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- Units in this specification are shown under International System of Units; the figures in parenthesis are under Gravitational System of Units as old one.

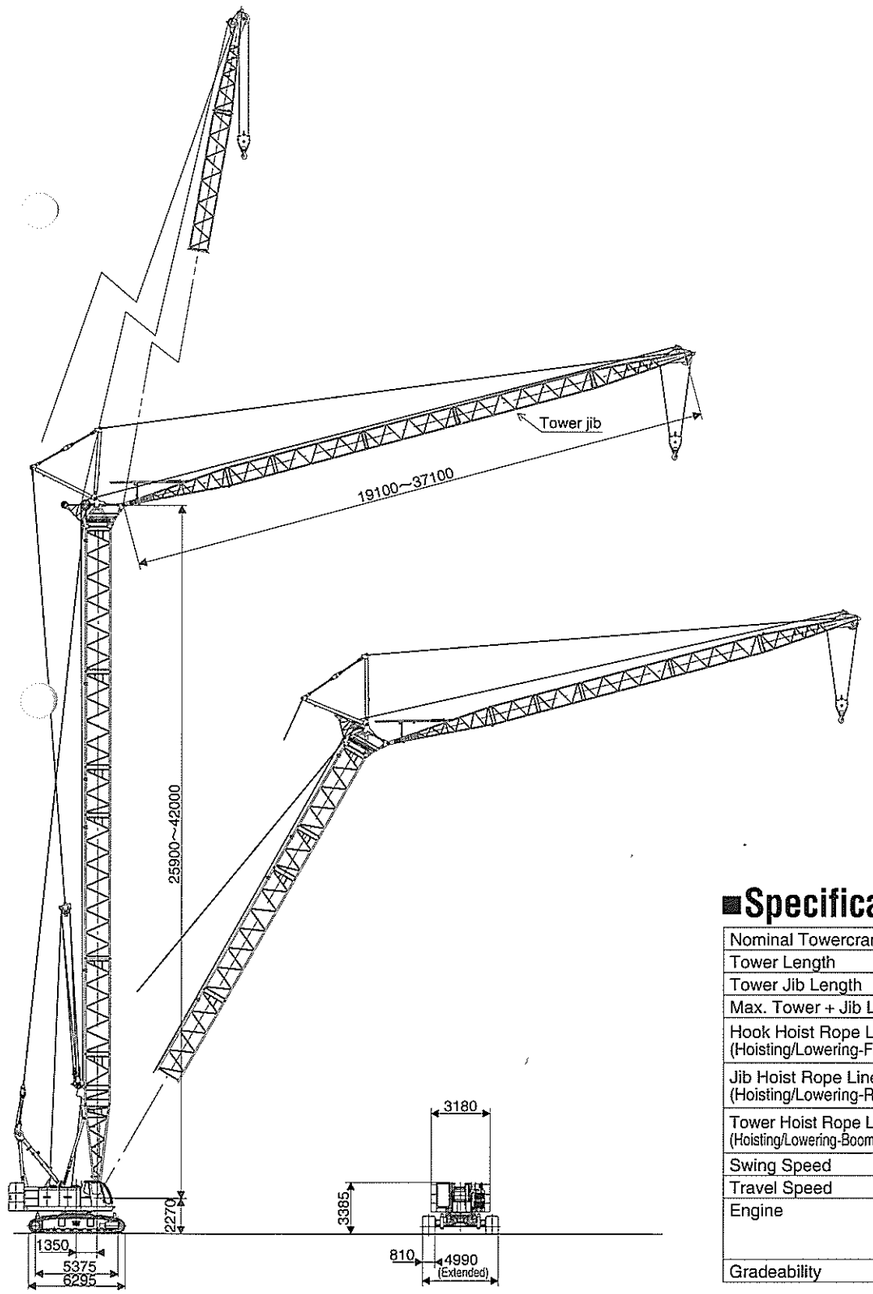
Address Inquires to:

Printed in Japan
L570-0800

SUMITOMO

SC900-3

90-M ton Hyd. Crawler Crane Luffing Towercrane Att.



■Specification

Nominal Towercrane Cap.	15.0 t × 14.0 m
Tower Length	25.90 m~44.20 m
Tower Jib Length	19.10 m~37.10 m
Max. Tower + Jib Length	44.20 m + 34.10 m
Hook Hoist Rope Line Speed (Hoisting/Lowering-Front Drum)	120~2.0 m/min
Jib Hoist Rope Line Speed (Hoisting/Lowering-Rear Drum)	48~2.0 m/min
Tower Hoist Rope Line Speed (Hoisting/Lowering-Boom Hoist Drum)	46~2.0 m/min
Swing Speed	2.9 min.$^{-1}$〈2.9 rpm〉
Travel Speed	1.8 kph
Engine	Mitsubishi 6D24-T 184kW/2,000min.$^{-1}$ 〈250 ps/2,000rpm〉
Gradeability	17° (30%)

1st Edition

Luffing Towercrane 15 metric tons

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 1.55m deep by 1.55m wide.

