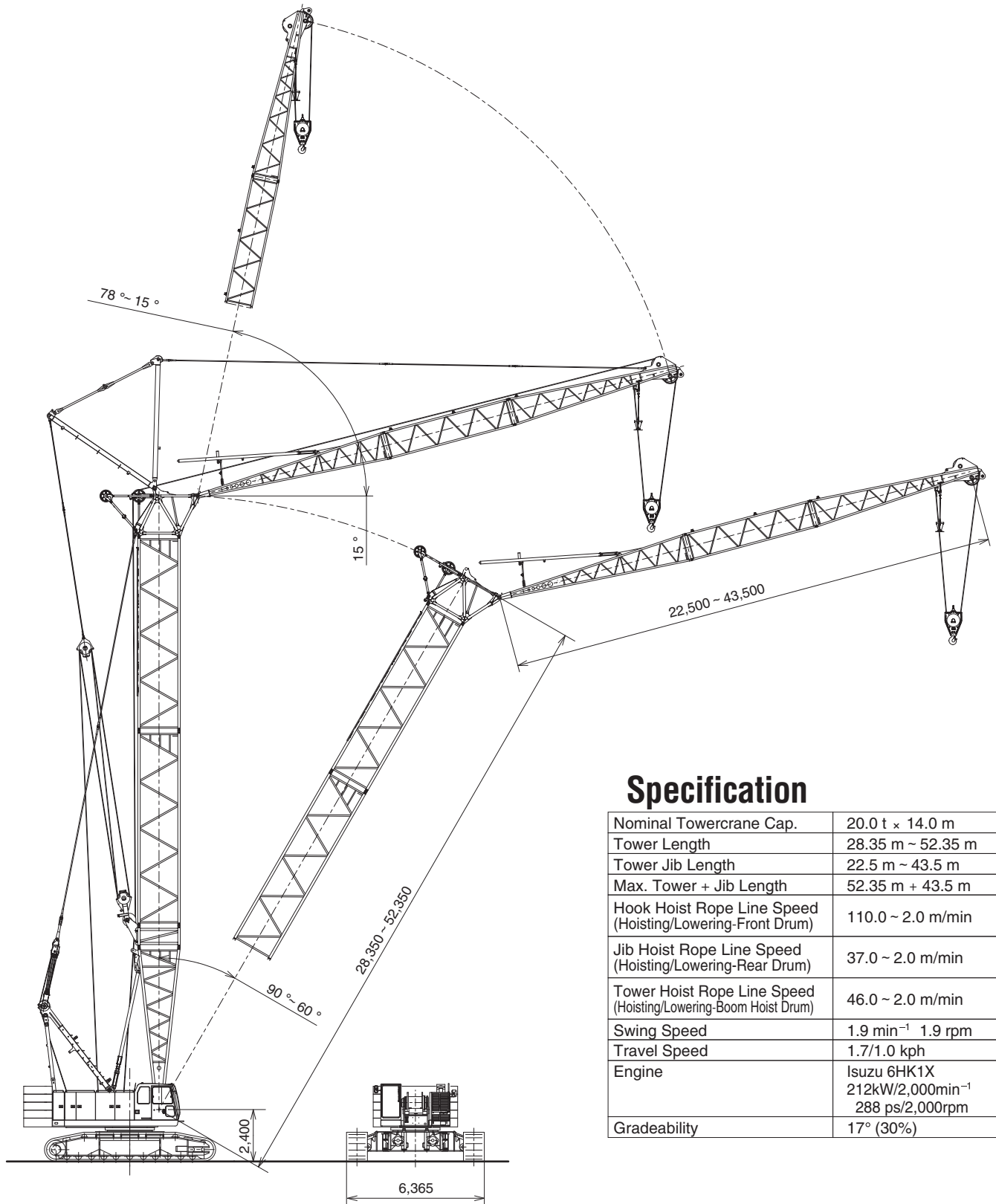




# SCX1200-2

120-M ton Hydraulic Crawler Crane  
Luffing Towercrane Att.



## Specification

Nominal Towercrane Cap.	20.0 t × 14.0 m
Tower Length	28.35 m ~ 52.35 m
Tower Jib Length	22.5 m ~ 43.5 m
Max. Tower + Jib Length	52.35 m + 43.5 m
Hook Hoist Rope Line Speed (Hoisting/Lowering-Front Drum)	110.0 ~ 2.0 m/min
Jib Hoist Rope Line Speed (Hoisting/Lowering-Rear Drum)	37.0 ~ 2.0 m/min
Tower Hoist Rope Line Speed (Hoisting/Lowering-Boom Hoist Drum)	46.0 ~ 2.0 m/min
Swing Speed	1.9 min <sup>-1</sup> 1.9 rpm
Travel Speed	1.7/1.0 kph
Engine	Isuzu 6HK1X 212kW/2,000min <sup>-1</sup> 288 ps/2,000rpm
Gradeability	17° (30%)

# Front-end Attachment

## TOWER BOOM:

- Lattice construction, round tubular main chords, alloy, hi-ten steel, with bracing of round steel tubing.
- Tower boom connections .....In-line pin connections at 1.85m deep by 1.85m wide.
- Special tower boom extensions .....(1) 1.0m long, lattice construction; pins tower jib bail assembly on upper part, and just pinned next to 7.5m bottom section. Available to use as liftcrane boom extension.
- (2) 9.0m long, lattice construction; provided with luffing jib hoist bridle guide rails, and pinned next to 9.0m extension as 4th section in the configuration. Available to use as liftcrane boom extension.
- Tower boom extensions .....Available in length of 3.0m, 6.0m and 9.0m with tower boom/tower jib hoist pendants, and to use as liftcrane boom extension.
- Tower head section .....1.85m long, lattice construction; pinned on top of tower boom. Pins tower jib and fan-shaped post, and provides one guide sheave for hoist cable and two guide rollers for tower jib hoist pendant ropes.
- Tower boom length .....28.35m to 52.35m; the configuration of a 52.35m tower boom as maximum is as under as recommended:  
(1) 7.5m bottom section + (2) 1.0m special ext. + (3) 9.0m ext. + (4) 9.0m special ext. + (5) 3.0m ext. × 2 pcs. + (6) 9.0m ext. × 2 pcs. + (7) 1.85m head section.
- Tower boom luffing angle .....90° thru 60° (according to tower boom/jib combination).

