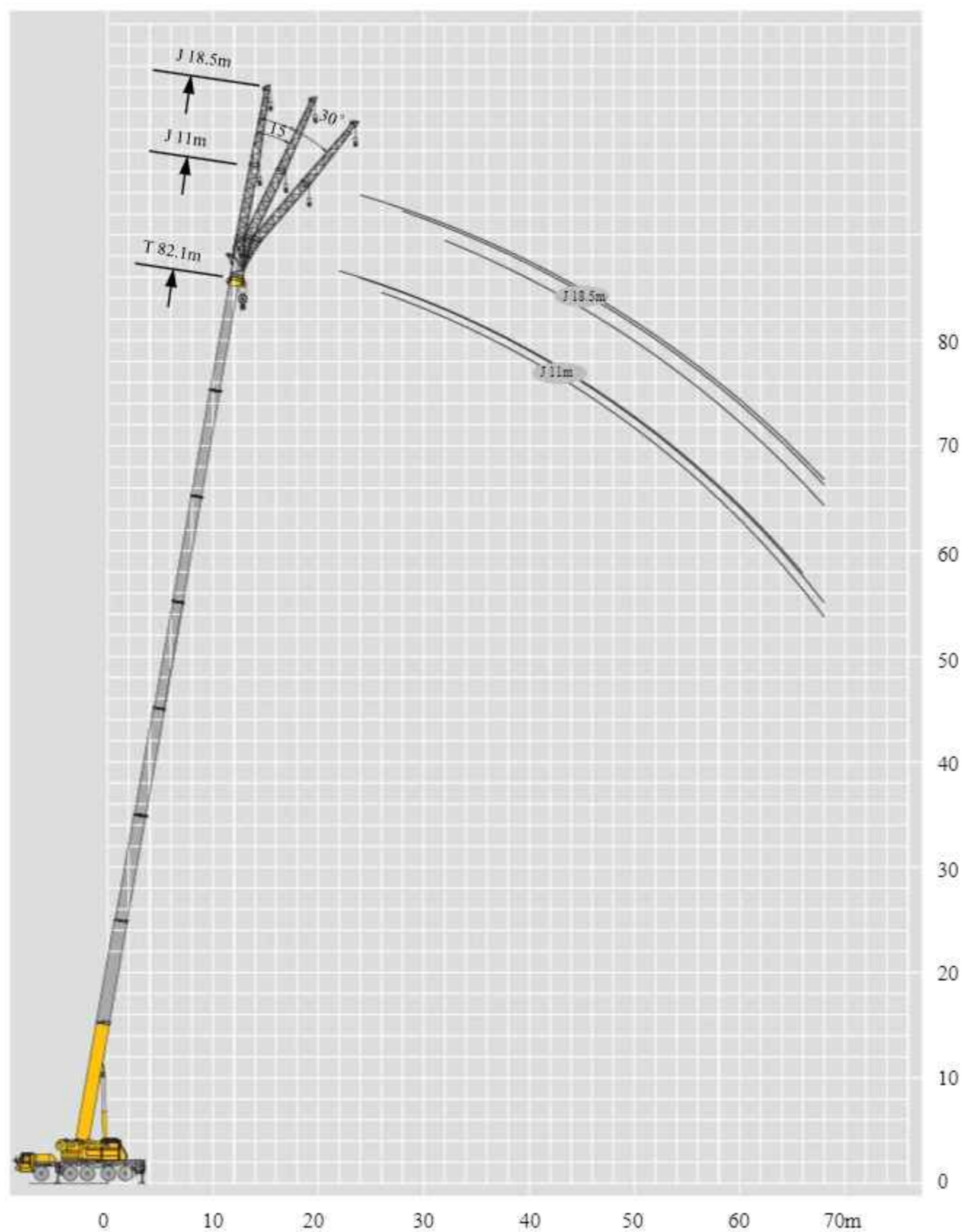
													
	38.7	38.7	38.7	38.7	43.5	43.5	43.5	43.5	43.5	48.4	48.4		
7	38.6	37.6	36.1	37.3								7	
8	31.8	30.2	27.8	29.6	32.9	18.1	31.3	28.9	30.7			8	
9	25.0	23.5	21.4	23.0	26.0	16.9	24.5	22.3	24.1	20.0	17.8	9	
10	20.2	18.9	16.9	18.4	21.2	15.9	19.8	17.8	19.4	16.3	15.9	10	
12	14.1	12.8	10.8	12.3	15.0	14.1	13.7	11.7	13.3	14.2	14.2	12	
14	10.0	8.8	7.0	8.4	10.9	12.6	9.6	7.8	9.3	10.1	13.0	14	
16	7.3	6.2	4.4	5.8	8.1	10.2	7.0	5.2	6.6	7.4	10.1	16	
18	5.4	4.2	2.6	3.8	6.2	8.2	5.0	3.4	4.6	5.4	8.1	18	
20	3.9	2.9	1.2	2.5	4.6	6.6	3.5	1.9	3.2	4.0	6.5	20	
22	2.8	1.8		1.4	3.5	5.4	2.4		2.1	2.8	5.3	22	
24	1.8				2.6	4.4	1.5		1.2	1.9	4.3	24	
26	1.1				1.8	3.6				1.2	3.5	26	
28					1.2	3.0					2.9	28	
30						2.4					2.3	30	
32						1.9					1.9	32	
34						1.5					1.4	34	
36											1.1	36	
Code	0111110	0211100	2111000	1111100	0111111	0000222	0211110	2111100	1111110	1111111	0001222	Code	






													
	48.4	48.4	48.4	53.2	53.2	53.2	53.2	53.2	58	58	58		
9	20.5	19.2	19.4									9	
10	16.7	15.7	16.7	13.6	14.2	14.0	11.8	12.5				10	
12	14.5	11.6	12.6	11.5	12.8	11.8	9.8	10.4	10.3	11.6	10.5	12	