Special tower boom extensions ····· 0.90m and 2.15m long, lattice construction; mounts tower jib bail assembly on upper part, and just pinned next to 6.10m bottom section. Available to use as liftcrane boom extension.

Tower boom extensions ····· Available in length of 3.05m, 6.10m and 9.15m with tower boom/tower jib hoist pendants. Available to use as liftcrane boom extension.

Tower head section ····· 1.52m long, lattice construction; pinned on top of tower boom. This section pins tower jib and fan-shaped post, and provides one guide sheaves for hoist cable and two guide rollers for tower jib hoist pendant ropes.

Tower boom length ····· 25.90m to 44.20m; the configuration of a 44.20m tower boom as maximum is as under:
(1) 6.10m bottom section + (2) 0.90m and 2.15m special ext. + (3) 6.10m ext. × 1 pc. + (4) 9.15m ext. × 1 pc. (w/expanded metal) + (5) 3.05m ext. × 1 pc. + (6) 6.10m ext. × 1 pc. + (7) 9.15m ext. × 1 pc. + (8) 1.52m head section.

Tower boom luffing angle ····· 90° thru 60° steplessly.

Note:

1. Bottom section of 6.10m long and boom extensions of 3.05m, 6.10m and 9.15m 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 44.20m as max. to liftcrane boom attachment of 60.95m as maximum as available, three items of one 9.15m boom extension, 3.05m boom extension and 6.10m 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 1.15m deep by 1.15m wide.

Basic tower jib ····· Three-piece, 19.10m basic length; 7.0m bottom sections, one 6.0m extension and 6.10m 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 and 6.0m lengths with pendants.

Maximum tower jib length ····· 37.10m; a 37.10m tower jib as maximum consists of (1) 7.0m bottom section + (2) 3.0m ext. × 1 pc. + (3) 6.0m ext. × 2 pcs. +(4) 9.0m ext. × 1pc. + (5) 6.10m top section.

Tower jib angle ····· Available from 15° thru 75° (to ground).

FAN-SHAPED POST:

All-welded construction; pinned to tower head section. This 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 8-part tower jib hoist rope reeving. Bail mounted on 0.90m and 2.15m special tower boom extensions, 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 90 metric tons" of separate SC900-3 Technical Data).

DRUM DATA:

See DRUM DATA mentioned into page 7 of separate SC900-3 Technical Data. 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) must be changed to "48–2.0mpm".

HOIST REEVING:

	Towercrane hoist	
No. of part line	2	1
Max. load (ton)	15.0	11.0

CABLES:

Front drum ····· PS19+39×P7, non-spin type, 26mm dia./250m long, breaking load 651kN (66.4t).

Rear drum ····· IWRC 6×WS (31), 26mm dia./160m long, breaking load 557kN(56.8t).

Boom hoist drum ····· Same as that of liftcrane application.

Optional 3rd drum ····· Same as that of liftcrane application.

WORKING WEIGHT:

Approx. 96.0ton with 44.20m tower boom, 37.10m tower jib, 28.8ton counterweight, 1.5ton auxiliary weight, 810mm wide track shoes and 30t hook block.

GROUND PRESSURE:

101.0kPa <1.03kg/cm²> under a 96.0ton working weight mentioned above.

Luffing Towercrane Capacities

■w/25.90m Tower

Jib length (m)	19.10				22.10			
\Tower angle (°)								
Working radius (m)	90	80	70	60	90	80	70	60
8.0	15.0/8.1				15.0/8.8			
9.0	15.0				15.0			
10.0	15.0				15.0			
11.0	15.0				15.0			
12.0	15.0				15.0			
13.0	15.0				15.0			
14.0	15.0	14.8/14.6			15.0			
15.0	14.4	14.3			14.3	13.2/15.8		
16.0	13.6	13.2			13.6	13.0		
18.0	11.9	11.4			11.7	11.2		
20.0	10.6	10.0	8.1/21.7		10.3	9.8		
22.0	9.3/20.7	8.8	8.0		9.1	8.7	7.3/23.3	
24.0		7.9	7.2		8.0/23.6	7.8	7.0	
26.0		7.5/25.2	6.5			7.1	6.3	
28.0			5.9	5.1/28.2		6.4	5.7	
30.0			5.5/29.5	4.8		6.4/28.1	5.2	4.5/30.2
32.0				4.4			4.8	4.3
34.0				4.1/33.5			4.7/32.4	4.0
36.0								3.7
38.0								3.6/36.4
40.0								
42.0								
44.0								
46.0								
48.0								
50.0								

