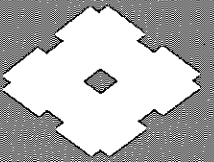


SUMITOMO SC 1000-2

Note: We are constantly improving our products and therefore reserve the right to change designs and specifications without notice.

SUMITOMO



PAX Series

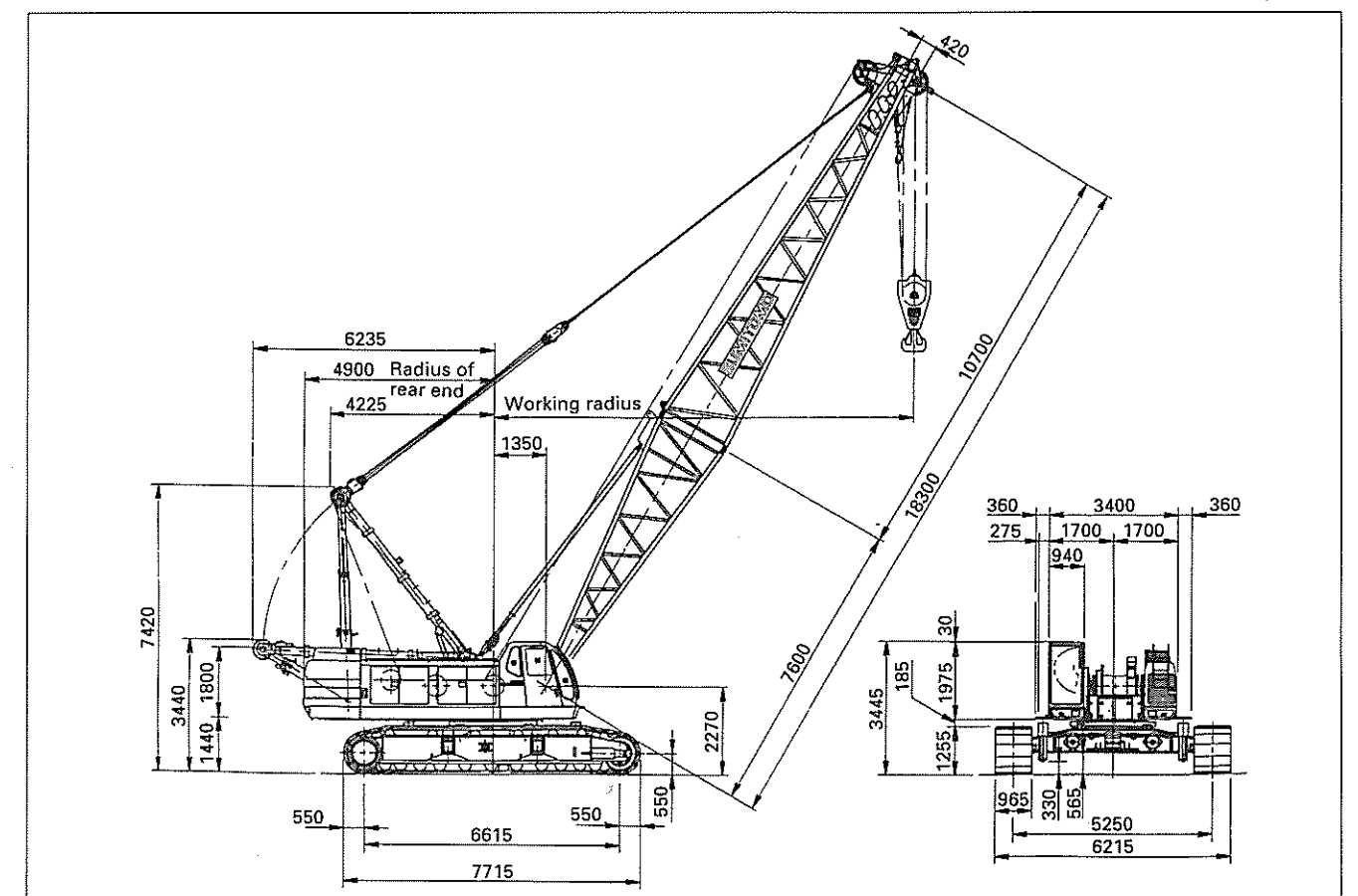
SC 1000-2

100-M ton Hydraulic Crawler Crane

General Specifications & Crane/Luffing Tower Capacities

General Dimensions:

(in mm)



SUMITOMO (S.H.L.) CONSTRUCTION MACHINERY CO., LTD.

K & T Bldg.,
1-28-44 Shinkawa, Chuo-ku, Tokyo 104, Japan
Phone: 03-3297-8833
Facsimile: 03-3297-9849

Address Inquires to:

Basic Machine

Upper Machinery

UPPER FRAME:

All-welded, precision machined unit.

TURNTABLE BEARING WITH INTEGRAL RING GEAR:

Outer race is bolted to upper frame, inner race with internal ring gear is bolted to lower frame. Swing pinion meshes with internal, integral ring gear. A machined surface is provided for mounting turntable bearing.

CONTROL SYSTEM:

Remote controlled hydraulic servo for main hoist, aux. hoist, boom hoist, travel and swing. Working speed can be precisely controlled by grip type throttle.

PUMP CONTROL SYSTEM:

Motor cycle type SC throttle control provides two modes of engine and pump control.

Mode I — The SC controller is normally programmed to vary engine and pump discharge simultaneously, which enables both minute operation and maximum speed operation. This mode is suitable to precision crane work.

Mode II — By activating a switch, only pump discharge can be varied by means of the grip throttle, while keeping engine speed fixed.

Mode II is convenient for operation such as bucket work and lifting magnet etc., where engine is normally run at full throttle.

HYDRAULIC SYSTEM:

System combining three units of variable displacement axial pumps and one unit of fixed displacement gear pumps provides both independent and combined operations of all functions.

Main hoist/aux. hoist motor — Variable displacement axial piston motor with counterbalance valve.

Boom hoist motor — Axial piston motor with spring applied/hydraulically released multiple disc brake.

Swing motor — Axial piston motor with spring

applied/hydraulically released multiple disc brake.

Travel motor — Axial piston motors with brake valve. Spring applied/hydraulically released multiple disc brake is fitted.

Hydraulic oil reservoir — 380 liters capacity.

LOAD HOIST ASSEMBLY:

Front (main) and rear (aux.) operating drums. Each driven by the bi-directional, variable displacement axial piston motor through reduction gear powering the rope drum in either direction for hoisting or lowering load. Third drum is available as an optional extra.

Clutches — Spring loaded, internal expanding, hydraulically released clutches with non-asbestos linings.

Brakes — External contracting band type with non-asbestos lining operated by hydraulically assisted foot pedal with locking latch.

For crane mode, automatic brake (spring applied, hydraulically released) is applied when control lever in neutral position.

For bucket mode, free-fall is available when control lever in neutral position.

Locks — Electrically operated drum lock pawl.

BOOM HOIST ASSEMBLY:

Driven by the bi-directional, axial piston motor through reduction gear powering the rope drum in either direction for hoisting or lowering boom.

Brakes — Spring applied, hydraulically released multiple disc type.

Locks — Electrically operated drum lock pawl.

SWING:

Driven by two units of axial piston motor, through reduction gear.

Brakes — Brake is applied by spring and released by hydraulic cylinder.

Locks — Mechanically operated pin connection house lock.

Speed — 2.1 rpm.

Constant speed swing mechanism (option) — Selected with a switch, four modes of "constant speed" can be employed to prevent other operations.