14	10.5	7.7	8.6	8.4	11.0	8.8	6.8	7.5	8.2	9.5	8.6	14	
16	7.7	5.1	6.0	6.8	9.0	7.0	5.3	5.8	6.6	8.8	5.9	16	
18	5.8	3.2	4.1	4.9	8.0	5.1	3.4	3.9	4.6	7.7	4.0	18	
20	4.2	1.8	2.7	3.4	6.4	3.7	2.0	2.5	3.2	6.2	2.6	20	
22	3.1		1.6	2.3	5.2	2.6		1.4	2.1	5.0	1.5	22	
24	2.2			1.4	4.2	1.7			1.2	4.0		24	
26	1.4				3.5					3.3		26	
28					2.8					2.6		28	
30					2.3					2.1		30	
32					1.8					1.6		32	
34					1.4					1.2		34	
36					1.0							36	
Code	0211111	2211100	2111110	2111111	0002222	1211111	2221100	2211110	2211111	0012222	2221110	Code	













													
	58	58	62.8	62.8	62.8	62.8	62.8	67.7	67.7	67.7	67.7		
12	10.8	10.2										12	
14	8.8	8.2	9.6	11.4	8.2	8.9	10.0	9.0	10.0	8.4	9.2	14	
16	7.0	5.6	7.8	9.5	6.6	7.2	8.2	8.2	9.1	6.7	7.5	16	
18	5.1	3.7	5.8	7.5	4.6	5.3	6.2	6.2	7.1	4.8	5.6	18	
20	3.7	2.3	4.3	6.0	3.2	3.8	4.8	4.7	5.6	3.4	4.1	20	
22	2.6	1.2	3.2	4.8	2.1	2.7	3.6	3.5	4.4	2.2	3.0	22	
24	1.6		2.2	3.8	1.2	1.8	2.7	2.6	3.5	1.4	2.1	24	
26			1.5	3.0		1.0	1.9	1.8	2.7		1.3	26	
28				2.4			1.3	1.2	2.1			28	
30				1.8					1.5			30	
32				1.4					1.0			32	
34				1.0								34	
Code	1221111	2222100	1122211	0022222	2221111	1222111	1112221	1122221	0122222	2222111	1222211	Code	