### Notes:

1. Bottom section of 7.5m long and boom extensions of 3.0m, 6.0m and 9.0m long as necessary to complete liftcrane boom attachment are available from those of luffing towercrane boom attachment.
2. In a case of converting luffing towercrane boom attachment of 52.35m as max. as shown above to liftcrane boom attachment of 73.0m as maximum as available, three items of one set each of 6.0m boom extension, 9.0m boom extension and 7.5m tapered crane top section are only additionally required.

## TOWER JIB:

- Lattice construction, round tubular main chords, alloy hi-ten steel, with bracing of round steel tubing.
- Tower jib connections .....In-line pin connections at 1.2m deep by 1.27m wide.
- Basic tower jib .....Three-piece, 22.5m basic length; 9.0m bottom section, one 6.0m extension and 7.5m tower jib top section.
- Tower jib top head machinery .....Single head and one guide sheaves mounted on anti-friction bearings.
- Tower jib extensions .....Available in 3.0m, 6.0m and 9.0m lengths with pendants.
- Maximum tower jib length .....43.5m; a 43.5m tower jib as maximum consists of (1) 9.0m bottom section + (2) 3.0m ext. + (3) 6.0m ext. + (4) 9.0m ext. × 2 pcs. + (5) 7.5m top section.
- Tower jib angle .....Available from 15° thru 78° to ground (according to tower boom/jib combination)

## FAN-SHAPED POST:

All-welded construction; pinned to tower head section. Serves as mechanical connection for tower jib hoisting and lowering motions.

## TOWER JIB BAIL AND BRIDLE:

All-welded construction; provided with larger sheaves of a 21.4 D/d ratio on both bail and bridle for an 8-part tower jib hoist rope reeving. Bail pinned to an 1.0m special tower boom extension, and bridle suspended between an 8-part tower jib hoist rope and pendant ropes connecting to tower post.

## HOOK BLOCKS:

To be selected from 30ton and 11ton hook blocks (as same as those of the HOOK BLOCKS mentioned in to "Crane 120 metric tons" of the separate SCX1200-2 SPECIFICATIONS).

## DRUM DATA:

See DRUM DATA mentioned into page 8 of the separate SCX1200-2 SPECIFICATIONS. In case that machine is operated under luffing towercrane attachment, rope line speed of rear main drum (as used for tower jib hoisting/lowering motion) is automatically changed to "37-2.0mpm".

## HOIST REEVING:

No. of part line	Towercrane hoist	
	2	1
Max. load (ton)	20.0	11.0

## CABLES:

- Front drum .....3×F (a+40), non-spin type, 26mm dia./300m long, breaking load 569kN (58.0t).
- Rear drum .....IWRC 6×WS (31), 26mm dia./200m long, breaking load 500kN(51.0t).
- Boom hoist drum .....Same as that of liftcrane application.
- Optional 3rd drum .....Same as that of liftcrane application.

## WORKING WEIGHT:

Approx. 130.0ton with 52.35m tower boom, 43.50m tower jib, 45.0ton counterweight, 2.0ton auxiliary weight, 965mm wide track shoes and 30t hook block.

## GROUND PRESSURE:

93kPa <0.95kg/cm<sup>2</sup>> under an 130.0ton working weight mentioned above.

# Luffing Towercrane Capacities 20 metric tons

## ■ w/28.35m Tower

Jib length(m)	22.50			
Tower angle (°)	90	80	70	60
Working radius(m)				
8.0	20.0			
9.0	20.0			
10.0	20.0			
12.0	20.0			
14.0	20.0			
16.0	18.6	18.4/16.5		
18.0	17.2	17.4		
20.0	15.9	16.0		
22.0	14.5	14.5		
24.0	10.2	13.3	13.0/24.6	
26.0	9.6/24.2	12.3	12.3	
28.0		11.4	11.4	
30.0		11.0/29.1	10.7	9.2/31.9
32.0			9.9	9.1
34.0			9.2/33.8	8.5
36.0				7.9
38.0				7.4
40.0				7.3/38.1

## ■ w/31.35m Tower

Jib length(m)	22.50				25.50			
Tower angle (°)	90	80	70	60	90	80	70	60
Working radius(m)								
8.0	20.0				19.4/8.7			
9.0	20.0				19.4			
10.0	20.0				19.2			
12.0	20.0				18.9			
14.0	20.0				18.6			
16.0	18.6	18.0/17.0			18.2			
18.0	17.2	17.3			17.7	17.6/18.2		
20.0	15.7	16.0			15.8	16.0		
22.0	14.3	14.6			14.2	14.5		
24.0	10.4	13.3	12.5/25.6		12.9	13.3		
26.0	9.8/24.2	12.3	12.3		10.7	12.3	11.7/27.2	
28.0		11.4	11.4		8.5/27.1	11.4	11.3	
30.0		10.8/29.6	10.5			10.7	10.3	
32.0			9.7	8.3/33.4		10.0	9.5	
34.0			8.9	8.2		9.9/32.5	8.8	7.6/35.4
36.0			8.7/34.8	7.6			8.2	7.4
38.0				7.1			7.7/37.7	6.9
40.0				6.7/39.6				6.5
42.0								6.1
44.0								6.0/42.5