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■w/28.95m Tower

Jib length (m)	19.10				22.10				25.10			
\Tower angle (°)												
Working radius (m)	90	80	70	60	90	80	70	60	90	80	70	60
8.0	15.0/8.1				15.0/8.8							
9.0	15.0				15.0				15.0			
10.0	15.0				15.0				15.0			
11.0	15.0				15.0				15.0			
12.0	15.0				15.0				15.0			
13.0	15.0				15.0				15.0			
14.0	15.0				15.0				15.0			
15.0	14.4	13.8/15.2			14.3				14.2			
16.0	13.6	13.0			13.5	12.5/16.3			13.4	11.3/17.4		
18.0	11.8	11.2			11.7	11.1			11.6	10.9		
20.0	10.4	9.8			10.3	9.7			10.2	9.6		
22.0	9.4/20.7	8.7	7.4/22.8		9.1	8.6			9.0	8.5		
24.0		7.8	6.9		8.1/23.6	7.7	6.4/24.4		8.1	7.6		
26.0		7.1/25.7	6.2			6.9	6.0		7.3	6.8	5.8	
28.0			5.7	4.5/29.8		6.3	5.5		7.0/26.5	6.2	5.3	
30.0			5.2	4.4		6.1/28.6	5.1	3.9/31.8		5.7	4.9	
32.0			5.1/30.5	4.1			4.6	3.9		5.3/31.5	4.5	3.5/33.8
34.0				3.8			4.4/33.4	3.6			4.1	3.4
36.0				3.6/35.0				3.4			3.8	3.3
38.0								3.1/37.9			3.7/36.3	3.0
40.0												2.8
42.0												2.7/40.8
44.0												
46.0												
48.0												
50.0												

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■ w/32.00m Tower

Jib length (m)	19.10				22.10				25.10				28.10			
Tower angle (°) / Working radius (m)	90	80	70	60	90	80	70	60	90	80	70	60	90	80	70	60
8.0	15.0/8.1				15.0/8.8											
9.0	15.0				15.0				15.0							
10.0	15.0				15.0				15.0				15.0/10.4			
11.0	15.0				15.0				15.0				15.0			
12.0	15.0				15.0				15.0				15.0			
13.0	15.0				15.0				15.0				15.0			
14.0	15.0				15.0				15.0				15.0			
15.0	14.4	13.1/15.7			14.4				14.3				14.2			
16.0	13.6	12.8			13.5	11.9/16.8			13.4	10.8/17.9			13.3			
18.0	11.8	11.0			11.7	10.9			11.6	10.7			11.5	9.7/19.1		
20.0	10.3	9.7			10.3	9.5			10.2	9.4			10.1	9.3		
22.0	9.5/20.7	8.6	6.5/23.8		9.1	8.4			9.0	8.3			8.9	8.2		
24.0		7.7	6.4		8.1/23.6	7.6	5.8/25.4		8.1	7.4			8.0	7.3		
26.0		6.9	6.0			6.8	5.7		7.3	6.7	5.2/27.0		7.2	6.6		
28.0		6.8/26.3	5.4			6.2	5.3		7.1/26.5	6.1	5.0		6.6	6.0	4.7/28.6	
30.0			4.9	3.8/31.3		5.9/29.2	4.8			5.5	4.7		6.1/29.4	5.4	4.4	
32.0			4.5/31.6	3.7			4.4	3.3/33.3		5.1	4.3			5.0	4.1	
34.0				3.5			4.1	3.2		5.0/32.1	3.9	2.9/35.3		4.6	3.8	
36.0				3.2			3.9/34.5	3.1			3.6	2.8		4.4/35.0	3.5	2.6/37.3
38.0				3.1/36.5				2.9			3.3/37.4	2.7			3.2	2.5
40.0								2.7/39.4				2.5			3.0	2.4
42.0												2.3			2.9/40.3	2.2
44.0												2.2/42.3				2.0
46.0																1.9/45.2
48.0																
50.0																

(EC400036)