									
	67.7	72.5	72.5	72.5	72.5	77.3	77.3		
14	9.5							14	
16	8.7	7.9	8.8	7.0	8.6			16	
18	6.7	5.9	6.8	5.1	6.6	6.3	5.5	18	
20	5.2	4.4	5.3	3.7	5.1	4.8	4.0	20	
22	4.0	3.3	4.1	2.6	3.9	3.7	2.9	22	
24	3.1	2.4	3.2	1.7	3.0	2.7	2.0	24	
26	2.3	1.6	2.4		2.2	2.0	1.2	26	
28	1.7	1.0	1.8		1.6	1.4		28	
30	1.2		1.3		1.0			30	
Code	1112222	1222221	0222222	2222311	1122222	1222222	2222221	Code	



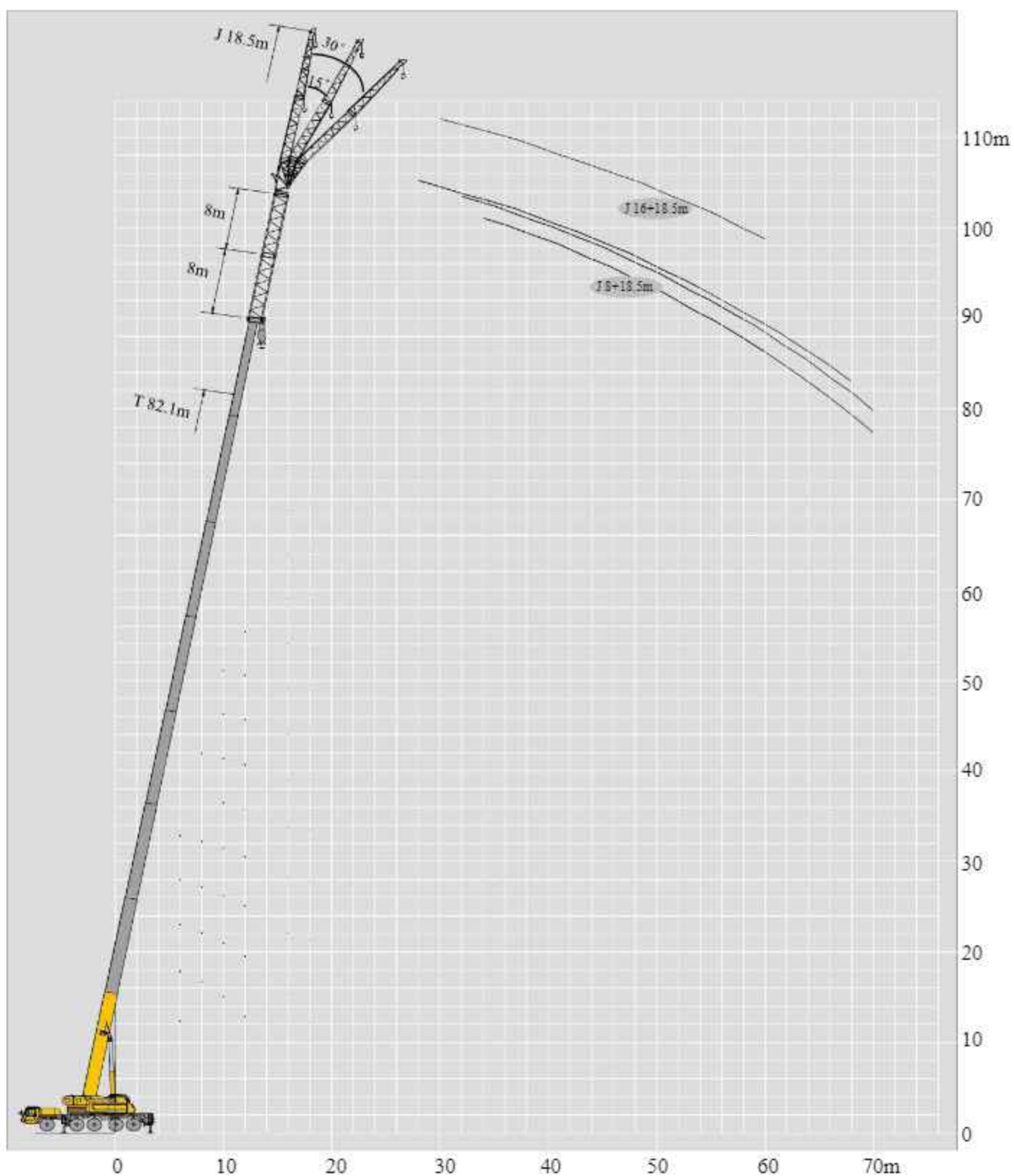
	    									
	72.5 m			77.3 m			82.1 m			
	0°	15°	30°	0°	15°	30°	0°	15°	30°	
20	6.6									20
22	6.5	5.6		5.8			4.8			22
24	6.5	5.5		5.7	4.9		4.8			24
26	6.4	5.4	3.9	5.6	4.9		4.8	4.5		26
28	6.4	5.3	3.8	5.6	4.8	4.1	4.8	4.4	3.8	28
30	6.3	5.2	3.6	5.6	4.7	4.0	4.7	4.4	3.8	30
32	6.3	5.0	3.6	5.6	4.7	4.0	4.7	4.3	3.8	32
34	6.0	4.9	3.5	5.6	4.6	4.0	4.7	4.3	3.7	34