## ■ w/34.35m Tower

Jib length (m)	22.50				25.50				28.50			
Tower angle (°)	90	80	70	60	90	80	70	60	90	80	70	60
Working radius (m)												
8.0	20.0				19.4/8.7							
9.0	20.0				19.4				16.6/9.3			
10.0	20.0				19.2				16.5			
12.0	20.0				18.9				16.2			
14.0	20.0				18.6				16.0			
16.0	18.5	17.6/17.6			18.2				15.7			
18.0	17.0	17.4			17.3	17.2/18.7			15.5	15.2/19.8		
20.0	15.5	16.0			15.5	16.0			15.2	15.2		
22.0	14.0	14.5			13.9	14.5			13.9	14.5		
24.0	10.5	13.3			12.6	13.3			12.6	13.3		
26.0	9.9/24.2	12.3	11.9/26.6		10.8	12.3			11.5	12.3		
28.0		11.4	11.1		8.7/27.1	11.4	10.9/28.2		10.5	11.4	10.0/29.8	
30.0		10.7	10.2			10.7	10.1		7.6	10.7	9.9	
32.0		10.6/30.1	9.4			10.0	9.3			10.0	9.1	
34.0			8.7	7.6/34.9		9.7/33.0	8.6			9.4	8.5	
36.0			8.2/35.8	7.3			8.0	6.9/36.9		8.8/35.9	7.9	
38.0				6.8			7.5	6.6			7.3	6.3/38.9
40.0				6.4			7.3/38.7	6.2			6.9	6.1
42.0				6.1/41.1				5.8			6.5/41.6	5.7
44.0								5.5				5.3
46.0												5.0
48.0												5.0/46.9

## ■ w/37.35m Tower

Jib length (m)	22.50				25.50				28.50				31.50			
Tower angle (°)	90	80	70	60	90	80	70	60	90	80	70	60	90	80	70	60
Working radius (m)																
8.0	20.0				19.4/8.7											
9.0	20.0				19.4				16.6/9.3				15.4/9.9			
10.0	20.0				19.2				16.5				15.4			
12.0	20.0				18.9				16.2				15.2			
14.0	20.0				18.6				16.0				15.0			
16.0	18.4				18.2				15.7				14.8			
18.0	16.9	17.2/18.1			16.8	16.7/19.2			15.5				14.6			
20.0	15.1	15.9			15.0	16.0			14.7	15.1/20.3			14.4	14.3/21.5		
22.0	13.7	14.5			13.6	14.5			13.3	14.5			13.0	14.2		
24.0	10.6	13.3			12.3	13.3			12.1	13.3			11.8	13.3		
26.0	10.1/24.2	12.3	11.1/27.6		10.9	12.3			11.1	12.3			10.8	12.3		
28.0		11.4	10.9		8.8/27.1	11.4	10.2/29.2		10.2	11.4			10.0	11.4		
30.0		10.7	10.0			10.7	9.8		7.7	10.7	9.4/30.8		9.2	10.7		
32.0		10.4/30.7	9.2			10.0	9.1			10.0	8.9		7.7	10.0	8.7/32.4	
34.0			8.5			9.5/33.6	8.4			9.4	8.2		6.8/32.9	9.3	8.1	
36.0			7.9	6.9/36.4			7.8			8.7	7.7			8.6	7.6	
38.0			7.7/36.9	6.5			7.3	6.3/38.4		8.5/36.5	7.1			8.0	7.0	
40.0				6.1			6.8/39.8	5.9			6.7	5.7/40.4		7.7/39.4	6.6	
42.0				5.7				5.6			6.3	5.4			6.2	5.3/42.4
44.0				5.6/42.6				5.2			6.1/42.7	5.1			5.8	5.0
46.0								5.0/45.5				4.8			5.5/45.6	4.7
48.0												4.5				4.4
50.0												4.5/48.4				4.2
52.0																4.0/51.3
54.0																

## ■ w40.35m Tower

Jib length (m)	22.50				25.50				28.50				31.50				34.50					
Tower angle (°) Working radius (m)	90	80	70	60	90	80	70	60	90	80	70	60	90	80	70	60	90	80	70	60		
8.0	19.1				17.6/8.7																	
9.0	18.9				17.6				16.1/9.3				15.0/9.9									
10.0	18.7				17.4				16.0				15.0				13.6/10.5					
12.0	18.3				17.1				15.7				14.8				13.4					
14.0	18.0				16.8				15.5				14.6				13.2					
16.0	17.6				16.4				15.2				14.4				13.0					
18.0	16.5	16.9/18.6			16.1	15.8/19.7			15.0				14.2				12.8					
20.0	14.8	16.0			14.7	15.8			14.4	14.6/20.9			14.0				12.6					
22.0	13.4	14.5			13.3	14.5			13.0	14.4			12.8	13.8			12.3	12.3/23.1				
24.0	10.7	13.3			12.1	13.3			11.8	13.3			11.7	13.3			11.3	12.2				
26.0	10.1/24.2	12.3			10.7	12.3			10.8	12.3			10.7	12.3			10.4	12.0				
28.0		11.4	10.2/28.7		8.8/27.1	11.4			10.0	11.4			9.9	11.4			9.5	11.4				
30.0		10.7	9.7			10.7	9.4/30.3		7.4	10.7	8.7/31.8		9.1	10.7			8.8	10.6				
32.0		10.3/31.2	8.9			10.0	8.8			10.0	8.6		7.7	9.9	8.1/33.4		8.2	9.8				
34.0			8.3			9.3	8.1			9.2	8.0		6.5/32.9	9.2	7.9		7.6	9.1	7.5/35.0			
36.0			7.7	6.2/37.9		9.3/34.1	7.6			8.6	7.4			8.5	7.3		5.8/35.8	8.4	7.2			
38.0			7.2/37.9	6.2			7.0	5.7/39.9		8.3/37.0	6.9			7.9	6.8			7.8	6.7			
40.0				5.8			6.6	5.6			6.5	5.1/41.9		7.4/39.9	6.4			7.3	6.3			
42.0				5.4			6.4/40.8	5.3			6.1	5.1			6.0	4.7/43.9		6.9	5.9			
44.0				5.1				5.0			5.7/43.7	4.8			5.6	4.7		6.7/42.8	5.5	4.3/45.9		
46.0				5.1/44.1				4.7				4.5			5.3	4.4			5.2	4.3		
48.0								4.5/47.0				4.2			5.2/46.6	4.1			4.9	4.0		
50.0												4.0/49.9				3.9			4.7/49.5	3.8		
52.0																3.7					3.6	
54.0																3.6/52.8					3.4	
56.0																						3.2/55.7