OPERATOR'S CAB:

All new stamped automotive type fully air-conditioned full-vision, full compartment cab with large curved front window; the completely independent and rubber isolation mounted cab is insulated against noise and vibration.

COUNTERWEIGHT:

Removable, 4-block, mounted on rear of upper frame by bolts.

POWER UNIT:

Make & Model	MITSUBISHI 6D22T
Type	Water-cooled, 4-cycle, turbo-charged, diesel engine with auto cooling fan.
No. of Cylinders	6
Bore & Stroke	130 mm × 140 mm
Displacement	11,149 cc
Rated Output	250 ps/2,050 rpm
Maximum Torque	105 kg-m/1,400 rpm
Fuel Tank	410 liters

Lower Machinery

LOWER FRAME:

All-welded robust rolled steel, box construction.

SIDE FRAME:

All-welded robust rolled steel. Connected to lower frame by links and pins.

ROLLERS:

Heat treated, mounted on bushings with floating seal requiring no further lubrication.

Bottom — 11 pcs. per side frame.

Top — 6 pcs. per side frame.

DRIVE SPROCKETS:

Heat treated, involute splined to drive shaft mounted on anti-friction bearings.

IDLERS:

Heat treated, mounted on bushings with floating seals requiring no further lubrication.

TRACKS:

Heat treated, self cleaning, one lug type, multiple hinged shoes, 54 pcs. per side frame.

Shoe width — 965 mm.

TRACK TENSION ADJUSTER:

Adjusted by hydraulic cylinders at the idler blocks. Tension can be automatically released when abnormal load occurred on tracks.

TRAVEL AND STEER:

Compact arrangement of axial piston motor with reduction gear is located at inner drive end of each crawler side frame. Each track is driven simultaneously or individually for straight-line travel, or pivot turn, or the tracks can be counter-rotated for spin turns.

Brake — Spring applied, hydraulically released multiple disc brakes applied automatically when control lever in neutral position.

Speed — 1.4/1.0 km/hr.

Crane

Crane Attachment

CRANE BOOMS:

Lattice construction; round tubular main chords, alloy, hi-ten steel, with bracing of round steel tubing.

Boom connections — In-line pin connections.

Basic Boom — Two-piece, 18.30 m basic length: 7.60m bottom and 10.70 m top section; 1,850 mm deep and 1,850 mm wide at connections.

Boom point machinery — Five head sheaves mounted on antifriction bearings.

Boom extensions — Optional extra; available in 3.05 m, 6.10 m and 9.15 m lengths with pendants. Maximum boom length 73.15 m.

Basic fly Jib — Optional extra; two-piece; 12.20 m basic length with 6.10 m long bottom and top sections, 760 mm deep and 910 mm wide at connections.

Fly jib extension — Optional extra; available in 6.10 m. Maximum fly jib length 24.40 m.

Boom plus fly jib length — 39.60 m+24.40 m/64.00 m +18.30 m (max.)

HOOK BLOCKS:

100 t with five sheaves — Optional extra.

50 t with two sheaves — Optional extra.

30 t with one sheave — Optional extra.

11 t ball hook — Optional extra.

TAGLINE WINDER:

Optional extra; for clamshell bucket job application.

Hydraulic type — mounted in front of upper revolving frame.

GANTRY:

Retractable high gantry.

DRUM DATA:

Drums	Root dia.	Type	Line Speed (Hoisting, lowering)	Cable dia.
Main hoist (Front)	530 mm	Parallel grooved	90~2 m/min.	26 mm
Aux. hoist (Rear)	530 mm	Parallel grooved	90~2 m/min.	26 mm
3rd drum	457 mm	Parallel grooved	65~4 m/min.	22.4 mm
Boom hoist	504 mm	Parallel grooved	46~2 m/min.	22.4 mm

Notes: 1. Above line speed varies with load.
2. Above line speed is based on first layer.

HOIST REEVING:

No. of parts of line	Max. load (t)									
	10	9	8	7	6	5	4	3	2	1
100 t hook	100.0	90.0	80.0	70.0	60.0	50.0	40.0	30.0	20.0	11.0
50 t hook	—	—	—	—	—	50.0	40.0	—	—	11.0
30/20 t hook	—	—	—	—	—	—	—	30.0	20.0	11.0
11 t hook	—	—	—	—	—	—	—	—	—	11.0

WORKING WEIGHT AND GROUND PRESSURE:

Shoe width	Weight	Pressure
965 mm	111.5 t	0.83 kg/cm ²

With basic boom and counterweight.

COUNTERWEIGHT:

43.5 t in total.

SAFETY DEVICES:

Hook over hoist limiting device, dual boom over hoist limiting device, boom angle indicator, boom backstops, electrically operated drum pawl lock for main/aux. and boom hoist drum, swing warning flash lamps with buzzer, fool proof shut off main hydraulic line, individual control lever locks, safe and durable non-asbestos lining, key lock mode selector switch, non-skid surfaces on roof, load moment limiter with annunciator-type overload preventing system, and optional three color percentage indicator on load weighing device.

GRADEABILITY:

30% (17°) with basic boom and counterweight.

■CRANE BOOM, SHORT JIB AND FLY JIB COMBINATION TABLE :

Boom combination	Boom length (m)	Jib length (m)						
		Short jib	Jib offset angle 10°			Jib offset angle 30°		
			12.20	18.30	24.40	12.20	18.30	24.40
	18.30	○	×	×	×	×	×	×
	21.35	○	×	×	×	×	×	×
	24.40	○	×	×	×	×	×	×
	27.45	○	×	×	×	×	×	×
	30.50	○	×	×	×	×	×	×
	33.50	○	×	×	×	×	×	×
	36.55	○	×	×	×	×	×	×
	39.60	○	○	○	○	○	○	○
	42.65	○	○	○	○	○	○	○
	45.70	○	○	○	○	○	○	○
	48.75	○	○	○	○	○	○	○
	51.80	○	○	○	○	○	○	○
	54.85	○	○	○	○	○	○	○
	57.90	○	○	○	○	○	○	○
	60.95	○	○	○	○	○	○	○
	64.00	○	○	○	×	○	○	×
	67.05	○	×	×	×	×	×	×
	70.10	○	×	×	×	×	×	×
	73.15	×	×	×	×	×	×	×

■FLY JIB COMBINATION :

Jib combination	Jib length (m)
	12.20
	18.30
	24.40

■COUNTERWEIGHT :

Counterweight	Dimensions (mm) L×W×H	Weight (kg)
A	1480 × 845 × 3400	18200
B	1165 × 970 × 1575	11100
C	985 × 1010 × 1420	7800
D	865 × 1010 × 1400	6400

■HOOK BLOCK :

Kind of hook block	100 t	50 t	30 t	11 t
Weight of hook block (t)	1.4	0.9	0.73	0.4

Note:

The meaning of figures and symbols shown here are as follows:

- : 9.15m boom extension
- : 6.10m boom extension
- : 3.05m boom extension
- : 7.60m bottom section
- : 10.70m tapered top section
- : 6.10m fly jib extension
- : 6.10m fly jib bottom section
- : 6.10m fly jib top section
- : Boom guyline cables installing position; the boom guyline cables are required for fly jib attachment which can be mounted on boom from 39.60m up to 64.00m.
- : Applicable
- × : Not applicable

CRANE CAPACITIES WITH FLY JIB AND 11t HOOK :