36	5.6	4.6	3.4	5.5	4.5	3.9	4.6	4.3	3.6	36
38	5.2	4.4	3.3	5.2	4.4	3.9	4.6	4.2	3.6	38
40	4.8	4.3	3.3	4.8	4.4	3.8	4.4	4.2	3.6	40
42	4.3	4.2	3.1	4.4	4.3	3.8	4.1	4.1	3.6	42
44	4.0	4.0	3.1	4.2	4.2	3.9	3.8	3.8	3.6	44
46	3.6	3.6	3.1	3.8	3.9	3.8	3.6	3.5	3.6	46
48	3.3	3.3	3.0	3.5	3.5	3.6	3.3	3.3	3.4	48
50	2.8	3.0	3.0	3.2	3.3	3.4	3.0	3.1	3.1	50
52	2.6	2.7	2.8	2.8	3.1	3.2	2.9	2.9	3.0	52
54	2.5	2.5	2.7	2.6	2.8	3.0	2.6	2.7	2.7	54
56	2.0	2.3	2.4	2.0	2.2	2.5	2.2	2.5	2.6	56
58	1.9	2.1	2.2	1.8	2.0	2.0	2.0	2.2	2.5	58
60	1.6	1.8	1.9	1.5	1.7	1.7	1.7	2.0	2.1	60
62	1.4	1.4	1.5	1.4	1.5	1.6	1.4	1.6	1.8	62
64	1.1	1.2	1.3	1.2	1.4	1.5	1.3	1.3	1.5	64
66		0.9	1.0	1.0	1.2	1.3	1.2	1.1	1.2	66
68					0.9	1.0	1.0	1.0	1.1	68
70									1.0	70
Code	2222211			2222221			2222222			Code