■ w/35.05m Tower

Jib length (m)	19.10				22.10				25.10				28.10				31.10			
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	15.0/8.1				15.0/8.8															
9.0	15.0				15.0				15.0											
10.0	15.0				15.0				15.0				15.0/10.4							
11.0	15.0				15.0				15.0				15.0				13.0/11.2			
12.0	15.0				15.0				15.0				15.0				13.0			
13.0	15.0				15.0				15.0				15.0				13.0			
14.0	15.0				15.0				15.0				15.0				13.0			
15.0	14.4				14.4				14.3				14.2				12.5			
16.0	13.6	12.4/16.2			13.5	11.3/17.3			13.4				13.3				12.2			
18.0	11.7	10.8			11.7	10.7			11.6	10.2/18.5			11.5	9.2/19.6			11.4			
20.0	10.3	9.5			10.2	9.4			10.1	9.2			10.0	9.1			10.0	8.5/20.7		
22.0	9.6/20.7	8.4			9.1	8.3			9.0	8.2			8.9	8.1			8.8	7.9		
24.0		7.5	5.9/24.9		8.2/23.6	7.4			8.1	7.3			8.0	7.2			7.9	7.1		
26.0		6.8	5.7			6.7	5.3/26.5		7.3	6.6			7.2	6.5			7.1	6.3		
28.0		6.5/26.8	5.1			6.1	5.0		7.1/26.5	6.0	4.7		6.5	5.9	4.4/29.6		6.6	5.7		
30.0			4.7			5.6/29.7	4.6			5.4	4.4		6.0/29.4	5.3	4.3		6.1	5.2	3.8/31.2	
32.0			4.3	3.3/32.8			4.2			5.0	4.1			4.9	4.0		5.3	4.8	3.7	
34.0			4.1/32.6	3.2			3.9	2.9/34.8		4.8/32.6	3.7			4.5	3.6		5.1/32.3	4.4	3.5	
36.0				3.0			3.6/35.5	2.8			3.4	2.6/36.8		4.2/35.5	3.3			4.0	3.2	
38.0				2.7				2.6			3.2	2.5			3.1	2.3/38.8		3.7	2.9	
40.0								2.4			3.1/38.4	2.3			2.8	2.2		3.6/38.4	2.7	1.8/40.8
42.0								2.3/40.9				2.1			2.6/41.3	2.0			2.5	1.7
44.0												1.9/43.8				1.8			2.3	1.5
46.0																1.6			2.2/44.2	1.4
48.0																1.5/46.7				1.3
50.0																				

(EC400036)

■ w/38.10m Tower

Jib length (m)	19.10				22.10				25.10				28.10				31.10			34.10		
Tower angle (°) / Working radius (m)	90	80	70	60	90	80	70	60	90	80	70	60	90	80	70	60	90	80	70	90	80	70
8.0	15.0 /8.1				15.0 /8.8																	
9.0	15.0				15.0				15.0													
10.0	15.0				15.0				15.0				15.0 /10.4									
11.0	15.0				15.0				15.0				15.0				13.0 /11.2			11.0 /11.9		
12.0	15.0				15.0				15.0				15.0				13.0			11.0		
13.0	15.0				15.0				15.0				15.0				13.0			11.0		
14.0	15.0				15.0				15.0				15.0				13.0			10.7		
15.0	14.4				14.4				14.3				14.2				12.3			10.5		
16.0	13.5	11.7 /16.7			13.5	10.6 /17.9			13.3				13.3				12.0			10.3		
18.0	11.7	10.6			11.6	10.5			11.5	9.6 /19.0			11.4				11.4			10.0		
20.0	10.3	9.3			10.2	9.2			10.1	9.0			10.0	8.7 /20.1			9.9	8.0 /21.2		9.8		
22.0	9.7 /20.7	8.3			9.1	8.1			9.0	8.0			8.9	7.9			8.8	7.7		8.7	7.3 /22.4	
24.0		7.4	5.3 /25.9		8.2 /23.6	7.3			8.0	7.1			8.0	7.0			7.9	6.9		7.8	6.8	
26.0		6.7	5.3			6.5	4.9 /27.5		7.3	6.4			7.2	6.3			7.1	6.2		7.0	6.1	
28.0		6.2 /27.3	4.9			5.9	4.8		7.1 /26.5	5.8	4.4 /29.1		6.5	5.7			6.4	5.6		6.3	5.5	
30.0			4.5			5.4	4.3			5.3	4.2		6.0 /29.4	5.2	3.9 /30.7		5.9	5.1		5.8	5.0	
32.0			4.1			5.4 /30.2	4.0			4.9	3.8			4.8	3.7		5.3	4.6	3.5 /32.3	5.3	4.6	3.2 /33.9
34.0			3.8 /33.7	2.9 /34.3			3.6			4.6 /33.1	3.5			4.4	3.4		5.2 /32.3	4.3	3.3	4.9	4.2	3.1
36.0				2.7			3.3	2.5 /36.3			3.2			4.0	3.0			3.9	3.0	4.6 /35.2	3.8	2.9
38.0				2.5			3.2 /36.6	2.3			3.0	2.0 /38.3			2.9			3.6	2.7		3.5	2.6
40.0				2.3 /39.6				2.1			2.8 /39.5	1.9			2.6	1.7 /40.4		3.4 /38.9	2.5		3.3	2.4
42.0								1.9				1.7			2.4	1.6			2.3		3.1 /41.8	2.2
44.0								1.8 /42.5				1.5			2.4 /42.4	1.4			2.1			2.0
46.0																1.3			2.0 /45.3			1.9
48.0																						1.7
50.0																						1.6 /48.1

(EC400036)

■ w/41.15m Tower

Jib length (m)	19.10				22.10				25.10			28.10			31.10			34.10			37.10	
Tower angle (°) / Working radius (m)	90	80	70	60	90	80	70	60	90	80	70	90	80	70	90	80	70	90	80	70	90	80
8.0	15.0 /8.1				15.0 /8.8																	
9.0	15.0				15.0				15.0			15.0 /10.4										
10.0	15.0				15.0				15.0			15.0										
11.0	15.0				15.0				15.0			15.0			13.0 /11.2			11.0 /11.9				
12.0	15.0				15.0				15.0			15.0			13.0			11.0			9.3	
13.0	15.0				15.0				15.0			15.0			13.0			11.0			9.3	
14.0	15.0				15.0				15.0			14.2			13.0			10.7			9.3	
15.0	14.4				14.4				14.3			13.2			12.3			10.5			9.2	
16.0	13.5	10.8 /17.3			13.4				13.3			11.4			12.0			10.3			9.0	
18.0	11.7	10.4			11.6	9.8 /18.4			11.5	9.0 /19.5		10.0	8.3 /20.6		11.3			10.0			8.7	
20.0	10.3	9.1			10.2	9.0			10.1	8.8		8.9	7.7		9.9	7.5 /21.8		9.8			8.5	
22.0	9.7 /20.7	8.1			9.0	7.9			8.9	7.8		7.9	6.9		8.8	7.4		8.7	6.9 /22.9		8.2	
24.0		7.2			8.1 /23.6	7.1			8.0	7.0		7.2	6.2		7.8	6.7		7.8	6.6		7.7	5.9
26.0		6.5	4.9 /27.0			6.4			7.2	6.3		6.5	5.6		7.1	6.1		7.0	6.0		6.9	5.8
28.0		6.0 /27.8	4.7			5.8	4.2 /28.5		7.0 /26.5	5.7		6.0 /29.4	5.1	3.4 /31.7	6.4	5.5		6.3	5.4		6.2	5.3
30.0			4.2			5.3	4.1			5.2	3.8 /30.1		4.7	3.4	5.9	5.0		5.8	4.9		5.7	4.8
32.0			3.9			5.1 /30.7	3.7			4.7	3.6		4.3	3.2	5.3	4.5	3.1 /33.3	5.3	4.4		5.2	4.4
34.0			3.6	2.3 /35.9			3.4			4.4 /33.6	3.3		3.9	2.9	5.2 /32.3	4.1	3.0	4.9	4.1	2.7 /34.9	4.5	4.0
36.0			3.5 /34.7	2.3			3.1	1.9 /37.9			3.0		3.8 /36.5	2.7		3.8	2.8	4.5 /35.2	3.7	2.6	3.9	3.6
38.0				2.1			2.9 /37.6	1.9			2.8			2.5		3.5	2.5		3.4	2.4	3.4	3.3
40.0				1.9				1.7			2.5			2.3		3.2 /39.4	2.3		3.2	2.2	3.3 /38.1	3.1
42.0				1.8 /41.1				1.5			2.5 /40.5			2.1 /43.4			2.1		2.9	2.0		2.8
44.0								1.4									2.0		2.8 /42.3	1.9		2.6
46.0																	1.8			1.6		2.5 /45.2
48.0																	1.7 /46.3			1.5		
50.0																				1.4 /49.2		

(EC400036)

■ w/44.20m Tower

Jib length (m)	19.10				22.10			25.10			28.10			31.10			34.10			37.10	
Tower angle (°) / Working radius (m)	90	80	70	60	90	80	70	90	80	70	90	80	70	90	80	70	90	80	70	90	80
8.0	15.0 /8.1				15.0 /8.8																
9.0	15.0				15.0			15.0													
10.0	15.0				15.0			15.0			15.0 /10.4										
11.0	15.0				15.0			15.0			15.0			13.0 /11.2			11.0 /11.9				
12.0	15.0				15.0			15.0			15.0			13.0			11.0			9.3	
13.0	15.0				15.0			15.0			15.0			13.0			11.0			9.3	
14.0	15.0				15.0			15.0			15.0			13.0			10.7			9.3	
15.0	14.4				14.4			14.3			14.3			12.3			10.5			9.1	
16.0	13.5	10.2 /17.8			13.4			13.3			13.2			12.0			10.3			9.0	
18.0	11.7	10.1			11.6	9.3 /18.9		11.5			11.4			11.3			10.0			8.7	
20.0	10.2	8.9			10.1	8.8		10.0	8.4 /20.1		10.0	7.8 /21.2		9.9			9.8			8.5	
22.0	9.4 /20.7	7.9			9.0	7.8		8.9	7.6		8.8	7.5		8.7	7.1 /22.3		8.6	6.5 /23.4		8.2	
24.0		7.1			8.0 /23.6	6.9		8.0	6.8		7.9	6.7		7.8	6.5		7.7	6.3		7.6	5.8 /24.6
26.0		6.4				6.3		7.2	6.1		7.1	6.0		7.0	5.8		6.9	5.7		6.9	5.6
28.0		5.8	4.2			5.7	3.9 /29.6	6.9 /26.5	5.5		6.5	5.5		6.4	5.3		6.3	5.2		6.2	5.1
30.0		5.7 /28.4	4.0			5.2	3.8		5.0	3.5 /31.2	6.0 /29.4	5.0		5.8	4.8		5.7	4.7		5.7	4.6
32.0			3.6			4.9 /31.3	3.5		4.6	3.4		4.5	3.1 /32.8	5.3	4.4		5.3	4.3		5.1	4.2
34.0			3.3				3.2		4.2	3.1		4.1	3.0	5.2 /32.3	4.0	2.6 /34.4	4.8	3.9	2.5 /35.9	4.4	3.8
36.0			3.1 /35.7	1.8 /37.4			2.9		4.1 /34.2	2.8		3.8	2.7		3.7	2.5	4.5 /35.2	3.6	2.5	3.8	3.5
38.0				1.7			2.7			2.6		3.6 /37.1	2.5		3.4	2.3		3.3	2.2	3.3	3.2
40.0				1.6			2.6 /38.6			2.4			2.3		3.2	2.1		3.1	2.0	3.2 /38.1	3.0
42.0				1.5						2.2 /41.5			2.1			1.9		2.8	1.8		2.7
44.0				1.4 /42.6									1.9			1.7		2.5 /42.9	1.6		2.5
46.0													1.9 /44.4			1.6			1.5		2.3 /45.8
48.0																1.5 /47.3					
50.0																					

(EC400036)

Notes:

1. Capacities included in these charts are the maximum allowable, and are based on machine standing level on firm supporting surface under ideal job conditions.
2. Capacities are in metric tons, and are based on 78% of minimum tipping load, or based on the other factor of machine structural strength limitation.
3. Capacities are under crawler extended condition with 4,100mm gauge.
4. 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. SUMITOMO's hook block weight is as follows;
   30t·····0.73ton 11t·····0.30ton
5. A 28.8ton counterweight and 1.5ton auxiliary weight (or opt. 3rd drum winch) are required.
6. All capacities are rated for 360° swing.
7. Least stable rated condition is over the side.
8. Attachment must be erected and lowered over the front of the crawler mounting.
9. Working radii shown above are at loading condition.
10. The machine can be steplessly operated at tower angle between 60 and 90 degrees safely; towercrane capacities available under any tower angle are automatically set up by a computerized automatic over-load preventing system, SUMITOMO Model SML-10.
11. The machine must be operated in accordance with correct tower boom and jib combination shown right.
12. Capacities under single part hoist line are detailed; if required, please consult us, or nearest distributor.
13. Capacities apply only to the machine as originally manufactured and normally equipped by Sumitomo (S.H.I.) Construction Machinery Co., Ltd.

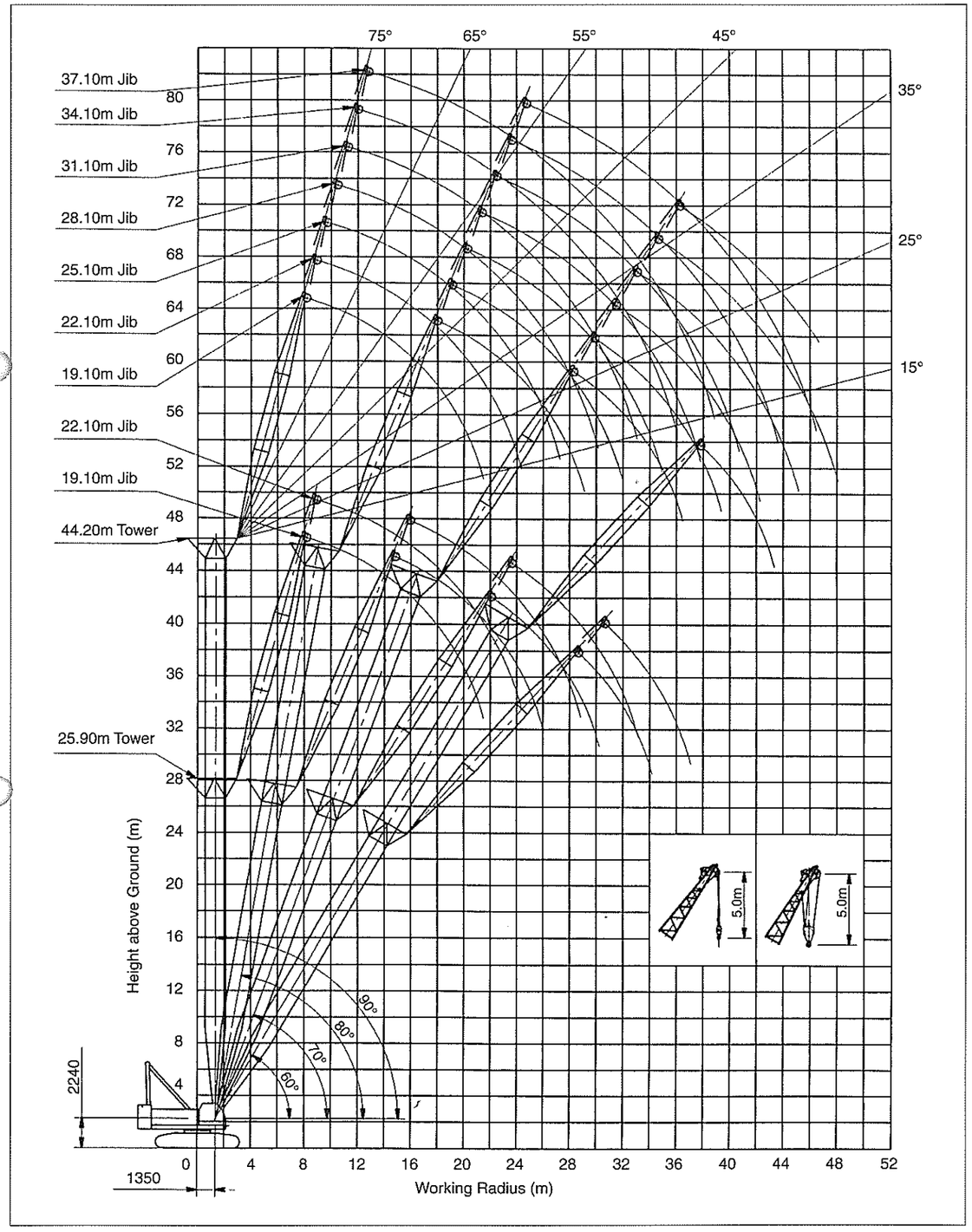
■ Combination Table

Jib length (m) / Tower length (m)	19.10	22.10	25.10	28.10	31.10	34.10	37.10
25.90	●	●	×	×	×	×	×
28.95	●	●	●	×	×	×	×
32.00	●	●	●	●	×	×	×
35.05	●	●	●	●	●	×	×
38.10	●	●	●	●	◎	◎	×
41.15	●	●	◎	◎	◎	◎	○
44.20	●	◎	◎	◎	◎	◎	○

Notes:

The meaning of symbols shown in the above table is as follows;

1. Symbol of "●" : Possible to luff tower between 90° thru 60°;
2. Symbol of "◎" : Possible to luff tower between 90° thru 70°;
3. Symbol of "○" : Possible to luff tower between 90° thru 80°;
4. Symbol of "×" : Impossible to make any of tower boom and jib combination.