Boom length (m)	39.60						42.65						45.70					
	12.20		18.30		24.40		12.20		18.30		24.40		12.20		18.30		24.40	
	Jib offset angle (°)		10		30		10		30		10		30		10		30	
8.8	42.4	42.4	42.4	42.4	42.4	42.4												
9.0	42.1	42.1	42.1	42.1	42.1	42.1	38.1/9.3	38.1/9.3	38.1/9.3	38.1/9.3	38.1/9.3	38.1/9.3	33.9/9.8	33.9/9.8	33.9/9.8	33.9/9.8	33.9/9.8	33.9/9.8
10.0	40.8	40.8	40.5	40.0	40.0	39.2	36.7	36.7	36.7	36.7	36.7	36.7	33.7	33.7	33.7	33.7	33.7	33.7
12.0	31.3	31.0	30.8	30.4	30.3	29.7	31.2	31.0	30.8	30.3	30.3	29.7	31.1	30.9	30.7	30.3	30.2	29.6
14.0	25.0	24.8	24.5	24.2	24.1	23.6	24.9	24.7	24.5	24.1	24.0	23.5	24.8	24.6	24.4	24.0	23.9	23.4
16.0	20.6	20.4	20.1	19.9	19.7	19.3	20.5	20.3	20.1	19.8	19.6	19.2	20.4	20.2	20.0	19.7	19.5	19.1
18.0	17.3	17.2	16.9	16.7	16.4	16.1	17.2	17.1	16.8	16.6	16.3	16.0	17.1	17.0	16.7	16.5	16.2	15.9
20.0	14.8	14.7	14.4	14.2	13.9	13.6	14.7	14.6	14.3	14.1	13.8	13.5	14.6	14.5	14.2	14.0	13.7	13.4
22.0	12.8	12.7	12.4	12.2	11.9	11.7	12.7	12.6	12.3	12.1	11.8	11.6	12.6	12.5	12.2	12.0	11.7	11.5
24.0	11.2	11.1	10.8	10.6	10.3	10.1	11.1	11.0	10.7	10.5	10.2	10.0	11.0	10.9	10.6	10.4	10.1	9.9
26.0	9.8	9.7	9.4	9.2	8.9	8.7	9.7	9.6	9.3	9.1	8.8	8.6	9.6	9.5	9.2	9.0	8.7	8.5
28.0	8.7	8.6	8.3	8.2	7.8	7.7	8.6	8.5	8.2	8.1	7.7	7.6	8.5	8.4	8.1	8.0	7.6	7.5
30.0	7.7	7.6	7.3	7.2	6.8	6.6	7.6	7.5	7.2	7.1	6.7	6.6	7.5	7.4	7.1	7.0	6.6	6.4
32.0	6.9	6.8	6.4	6.3	5.8	5.7	6.8	6.7	6.3	6.2	5.8	5.6	6.7	6.6	6.2	6.0	5.6	5.4
34.0	6.1	6.0	5.6	5.5	5.0	4.8	6.0	5.9	5.5	5.3	4.9	4.7	5.8	5.7	5.3	5.2	4.7	4.5
36.0	5.4/35.6	5.3/35.6	5.0/35.6	4.9/35.6	4.3/35.6	4.1/35.6	5.2	5.1	4.7	4.6	4.1	4.0	5.0	4.9	4.5	4.4	4.0	3.8
38.0							4.5	4.4	4.0	3.9	3.4	3.3	4.3	4.2	3.8	3.7	3.3	3.1
40.0							4.4/38.3	4.3/38.3	3.9/38.3	3.8/38.3	3.3/38.3	3.2/38.3	3.7	3.6	3.2	3.1	2.7	2.6
42.0													3.4/40.9	3.3/40.9	2.9/40.9	2.8/40.9		

Boom length (m)	48.75						51.80						54.85					
	12.20		18.30		24.40		12.20		18.30		24.40		12.20		18.30		24.40	
	Jib offset angle (°)		10		30		10		30		10		30		10		30	
10.0	30.6/10.3	30.6/10.3	30.6/10.3	30.6/10.3	30.6/10.3	30.6/10.3	27.6/10.9	27.6/10.9	27.6/10.9	27.6/10.9	27.6/10.9	27.6/10.9	25.0/11.4	25.0/11.4	25.0/11.4	25.0/11.4	25.0/11.4	25.0/11.4
12.0	28.5	28.5	28.5	28.5	28.5	28.5	26.8	26.8	26.8	26.8	26.8	26.8	24.5	24.5	24.5	24.5	24.5	24.5
14.0	24.7	24.5	24.2	23.8	23.7	23.2	24.6	24.4	24.0	23.6	23.5	23.0	22.9	22.9	22.9	22.9	22.9	22.9
16.0	20.2	20.1	19.8	19.5	19.3	18.9	20.0	19.9	19.6	19.3	19.1	18.7	19.9	19.8	19.5	19.2	19.0	18.6
18.0	16.9	16.8	16.5	16.3	16.0	15.7	16.7	16.6	16.3	16.1	15.8	15.5	16.6	16.5	16.3	16.0	15.7	15.4
20.0	14.4	14.3	14.0	13.8	13.5	13.2	14.2	14.1	13.8	13.6	13.3	13.0	14.1	14.0	13.7	13.5	13.2	12.9
22.0	12.4	12.3	12.0	11.8	11.5	11.3	12.2	12.1	11.8	11.6	11.3	11.1	12.1	12.0	11.7	11.5	11.2	11.0
24.0	10.8	10.7	10.4	10.2	9.9	9.7	10.6	10.5	10.2	10.0	9.7	9.5	10.5	10.4	10.1	9.9	9.6	9.4
26.0	9.4	9.3	9.0	8.8	8.5	8.3	9.2	9.1	8.8	8.6	8.3	8.1	9.1	9.0	8.7	8.5	8.2	8.0
28.0	8.3	8.2	7.9	7.8	7.4	7.2	8.1	8.0	7.7	7.6	7.2	7.1	8.0	7.9	7.6	7.5	7.1	7.0
30.0	7.3	7.2	6.9	6.7	6.3	6.1	7.1	7.0	6.7	6.6	6.2	6.0	7.0	6.9	6.6	6.5	6.1	5.9
32.0	6.4	6.3	5.9	5.7	5.3	5.1	6.3	6.2	5.8	5.7	5.3	5.0	6.1	6.0	5.7	5.5	5.1	4.9
34.0	5.5	5.4	5.0	4.9	4.4	4.2	5.4	5.3	4.9	4.8	4.4	4.2	5.2	5.1	4.8	4.6	4.2	4.0
36.0	4.7	4.6	4.2	4.1	3.7	3.5	4.6	4.5	4.1	4.0	3.6	3.4	4.4	4.3	4.0	3.8	3.4	3.2
38.0	4.0	3.9	3.5	3.4	3.0		3.9	3.8	3.5	3.3	2.9		3.7	3.6	3.3	3.1		
40.0	3.4	3.3	2.9	2.8			3.3	3.2	2.8	2.7			3.1	3.0	2.7			
42.0	2.9	2.8					2.7	2.6					2.6					