	    									
	72.5 m			77.3 m			82.1 m			
	0°	15°	30°	0°	15°	30°	0°	15°	30°	
20	6.6									20
22	6.5	5.6		5.8			4.8			22
24	6.5	5.5		5.7	4.9		4.8			24
26	6.4	5.4	3.9	5.6	4.9		4.8	4.5		26
28	6.1	5.3	3.8	5.6	4.8	4.1	4.8	4.4	3.8	28
30	5.1	5.2	3.6	5.3	4.7	4.0	4.7	4.4	3.8	30
32	4.2	4.8	3.6	4.5	4.7	4.0	4.7	4.3	3.8	32
34	3.5	4.0	3.5	3.7	4.2	4.0	4.0	4.3	3.7	34
36	2.9	3.3	3.4	3.1	3.5	3.9	3.3	3.8	3.6	36
38	2.3	2.7	3.1	2.5	2.9	3.2	2.8	3.2	3.5	38
40	1.8	2.2	2.4	2.0	2.3	2.7	2.3	2.6	3.0	40
42	1.4	1.7	2.0	1.5	1.9	2.2	1.8	2.2	2.4	42
44	0.9	1.3	1.5	1.2	1.4	1.7	1.4	1.7	2.0	44
46			1.1		1.1	1.3	1.0	1.4	1.5	46
48						0.9		1.0	1.2	48
Code	2222211			2222221			2222222			Code

	    																			
	72.5 m			77.3 m			82.1 m													
	0°	15°	30°	0°	15°	30°	0°	15°	30°											
22	3.3			2.9						2.9										2.9
24	3.3	2.7		2.9						2.6										2.6
26	3.3	2.6		2.9	2.5					2.6									2.6	2.5
28	3.3	2.4	1.6	2.9	2.5					2.6									2.6	2.5
30	3.3	2.3	1.5	2.9	2.4	1.6				2.6	2.3								2.6	2.4
32	3.2	2.2	1.5	2.9	2.3	1.6				2.6	2.3	1.5							2.6	2.3
34	3.2	2.1	1.5	2.9	2.2	1.5				2.6	2.3	1.5							2.6	2.2
36	3.1	2.0	1.4	2.9	2.1	1.4				2.6	2.1	1.4							2.6	2.1
38	3.0	1.9	1.4	2.9	1.9	1.4				2.6	2.0	1.4							2.6	2.0
40	3.0	1.9	1.3	2.9	1.9	1.4				2.6	1.9	1.4							2.6	1.9
42	2.9	1.8	1.3	2.9	1.9	1.3				2.6	1.9	1.3							2.6	1.9
44	2.8	1.8	1.3	2.9	1.9	1.3				2.6	1.9	1.3							2.6	1.9
46	2.7	1.7	1.3	2.8	1.7	1.3				2.6	1.8	1.3							2.6	1.8
48	2.6	1.7	1.2	2.7	1.6	1.3				2.6	1.8	1.3							2.6	1.7
50	2.4	1.7	1.1	2.6	1.6	1.3				2.6	1.7	1.3							2.6	1.7
52	2.3	1.5	1.1	2.4	1.6	1.2				2.5	1.6	1.1							2.5	1.6
54	2.2	1.5	1.1	2.3	1.5	1.2				2.5	1.6	1.1							2.5	1.5
56	2.1	1.4	1.1	2.3	1.5	1.2				2.2	1.5	1.1							2.2	1.5
58	2.1	1.4	1.1	2.0	1.5	1.2				2.1	1.5	1.1							2.1	1.5
60	1.9	1.4	1.1	1.8	1.4	1.2				1.9	1.5	1.1							1.9	1.5
62	1.7	1.4	1.1	1.6	1.4	1.1				1.7	1.5	1.0							1.7	1.5
64	1.4	1.3	1.1	1.4	1.4	1.1				1.5	1.4	1.0							1.5	1.4
66	1.2	1.3	1.0	1.1	1.2	1.1					1.2	1.0								1.2
68	0.9	1.1	1.0		1.0	1.0					1.0	1.0								1.0
70		0.9	1.0			0.9						0.9								
Code	2222211			2222221			2222222			Code										