## ■ w/43.35m Tower

Jib length (m)	22.50				25.50				28.50			
Tower angle (°) Working radius (m)	90	80	70	60	90	80	70	60	90	80	70	60
8.0	19.1				17.2/8.7							
9.0	18.9				17.2				16.1/9.3			
10.0	18.7				17.0				16.0			
12.0	18.3				16.7				15.7			
14.0	18.0				16.4				15.5			
16.0	17.6				16.0				15.2			
18.0	16.2	16.6/19.1			15.7				15.0			
20.0	14.5	16.0			14.3	15.3/20.3			14.2	14.5/21.4		
22.0	13.1	14.5			12.9	14.5			12.8	14.4		
24.0	10.5	13.3			11.7	13.3			11.7	13.3		
26.0	9.9/24.2	12.3			10.7	12.3			10.6	12.3		
28.0		11.4	9.5/29.7		8.6/27.1	11.4			9.8	11.4		
30.0		10.7	9.4			10.7	8.8/31.3		7.5	10.7		
32.0		10.1/31.7	8.7			10.0	8.5			9.8		
34.0			8.0			9.2	7.9			9.1	8.1/32.9	
36.0			7.5			9.0/34.6	7.3			8.5	7.8	
38.0			7.0	5.6/39.4			6.8			8.0/37.5	7.2	
40.0			6.8/38.9	5.5			6.4	5.1/41.4			6.7	
42.0				5.1			6.0/41.8	5.0			6.3	4.6/43.4
44.0				4.8				4.7			5.9	4.5
46.0				4.6/45.6				4.4			5.5	4.3
48.0								4.1			5.4/44.7	4.0
50.0								4.1/48.5				3.8
52.0												3.6/51.4

## ■ w/43.35m Tower

Jib length (m)	31.50				34.50				37.50			
Tower angle (°)	90	80	70	60	90	80	70	60	90	80	70	60
Working radius (m)												
9.0	15.0/9.9											
10.0	15.0				13.7/10.5				12.4/11.2			
12.0	14.8				13.5				12.3			
14.0	14.6				13.3				12.1			
16.0	14.4				13.1				11.9			
18.0	14.2				12.9				11.7			
20.0	14.0				12.7				11.5			
22.0	12.6	13.7/22.5			12.5	12.3/23.6			11.3			
24.0	11.5	13.3			11.3	12.3			11.0	11.0/24.8		
26.0	10.5	12.3			10.4	12.1			10.1	10.9		
28.0	9.6	11.4			9.5	11.4			9.3	10.7		
30.0	8.9	10.6			8.8	10.5			8.6	10.2		
32.0	7.8	9.8			8.1	9.7			7.9	9.5		
34.0	6.6/32.9	9.0	7.5/34.5		7.5	8.9			7.4	8.8		
36.0		8.4	7.1		5.8/35.8	8.3	7.0/36.1		6.9	8.2	6.4/37.6	
38.0		7.8	6.6			7.7	6.5		5.7	7.6	6.3	
40.0		7.3	6.2			7.2	6.1		5.1/38.7	7.1	5.9	
42.0		7.2/40.4	5.8			6.8	5.7			6.7	5.5	
44.0			5.4	4.2/45.4		6.5/43.3	5.3			6.3	5.2	
46.0			5.1	4.1			5.0	3.9/47.4		5.9	4.8	
48.0			4.9/47.6	3.9			4.7	3.8		5.9/46.2	4.6	3.5/49.4
50.0				3.7			4.4	3.6			4.3	3.4
52.0				3.5			4.4/50.5	3.3			4.1	3.2
54.0				3.3				3.2			3.9/53.4	3.0
56.0				3.2/54.3				3.0				2.8
58.0								2.9/57.2				2.7
60.0												2.5
62.0												2.5/60.1

## ■ w/46.35m Tower

Jib length (m)	22.50				25.50				28.50				31.50			
Tower angle (°)	90	80	70	60	90	80	70	60	90	80	70	60	90	80	70	60
Working radius (m)																
8.0	19.1				17.2/8.7											
9.0	18.9				17.2				16.1/9.3				15.0/9.9			
10.0	18.7				17.0				16.0				15.0			
12.0	18.3				16.7				15.7				14.8			
14.0	18.0				16.4				15.5				14.6			
16.0	17.6				16.0				15.2				14.4			
18.0	16.0	16.2/19.7			15.7				15.0				14.2			
20.0	14.3	16.0			14.2	15.1/20.8			14.0	14.5/21.9			14.0			
22.0	12.9	14.5			12.8	14.5			12.6	14.4			12.6	13.6/23.0		
24.0	10.5	13.3			11.6	13.3			11.4	13.3			11.5	13.3		
26.0	10.0/24.2	12.3			10.6	12.3			10.4	12.3			10.4	12.3		
28.0		11.4			8.6/27.1	11.4			9.6	11.4			9.6	11.4		
30.0		10.7	8.9/30.7			10.7			7.5	10.5			8.8	10.5		
32.0		9.9	8.4			9.8	8.2/32.3			9.7	7.5/33.9		7.8	9.6		
34.0		9.9/32.2	7.8			9.1	7.7			9.0	7.5		6.6/32.9	8.9	7.0/35.5	
36.0			7.3			8.7/35.1	7.1			8.4	7.0			8.3	6.9	
38.0			6.8				6.6			7.8	6.5			7.7	6.4	
40.0			6.3	5.0/40.9			6.2				6.0			7.2	5.9	
42.0				4.9			5.8	4.6/42.9			5.7			7.0/40.9	5.6	
44.0				4.6			5.6/42.8	4.4			5.3	4.1/44.9			5.2	
46.0				4.3				4.1			5.0/45.7	4.0			4.9	3.8/46.9
48.0				4.1/47.1				3.9				3.7			4.6	3.6
50.0								3.7				3.5			4.5/48.6	3.4
52.0												3.3				3.2
54.0												3.2/52.9				3.0
56.0																2.9/55.8