Boom length (m)	57.90						60.95						64.00					
	12.20		18.30		24.40		12.20		18.30		24.40		12.20		18.30			
	Jib offset angle (°)		10		30		10		30		10		30		10		30	
10.0	22.0/11.9	22.0/11.9	22.0/11.9	22.0/11.9	22.0/11.9	22.0/11.9												
12.0	21.9	21.9	21.9	21.9	21.9	21.9	19.5/12.4	19.5/12.4	19.5/12.4	19.5/12.4	19.5/12.4	19.5/12.4	19.2/12.9	19.2/12.9	19.2/12.9	19.2/12.9	19.2/12.9	19.2/12.9
14.0	20.7	20.7	20.7	20.7	20.7	20.7	18.7	18.7	18.7	18.7	18.7	18.7	18.5	18.5	18.5	18.5	18.5	18.5
16.0	19.7	19.7	19.4	19.1	19.0	18.5	17.7	17.7	17.7	17.7	17.7	17.7	17.3	17.3	17.3	17.3	17.3	17.3
18.0	16.5	16.4	16.2	15.9	15.8	15.3	16.4	16.3	16.1	15.8	15.5	15.2	16.1	16.1	16.0	15.7		
20.0	14.0	13.9	13.6	13.4	13.1	12.8	13.9	13.8	13.5	13.3	13.0	12.7	13.8	13.7	13.4	13.2		
22.0	12.0	11.9	11.6	11.4	11.1	10.9	11.9	11.8	11.5	11.3	11.0	10.8	11.8	11.7	11.4	11.2		
24.0	10.4	10.3	10.0	9.8	9.5	9.3	10.3	10.2	9.9	9.7	9.4	9.2	10.2	10.1	9.8	9.6		
26.0	9.0	8.9	8.6	8.4	8.1	7.9	8.9	8.8	8.5	8.3	8.0	7.8	8.8	8.7	8.4	8.2		
28.0	7.9	7.8	7.5	7.4	7.0	6.7	7.8	7.7	7.4	7.3	6.9	6.7	7.7	7.6	7.3	7.1		
30.0	6.9	6.7	6.4	6.2	5.9	5.6	6.8	6.7	6.4	6.2	5.8	5.6	6.5	6.4	6.1	5.9		
32.0	5.8	5.7	5.4	5.2	4.8	4.6	5.8	5.7	5.3	5.2	4.8	4.6	5.5	5.4	5.0	4.8		
34.0	4.9	4.8	4.5	4.3	3.9	3.7	4.9	4.8	4.4	4.3	3.9	3.7	4.6	4.5	4.1	4.0		
36.0	4.1	4.0	3.7	3.5	3.1		4.1	4.0	3.6	3.5	3.1		3.8	3.7	3.3	3.2		
38.0	3.4	3.3	3.0				3.4	3.3	2.9				3.1	3.0				
40.0	2.8	2.7					2.7	2.6										

Notes:

1. Capacities shown are in metric tons and are based on 78% of minimum tipping loads—over the side—with machine standing level on firm supporting surface under ideal job conditions unless marked with a shaded color (□) that indicates capacities are based on factors other than those which would cause a tipping condition. Deductions from the lifting crane capacities must be made for weight of hook block, and other suspended gear.

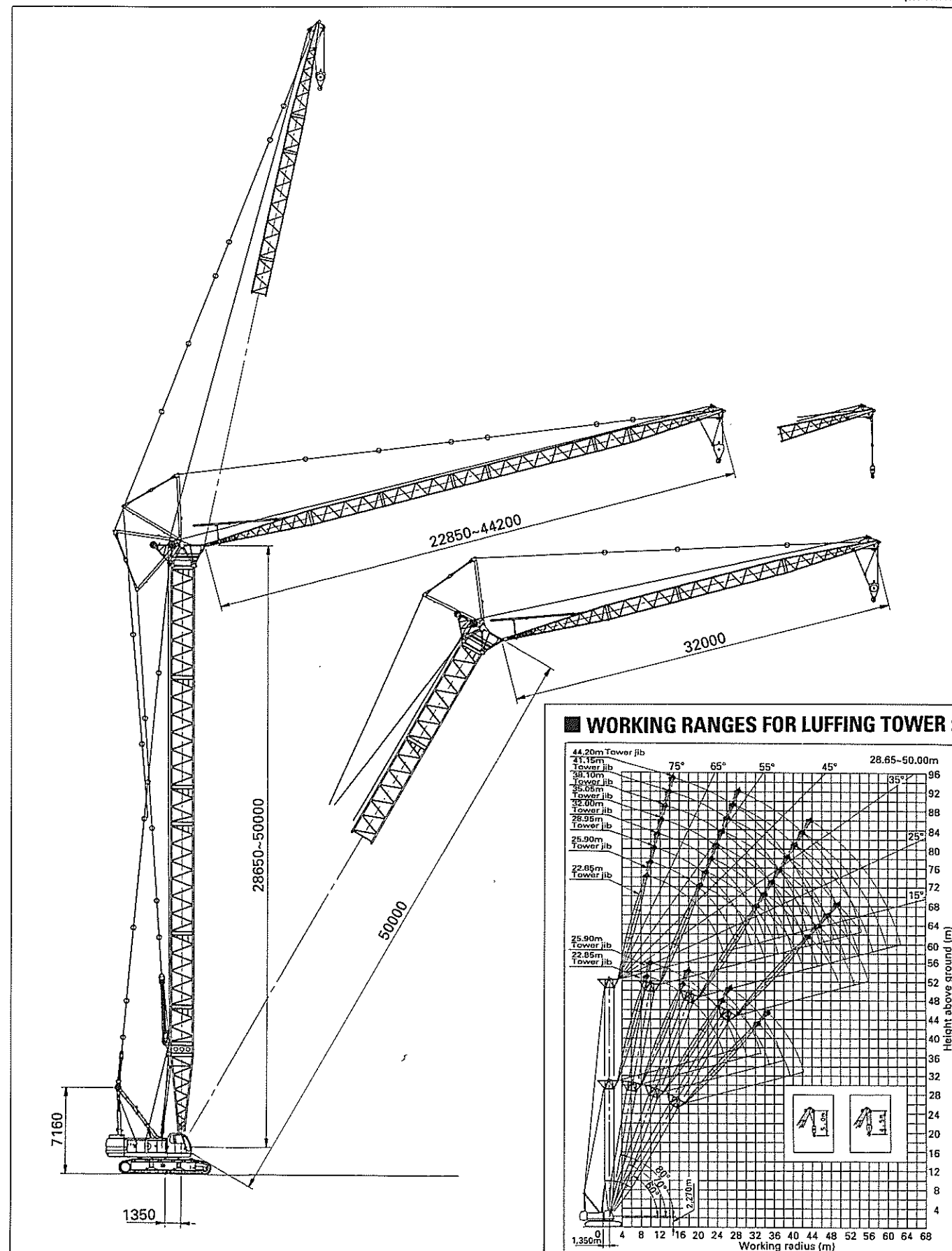
Kind of hook block	100 t	50 t	30 t	11 t
Weight of hook block (t)	1.4	0.9	0.73	0.4

- Gantry must be set to high position for all operating conditions.
- Capacities shown above are based on 43.5t counterweight.
- All capacities are rated for 360° swing.

Luffing Tower

GENERAL DIMENSIONS :

(in mm)



■ **LUFFING TOWER MAIN SPECIFICATIONS :**

Item	Luffing tower
Max. lifting capacity	20.0t×14.0m
Tower boom length	28.65m~50.00m
Tower jib length	22.85m~44.20m
Tower boom + Tower jib length	50.00m+44.20m
Line speed for front drum	90~2.0m/min
Line speed for tower jib hoist	45~2.0m/min
Line speed for tower boom hoist	46~2.0m/min
Gradeability	17° (30%)
Ground pressure (with max. tower boom/jib and 965mm shoes)	0.90kgf/cm ²
Working weight (with max. tower boom/jib and 965mm shoes)	121.8t

■ **TOWER BOOM COMBINATION :**

Tower boom combination	Tower boom length (m)
	28.65
	31.70
	34.75
	37.80
	40.85
	43.90
	46.95
	50.00

■ **TOWER JIB COMBINATION :**

Tower jib combination	Tower jib length (m)
	22.85
	25.90
	28.95
	32.00
	35.05
	38.10
	41.15
	44.20

Note:
The meaning of figures and symbols shown here are as follows:

- : Tower boom top section
- : 9.15m tower boom extension
- : 6.10m tower boom extension
- : 3.05m tower boom extension
- : 0.90m tower boom extension
- : 6.0m tower jib extension
- : 3.0m tower jib extension
- : Tower jib bottom section
- : Tower jib top section
- : Applicable
- : Not applicable

■ **TOWER BOOM AND JIB COMBINATION TABLE :**

Tower jib length (m)	22.85				25.90				28.95				32.00				35.05				38.10				41.15				44.20							
	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°				
28.65	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
31.70	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
34.75	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
37.80	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
40.85	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
43.90	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
46.95	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
50.00	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

■ **TOWER CRANE CAPACITIES :**

With **28.65m** Tower Boom Length

Tower jib length (m)	22.85				25.90			
	90°	80°	70°	60°	90°	80°	70°	60°
9.4	20.0							
10.0	20.0				18.6/10.2			
11.0	20.0				18.6			
12.0	20.0				18.6			
13.0	20.0				18.6			
14.0	20.0				18.6			
15.0	17.1				17.0			
16.0	15.6	14.5/17.0			15.6			
18.0	13.5	13.5			13.5	13.4/18.1		
20.0	11.9	11.9			11.9	11.9		
22.0	10.6	10.6			10.6	10.6		
24.0	9.6	9.6	9.0/25.2		9.6	9.6		
26.0	8.1/25.3	8.7	8.7		8.7	8.7	8.4/26.9	
28.0		8.0	8.0		7.2	8.0	8.0	
30.0		7.5	7.5		7.1/28.2	7.5	7.5	
32.0		7.4/30.2	6.9	6.7/32.8		6.9	6.9	
34.0			6.5	6.5		6.5/33.2	6.5	6.2/34.8
36.0			6.3/35.0	6.0			6.1	6.0
38.0				5.6			5.7/37.9	5.6
40.0				5.5/39.4				5.2
42.0								4.9
44.0								4.8/42.3

With **31.70m** Tower Boom Length

Tower jib length (m)	22.85				25.90				28.95			
	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°
9.4	20.0											
10.0	20.0				18.6/10.2							
11.0	20.0				18.6				15.0			
12.0	20.0				18.6				15.0			
13.0	20.0				18.6				15.0			
14.0	20.0				18.6				15.0			
15.0	17.1				17.0				15.0			
16.0	15.6	13.9/17.5			15.6				15.0			
18.0	13.5	13.5			13.5	12.9/18.7			13.5	12.0/19.8		
20.0	11.9	11.9			11.9	11.9			11.9	11.9		
22.0	10.6	10.6			10.6	10.6			10.6	10.6		
24.0	9.6	9.6			9.6	9.6			9.6	9.6		
26.0	8.1/25.3	8.7	8.6/26.3		8.7	8.7	8.0/27.9		8.7	8.7		
28.0		8.0	8.0		7.2	8.0	8.0		8.0	8.0	7.6/29.5	
30.0		7.5	7.5		7.1/28.2	7.5	7.5		7.3	7.5	7.5	
32.0		7.3/30.7	6.9			6.9	6.9		6.4/31.1	6.9	6.9	
34.0			6.5	6.4/34.3		6.5/33.7	6.5			6.5	6.5	
36.0			6.1	5.9			6.1	5.7/36.4		6.1	6.0	
38.0				5.5			5.7	5.4		6.0/36.6	5.6	5.1/38.4
40.0				5.1			5.4/38.9	5.0			5.3	4.9
42.0				5.0/40.9				4.7			5.1/41.9	4.6
44.0								4.7/43.8				4.3
46.0												4.1
48.0												4.0/46.8

SUMITOMO SC 1000-2

With 34.75m Tower Boom Length

Tower jib length (m)	22.85				25.90				28.95				32.00			
	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°
9.4	20.0															
10.0	20.0				18.6/10.2											
11.0	20.0				18.6				15.0				14.0/11.8			
12.0	20.0				18.6				15.0				14.0			
13.0	20.0				18.6				15.0				14.0			
14.0	20.0				18.6				15.0				14.0			
15.0	17.1				17.0				15.0				14.0			
16.0	15.6				15.6				15.0				14.0			
18.0	13.5	13.5			13.5	12.4/19.2			13.5				13.5			
20.0	11.9	11.9			11.9	11.9			11.9	11.7/20.3			11.9	10.8/21.5		
22.0	10.6	10.6			10.6	10.6			10.6	10.6			10.6	10.6		
24.0	9.6	9.6			9.6	9.6			9.6	9.6			9.6	9.6		
26.0	8.1/25.3	8.7	8.1/27.3		8.7	8.7			8.7	8.7			8.7	8.7		
28.0		8.0	8.0		7.2	8.0	7.6/28.9		8.0	8.0			8.0	8.0		
30.0		7.5	7.5		7.1/28.2	7.5	7.5		7.3	7.5	7.2/30.6		7.3	7.3		
32.0		7.1/31.3	6.9			6.9	6.9		6.4/31.1	6.9	6.9		6.8	6.7	6.6/32.2	
34.0			6.5	5.7/35.8		6.5	6.5			6.5	6.5		5.2	6.1	6.1	
36.0			6.1	5.7		6.5/34.2	6.0	5.2/37.9		6.0	6.0		5.2/34.1	5.6	5.6	
38.0			5.9/37.0	5.3			5.6	5.2		5.8/37.2	5.6	4.7/39.9		5.2	5.2	
40.0				4.9			5.3	4.8			5.3	4.7		4.9	4.8	
42.0				4.6				4.5			5.0	4.4		4.9/40.1	4.4	4.3
44.0				4.5/42.4				4.3			4.9/42.9	4.1			4.1	4.0
46.0								4.2/45.3				3.9			3.8/45.9	3.8
48.0												3.6				3.5
50.0												3.6/48.3				3.3
52.0																3.2/51.2

With 37.80m Tower Boom Length

Tower jib length (m)	22.85				25.90				28.95				32.00				35.05						
	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°			
9.4	20.0																						
10.0	20.0				18.6/10.2																		
11.0	20.0				18.6				15.0				14.0/11.8										
12.0	20.0				18.6				15.0				14.0							12.5/12.5			
13.0	20.0				18.6				15.0				14.0							12.5			
14.0	20.0				18.6				15.0				14.0							12.5			
15.0	17.1				17.0				15.0				14.0							12.5			
16.0	15.6				15.6				15.0				14.0							12.5			
18.0	13.5	13.0/18.6			13.5	12.1/19.7			13.5				13.5							12.1			
20.0	11.9	11.9			11.9	11.8			11.9	11.2/20.9			11.9							11.2			
22.0	10.6	10.6			10.6	10.6			10.6	10.6			10.6	10.4						10.4	8.3/23.1		
24.0	9.6	9.6			9.6	9.6			9.6	9.6			9.6	9.4						9.6	8.0		
26.0	8.1/25.3	8.7			8.7	8.7			8.7	8.7			8.7	8.6						8.7	7.3		
28.0		8.0	7.8/28.4		7.2	8.0			8.0	8.0			8.0	7.9						8.0	6.7		
30.0		7.5	7.5		7.1/28.2	7.5	7.4		7.3	7.5	7.0/31.6		7.3	7.2						7.3	6.0		
32.0		7.0/31.8	6.9			6.9	6.9		6.4/31.1	6.9	6.9		6.8	6.6	6.3/33.2					6.7	5.6		
34.0			6.5			6.5	6.5			6.5	6.5		5.2	6.0	6.0					6.1	5.1	5.0/34.8	
36.0			6.0	5.2/37.4		6.2/34.7	6.0			6.0	6.0		5.2/34.1	5.5	5.5					4.6	4.7	4.7	
38.0			5.6	5.1			5.6	4.8/39.4		5.6/37.7	5.6			5.1	5.1					4.0/37.1	4.3	4.3	
40.0			5.6/38.1	4.7			5.3	4.6			5.3	4.4/41.4		4.8	4.7						4.0	4.0	
42.0				4.4			5.2/41.0	4.3			5.0	4.3		4.7/40.6	4.3	4.2/43.5					3.8	3.8	
44.0				4.1/43.9				4.1			4.7	3.9			4.0	3.9					3.6/43.6	3.6	3.5/45.5
46.0								3.9				3.7			3.8	3.7						3.4	3.4
48.0								3.8/46.9				3.5			3.7/46.9	3.4						3.3	3.2
50.0												3.3/49.8				3.2						3.2/49.9	3.0
52.0																3.1							2.8
54.0																3.0/52.8							2.7
56.0																							2.5/55.7

With **40.85m** Tower Boom Length

Tower jib length (m)	22.85				25.90				28.95				32.00				35.05				38.10				
Tower angle (°)	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°	
Working radius (m)																									
9.4	17.5																								
10.0	17.5				16.0/10.2																				
11.0	17.5				16.0					15.0					14.0/11.8										
12.0	17.5				16.0					15.0					14.0				12.5/12.5						
13.0	17.5				16.0					15.0					14.0				12.5				11.0/13.3		
14.0	17.3				16.0					15.0					14.0				12.5				11.0		
15.0	17.0				16.0					15.0					14.0				12.5				11.0		
16.0	15.6				15.6					15.0					14.0				12.5				11.0		
18.0	13.5	12.5/19.1			13.5					13.5					13.5				12.1				11.0		
20.0	11.9	11.9			11.9	11.7/20.2				11.9	11.0/21.4				11.9				11.2				10.9		
22.0	10.6	10.6			10.6	10.6				10.6	10.6				10.6	10.2/22.5			10.4	8.1/23.7			10.1		
24.0	9.6	9.6			9.6	9.6				9.6	9.6				9.6	9.4			9.6	8.0			9.4	7.7/24.8	
26.0	8.1/25.3	8.7			8.7	8.7				8.7	8.7				8.7	8.6			8.7	7.3			8.7	7.3	
28.0		8.0	7.6/29.4		7.2	8.0				8.0	8.0				8.0	7.9			8.0	6.7			8.0	6.7	
30.0		7.5	7.5		7.1/28.2	7.5	7.0/31.0			7.3	7.5				7.3	7.2			7.3	6.0			7.3	6.0	
32.0		6.9	6.9			6.9	6.9			6.4/31.1	6.9	6.7/32.6			6.8	6.6			6.7	5.6			6.7	5.6	
34.0		6.9/32.2	6.5			6.5	6.4			6.5	6.3				5.2	6.0	5.7/34.3		6.1	5.1	4.7/35.9		6.1	5.1	
36.0			6.0			6.1/35.3	5.9			6.0	5.8			5.2/34.1	5.5	5.5			4.6	4.7	4.7		5.5	4.7	4.4/37.5
38.0			5.6	4.8/38.9			5.5			5.6	5.4				5.1	5.1			4.0/37.1	4.3	4.3		4.3	4.3	4.3
40.0			5.4/39.1	4.4			5.2	4.3/40.9		5.6/38.2	5.1				4.7	4.7			4.0	4.0			4.2	4.0	4.0
42.0				4.1			4.9	4.1			4.8	4.0/43.0			4.5/41.2	4.3			3.8	3.8			3.8	3.8	3.8
44.0				3.9			4.9/42.1	3.8			4.5	3.8				4.0	3.5/45.0		3.6	3.6			3.6	3.6	3.6
46.0				3.6/45.4				3.6			4.4/45.0	3.5			3.8	3.4			3.6/44.1	3.4	3.2/47.1		3.4	3.4	3.4
48.0								3.4				3.3			3.6	3.2				3.3	3.1		3.3/47.0	3.3	2.8/49.1
50.0								3.3/48.4				3.1				3.0				3.2	2.9		3.2	2.7	2.7
52.0												3.0/51.3				2.8				3.2/50.9	2.7		3.0	2.6	2.6
54.0																2.6					2.6		2.7/53.8	2.5	2.5
56.0																2.6/54.3					2.4			2.3	2.3
58.0																					2.3/57.2			2.2	2.2
60.0																								2.1	2.1
62.0																									2.1/60.2

With **43.90m** Tower Boom Length

Tower jib length (m)	22.85				25.90				28.95				32.00				35.05				38.10				41.15						
Tower angle (°)	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°			
Working radius (m)																															
9.4	17.5																														
10.0	17.5				16.0/10.2																										
11.0	17.5				16.0					15.0					14.0/11.8																
12.0	17.5				16.0					15.0					14.0				12.5/12.5												
13.0	17.5				16.0					15.0					14.0				12.5				11.0/13.3								
14.0	17.3				16.0					15.0					14.0				12.5				11.0				10.0/14.1				
15.0	17.0				16.0					15.0					14.0				12.5				11.0				10.0				
16.0	15.6				15.6					15.0					14.0				12.5				11.0				10.0				
18.0	13.5	12.2/19.6			13.5					13.5					13.5				12.1				11.0				10.0				
20.0	11.9	11.9			11.9	11.3/20.8				11.9	10.6/21.9				11.9				11.2				10.9				10.0				
22.0	10.6	10.6			10.6	10.6				10.6	10.6				10.6	9.8/23.1			10.4				10.1				9.8				
24.0	9.6	9.6			9.6	9.6				9.6	9.6				9.6	9.4			9.6	7.9/24.2			9.4	7.6/25.3			9.2				
26.0	8.1/25.3	8.7			8.7	8.7				8.7	8.7				8.7	8.6			8.7	7.3			8.7	7.3			8.6	7.1/26.5			
28.0		8.0			7.2	8.0				8.0	8.0				8.0	7.9			8.0	6.7			8.0	6.7			8.0	6.7			
30.0		7.5	7.2/30.5		7.1/28.2	7.5				7.3	7.5				7.3	7.2			7.3	6.0			7.3	6.0			7.3	6.0			
32.0		6.9	6.8			6.9	6.7/32.1			6.4/31.1	6.9	6.1/33.7			6.8	6.6			6.7	5.6			6.7	5.6			6.7	5.6			
34.0		6.6/32.9	6.3			6.5	6.2			6.5	6.0				5.2	6.0	5.6/35.3		6.1	5.1			6.1	5.1			6.1	5.1			
36.0			5.8			6.0/35.8	5.8			6.0	5.6			5.2/34.1	5.5	5.4			4.6	4.7	4.5/36.9		5.5	4.7			5.2	4.7			
38.0			5.4				5.4			5.6	5.2				5.1	5.0			4.0/37.1	4.3	4.3		4.3	4.3	4.2/38.5		4.6	4.3			
40.0			5.1	4.2/40.4			5.0			5.4/38.7	4.9				4.7	4.6			4.0	4.0			4.2	4.0	4.0		4.4	4.0	4.0/40.2		
42.0			5.1/40.2	3.9			4.7	3.8/42.5			4.6				4.4/41.7	4.3			3.8	3.8			4.2	4.0	3.8		4.0	3.8	3.8		
44.0				3.7			4.6/43.1	3.6			4.3	3.5/44.5				4.0			3.6	3.6			3.6	3.6			3.7/42.9	3.6	3.6		
46.0				3.4				3.3			4.2	3.3			3.8	3.0/46.5			3.5/44.6	3.4			3.4	3.4			3.4	3.4	3.4		
48.0				3.3/47.0				3.1			4.2/46.1	3.1			3.6	2.9			3.3	2.9/48.6			3.2/47.6	3.3			3.2	3.3	3.3		
50.0								3.0/49.9				2.9			3.6/49.0	2.7				3.2	2.7		3.2	2.7			3.2	2.6/50.6	3.1	3.1	
52.0												2.8				2.5				3.1/51.9	2.5		3.0	2.5			3.0/50.5	2.9	2.5/52.7		
54.0												2.8/52.9				2.4					2.4		2.9	2.4			2.9	2.4	2.8	2.4	
56.0																2.3/55.8					2.2		2.8/54.9	2.2			2.7	2.2	2.2	2.2	
58.0																					2.1			2.1			2.6/57.8	2.1	2.1	2.1	
60.0																						2.0/58.7					2.0			1.9	
62.0																													1.9/61.7		