	    																			
	72.5 m			77.3 m			82.1 m													
	0°	15°	30°	0°	15°	30°	0°	15°	30°											
22	3.3			2.9						2.9										2.9
24	3.3	2.7		2.9						2.6									2.6	
26	3.3	2.6		2.9	2.5					2.6									2.6	2.5
28	3.3	2.4	1.6	2.9	2.5					2.6									2.6	2.5
30	3.3	2.3	1.5	2.9	2.4	1.6				2.6	2.3								2.6	2.4
32	3.2	2.2	1.5	2.9	2.3	1.6				2.6	2.3	1.5							2.6	2.3
34	3.2	2.1	1.5	2.9	2.2	1.5				2.6	2.3	1.5							2.6	2.2
36	3.1	2.0	1.4	2.9	2.1	1.4				2.6	2.1	1.4							2.6	2.1
38	2.7	1.9	1.4	2.9	1.9	1.4				2.6	2.0	1.4							2.6	1.9
40	2.3	1.9	1.3	2.4	1.9	1.4				2.6	1.9	1.4							2.6	1.9
42	1.8	1.8	1.3	1.9	1.9	1.3				2.2	1.9	1.3							2.2	1.9
44	1.4	1.8	1.3	1.5	1.9	1.3				1.7	1.9	1.3							1.7	1.9
46	1.0	1.5	1.3	1.2	1.6	1.3				1.4	1.8	1.3							1.4	1.8
48		1.2	1.2		1.3	1.3				1.0	1.5	1.3							1.0	1.5
50			1.1		0.9	1.3					1.2	1.3								1.2
52						1.0						1.1								
54												0.9								
Code	2222211			2222221			2222222			Code										










	72.5-82.1m		18.5m		77.3-8 m		82.1-8 m			
	18.5 m									
	0°	15°	30°	0°	15°	30°	0°	15°	30°	
24	2.9			2.6						24
26	2.9			2.6						26
28	2.9	2.4		2.6			2.3			28
30	2.8	2.4	1.7	2.6	2.3		2.3			30
32	2.8	2.3	1.6	2.6	2.3		2.3	2.1		32
34	2.8	2.3	1.5	2.6	2.3	1.6	2.3	2.1	1.5	34
36	2.8	2.2	1.5	2.6	2.2	1.6	2.3	2.0	1.5	36
38	2.8	2.1	1.4	2.6	2.1	1.5	2.3	2.0	1.4	38
40	2.8	2.0	1.4	2.6	2.1	1.4	2.3	2.0	1.4	40
42	2.8	1.9	1.4	2.6	2.0	1.4	2.3	2.0	1.4	42
44	2.8	1.8	1.3	2.6	1.9	1.4	2.3	1.9	1.4	44
46	2.8	1.8	1.3	2.5	1.9	1.3	2.3	1.9	1.3	46
48	2.7	1.8	1.3	2.5	1.8	1.3	2.3	1.9	1.3	48
50	2.6	1.7	1.3	2.4	1.8	1.3	2.3	1.8	1.3	50
52	2.3	1.7	1.3	2.4	1.8	1.3	2.2	1.8	1.3	52
54	2.1	1.7	1.2	2.2	1.7	1.3	2.0	1.8	1.3	54
56	1.8	1.6	1.1	2.0	1.7	1.3		1.7	1.3	56
58	1.7	1.6	1.1	1.9	1.7	1.2		1.7	1.3	58
60	1.5	1.6	1.1		1.6	1.1			1.3	60
62	1.3	1.5	1.1		1.5	1.1				62
64	1.2	1.4	1.1			1.1				64
66	1.1	1.2	1.0							66
68			1.0							68
70			0.9							70
Code	2222211			2222221			2222222			Code
