## ■ w/46.35m Tower

Jib length (m)	34.50				37.50				40.50			
Tower angle (°)	90	80	70	60	90	80	70	60	90	80	70	60
Working radius (m)												
10.0	13.7/10.5				12.4/11.2				11.0/11.8			
12.0	13.5				12.3				11.0			
14.0	13.3				12.1				10.8			
16.0	13.1				11.9				10.6			
18.0	12.9				11.7				10.4			
20.0	12.7				11.5				10.2			
22.0	12.5				11.3				10.0			
24.0	11.3	12.3/24.1			11.0	11.0/25.3			9.8			
26.0	10.3	12.1			10.0	10.9			9.1	9.6/26.4		
28.0	9.5	11.3			9.2	10.7			8.5	9.4		
30.0	8.7	10.4			8.5	10.2			7.9	9.2		
32.0	8.0	9.5			7.8	9.4			7.3	9.0		
34.0	7.4	8.8			7.2	8.7			6.8	8.6		
36.0	5.8/35.8	8.2	6.5/37.1		6.7	8.1			6.3	8.0		
38.0		7.6	6.3		5.7	7.5	6.0/38.7		5.9	7.4		
40.0		7.1	5.8		5.1/38.7	7.0	5.7		5.5	6.9	5.5/40.3	
42.0		6.7	5.5			6.6	5.3		4.5/41.6	6.5	5.2	
44.0		6.3/43.8	5.1			6.2	5.0			6.1	4.9	
46.0			4.8			5.8	4.7			5.7	4.6	
48.0			4.5	3.4/48.9		5.7/46.7	4.4			5.4	4.3	
50.0			4.3	3.3			4.1	3.0/50.9		5.1/49.6	4.0	
52.0			4.1/51.5	3.1			3.9	2.9			3.8	2.7/53.0
54.0				2.9			3.7	2.7			3.6	2.6
56.0				2.7			3.6/54.4	2.5			3.4	2.4
58.0				2.6				2.4			3.3/57.3	2.2
60.0				2.5/58.7				2.2				2.1
62.0								2.1/61.6				1.9
64.0												1.8
66.0												1.8/64.5

## ■ w/49.35m Tower

Jib length (m)	22.50				25.50				28.50				31.50			
Tower angle (°)	90	80	70	60	90	80	70	60	90	80	70	60	90	80	70	60
Working radius (m)																
8.0	18.6				17.2/8.7											
9.0	18.4				17.2				16.1/9.3				15.0/9.9			
10.0	18.2				17.0				16.0				15.0			
12.0	17.8				16.7				15.7				14.8			
14.0	17.5				16.4				15.5				14.6			
16.0	17.1				16.0				15.2				14.4			
18.0	15.8				15.7				15.0				14.2			
20.0	14.1	15.9/20.2			14.1	14.8/21.3			14.1				14.0			
22.0	12.7	14.5			12.7	14.5			12.7	14.2/22.4			12.6	13.5/23.5		
24.0	10.6	13.3			11.5	13.3			11.5	13.3			11.4	13.3		
26.0	10.0/24.2	12.3			10.4	12.3			10.4	12.3			10.4	12.3		
28.0		11.4			8.7/27.1	11.4			9.5	11.3			9.5	11.2		
30.0		10.6	8.2/31.7			10.5			7.5	10.4			8.7	10.3		
32.0		9.8	8.1			9.7	7.6/33.3			9.6			7.8	9.5		
34.0		9.5/32.7	7.5			9.0	7.5			8.9	7.0/34.9		6.6/32.9	8.8		
36.0			7.0			8.5/35.6	6.8			8.2	6.7			8.1	6.5/36.5	
38.0			6.5				6.4			7.7	6.2			7.6	6.1	
40.0			6.1				5.9			7.5/38.5	5.8			7.1	5.7	
42.0			5.9/41.0	4.5/42.4			5.6				5.4			6.8/41.4	5.3	
44.0				4.2			5.2/43.9	4.0/44.4			5.1				5.0	
46.0				4.0				3.8			4.8	3.6/46.4			4.7	
48.0				3.7				3.6			4.7/46.8	3.4			4.4	3.3/48.4
50.0				3.7/48.6				3.4				3.2			4.2/49.7	3.1
52.0								3.2/51.5				3.0				2.9
54.0												2.8				2.7
56.0												2.8/54.4				2.5
58.0																2.4/57.3

## ■ w/49.35m Tower

Jib length (m)	34.50				37.50				40.50				43.50			
Tower angle (°)	90	80	70	60	90	80	70	60	90	80	70	60	90	80	70	
Working radius(m)																
10.0	13.7/10.5				12.4/11.2				10.8/11.8							
12.0	13.5				12.3				10.8				9.1/12.4			
14.0	13.3				12.1				10.6				9.0			
16.0	13.1				11.9				10.4				8.9			
18.0	12.9				11.7				10.2				8.7			
20.0	12.7				11.5				10.0				8.6			
22.0	12.5				11.3				9.8				8.5			
24.0	11.3	12.2/24.7			11.0	10.9/25.8			9.6				8.3			
26.0	10.3	12.1			10.0	10.9			9.1	9.3/26.9			7.7			
28.0	9.4	11.1			9.2	10.7			8.4	9.2			7.2	8.0		
30.0	8.7	10.2			8.4	10.1			7.8	9.0			6.6	7.9		
32.0	8.0	9.4			7.8	9.2			7.2	8.8			6.2	7.8		
34.0	7.4	8.7			7.2	8.5			6.7	8.4			5.7	7.6		
36.0	5.8/35.8	8.0			6.7	7.9			6.2	7.8			5.3	7.5		
38.0		7.5	6.0/38.1		5.8	7.4	5.5/39.7		5.8	7.3			5.0	6.9		
40.0		7.0	5.6		5.1/38.7	6.9	5.4		5.4	6.8	5.1/41.3		4.6	6.5		
42.0		6.6	5.2			6.4	5.1		4.5/41.6	6.3	5.1		4.3	6.1	4.7/42.9	
44.0		6.2	4.9			6.0	4.7			6.0	4.6		3.9	5.7	4.5	
46.0		6.1/44.3	4.6			5.7	4.4			5.6	4.3		3.8/44.5	5.3	4.2	
48.0			4.3			5.5/47.2	4.2			5.3	4.1			5.0	4.0	
50.0			4.1	2.9/50.4			3.9			5.0	3.8			4.6	3.7	
52.0			3.8	2.7			3.7	2.5/52.4		5.0/50.1	3.6			4.3	3.5	
54.0			3.8/52.6	2.5			3.5	2.3			3.4	2.2/54.5		4.2/53.0	3.3	
56.0				2.4			3.3/55.5	2.2			3.2	2.0			3.1	
58.0				2.2				2.0			3.0	1.9			2.9	
60.0				2.1				1.9			3.0/58.4	1.7			2.8	
62.0				2.0/60.2				1.7				1.6			2.7/61.3	
64.0								1.7/63.1				1.5				
66.0												1.3				