■ TOWER BOOM CRANE CAPACITIES (WITH 0.9m EXTENSION BOOM FOR TOWER CRANE) *

Working radius (m)	Boom length (m)																		
	18.30	22.25	25.30	28.35	31.40	34.45	37.50	40.55	43.60	46.65	49.70	52.75	55.75	58.80	61.85	64.90	67.95	71.00	74.05
5.0	100.0/5.1																		
5.5	100.0	90.0/5.7																	
6.0	90.8	90.0	80.0/6.2	70.0/6.7															
7.0	75.1	75.0	74.9	70.0	60.0/7.3	53.1/7.8													
8.0	60.6	61.0	60.8	60.7	60.0	52.7	50.0/8.3	42.4/8.8											
9.0	50.6	52.1	52.0	51.8	51.7	50.1	50.0	42.1	40.0/9.4	40.0/9.9									
10.0	43.4	45.4	45.3	45.1	45.0	44.8	44.6	40.8	40.0	40.0	30.0/10.4	30.0/11.0	25.0/11.5						
12.0	33.7	36.0	35.9	35.7	35.5	35.4	35.2	35.0	34.8	34.7	30.0	30.0	25.0	25.0	20.0/12.6	20.0/13.1	18.0/13.6		
14.0	27.4	29.4	29.2	29.1	28.9	28.7	28.5	28.4	28.2	28.0	27.8	27.7	25.0	25.0	20.0	20.0	18.0	16.0/14.1	15.7/14.7
16.0	22.9	24.4	24.2	24.1	23.9	23.7	23.5	23.3	23.2	23.0	22.8	22.6	22.4	22.3	20.0	20.0	18.0	16.0	14.5
18.0	21.2/17.3	21.0	20.8	20.6	20.5	20.3	20.1	19.9	19.7	19.5	19.3	19.2	19.0	18.8	18.6	18.4	16.2	15.0	13.0
20.0		19.0	18.0	17.8	17.7	17.5	17.3	17.1	16.9	16.7	16.6	16.4	16.2	16.0	15.8	15.6	15.4	13.5	11.7
22.0		17.5/20.8	15.8	15.7	15.6	15.4	15.2	15.0	14.8	14.6	14.4	14.3	14.1	13.9	13.7	13.5	13.3	12.3	10.5
24.0			14.6/23.4	13.9	13.7	13.6	13.4	13.2	13.0	12.8	12.6	12.4	12.2	12.1	11.9	11.7	11.5	11.3	9.6
26.0				12.4	12.2	12.1	11.9	11.7	11.5	11.3	11.1	10.9	10.7	10.5	10.4	10.2	10.0	9.8	8.8
28.0				12.4/26.1	11.0	10.9	10.7	10.5	10.3	10.1	9.9	9.7	9.5	9.3	9.1	9.0	8.8	8.6	8.0
30.0					10.6/28.7	9.9	9.5	9.3	9.1	8.9	8.7	8.5	8.3	8.1	7.9	7.8	7.7	7.5	7.3
32.0						9.3/31.3	8.6	8.4	8.2	8.0	7.8	7.6	7.4	7.3	7.1	7.0	6.8	6.7	6.5
34.0							7.8	7.6	7.4	7.2	7.1	6.9	6.8	6.6	6.5	6.3	6.1	5.9	5.7
36.0								6.9	6.9	6.7	6.5	6.4	6.2	6.0	5.8	5.6	5.4	5.2	5.0
38.0								6.7/36.6	6.4	6.2	6.0	5.8	5.6	5.4	5.2	5.0	4.8	4.6	4.4
40.0									6.1/39.3	5.7	5.5	5.3	5.1	4.9	4.7	4.5	4.3	4.1	3.9
42.0										5.2/41.9	5.1	4.8	4.6	4.4	4.2	4.0	3.8	3.6	3.4
44.0											4.6	4.3	4.2	3.9	3.7	3.5	3.3	3.0	2.8
46.0											4.5/44.5	3.9	3.8	3.5	3.3	3.0	2.8	2.6	
48.0												3.6/47.2	3.4	3.1	2.9	2.6	2.4		
50.0													3.0/49.8	2.8	2.5	2.3			
52.0														2.4	2.2				
54.0															2.3/52.5				

Notes:

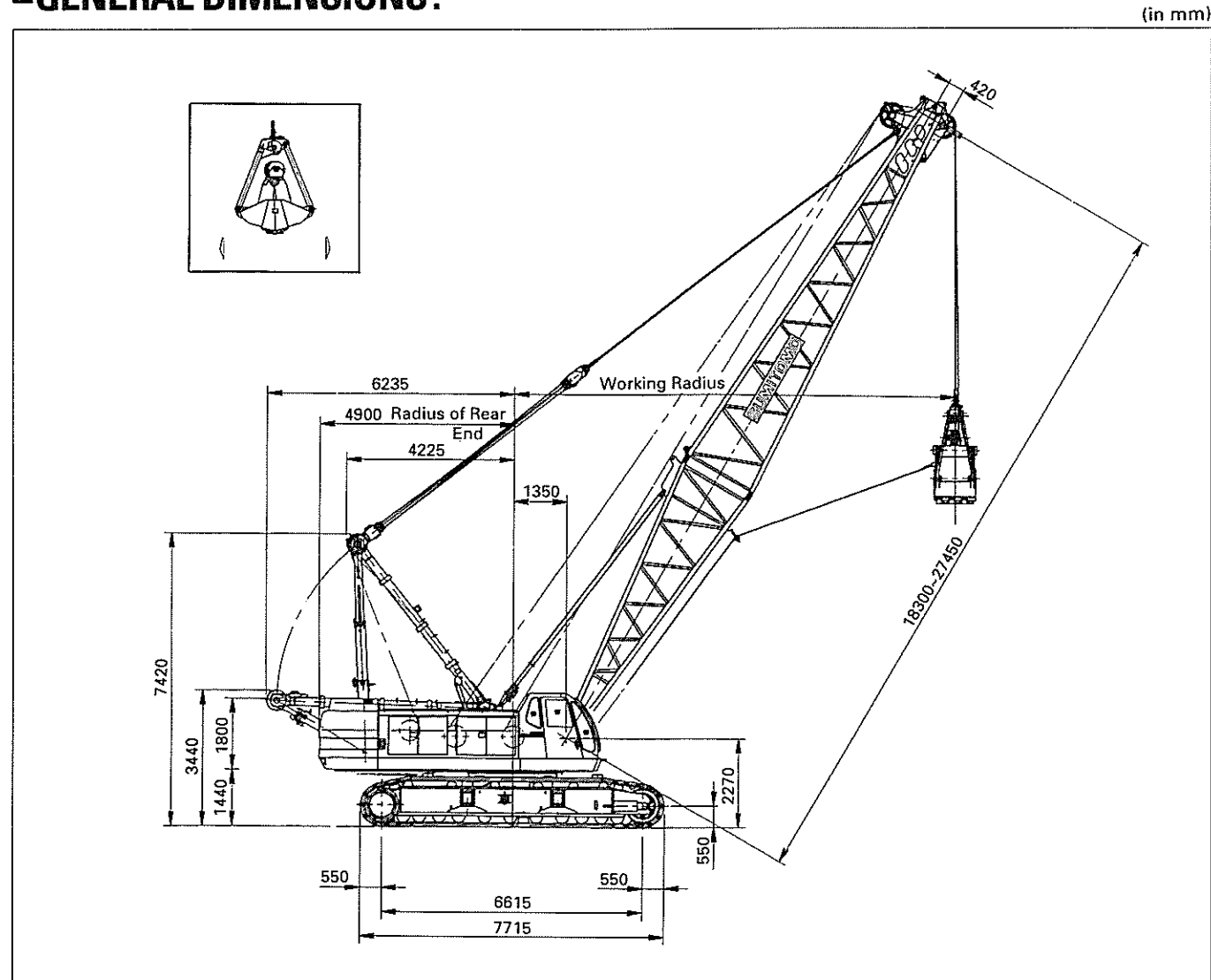
- Capacities shown are in metric tons and are based on 78% of minimum tipping loads—over the side—with machine standing level on firm supporting surface under ideal job conditions unless marked with a shaded color (□) that indicates capacities are based on factors other than those which would cause a tipping condition. Deductions from the lifting crane capacities must be made for weight of hook block, and other suspended gear.

Kind of hook block	100 t	50 t	30 t	11 t
Weight of hook block (t)	1.4	0.9	0.73	0.4

- Gantry must be set to high position for all operating conditions.
- Capacities shown above are based on 43.5t counterweight.
- All capacities are rated for 360° swing.

Clamshell

■ **GENERAL DIMENSIONS:**



■ **CLAMSHELL CAPACITIES:**

(in metric tons)

Boom length (m) Working radius (m)	18.30	21.35	24.40	27.45
9.0	10.0			
10.0	10.0	10.0		
12.0	10.0	10.0	10.0	
14.0	10.0	10.0	10.0	10.0
16.0	10.0	10.0	10.0	10.0
18.0		10.0	10.0	10.0
20.0			10.0	10.0
22.0				10.0

Notes:

1. Following weight of bucket plus load should not exceed rated loads.

Bucket capacity	2.0 m ³	2.5 m ³
Bucket weight	4.5 t	5.5 t

2. Apparent specific gravity of lifting material:

Earth1.7~1.8 t/m³

Gravel1.8~2.0 t/m³

3. Gantry must be set to high position for all operating conditions.

■ **STANDARD AND OPTIONAL EQUIPMENT :**

STANDARD EQUIPMENT

Superstructure:

- 250ps Mitsubishi 6D22-T diesel engine;
- Main and aux. drum winches of 20 ton line pull driven by independent hyd. motor w/independent hyd. circuit;
- Hydraulic system w/three variable displacement axial piston pumps and one fixed displacement duplicate tandem gear pump;
- Control system w/one each of duplicate and triplicate tandem valves, and floor type control levers;
- Motorcycle type "SC" controller;
- Hydrostatic boom hoist mechanism w/hydraulically retractable A-frame gantry;
- Hydrostatic swing mechanism w/turntable bearing;
- 43.5 ton counterweight;
- All new stamped automotive type operator's cab;
- Machinery cab;
- 24-volt electrical system;
- Lighting system:
 - Two 60W working lights;
 - One 15W interior cab light;
- Accessories:
 - Built-in type full air-conditioning;
 - Engine monitoring lamps;
 - Engine tachometer;
 - Fuel gauge;
 - Thermometer;
 - Hyd. oil temp. gauge;
 - Pilot line pressure gauge;
 - Level gauge;
 - Foot throttle;
 - Intermittent window shield wipers with washers;
 - Rear view mirrors;
 - Re-fuel pump;
 - Cigar lighter;
 - Ash tray;
 - Book holder;
 - AM/FM radio w/clock;
 - Sunvisor;
 - Sunshades;
 - Cup Holder;
 - Non-skid surfaces;
 - Cab front step;
 - Cab floor mat;
 - Superstructure under-cover;
 - Std. spare parts and tools.

Undercarriage:

- 5,250mm gauge by 7,715mm long crawler lower;
- 965mm wide track shoes;
- Hydrostatic crawler drive units;
- Life time lubricated track components;
- Automatic track tension adjusting devices;
- Carbody jack-up device w/4-vertical hyd. jack-up cylinder and remote control unit;
- Side frame removal cylinder;
- Level gauge;
- Crawler side steps.

Boom Attachment:

- 18.30m tubular basic boom;
- 26mm dia. main crane hoist cable.

Safety Devices:

- SUMITOMO SML-06 Load Moment Limiter;
- Main and aux. drum locks;
- Boom hoist drum lock;
- Swing lock;
- Swing warning flash lamps w/buzzer;
- Hook over-hoist limiting device;
- Dual boom over-hoist limiting device;
- Boom backstops;
- Boom angle indicator;
- Swing brake lamp;
- Signal horn;
- Travel alarm;
- Control lever locks;
- Fool proof shut-off;
- Key lock mode selector.

OPTIONAL EQUIPMENT

- 3.05m boom extension;
- 6.10m boom extension;
- 9.15m boom extension;
- 12.20m tubular basic fly jib;
- 6.10m fly jib extension;
- 100 ton hook block;
- 50 ton hook block;
- 30 ton hook block;
- 11 ton ball hook;
- Aux. short jib;
- 26mm dia. aux. crane hoist cable;
- Third drum winch w/cable;
- Pump balancer;
- Constant speed swing mechanism;
- Disk type swing brake;
- Lifting height meter;
- Drum rollers;
- Hydraulic tagline winder;
- Clamshell bucket (over 2.5m³);
- Drum mirrors;
- Stone guard; this is for operator's cab;
- Fire extinguisher;
- Drum light;
- Microphone & loud speaker;
- Anemometer;
- Swing warning w/annunciation;
- Aux. hook over-hoist limiting device;
- Three color percentage indicator;
- Catwalk, along both sides of machinery cab;
- Boom skywalk;
- Tower crane attachment;