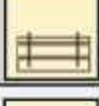

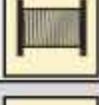



	72.5-82.1m		18.5m		77.3-8 m		82.1-8 m			
	18.5 m									
	0°	15°	30°	0°	15°	30°	0°	15°	30°	
24	2.9			2.6						24
26	2.9			2.6						26
28	2.9	2.4		2.6			2.3			28
30	2.8	2.4	1.7	2.6	2.3		2.3			30
32	2.8	2.3	1.6	2.6	2.3		2.3	2.1		32
34	2.8	2.3	1.5	2.6	2.3	1.6	2.3	2.1	1.5	34
36	2.8	2.2	1.5	2.6	2.2	1.6	2.3	2.0	1.5	36
38	2.8	2.1	1.4	2.6	2.1	1.5	2.3	2.0	1.4	38
40	2.4	2.0	1.4	2.5	2.1	1.4	2.3	2.0	1.4	40
42	1.9	1.9	1.4	2.1	2.0	1.4	2.3	2.0	1.4	42
44	1.5	1.8	1.3	1.6	1.9	1.4	1.8	1.9	1.4	44
46	1.2	1.7	1.3	1.3	1.8	1.3	1.4	1.9	1.3	46
48		1.3	1.3	0.9	1.4	1.3	1.1	1.5	1.3	48
50		1.0	1.3		1.1	1.3		1.3	1.3	50
52			1.0			1.1		0.9	1.3	52
54									1.0	54
Code	2222211			2222221			2222222			Code

	    					
	72.5+16 m			77.3+16 m	82.1+16 m	
	18.5 m					
	0°	15°	30°	0°	0°	
28	2.6			2.0		28
30	2.6	2.3		2.0	1.6	30
32	2.6	2.3		2.0	1.5	32
34	2.6	2.2	1.6	2.0	1.5	34
36	2.6	2.2	1.5	1.9	1.5	36
38	2.6	2.1	1.5	1.9	1.5	38
40	2.6	2.0	1.5	1.9	1.5	40
42	2.6	2.0	1.4	1.8	1.5	42
44	2.6	1.9	1.4	1.8	1.5	44
46	2.6	1.8	1.4	1.8	1.4	46
48	2.3	1.7	1.3	1.7		48
50	2.1	1.7	1.3	1.7		50
52	1.9	1.7	1.3			52
54	1.5	1.7	1.3			54
56	1.3	1.6	1.3			56
58		1.5	1.3			58
60		1.3	1.3			60
62			1.1			62
Code	2222211			2222221	2222222	Code

	    					
	72.5+16 m			77.3+16 m	82.1+16 m	
	18.5 m					
	0°	15°	30°	0°	0°	
28	2.6			2.0		28
30	2.6	2.3		2.0	1.6	30
32	2.6	2.3		2.0	1.5	32
34	2.6	2.2	1.6	2.0	1.5	34
36	2.6	2.2	1.5	1.9	1.5	36
38	2.6	2.1	1.5	1.9	1.5	38
40	2.5	2.0	1.5	1.9	1.5	40
42	2.1	2.0	1.4	1.8	1.5	42
44	1.6	1.9	1.4	1.7	1.5	44
46	1.3	1.8	1.4	1.4	1.4	46
48	0.9	1.4	1.3	1.0		48
50		1.1	1.3			50
52			1.1			52
Code	2222211			2222221	2222222	Code

## Description of symbols

### General symbols

	Superstructure		Chassis
	Lifting capacity		Axle
	Boom length		Travel speed
	Working radius		Grade ability
	Boom angle		Tires
	Boom hoisting height		Outriggers
	Fixed jib length		Hook block
	Jib offset angle		Counterweight
	Jib lifting height		Winch
	Independent jib head		360° operation of the boom
	Boom extension		



## Main technical specifications

Category	Item	Unit	Parameter	
Dimensions	Dimensions (L×W×H)	mm	16360× 3000× 3995	
	Axle spacing	mm	1500+4200+1420+1505	
	Track (front/rear)	mm	Axles 1, 2: 2562 Axles 3, 4: 2268 Axle 5: 2468	
	Front overhang/rear overhang	mm	2560 (Qixing), 2545 (XCMG Automobile)/2415	
	Front extension/rear extension	mm	2325(Qixing)2340(XCMG Automobile)/435	
Weight	Maximum permissible weight	kg	54990	
	Axle load	Axle 1	kg	9500
		Axle 2	kg	9500
		Axle 3	kg	13000
		Axle 4	kg	13000
	Axle 5	kg	9990	
Power	Engine model	—	WP10.5H460E62 (China VI)	
	Rated power/rotation speed	kW/(r/min)	338/1900	
	Max. net power/rotation speed	kW/(r/min)	333/1900	
	Max. output torque/rotation speed	N.m/(r/min)	2100/1000-1400	
Travel	Max. travel speed	km/h	≥80	
	Min. stable travel speed	km/h	1.7~3	
	Min. turning diameter	m	≤24	
	Min. turning diameter at boom head	m	≤29	
	Min. ground clearance	mm	310	
	Approach angle	°	20	
	Departure angle	°	13	
	Braking distance (initial speed at 30 km/h)	m	≤10	
	Max. grade ability (%)	%	45	
	Fuel consumption per 100 km	L	65	
Noise	Exterior noise level when accelerating	dB(A)	≤84	
	Noise level at seated position	dB(A)	≤90	

## Main technical specifications

Category	Item		Unit	Parameter	
Main performance	Maximum rated lifting capacity		t	160	
	Minimum rated working radius		m	3	
	Turning radius at turntable tail	At counterweight	mm	5370	
		At auxiliary winch	mm	5130	
	Maximum load moment	Base boom	kN.m	4939	
		Fully-extended boom	kN.m	1960	
		Fully-extended boom + jib	kN.m	1725	
	Outrigger span	Longitudinal	m	7.5	
		Lateral	m	8.1/6.34	
	Lifting height	Basic boom	m	15.2	
		Fully-extended boom	m	86.2	
		Fully-extended boom + jib	m	116	
	Boom length	Base boom	m	14.6	
Fully-extended boom		m	88		
Fully-extended boom + jib		m	116.6		
Jib offset angle			°	0, 15, 30	
Working speed	Time for raising boom		s	≤65	
	Time for fully extending the boom		s	≤900	
	Max. slewing speed		r/min	≥1.5	
	Time for extending / retracting the outriggers	Outrigger beam	Retract	s	≤40
			Down	s	≤40
		Outrigger jack	Up	s	≤60
			Down	s	≤60
Lifting speed (single line at 4th layer, no load)	Main winch system	m/min	≥135		
	Auxiliary winch	m/min	≥90		
Noise	Exterior noise level		dB(A)	≤110	
	Noise level at seated position		dB(A)	≤85	

1. The total rated load given in the rated load charts is the maximum lifting capacity when the crane is set up on firm and level ground. The total rated load includes the weight of the hook blocks and slings. To calculate the actual weight that could be lifted, the weight of hook blocks and slings should be deducted from the lifting capacities.
2. The working radius is the horizontal distance between the gravity center of load and the rotational axis of the crane superstructure measured on the ground when the load is lifted off ground, and it is the actual value including loaded boom deflection. Take boom deflection into consideration before beginning a lifting operation.
3. A lifting operation is permissible only when the wind force is below grade 5 (instantaneous wind speed of 14.1 m/s, wind pressure of 125N/m<sup>2</sup>).
4. Before beginning lifting, the operator must know the weight of the load to be lifted and its working range to select proper operation modes. Never operate the crane beyond the limit shown in the chart. Take the lower value from the chart when the boom length or working radius is between the range of values.
5. Observe the boom angle limit. Never operate the crane with the boom angle beyond the recommended limit even if a load is not being carried. Otherwise, the crane will tip.
6. Extend boom sections according to the specified percentage.

# LARGEST NETWORK



## SCHWING STETTER (INDIA) PRIVATE LIMITED

F-71/72 SIPCOT Industrial Estate, Irungattukottai, Kanchipuram District - 602117, Tamil Nadu, India.  
GIN No. U45309TN1998PTC046270

Mobile: +91 9176644659; Landline: +91 (44) 71378106

kc.sharma@schwingstetterindia.com

www.schwingstetterindia.com



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