## ■ w/52.35m Tower

Jib length (m)	22.50				25.50				28.50				31.50			
Tower angle (°)	90	80	70	60	90	80	70	60	90	80	70	60	90	80	70	60
Working radius(m)																
8.0	18.6				17.2/8.7											
9.0	18.4				17.2				16.1/9.3				15.0/9.9			
10.0	18.2				17.0				16.0				15.0			
12.0	17.8				16.7				15.7				14.8			
14.0	17.5				16.4				15.5				14.6			
16.0	17.1				16.0				15.2				14.4			
18.0	15.8				15.7				15.0				14.2			
20.0	14.1	15.5/20.7			14.1	14.6/21.8			14.1				14.0			
22.0	12.7	14.5			12.7	14.5			12.7	13.9/22.9			12.6			
24.0	10.6	13.3			11.5	13.3			11.5	13.3			11.4	13.3/24.1		
26.0	10.0/24.2	12.3			10.4	12.3			10.4	12.3			10.4	12.2		
28.0		11.4			8.7/27.1	11.3			9.5	11.2			9.5	11.1		
30.0		10.5				10.4			7.6	10.2			8.7	10.1		
32.0		9.7	7.6/32.8			9.6				9.4			7.8	9.3		
34.0		9.2/33.3	7.3			8.8	7.0/34.4			8.7			6.6/32.9	8.6		
36.0			6.7			8.2	6.6			8.1	6.4			8.0	6.0/37.5	
38.0			6.3			8.2/36.2	6.1			7.5	6.0			7.5	5.9	
40.0			5.9				5.7			7.3/39.1	5.6			7.0	5.5	
42.0			5.5	4.0/43.9			5.3				5.2			6.5	5.1	
44.0				3.9			5.0	3.6/45.9			4.9				4.8	
46.0				3.7			4.9/44.9	3.5			4.6	3.1/47.9			4.5	
48.0				3.5				3.3			4.3/47.8	3.1			4.2	2.7/49.9
50.0				3.3				3.1				2.9			4.0	2.7
52.0				3.3/50.1				2.9				2.7			3.9/50.7	2.5
54.0								2.8/53.0				2.5				2.4
56.0												2.3/55.9				2.2
58.0																2.0
60.0																2.0/58.8



## ■ w/52.35m Tower

Jib length (m) Tower angle (°) Working radius(m)	34.50				37.50				40.50			43.50		
	90	80	70	60	90	80	70	60	90	80	70	90	80	70
10.0	13.7/10.5				12.4/11.2				10.5/11.8					
12.0	13.5				12.3				10.5			9.1/12.4		
14.0	13.3				12.1				10.3			9.0		
16.0	13.1				11.9				10.1			8.9		
18.0	12.9				11.7				9.9			8.7		
20.0	12.7				11.5				9.7			8.6		
22.0	12.5				11.3				9.5			8.5		
24.0	11.3	12.2/25.2			11.0				9.3			8.3		
26.0	10.3	12.1			10.0	10.9/26.3			9.1	9.0/27.4		7.7		
28.0	9.4	11.0			9.2	10.7			8.4	8.9		7.1	8.0/28.6	
30.0	8.7	10.0			8.4	9.9			7.8	8.7		6.6	7.9	
32.0	8.0	9.2			7.8	9.1			7.2	8.5		6.1	7.8	
34.0	7.4	8.5			7.2	8.4			6.7	8.3		5.7	7.6	
36.0	5.9/35.8	7.9			6.7	7.8			6.2	7.7		5.3	7.4	
38.0		7.4	5.5/39.1		5.8	7.2			5.8	7.2		4.9	7.1	
40.0		6.9	5.4		5.1/38.7	6.8	5.1/40.7		5.4	6.7		4.6	6.6	
42.0		6.4	5.0			6.3	4.8		4.5/41.6	6.2	4.7/42.3	4.2	6.1	4.3/43.9
44.0		6.1	4.7			5.9	4.5			5.8	4.4	3.9	5.7	4.3
46.0		5.9/44.9	4.4			5.6	4.2			5.5	4.1	3.8/44.5	5.4	4.0
48.0			4.1			5.3/47.8	4.0			5.2	3.9		5.0	3.8
50.0			3.9	2.4/51.9			3.7			4.9	3.6		4.7	3.5
52.0			3.6	2.4			3.5	2.0/53.9		4.8/50.7	3.4		4.4	3.3
54.0			3.5/53.6	2.2			3.3	2.0			3.2		4.1/53.6	3.1
56.0				2.0			3.1	1.8			3.0			2.9
58.0				1.9			3.1/56.5	1.7			2.8			2.7
60.0				1.7				1.5			2.7/59.4			2.6
62.0				1.6/61.7				1.4						2.4
64.0								1.3						2.4/62.3
66.0								1.3/64.6						

### Notes:

- Capacities included in these charts are the maximum allowable, and are based on machine standing level on firm supporting surface under ideal job conditions.
- Capacities are in metric tons, and are based on 78% of minimum tipping load except the figures surrounded by bold lines which are based on factors other than those which would cause a tipping condition; the design codes/standards applied to the capacity are from "Construction Codes for Mobile Crane" and "Ordinance on Safety of Crane and Similar Equipment" issued by Ministry of Health, Labour and Welfare, Japan.
- Capacities are based on freely suspended loads and make no allowance for such factors as the effect of wind, sudden stopping of loads, supporting surface conditions, and operating speeds. Operator must reduce load ratings to take such conditions into account. Deduction from rated capacities must be made for weight of hook block, weighted ball/hook, sling, spreader bar, or other suspended gear. Hook block weight is as follows:  
30t .....0.73ton
- A 45ton counterweight and 2.0ton auxiliary weight (or opt. 3rd drum winch) are required for all capacities on these charts.
- All capacities are rated for 360° swing.
- Least stable rated condition is over the side.
- Attachment must be erected and lowered over the front of the crawler mounting.
- Working radii shown above are at loading condition.
- The machine can be steplessly operated at tower angle between 60 and 90 degrees safely according to tower boom/jib combination; towercrane capacities available under any tower angle are automatically set up by a computerized automatic over-load preventing system, Load Moment Indicator.
- The machine must be operated in accordance with correct tower boom and jib combination shown right.