Liftcrane Capacities

■ w/0.91m & 2.13m Special Tower Boom Extensions

Boom length (m) / Working radius (m)	12.20	15.25	18.30	21.35	24.40	27.45	30.50	33.55	36.60	39.65	42.70	45.75	48.80	51.85	54.90	57.95	60.95
4	90.0																
4.5	80.5	77.0 /4.6															
5	70.8	69.2	66.0 /5.1	58.7 /5.6													
6	55.0	55.0	55.0	54.9	52.9 /6.2	44.0 /6.7											
7	44.0	44.0	44.0	44.0	43.8	43.7	42.0 /7.2	37.9 /7.7									
8	36.4	36.4	36.3	36.2	36.1	36.1	36.0	35.8	30.0 /8.3	30.0 /8.8							
9	30.9	30.8	30.7	30.6	30.5	30.4	30.3	30.1	30.0	29.5	28.5 /9.3	25.9 /9.9					
10	26.7	26.6	26.5	26.4	26.3	26.2	26.1	25.9	25.8	25.7	25.7	25.5	22.0 /10.4	22.0 /10.9	20.5 /11.5		
12	20.9	20.8	20.6	20.5	20.4	20.4	20.2	20.0	19.9	19.8	19.7	19.6	19.6	19.4	19.3	19.1	15.0 /12.5
14	20.7 /12.1	16.9	16.8	16.7	16.5	16.5	16.3	16.1	16.0	15.9	15.8	15.7	15.6	15.5	15.3	15.2	14.5
16		15.7 /14.8	14.2	14.0	13.9	13.7	13.5	13.4	13.3	13.1	13.0	12.9	12.8	12.6	12.5	12.4	12.2
18			12.6 /17.4	12.0	11.9	11.7	11.5	11.4	11.3	11.1	11.0	10.9	10.8	10.7	10.6	10.5	10.1
20				10.6	10.3	10.2	10.0	9.8	9.7	9.6	9.4	9.3	9.2	9.1	9.0	8.8	8.6
22					9.0	8.9	8.7	8.6	8.5	8.3	8.2	8.0	7.9	7.8	7.6	7.5	7.3
24					8.5 /22.7	7.9	7.7	7.6	7.5	7.3	7.1	7.0	6.9	6.8	6.6	6.4	6.3
26						7.2 /25.3	6.9	6.7	6.6	6.4	6.3	6.1	6.0	5.9	5.8	5.6	5.4
28							6.2	6.0	5.9	5.7	5.6	5.4	5.3	5.2	5.0	4.8	4.6
30								5.4	5.2	5.1	4.9	4.8	4.7	4.5	4.3	4.1	3.9
32								5.2 /30.6	4.6	4.5	4.4	4.2	4.1	3.9	3.7	3.5	3.2
34									4.3 /33.2	4.0	3.9	3.7	3.6	3.4	3.2	2.9	2.7
36										3.6 /35.9	3.4	3.3	3.1	2.9	2.7	2.5	2.3
38											3.0	2.8	2.7	2.4	2.3	2.1	1.8
40											2.9 /38.5	2.4	2.3	2.0	1.9	1.7	
42												2.2 /41.2	2.0	1.7			
43.5													1.7				

(EC400031)

Notes — Liftcrane capacities

1. Capacities included in this chart are the maximum allowable, and are based on machine standing level on firm supporting surface under ideal job conditions.
2. 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.
3. 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.
   SUMITOMO's hook block weight is as follows:
   90t·····1.2ton 50t·····0.9ton 30t·····0.73ton
   11t·····0.3ton
4. All capacities are rated for 360° swing.
5. Least stable rated condition is over the side.
6. Counterweight must be 28.8ton for all capacities on this chart together with 1.3ton auxiliary weight (or opt. 3rd drum winch).
7. Crawler side frame must be fully extended for all operating conditions.
8. Attachment must be erected and lowered over the ends of the crawler mounting.
9. Main boom length must not exceed 60.95m.
   Maximum fly jib length permitted—22.85m.
   Maximum boom and fly jib combination length permitted—48.75m+22.85m/51.80m+18.30m.
   Maximum boom length when mounting auxiliary short jib is 54.90m.
10. 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.
11. Capacities apply only to machine as originally manufactured and normally equipped by Sumitomo (S.H.I.) Construction machinery Co., Ltd.
12. Boom configuration of max. 60.95m liftcrane boom in a case of converting luffing towercrane boom of max. 44.20m must be as follows:

    One 6.10m bottom section
    One 0.90m boom ext. (special type)
    One 2.15m boom ext. (special type)
    One 6.10m boom ext. (conventional type)
    One 9.15m boom ext. (with expanded metal)
    Two 3.05m boom ext. (conventional type)
    One 6.10m boom ext. (conventional type)
    One 9.15m boom ext. (conventional type)
    One 9.15m boom ext. (conventional type as add. boom)
    One 6.10m crane top section (as add. boom)

    Total: 60.95m with 11 sections.

Liftcrane Working Ranges