- Capacities under single part hoist line are detailed; if required, please consult us or nearest distributor.
- It is required to strictly observe any instructions mentioned into the SCX1200-2 Operation Manual whenever machine is operated.

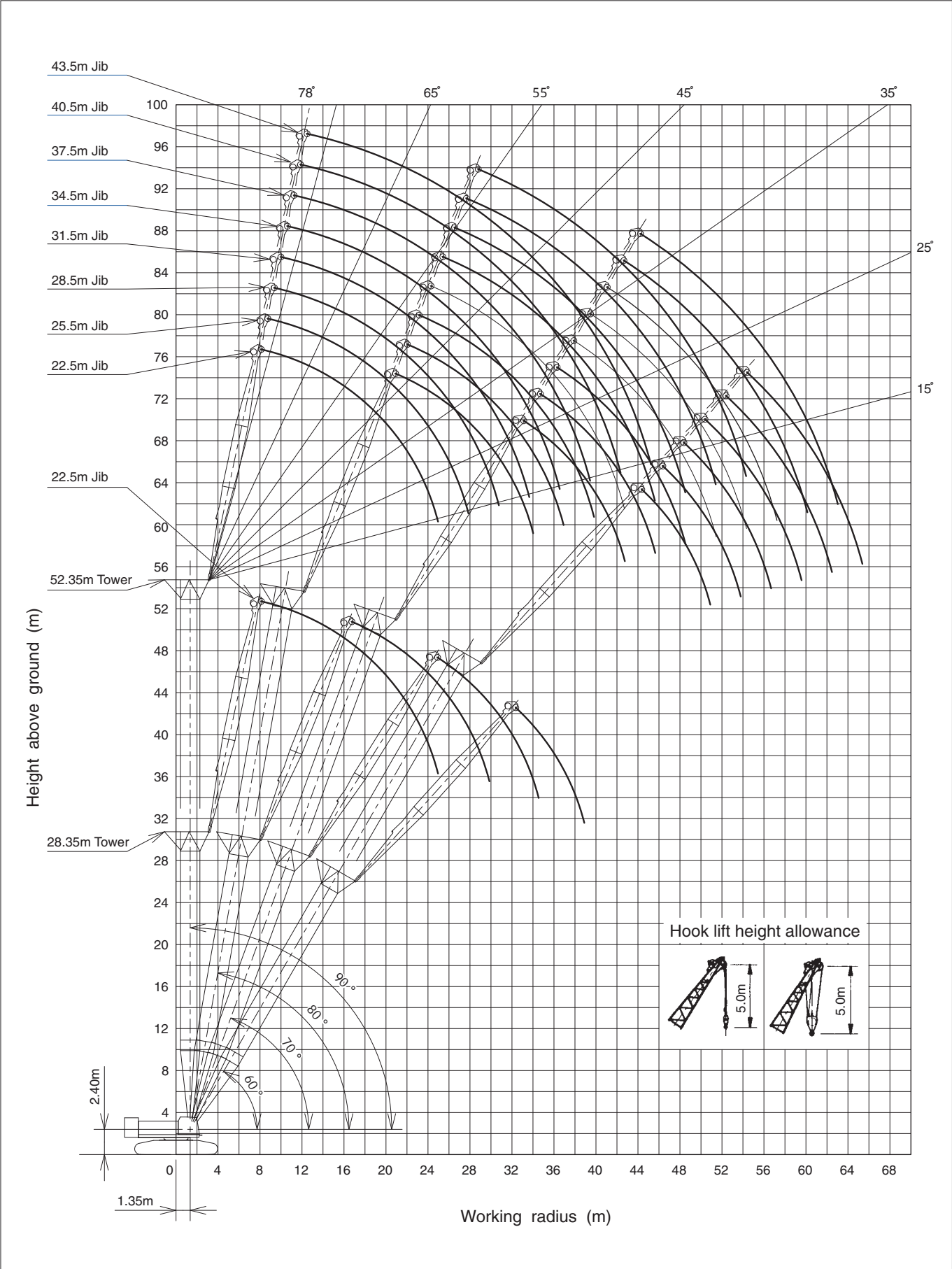
## ■ Combination Table

Jib length (m) Tower length (m)	22.50	25.50	28.50	31.50	34.50	37.50	40.50	43.50
28.35		x	x	x	x	x	x	x
31.35			x	x	x	x	x	x
34.35				x	x	x	x	x
37.35					x	x	x	x
40.35						x	x	x
43.35							x	x
46.35								x
49.35								
52.85								

### Notes:

- The meaning of symbols shown in the above table is as follows;
- Symbol of " " : Possible to luff tower between 90° thru 60°;
  - Symbol of " " : Possible to luff tower between 90° thru 70°;
  - Symbol of "x" : Impossible to make tower boom and jib combination.

# Luffing Towercrane Working Ranges



# Liftcrane Capacities 120 metric tons

## ■ w/1.0m & 9.0m Special Tower Boom Extensions

Boom length (m) Working radius (m)	16	19	22	25	28	31	34	37	40	43	46	49	52	55	58	61	64	67	70	73
4.7	120.0																			
5.0	117.7	110.0/5.2	99.0/5.7																	
6.0	98.9	98.8	98.6	88.0/6.2	77.0/6.8															
7.0	85.2	85.1	85.0	85.0	77.0	66.0/7.3	66.0/7.8													
8.0	71.9	71.9	71.9	72.0	72.0	66.0	66.0	55.0/8.3	55.0/8.8											
9.0	59.9	59.9	59.9	60.0	60.0	60.0	59.9	55.0	55.0	44.0/9.4	44.0/9.9									
10.0	51.3	51.2	51.2	51.3	51.3	51.3	51.2	51.1	50.9	44.0	44.0	33.0/10.4	33.0/10.9	33.0/11.5						
12.0	39.6	39.5	39.4	39.6	39.5	39.5	39.3	39.3	39.1	39.1	38.9	33.0	33.0	33.0	33.0	22.0/12.5	22.0/13.1	22.0/13.6		
14.0	32.0	32.0	31.9	32.0	31.9	31.9	31.7	31.6	31.5	31.5	31.3	31.3	31.2	31.0	30.9	22.0	22.0	21.9	19.6	17.5
16.0	28.2/15.4	26.7	26.6	26.7	26.6	26.6	26.4	26.3	26.1	26.1	25.9	25.9	25.8	25.7	25.6	22.0	22.0	21.9	19.6	17.5
18.0		22.9	22.7	22.8	22.7	22.6	22.5	22.4	22.2	22.2	22.0	22.0	21.9	21.7	21.6	21.6	21.4	20.0	17.9	15.8
20.0			19.7	19.8	19.7	19.6	19.5	19.4	19.2	19.2	19.0	19.0	18.9	18.7	18.6	18.6	18.4	18.3	16.3	14.4
22.0			19.0/20.6	17.5	17.3	17.3	17.1	17.0	16.8	16.8	16.6	16.6	16.4	16.3	16.1	16.1	16.0	15.9	15.0	13.2
24.0				16.3/23.2	15.4	15.3	15.2	15.0	14.8	14.8	14.6	14.6	14.5	14.3	14.2	14.2	14.0	13.9	13.8	12.2
26.0					14.0/25.8	13.8	13.6	13.4	13.2	13.2	13.0	13.0	12.9	12.7	12.6	12.6	12.4	12.3	12.1	11.2
28.0						12.4	12.3	12.1	11.9	11.9	11.6	11.6	11.5	11.3	11.2	11.2	11.0	10.9	10.8	10.4
30.0						12.2/28.4	11.1	11.0	10.7	10.7	10.5	10.5	10.4	10.2	10.0	10.0	9.8	9.7	9.6	9.4
32.0							10.6/31.0	10.0	9.8	9.7	9.5	9.5	9.4	9.2	9.0	9.0	8.8	8.7	8.6	8.4
34.0								9.3/33.6	8.9	8.9	8.6	8.6	8.5	8.3	8.2	8.1	7.9	7.8	7.7	7.5
36.0									8.2	8.1	7.9	7.8	7.7	7.5	7.4	7.4	7.2	7.0	6.9	6.7
38.0									8.1/36.2	7.4	7.2	7.2	7.0	6.8	6.7	6.7	6.5	6.4	6.2	6.0
40.0										7.2/38.8	6.6	6.6	6.4	6.2	6.1	6.1	5.9	5.7	5.6	5.4
42.0											6.2/41.4	6.0	5.9	5.7	5.6	5.5	5.3	5.2	5.0	4.8
44.0												5.6	5.4	5.2	5.1	5.0	4.8	4.6	4.5	4.2
46.0													5.0	4.8	4.6	4.5	4.3	4.1	4.0	3.7
48.0													4.9/46.6	4.3	4.2	4.1	3.8	3.7	3.5	3.2
50.0														4.1/49.2	3.8	3.7	3.4	3.3	3.1	2.8
52.0															3.4/51.8	3.3	3.0	2.9	2.7	2.4
54.0																2.9	2.7	2.5	2.3	2.1
56.0																2.9/54.1	2.4	2.2	2.0	1.8
58.0																	2.2/56.7	1.9	1.7	1.5
59.3																		1.7	1.4	

### Notes — Liftcrane capacities

- Capacities on this chart are available when converting luffing towercrane boom to liftcrane attachment under the condition that an 1m special tower boom extension is necessarily used for all length of boom; a 9m special tower boom extension shall be available to use in the boom configuration ranging from 25.0m up to 73.0m long.
- Capacities included in this chart are the maximum allowable, and are based on machine standing level on firm supporting surface under ideal job conditions.
- Capacities are in metric tons, and are not more than 78% of minimum tipping loads except the figures surrounded by bold lines which are based on other factor of machine structural strength limitation; the design codes/standards applied to the capacity are from "Construction Codes for Mobile Crane" and "Ordinance on Safety of Crane and Similar Equipment" issued by Ministry of Health, Labour and Welfare, Japan.
- Capacities are based on freely suspended loads and make no allowance for such factors as the effect of wind, sudden stopping of loads, supporting surface conditions, and operating speeds. Operator must reduce load ratings to take such conditions into account. Deduction from rated capacities must be made for weight of hook block, weighted ball/hook, sling, spreader bar, or other suspended gear.  
Hook block weight is as follows:  
120t.....1.76ton    80t.....1.49ton    70t.....1.01ton  
50t.....0.9ton    30t.....0.73ton    11t.....0.37ton
- All capacities are rated for 360° swing.
- Least stable rated condition is over the side.
- Counterweight must be 45.0ton for all capacities on this chart together with 2.0ton auxiliary weight (or opt. 3rd drum winch).
- Attachment must be erected and lowered over the front of the crawler mounting.
- Main boom length must not exceed 73.0m.  
Maximum fly jib length permitted—28.0m.  
Maximum boom and fly jib combination length permitted—61.0m+28.0m/64.0m+22.0m.  
Maximum boom length when mounting auxiliary short jib is 70.0m.
- Capacities when handling load off main boom head sheaves in case of mounting fly jib or auxiliary short jib on top of boom are detailed; if required, please consult us or nearest distributor.
- Boom configurations when converting luffing towercrane boom to liftcrane att. shall be in accordance with the SCX1200-2 Operation Manual.

- It is required to strictly observe any instructions mentioned into the SCX1200-2 Operation Manual whenever machine is operated.

## **Hitachi Sumitomo Heavy Industries Construction Crane Co., Ltd.**

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- We are constantly improving our products and therefore reserve the right to change designs and specifications without notice.
- Units in this specification are shown under International System of Units; the figures in parenthesis are under Gravitational System of Units as old one.

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Address Inquires to: