SUMITOMO S C []] 25

Note: We are constantly improving our products and therefore reserve the right to change designs and specifications

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









Certificate No. EMSC-1242



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

No. 5-3, Tatsumi 3-chome, Koto-ku, Tokyo 135-0053

Phone: (03) 5569-2370 Facsimile: (03) 5569-2327

Address Inquires to:

SUMITOMO



PĀX Series

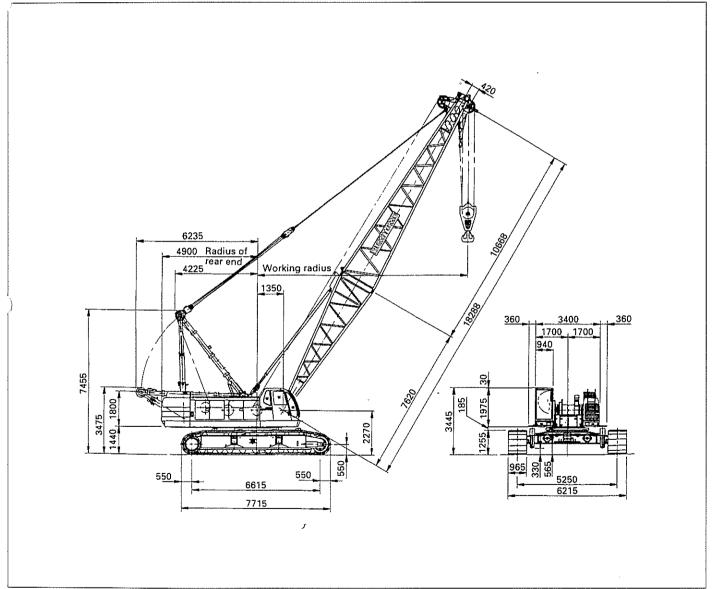
(0)(0)(0),25

100-M ton Hydraulic Crawler Crane & Cable Excavator

Technical Data

■General Dimensions:

(in mm)



Specifications

SUMITOMO SC1000-25

Basic Machine

Superstructure

UPPER REVOLVING FRAME:

All-welded, precision machined, robust construction. A machined surface provided for mounting load hoist and boom hoist assemblies, and mounting itself on turntable bearing.

TURNTABLE BEARING WITH INTERNAL SWING GEAR:

Single shear ball type; inner race of turntable bearing with integral, internal swing (ring) gear bolted to carbody frame, and outer race of turntable bearing bolted to upper revolving frame.

CONTROL SYSTEM:

System contains one set each of duplicate and triplicate tandem valves which direct oil to various machine function and are actuated by control levers via remote controlled hydraulic servo for all motions. Working speeds can be precisely controlled by motorcycle type throttle and conventional type floor levers in cooperation with SUMITOMO's patented "SC" controller that varies engine rpm and hyd. pump discharge simultaneously, or varies just hyd. pump discharge while keeping engine rpm. System also takes SUMITOMO's unique EEPSA (Electrical Engine Pump Sensing Analyzer) to maximizes drum horsepower, and reduces horsepower loss with eliminating the possibility of engine stall.

Pump control system — By SUMITOMO's patented "SC" controller that provides two modes of engine-pump control.

MÕDE I:

The SC Controller is normally programmed to vary the engine speed and pump discharge simultaneously. Simply twisting the grip advances the engine to maximum speed and the hydraulic pumps to maximum flow at the same time. This mode is suitable to precision crane work.

MODE II:

By activating a switch, it is able to vary just the pump discharge by means of the grip throttle, while keeping engine speed fixed. Mode II is convenient for operations such as lifting magnet and bucket work, where the engine is normally run at full throttle.

Pump balancer — Optional extra; this is available to synchronize front and rear drum rotation speeds in cooperation with independent hydraulic circuits.

HYDRAULIC SYSTEM:

System provided with three variable displacement axial piston pumps and one fixed displacement duplicate tandem gear pump for both independent and combined operations of all functions. Gear pump also used for system valves and cylinder controls.

Main/aux. crane hoist motors — Variable displacement axial piston motor with

counterbalance valve.

Boom hoist motor — Axial piston type with counterbalance valve and spring-applied/hydraulically released multiple wet-disc type automatic brake.

Third drum motor — Optional extra; axial piston type with counterbalance valve;

Swing motor — Two; axial piston type with springapplied/hydraulically released multiple wetdisc type manually controlled brake.

Travel motors — Shoe-in design; axial piston motor with brake valve and spring-applied/hydraulically released multiple wet-disc type automatic brake.

Independent hyd. circuits — Available in between hydraulic circuits of P1 main pump and front main drum winch motor, and between P2 main pump and rear main drum winch motor.

Hydraulic oil reservoir — 380 liters capacity.

LOAD HOIST ASSEMBLY:

Front and rear main operating drums driven by independent hydraulic motor of bidirectional, variable displacement axial piston motor through planetary and spur reduction gear units powering the rope drum in either direction for hoisting and lowering load. Each of drum sized in same dimension.

Clutches — Internal expanding, self-adjusting, monoband design with non-asbestos lining; springapplied, power hydraulically released.

Brakes — 1,270mm dia. by 170mm wide brake drum; external contracting band type with non-asbestos lining; operated by power hydraulically assisted foot pedal with locking latch. Two brake modes are available; for crane operation, automatic brake, spring-applied, power hydraulically released is applied when control lever is in neutral position, and for bucket operation, free-fall is available in the above control lever position.

Drums — One piece, parallel grooved lagging with locking ratchet wheel cast integral; mounted on drum shaft through anti-friction bearings.

Drum locks — Electrically operated pawl.

Drum rollers — Optional extra; available for right cable winding onto drums.

BOOM HOIST ASSEMBLY:

Driven by bi-directional, axial piston hydraulic motor through 2 sets of 2-stage planetary reduction gear unit powering the rope drum in either direction for hoisting and lowering boom.

Brake — Spring-applied, power hydraulically released multiple wet-disc type automatic brake.

Drum — One piece, parallel grooved lagging with locking ratchet wheel cast integral; mounted on drum shaft through anti-friction bearings.

Drum lock — Electrically operated pawl.

THIRD DRUM WINCH MECHANISM:

Optional extra; driven by bi-directional, axial piston hydraulic motor through planetary and spur reduction gear units powering the rope

drum in either direction for hoisting and lowering load. This is available for auxiliary lift.

Clutches — Internal expanding, self-adjusting, monoband design with non-asbestos lining; springapplied, power hydraulically released.

Brakes — External contracting band type with nonasbestos lining; operated by power hydraulically assisted foot pedal with locking latch. Not only automatic brake but also freefall modes are available.

Drums — One piece, parallel grooved lagging with locking ratchet wheel cast integral; mounted on drum shaft through anti-friction bearings.

Drum locks — Electrically operated pawl .

Drum rollers — Optional extra; available for right cable winding onto drums.

SWING:

Driven by two units of bi-directional, axial piston hydraulic motors through 2 sets of planetary reduction gear unit powering swing pinion. Swing pinion meshes with internal teeth of swing (ring) gear of turntable bearing inner race.

Brakes — Spring-applied, power hydraulically released multiple wet-disc type; provided on each of hydraulic motor.

Constant swing speed mechanism — Optional extra; conventional swing speed (as std.) and other three kinds of constant swing speed are available in this mechanism.

Disc type swing brake — Optional extra; this allows smooth and precise swing control especially when working in strong winds or on slopes.

Lock — Mechanically operated drop pin.

Speed — 2.1min.⁻¹ <2.1rpm> (as std.); 2.1/1.5/0.6/0.3min.⁻¹ <2.1/1.5/0.6/0.3rpm> (as available under optional constant swing speed mechanism).

GANTRY:

A-frame type; raised and lowered by power hydraulic cylinders.

OPERATOR'S CAB:

940mm wide; acoustically treated, all new stamped, automotive type, full-vision, cushion rubber mounted, well-ventilated, full compartment, roomy operator's cab with large curved front window; provided with an arrangement of "SC" control/swing lever, floor type control levers, built-in type airconditioning, sunvisor, sunshade, rear-view mirrors, intermittent window shield wiper with washer on both front and roof windows, and roll-down window on sliding door.

Instrument panel — Contains engine monitoring lamps, display panel of SUMITOMO Model SML-06 Load Moment Limiter, and other necessary controllers and switches; all located at left-hand side of operator.

Operator's seat — Six way full adjustable reclining

Anemometer — Optional extra; recommended for luffing towercrane attachment.

Stone guard — Optional extra; stainless steel-make. This is available for operator's cab protection

from outside obstacles.

AM/FM radio - Provided as std. with clock.

Fire extinguisher — Optional extra; powder type with 1kg capacity.

MACHINERY CAB:

Equipped with hinged doors on both sides for machinery access and inspection; tape-type non-skid material applied to the roof.

CATWALKS:

Optional extra; hitched in place along both sides of machinery cab.

HYDRAULIC TAGLINE WINDER:

Optional extra; provided in front of upper revolving frame, and this is available for preventing a shake of suspended load like clamshell bucket by an 10mm dia. tug cable with light force.

COUNTERWEIGHTS:

Weighs 45.3ton with cast, 5-block, removable, corner-rounded design. Five blocks consist of "A" (18,100kg), "B" (11,000kg), "C" (7,800kg), "D" (6,400kg), and "E" (2,000kg).

AUXILIARY WEIGHT:

Weighs 1.3ton. Mounted on part of optional 3rd drum location; if 3rd drum optionally required, no this 1.3ton weight is required.

ELECTRICAL SYSTEM:

24-volt negative ground system; provided with two maintenance free 12-volt batteries.

LIGHTING SYSTEM:

Includes following lights.

Two 60 W working lights;

• One 15 W interior cab light.

POWER UNIT:

Make & Model	Mitsubishi 6D24-T
Туре	Water-cooled, 4-cycle, turbo-charged, diesel engine with automatic cooling fan
No. of Cylinders	Six (6)
Bore & Stroke	130 mm × 150 mm
Displacement	11,945 cc
Rated Output	184 kW/2,000 min ⁻¹ <250 ps/2,000 rpm >
Maximum Torque	981 N·m/1,400 min ⁻¹ <100 kgf-m/1,400 rpm>
Fuel Tank	410 liters

Undercarriage

CARBODY FRAME:

All-welded, precision machined, box type construction; provided with cross axles to place crawler side frames on. A machined surface provided for mounting turntable bearing.

CARBODY JACK-UP DEVICE:

Contains four hydraulic jack cylinders attached on carbody jack cylinder beams for disassembling/assembling ease of crawler side frames.

Pontoon — All-welded construction; four pontoons each storaged at a part of carbody frame.

CRAWLER SIDE FRAMES:

All-welded, box type construction, precision machined; positioned on axle beam, and held in place by plate links with plate shim adjustment.

Removal cylinders — Available for assisting in removing side frames.

Crawler side steps — Provided at both ends of the frames for easy access to superstructure.

DRIVE SPROCKETS:

Cast steel, heat treated; one per side frame. Track drive sprocket assembly bolt-coupled to 3-stage planetary reduction gear unit outer case as an integral part of shoe-in type traction motor. Sealed between parts of rotation and non-rotation of the motor with floating seal.

IDLER WHEELS:

Cast steel, heat treated; one per side frame. Mounted on two bronze bushings with floating seals for lifetime lubrication.

TRACK ROLLERS:

Eleven per side frame; each cast steel, double flanged, heat treated. All rollers mounted on two bronze bushings with floating seals for lifetime lubrication.

CARRIER ROLLERS:

Six per side frame; each cast steel, double flanged and heat treated. All rollers mounted on two bronze bushings with floating seals for lifetime lubrication.

TRACKS:

Heat treated, self-cleaning, multiple hinged track shoes joined by full floating pins; 54 pcs. per side frame.

Shoe width — 965mm wide.

Track adjustment — Idler wheels automatically adjusted while operation by means of hydraulic cylinder provided at each idler wheel block. Hydraulic power to the cylinder supplied from operational hydraulic pump of superstructure.

TRAVEL AND STEERING:

Hydrostatic drive; a bi-directional, shoe-in type axial piston hydraulic motor bolt-couples drive sprocket thru 3-stage planetary reduction gear unit outer case at each crawler side frame end for travel and steer. Straight-line travel (forward or

reverse), pivot or differential turns, and counterrotation for spin turns available.

Brake — Spring-applied, hydraulically released multiple wet-disc type automatic brake; located within hydraulic motor. Brakes automatically set when travel levers are in neutral or when engine is shut down.

Travel speed — 1.4/1.0km/hr.

Gradeability — 30% (17°) permissible based on basic machine without front-end attachment.

Safety Devices

SUMITOMO MODEL SML-06 LOAD MOMENT LIMITER:

This is a fully computerized total safe operation control system, and automatic overload preventing system as standard equipment.

Construction (standard version) — Comprises (1) load detecting device with amplifier for general crane application (except luffing towercrane application), (2) angle detector for crane main boom/luffing tower boom (except tower jib) (3) computerized Micro Processing Unit (M.P.U.), and (4) display panel.

Functions — This system functions that if a lifting load moment (lifting load x working radius) reaches a 90% of the rated one specified in the crane capacity chart, an annunciating prewarning (it is soon stopping automatically) is given; if it is an 100%, a warning is given by flasher lamp, and warning buzzer or annunciating warning (it is over-loading), and all peril side motions are automatically stopped. The machine, however, can be operated in safety side motions. All machine conditions manually settled by touch-switches on M.P.U. board panel according to the present one. An eight-kind of annunciating alarm is also a function of the SML-06 like "it is hook over-hoisting".

Display panel indications — Display panel indicates (a) engine rpm (or lifting height as an optional extra), on display "1", (b) load ratio between rated and present lifting loads, or luffing tower boom angle on display "2", (c) rated capacity, or remaining load, or actual lifting load on display "3", and (d) working radius, or crane main boom angle, or tower jib angle, or fly jib offset angle on display "4". Display panel indication change all manipulated by touch-key on display panel. Display panel also provided with seven-kind of indication lamp.

HOOK OVER-HOIST LIMITING DEVICE:

Interlocked with the SML-06 for automatically preventing a hook over-hoist of crane main boom with functions of automatic drum braking, lamp warning, and buzzer warning

(or alarm annunciating).

BOOM OVER-HOIST AND -LOWERING LIMITING DEVICE:

This is one of key safety devices; interlocked with the SML-06 also for automatically preventing boom over-hoist and -lowering with functions of automatic drum braking, lamp warning, and buzzer warning (or alarm annunciating). Further boom protection from rapid boom over-hoist by hook over-hoist motion under mal-function of hook over-hoist limiting device is available as one of functions of the SML-06.

BOOM BACKSTOPS:

Dual; telescopic design with spring buffers.

DUAL BOOM OVER-HOIST LIMITING DEVICE:

Additional limit switch located on boom backstops; this is as a further safety device for redundant boom protection.

SWING LOCK:

Mechanically operated drop pin; available to firmly lock superstructure in four positions of facing front or rear or left or right to undercarriage.

DRUM LOCKS:

Electrically operated pawl locks; available on front and rear main drums and boom hoist drum.

THIRD DRUM LOCK:

Provided as std. when an optional 3rd drum winch is provided.

BOOM ANGLE INDICATOR:

Pendulum type; mounted on right-hand side of bottom section of crane main boom.

HOOK LAT

Provided on every kinds of hook to prevent out of place of cable from hook.

LEVEL GAUGES:

Bubble type; both located on operator's cab floor of superstructure, and on a part of undercarriage.

LEVER LOCKS:

Provided on all control levers (except swing lever) to lock levers in neutral. For control levers of front and rear drum winches, there is also locking device to prevent stroke to lowering side.

SWING ALARM:

This is by buzzer, and flasher lamps located on both sides of machinery cab.

ANNUNCIATING ALARMS:

This is one of functions of the SML-06; provided with eight kinds of the alarm like "it is soon stopping automatically".

SPEED SLOWDOWN DEVICE:

This is for speed slowdown of hoisting and lowering motions of crane main boom (and/or tower jib in case of luffing towercrane att.) which are available just before automatic stopping to prevent a shock.

SWING BRAKE LAMP:

Provided on operator's cab instrument panel; this is available to confirm whether or not swing brake is applied.

SIGNAL HORN:

Available as warning just before every kinds

of motions from operator.

FOOL PROOF SHUT-OFF SYSTEM:

Located in the cab exit; this is available to automatically deactives and locks hydraulic system.

KEY LOCK MODE SELECTOR SWITCH:

This allows selection of operating mode (crane, or tower or free-fall mode) to avoid improper operation.

TRAVEL ALARM:

Buzzer warns when travel motion is initiated.

ENGINE MONITORING LAMPS:

Available for checking engine operating conditions like battery charge, engine oil pressure, radiator coolant level, oil filter clogging, air filter clogging, and battery electrolyte amount.

EMERGENCY MACHINE STOP BUTTONS:

Two; each located nearby front main and boom hoist drums. Available when it is necessary to stop all machine motion.

REAR VIEW MIRRORS:

Two each provided on front-left and -right corners of super-structure.

NON FREE-FALL MODE SWITCH:

Available to prohibit the operation under free-fall mode whenever switch goes on.

THREE COLOR PERCENTAGE INDICATOR:

Optional extra; this is with three colours of Green, Yellow and Red. Each colour indicates the load percentage to rated capacity; Green shows less than 90% as safety, Yellow shows 90 to 99% as marginal, and Red shows over 100% as over-loading. As further function, Red lamp comes on automatically when operator cuts off safety device switch absent-mindedly.

LIFTING HEIGHT METER:

Optional extra; available to indicate lifting height above ground or depth below ground on display "1" of SML-06 Load Moment Limiter display panel.

RADIOPHONE:

Optional extra; available for a good correspondence among operator, signalman and other worker (or between operator and signalman).

MICROPHONE & LOUD-SPEAKER:

Optional extra; this is for operator's convenience for loud speaking.

ANNUNCIATING SWING ALARM:

Optional extra; this is additional alarm for swing motion with a caution voice of "now swing, keep clear please!".

DRUM LIGHT & MIRROR:

Optional extra; these are available for checking rope winding onto front and/or rear drum(s).

AUX. CRANE HOOK OVER-HOIST LIMITING DEVICE:

Optional extra; this is available for auxiliary crane hoist with optional aux. short jib and/or fly jib. Performs the same function as that of "Hook over-hoist limiting device" mentioned before.

In addition to the above, following safety devices are standard for luffing towercrane attachment.

TOWER JIB ANGLE DETECTOR:

This is one of key safety device in a case of luffing towercrane attachment.

TOWERCRANE LOAD DETECTOR:

This is also important safety device when luffing towercrane attachment is required.

TOWER JIB OVER-HOIST AND -LOWERING LIMITING DEVICE:

Performs all the same function as that of "Boom over-hoist and -lowering limiting device" stated before.

TOWER JIB HOOK OVER-HOIST LIMITING DEVICE:

Performs the same function as that of "Hook over-hoist lifting device" described before.

TOWERCRANE ATT. SELF-ERECTION MODE:

This is an internal, integral mode as one of key function of the SML-06 for safe selferection and -laying down of luffing towercrane attachment without fail.

TOWER JIB BACKSTOPS:

Dual; telescopic design with spring buffers.

DUAL TOWER JIB OVER-HOIST LIMITING DEVICE:

Additional limit switch located on tower jib backstops; this is as a further safety device for redundant tower jib protection.

CRANE BOOM:

Liftcrane 100 metric tons

Lattice construction, round tubular main ch	nords, alloy, hi-ten steel, with bracing of round steel tubing.
Boom connections ······	·In-line pin connections at 1.85m deep and 1.85m wide.
Basic boom ·····	··Two-piece, 18.30m basic length; 7.62m bottom section and 10.67m tapered
	crane top section.
Boom head machinery	··Five head sheaves and two guide sheaves mounted on anti-friction bearings.
Boom extensions	··Optional extra; available in 3.05m, 6.10m and 9.15m lengths with pendants.
Maximum boom length	··73.15m.

FLY JIB:

Boom plus fly jib length ········Max. 60.95m + 24.40m/64.00m + 18.30m. AUXILIARY SHORT JIB:

Optional extra; all-welded construction having single sheave head machinery. Pinned to 10.67m tapered crane top section. Available for 11ton lift as maximum with single part hoist line.

HOOK BLOCKS:

100t, five sheaves with duplex type hook	Optional	extra.
50t, two sheaves ·····	Opțional	extra.
30t, one sheave ·····	Optional	extra.
11t, ball hook ······	Optional	extra.

BAIL AND BRIDLE:

All-welded construction; provided with larger sheaves of a 21.4 D/d ratio on both bail and bridle for 12-part boom hoist rope reeving. Bail pinned to A-frame gantry, and bridle suspended between a 12-part boom hoist rope and pendant ropes connecting to tip of 10.67m tapered crane top section.

DRUM DATA:

Drum	Root dia.	Туре	Line speed (Hoisting, Lowering)	Cable	Max. line pull
Front (main crane hoist) (towercrane hoist) (h/grab crown holding via hook) (c/bucket holding) (MHL/MEH bucket hoist)	530mm	Parallel grooved	97 ~ 2 mpm	26mm	22.0ton
Rear (aux. crane hoist) (tower jib hoist) (h/grab holding & closing) (c/bucket closing) (MHL/MEH bucket hoist)	530mm	Parallel grooved	97 ~ 2 mpm *48 ~ 2 mpm	26mm	22.0ton
Boom hoist	504mm	Paraliel grooved	46 ~ 2mpm	22.4mm	16.9ton
Optional 3rd	457mm	Parallel grooved	65 ~ 4mpm	22.4mm	15.7ton

Notes:

- 1. Line speed is based on drum first layer and rated engine rpm.
- 2. Hoisting line speed varies under load and operating conditions.
- 3. The figures with asterisk mark (*) indicate rope line speed in a case of luffing towercrane application.

Liftcrane Capacities

HOIST REEVING:

		Aux. hoist								
No. of part line	10	9	8	7	6	5	4	3	2	1
Max. load (ton)	100.0	90.0	80.0	70.0	60.0	50.0	40.0	30.0	20.0	11.0

CABLES:

Front drum ·····	Sraf Nuflex rope with construction of "P-S (19)+39×P-7", spin resistant type,
	26mm dia./300m long, breaking load 651kN (66.4t).
Rear drum ······	Optional extra; Sraf Nuflex rope with construction of "P-S (19)+39×P-7", spin
	resistant type, 26mm dia./200m long, breaking load 651kN (66.4t).
Boom hoist drum ······	XP rope with construction of "IWRC 6xWS (31)", 22.4mm dia./198m long,
	breaking load 367kN (37.4t).
Optional 3rd drum ······	Optional extra, XP rope with construction of "IWRC 6×WS (26)", 22.4mm
	dia./220m long, breaking load 367kN (37.4t).

WORKING WEIGHT & GROUND PRESSURE:

Shoe width	Weight	Pressure
965mm	115.2t	88.4kPa <0.90kg/cm²>

Note: Working weight shown above are with 18.30m basic boom, 45.3ton upper c.t.w.t, 1.3ton auxiliary weight, and optional 100t hook block.

57.90	54.85	51.80	48.75	45.70	42.65	20.00	00.55	00.50	00.50	07.46	04.40	04.05	40.00	Boom length (m)
57.90	54.85	51.80	48.75	45.70	42.65	39.60	36.55	33.50	30.50	27.45	24.40	21.35	18.30	Working radius (m)
													100.0	5.0
												98.1	100.0	5.5
			:							77.0/6.5	86.9	93.7	94.0	6.0
								62.2/7.6	66.0/7.1	76.0	80.6	80.8	81.1	7.0
						50.7/8.7	55.0/8.2	61.3	66.0	70.5	70.5	70.6	70.7	8.0
				41.9/9.8	44.0/9.2	50.3	54.9	58.6	58.7	58.8	58.8	58.9	59.0	9.0
27.9/11.9	31.4/11.3	33.0/10.8	33.0/10.3	41.7	44.0	49.4	50.1	50.1	50.2	50.3	50.4	50.5	50.6	10.0
27.8	30.9	33.0	33.0	38.1	38.3	38.3	38.5	38.5	38.7	38.8	38.9	39.0	39.1	12.0
27.4	29.9	30.4	30.6	30.6	30.8	30.8	31.0	31.1	31.2	31.4	31.4	31.6	31.8	14.0
24.8	25.0	25.2	25.3	25.4	25.5	25.6	25.8	25.9	26.0	26.2	26.2	26.4	26.6	16.0
20.9	21.1	21.3	21.4	21.5	21.7	21.7	21.9	22.0	22.2	22.3	22.4	22.6	24.0/17.3	18.0
17.9	18.1	18.3	18.4	18.5	18.7	18.8	19.0	19.1	19.2	19.4	19.5	19.7		20.0
15.6	15.8	15.9	16.1	16.2	16.3	16.4	16.6	16.7	16.9	17.1	17.2			22.0
13.6	13.8	14.0	14.2	14.3	14.4	14.5	14.7	14.8	15.0	15.2	16.6/22.6			24.0
12.0	12.2	12.4	12.6	12.7	12.8	12.9	13.2	13.3	13.4	14.2/25.3				26.0
10.6	10.9	11.1	11.2	11.3	11.5	11.6	11.8	12.0	12.2/27.9					28.0
9.5	9.8	9.9	10.1	10.2	10.4	10.5	10.7	10.9					924525	30.0
8.6	8.8	8.9	9.1	9.2	9.4	9.5	9.8	10.6/30.5						32.0
7.7	7.9	8.1	8.3	8.4	8.6	8.7	9.3/33.2							34.0
6.9	7.2	7.3	7.5	7.7	7.8	8.0/35.8								36.0
6.3	6.5	6.7	6.8	7.0	7.2									38.0
5.7	5.9	6.1	6.3	6.4	7.0/38.5			F40.454.54		7000000000			766161656	40.0
5.1	5.4	5.6	5.7	6.1/41.1										42.0
4.6	4.9	5.1	5.3/43.7											44.0
4.1	4.4	4.7												46.0
3.7	4.0	4.6/46.4												48.0
3.3	3.8/49.0						000000000000000000000000000000000000000							50.0
3.0/51.7					respectations and a final		e ve vi gles des la la la la la la l	and section of the section of	V. FRANK R. V. FRANK S.	a, e graes astronorii	an aperonal parts	ele no entre e		52.0
											ļ			54.0

(EC498105)

Boom length (m) Working radius (m)	60.95	64.00	67.05	70.10	73.15
12.0	22.0/12.5	22.0/13.0	21.2/13.5		
14.0	22.0	22.0	21.0	19.3/14.1	17.4/14.6
16.0	22.0	22.0	20.2	18.1	16.1
18.0	20.9	20.8	18.4	16.4	14.5
20.0	17.9	17.8	16.8	14.9	13.1
22.0	15.5	15.4	15.2	13.7	12.0
24.0	13.6	13.4	13.2	12.6	10.9
26.0	12.0	11.8	11.6	11.5	10.0
28.0	10.6	10.5	10.3	10.1	9.2
30.0	9.5	9.3	9.1	9.0	8.5
32.0	8.5	8.3	8.1	8.0	7.8
34.0	7.6	7.5	7.3	7.1	6.9
36.0	6.9	6.7	6.5	6.3	6.2
38.0	6.2	6.0	5.8	5.6	5.4
40.0	5.6	5.4	5.2	4.9	4.7
42.0	5.0	4.8	4.5	4.3	4.1
44.0	4.5	4.3	4.0	3.8	3.6
46.0	4.0	3.8	3.5	3.3	3.1
48.0	3.5	3.3	3.0	2.8	2.6
50.0	3.1	2.9	2.6	2.4	2.2
52.0	2.8	2.5	2.3		
54.0	2.4	2.2			
				Œ	C498105)

(EC498105)

Liftcrane Working Ranges

Notes — Liftcrane capacities

- 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.
- 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:

100t------1.4ton 50t ------0.9ton 30t ------0.73ton 11t ------0.4ton

- 4. All capacities are rated for 360° swing.
- 5. Least stable rated condition is over the side.
- A 45.3ton upper counterweight and 1.3ton auxiliary weight are required for all capacities on this chart.
- 7. Attachment must be erected and lowered over the ends of the crawler mounting.
- 8. Main boom length must not exceed 73.15m.

Maximum fly jib length permitted-24.40m.

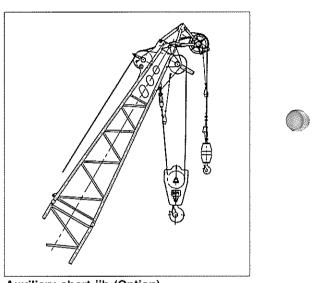
Maximum boom and fly jib combination length permitted—60.95m+24.40m/64.00m+18.30m.

Maximum boom length when mounting auxiliary short jib is 70.10m.

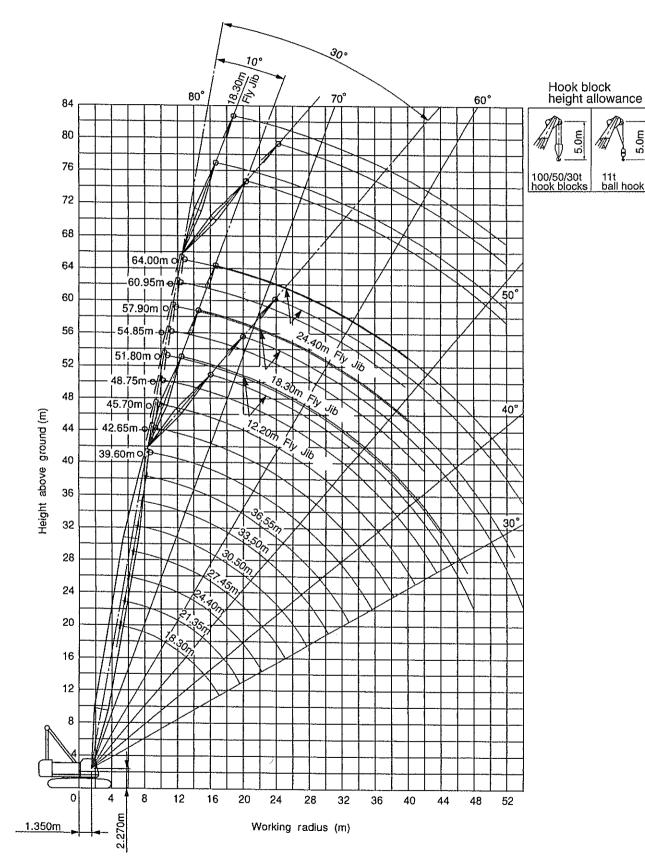
- Capacities when handling load off main boom head sheaves in case of mounting fly jib or auxiliary short jib on top of boom are detailed; if required, please consult us or nearest distributor.
- Capacities apply only to machine as originally manufactured and normally equipped by Sumitomo (S.H.I.) Construction machinery Co., Ltd.

SC1000-2S AUXILIARY SHORT JIB CAPACITIES: Max. 11.0ton

Note: Jib capacities is almost equal to the figures made by the deduction of an 300kg from the liftcrane capacities for boom length up to 70.10m unless restricted by the maximum jib capacity shown above. As to the details, please consult us or nearest distributor.



Auxiliary short jib (Option)



Note: The above working range is just under max. boom and fly jib combination i.e. 64.00m boom plus 18.30m fly jib.

Fly Jib Capacities

Boom length (m)			39	60		12010000000000	393999354935549		42	.65		
Jib length (m)	12	.20	18.	30	24	.40	12	.20	18	.30	24	.40
Jib offset angle (°) Working radius (m)	10	30	10	30	10	30	10	30	10	30	10	30
12.9	11.0						11.0/13.5					
14.0	11.0	8.0/15.9	10.0/15.5				11.0					
16.0	11.0	8.0	10.0		6.0/17.7		11.0	8.0/16.4	10.0			
18.0	11.0	8.0	10.0	6.0/19.7	6.0		11.0	8.0	10.0		6.0/18.2	
20.0	11.0	8.0	10.0	6.0	6,0	HARRIE HARRIE	11.0	8.0	10.0	6.0/20.3	6.0	Signariyaya Ar.
22.0	11.0	8.0	10.0	6.0	6.0	4.5/23.3	11.0	8.0	10.0	6.0	6.0	4.5/23.8
24.0	11.0	8.0	10.0	6.0	6.0	4.5	11.0	8.0	10.0	6.0	6.0	4.5
26.0	11.0	8.0	10.0	6.0	6.0	4.5	11.0	8.0	10.0	6.0	6.0	4.5
28.0	11.0	8.0	10.0	6.0	6.0	4.5	11.0	8.0	9.9	6.0	6.0	4.5
30.0	~ 10.9 · ·	8.0	10.0	6.0	6.0	4.5	10.7	8.0	9.7	6.0	6.0	4.5
32.0	9.9	8.0	9.7	6.0	6.0	4.5	9.7	8.0	9.4	6.0	6.0	4.5
34.0	9.0	7.8	9.2	6.0	6.0	4.5	8.8	8.0	8.9	6.0	6.0	4.5
36.0	8.2	7.6	8.4	6.0	6.0	4.5	8.0	7.8	8.3	6.0	6.0	4.5
38.0	7.5	7.4	7.8	6.0	6.0	4.5	7,3	7.5	7.6	6.0	6.0	4.5
40.0	6.9	7.0	200107:10000	5.9	5.9	4.5	6.7	6.9	7.0	5.7	6.0	4.5
42.0	6.3	6.5	6.6	5.4	5.7	4.5	6.2	6.3	6.4	5.4	5.9	4.5
44.0	5.8	5.9	6.1	5.2	5.6	4.5	5.7	5.8	5.9	5.3	5.7	4.5
46.0	5.4	5.5	5.6	5.1	5.5	4.5	5.2	5.3	5.4	5.2	5.6	4.4
48.0	5.0/17.7	5.0	5.2	5.0	5.3	4.2	4.8	4.9	5.0	5.1	5.2	4.0
50.0		4.9/48.3	4.8	4.9	5.0	4.0	4,4	4.5	4.6	4.8	4.8	4.0
52.0			4.4	4.5	4.6	3.9	4.4/50.3	4.3/51.0	4.3	4.4	4.4	3.9
54.0			4.2/53.6	4.2	4.3	3.8			4.0	4.1	4.1	3.9
56.0				4.1/54.4	4.0	3.7			3.6	3.7	3.8	3.8
58.0					3.7	3.6			3.6/56.2	3.5/57.1	3.5	3.7

Boom length (m)			45.	70					48	.75		
Jib length (m)	12	.20	20 18.30		24.40		12	12.20		.30	24	.40
Jib offset angle (°) Working radius (m)	10	30	10	30	10	30	10	30	10	30	10	30
12.9												
14.0	11.0						11.0/14.5					
16.0	11.0	8.0/17.0	10.0/16.5				11.0	8.0/17.5	10.0/17.0		l	-
18.0	11.0	8.0	10.0		6.0/18.7		11.0	8.0	10.0		6.0/19.3	
20.0	11,0	8.0	10.0	6.0/20.8	6.0	49000390900000000	500 11.0 500	8.0	10.0	6.0/21.3	6.0	36409923423513
22.0	11.0	8.0	10.0	6.0	6.0		11.0	8.0	10.0	6.0	6.0	
24.0	11.0	8.0	10.0	6.0	6.0	4.5/24.4	11.0	8.0	10.0	6.0	6.0	4.5/24.9
26.0	11.0	8.0	10.0	6.0	6.0	4.5	11.0	8.0	10.0	6.0	6.0	4.5
28.0	11.0	8.0	9.7	6.0	6.0	4.5	11.0	8.0	9.6	6.0	6.0	4.5
30.0	10.6	8.0	9.3	6.0	6.0	4.5	10.4	8.0	9.2	6.0	6.0	4.5
32.0	9.5	8.0	8.9	6.0	6.0	4.5	9.3	8.0	8.7	6.0	6.0	4.5
34.0	8.7	8.0	8.4	6.0	6.0	4.5	8.4	8.0	8.2	6.0	6.0	4.5
36.0	7.9	8.0	7.9	6.0	6.0	4.5	7.7	7.9	7.7	6.0	6.0	4.5
38.0	7.2	7.4	7.4	6.0	6.0	4.5	7.0	7.2	7.2	5.9	6.0	4.5
40.0	6.6	6.8	6.8	5.5	6.0	4.5	6.4	6.6	6.6	5.7	6.0	4.5
42.0	6.0	6.2	6.3	5.4	6.0	4.5	5.8	6.0	6.1	5.5	6.0	4.5
44.0	5.5	5.7	5.8	5.4	5.8	4.5	5.3	5.5	5.5	5.4	5.7	4.5
46.0	5.1	5.2	5.3	5.3	5.5	4.2	4.8	5.0	5.1	5.2	5.3	4.3
48.0	4.7	4.8	4.9	5.1	5.0	4.1	4.4	4.6	4.7	4.9	4,8	4.1
50.0	4.3	4.4	4.5	4.7	4.7	4.0	4.0	4,1	4.3	4.5	4.4	4.0
52.0	3.9	3.9	4.1	4.3	4.3	4.0	3.6	3.7	3.9	4.1	4.1	3.9
54.0	3.7/2.9	3.6/53.6	3.8	3.9	4.0	3.9	3.2	3.3	3.5	3.7	3.7	3.9
56.0			3.4	3.6	3.6	3.9	2,9/55.6	2.9	3.1	3.3	3.4	3.6
58.0		l .	3.1	3.2	3.3	3.5		2.9/56.3	2.8	3.0	3.0	3.3

Boom length (m)	Hadyadisənə	Sulgas ergindes yirk	74 - 15 51	.80	994460)94646946				54	.85		<i>9000000000000</i>
Jib length (m)	12.	.20	18	.30	24	24.40		12.20 18.30 24.4		18.30 24.4		.40
Jib offset angle (°)	10	30			10	30	10	30	10	30	10	30
Working radius (m)		30	10	30	10	30	Jan July	30		30	IU.	30
12.9												
14.0	11.0/15.0						11.0/5.6					
16.0	11.0		10.0/17.6				11.0					
18.0	11.0	8.0	10.0		6.0/19.8		11.0	8.0/18.5	10.0/18.1			
20.0	11.0	8.0	10.0	6.0/21.9	6.0	anten hylenn	11.0	8.0	10.0		6.0/20.3	şariyên Gravet
22.0	11.0	8.0	10.0	6.0	6.0		11.0	8.0	10.0	6.0/22.4	6.0	
24.0	11.0	8.0	10.0	6.0	6.0	4.5/25.4	11.0	8.0	10.0	6.0	6.0	4.5/25.9
26.0	11.0	8.0	10.0	6.0	6.0	4.5	11.0	8.0	10.0	6.0	6.0	4.5
28.0	11.0	8.0	9.4	6.0	6.0	4.5	11.0	8.0	9.2	6.0	6.0	4.5
30.0	10.2	8.0	8.9	6.0	6.0	4.5	10.1	8.0	8.7	6.0	6.0	4.5
32.0	9.2	8.0	8.4	6.0	6.0	4.5	9.0	8.0	8.3	6.0	6.0	4.5
34.0	8.3	8.0	7.9	6.0	6.0	4.5	8.2	8.0	7.8	6.0	6.0	4.5
36.0	7.5	7.8	7.5	6.0	6.0	4.5	7.4	7.7	7.3	6.0	6.0	4.5
38.0	6.8	7.1	7.0	5.9	6.0	4.5	6.7	6.9	6.8	6.0	6.0	4.5
40.0	6.2	6.4	6.5	5.8	6.0	4.5	6.1	6.3	6.3	5.8	6.0	4.5
42.0	5.6	5.9	5.9	5.6	6.0	4.5	5.5	5.7	5.8	5.7	6.0	4.5
44.0	5.1	5.3	5.4	5.5	5.6	4.5	5.0	5.2	5.2	5.6	5.4	4.5
46.0	4.7	4.8	4.9	5.2	5.1	4.3	4.5	4.7	4.8	5.1	5.0	4.4
48.0	4.2	4.4	4.5	4.8	4.7	4.2	4.0	4.2	4.3	4.6	4.5	4.3
50.0	3.8	3.9	4.1	4.3	4.3	4.1	3.6	3.8	3.9	4.2	1000 4.1 000	4.2
52.0	3.4	3.5	3.7	3.9	3.9	4.0	3.2	3.3	3.5	3.8	3.7	4.1
54.0	3.0	3.1	3.3	3.5	3.5	3.8	2.8	3.0	3.1	3.4	3.3	3.7
56.0	2.7	2.8	2.9	3.1	3.2	3.5	2.5	2.6	2.8	3.0	3.0	3.3
58.0	2.3	2.4	2.6	2.8	2.8	3.1	2.2	2.3	2.4	2.6	2.6	3.0

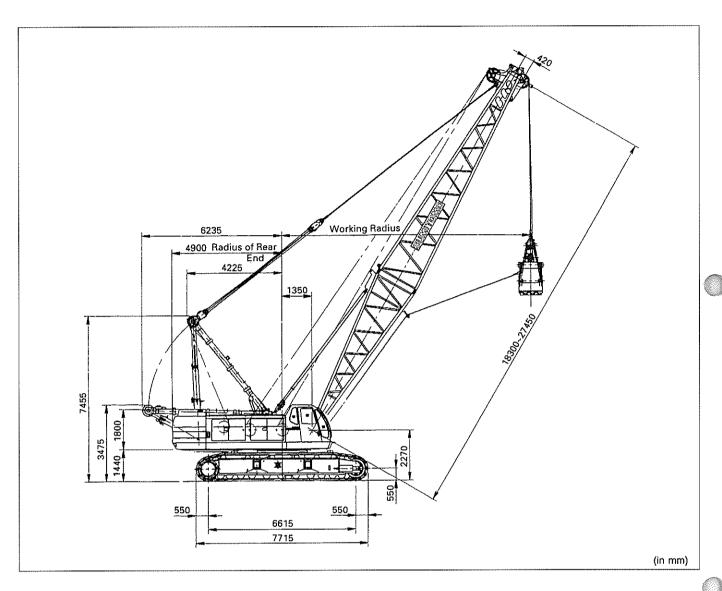
Boom length (m)			57	90					60	.95		
Jib length (m)	12	.20	18	.30	24	.40	12	.20	18	.30	24	.40
Jib offset angle (°)	10	30	10	50	10	30	10	30	10	30	10	30
Working radius (m)	10	30	10	30	10	30	10	30	IU	30	10	30
12.9												
14.0												
16.0	11.0/16.1						11.0/16.6				·	
18.0	11.0	8.0/19.1	10.0/18.6				11.0	8.0/19.6	10.0/19.2			
20.0	11.0	8.0	10.0		6.0/20.8		11.0	8.0	10.0		6.0/21.4	
22.0	11.0	8.0	10.0	6.0/22.9	6.0		11.0	8.0	10.0	6.0/23.4	6.0	
24.0	11.0	8.0	10.0	6.0	6.0		11.0	8.0	10.0	6.0	6.0	
26.0	11.0	8.0	10.0	6.0	6.0	4.5/26.5	11.0	8.0	10.0	6.0	6.0	4.5/27.0
28.0	11.0	8.0	9.1	6.0	6.0	4.5	10.5	8.0	8.9	6.0	6.0	4.5
30.0	9.8	8.0	8.5	6.0	6.0	4.5	9.7	8.0	8.3	6.0	6.0	4.5
32.0	8.8	8.0	8.0	6.0	6.0	4.5	8.7	8.0	7.8	6.0	6.0	4.5
34.0	7.9	8.0	7.6	6.0	6.0	4.5	7.8	8.0	7.3	6.0	6.0	4.5
36.0	7.1	7.5	7.1	6.0	6.0	4.5	7.0	7.3	6.9	6.0	6.0	4.5
38.0	6.5	6.7	6.6	6.0	6.0	4.5	6.3	6.6	6.4	6.0	6.0	4.5
40.0	5.8	6.1	6.1	5.9	6.0	4.5	5.7	6.0	6.0	6.0	6.0	4.5
42.0	5.3	5.5	5.6	5.8	5.8	4.5	5.1	5.4	5.4	5.8	5.6	4.5
44.0	4.7	5.0	5.0	5.4	5.2	4.5	4.5	4.8	4.9	5.2	5.1	4.5
46.0	4.2	4.5	4.5	4.9	4.8	4.5	4.0	4.3	4.3	4.8	4.6	4.5
48.0	3.7	4.0	4.0	4,4	4.3	4.4	3.5	3.8	3.8	4.2	4.1	4.4
50.0	3.3	3.5	3.6	3.9	3.8	4.3	3.1	3.3	3.4	3.8	3.6	4.2
52.0	2.9	3.1	3.2	3.5	3.4	3.9	2.7	2.9	3.0	3.3	3.2	3.7
54.0	2.5	2.7	2.8	3.1	3.0	3.5	2.3	2.5	2.6	2.9	2.9	3.3
56.0	2.2	2.3	2.5	2.7	2.7	3.1	2.0	2.1	2.3	2.6	2.5	2.9
58.0	1.9	2.0	2.2	2.4	2.4	2.7			1.9	2.2	2.2	2.5

Boom length (m)	64.00					
Jib length (m)	12	.20	18.30			
Jib offset angle (°) Working radius (m)	10	30	10	30		
12.9						
14.0						
16.0	11.0/7.2					
18.0	11.0		10.0/19.7			
20.0	11.0	8.0/20.1	10.0	60/04/30/49/09		
22.0	11.0	8.0	10.0			
24.0	11.0	8.0	10.0	6.0		
26.0	10.2	8.0	9.9	6.0		
28.0	9.5	8.0	8.8	6.0		
30.0	8.8	8.0	8.1 %	6.0		
32.0	8.1	8.0	7.6	6.0		
34.0	7.5	8.0	7.1	6.0		
36.0	6.8	7.2	6.6	6.0		
38.0	6.2	6.5	6.2	6.0		
40.0	5.5	5.8	5.8	6.0		
42.0	4.9	5.2	5.3	5.7		
44.0	4.3	4.6	4.7	5.1		
46.0	3.8	4.1	4.1	4.6		
48.0	3.3	3.6	3.7	4.1		
50.0	2.9	3,1	3.2	3.6		
52.0	2.5	2.7	2.8	3.2		
54.0	2.1	2.3	2.4	2.8		
56.0		2.0	2.1	2.4		
58.0				2.0		

Notes — Fly jib capacities

- 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 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 jib 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;
- 11t0.4ton
- 4. All capacities are rated for 360° swing.
- 5. Least stable rated position is over the side.
- A 45.3ton upper counterweight and 1.3ton auxiliary weight are required for all capacities on these charts.
- Crawler side frame must be fully extended for all operating conditions.
- Attachment must be erected and lowered over the ends of the crawler mounting.
- Maximum fly jib length permitted is 24.40m, and maximum boom and fly jib combination length permitted is 60.95m boom plus 24.40m fly jib, or 64.00m boom plus 18.30m fly iib.
- Capacities apply only to the machine as originally manufactured and normally equipped by Sumitomo (S.H.I.) Construction Machinery Co., Ltd.

Standard and Optional Equipment



■CLAMSHELL CAPACITIES:

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

- 1. Max. clamshell rating is 10.0ton.
- 2. Following weight of bucket plus load should not exceed clamshell capacities shown above.

Bucket capacity	2.0m ³	2.5m³	3.0m³
Bucket weight	4.5t	5.5t	6.5t

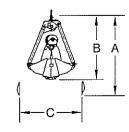
- 3. Boom length shall not exceed 21.35m.
- 4. Apparent specific gravity of lifting material:

···1.7~1.8t/m³1.8~2.0t/m³

■BUCKET	DIMEN	ISIONS:
---------	-------	---------

	-booker bimenoiono. (in r					
		2.0m³	2.5m³	3.0m³		
Α	Bucket overall height (opened)	4.52	4.37	5.37		
В	Bucket overall height (closed)	3.69	3.46	4.36		
С	Bucket opening width	3.24	3.65	3.65		

- 1. Buckets of 2.0/2.5m³ are for general excavating purpose.
- 2. A 3.0m3 bucket is for light-duty service.



	Standard equipment	Optional equipment
Superstructure	 Mitsubishi 6D24-T diesel engine with an 184kW <250ps> rated output; Hydraulic system with three variable displacement axial piston pumps and one fixed displacement duplicate tandem gear pump; Control system with one each of duplicate and triplicate tandem valves and floor type control levers; Motorcycle type "SC" controller (easy-precise-minute engine rpm and hyd. pump oil flow control device); Front and rear main operating drum winches of 22ton line pull with 530mm dia. drum lagging driven by independent variable hyd. 	 Hydrostatic third drum winch; Third drum cable, 22.4mm dia./220m long; Hydraulic tagline winder; Anemometer; recommended for luffing tower crane operation; Pump balancer; Constant swing speed mechanism; Disc type swing brake; Drum rollers; available on front/rear main, and 3rd drums; Stone guard; this is for operator's cab; Fire extinguisher;
	motor with independent hyd. circuit; provided with an 1,270mm dia. by 170mm wide external contracting band brake capable of two functions of automatic and free-fall mode, with hyd. booster; Hydrostatic boom hoist mechanism driven by hyd. motor with automatic brake; Hydrostatic swing mechanism with turntable bearing; driven by two hyd. motors w/springapplied, power hydraulically released multiple wet-disc brake; Power hydraulically retractable A-frame gantry; All new stamped, automotive type, full-vision operator's cab with large curved front window; provided with an arrangement of control system and instrument panel; 45.3ton counterweight; 1.3ton auxiliary weight; Machinery cab with hinged doors; 24-volt electrical system with two 12-volt batteries; Lighting system:	• Catwalk, along both sides of machinery cab.
	• Two 60W working lights; • One 15W interior cab light; • Accessories: • Built-in type full air-conditioning; • AM/FM radio w/clock; • Engine hourmeter; • Engine tachometer; • Fuel gauge; • Thermometer; • Hyd. oil temp. gauge; • Pilot line pressure gauge; • Foot throttle; • Intermittent window shield wipers with washers; • Re-fuel pump; • Cigar lighter; • Ash tray; • Book holder; • Sunvisor; • Sunshade; • Cup Holder; • Non-skid surfaces; • Cab front step; • Cab floor mat; • Superstructure under-cover; • Std. spare parts and tools.	

	Standard equipment	Optional equipment	
Undercarriage	 5,250mm gauge by 7,715mm long crawler lower with power hydraulically removable crawler side frames; Hydrostatic crawler drive units with shoe-in type traction motor with wet-disc type automatic brakes; 965mm wide track shoes; Automatic track tension adjusting devices; Carbody jack-up device w/4-vertical hyd. jack-up cylinder and remote control unit; Lifetime lubricated track components; Crawler side steps. 		
Liftcrane Att.	18.30m basic crane boom; 7.62m bottom section and 10.67m tapered crane top section wifive head and two guide sheaves; Bail and bridle assemblies; Main crane hoist cable; 26mm dia./300m long; Boom hoist cable; 22.4mm dia./198m long.	• 3.05m boom extension; • 6.10m boom extension; • 9.15m boom extension; • 12.20m basic fly jib; 6.10m bottom and top sections with strut and guyline pendants; • 6.10m fly jib extension; • Auxiliary short jib; • 100t duplex type hook block; • 50t hook block; • 30t hook block; • 11t ball hook; • Aux. crane hoist cable, 26mm dia./200m long.	

	Standard equipment	Optional equipment
Luffing Towercrane Att.		 1.85m tower head section; provided with rope guide sheave and tower jib hoist pendant cable guide rollers; 0.914m special tower boom extensions; 9.15m special tower boom extension (w/expanded metal); Fan-shaped post; 22.86m basic tower jib; 9.15m bottom section, one 6.10m extension and 7.62m top section; 3.05m tower jib extension; 6.10m tower jib extension; 6.10m tapered tower jib extension; 9.15m tower jib extension; Tower jib hoist bail and bridle assemblies; Tower jib hoist cable, 26mm dia./300m long (Sraf Nuflex rope with construction of "P-S (19)+39xP-7"/breaking load 66.4ton); Tower jib hoist cable, 26mm/200m long (Tough Super rope with construction of IWRC 6xP-WS (31)/breaking load 56.8t); 30t hook block (as same as an optional 30t hook block of liftcrane att.); 11t ball hook (as same as an optional 11t ball hook of liftcrane att.). Note: Boom bottom section of 7.62m long and boom extensions of 3.05m, 6.10m and 9.15m long for both liftcrane and luffing towercrane attachments are common each other.
Safety Devices	 SUMITOMO SML-06 Load Moment Limiter; this is a computerized automatic over-load preventing system with an all-machine-control purpose computer; Eight kinds of annunciating alarms; Main and aux. drum pawl locks; Boom hoist drum pawl lock; Swing lock; Swing alarm; Hook over-hoist limiting device; Boom over-hoist and -lowering limiting device; Dual boom over-hoist limiting device; Boom backstops; Speed slowdown device; Boom angle indicator; Level gauge; fitted on both floor of operator's cab, and on a part of undercarriage; Swing brake lamp; Signal horn; Travel alarm; Hook latch; Control lever locks; Fool proof shut-off system; Key lock mode selector switch; Engine monitoring lamps; Rear view mirrors; Non free-fall mode switch; Emergency machine stop buttons. 	 Annunciating swing alarm; Aux. hook over-hoist limiting device; Lifting height meter; Three color percentage indicator; Radiophone; Microphone & loud-speaker; Drum light & mirror. Followings are standard in case of luffing tower-crane attachment: Tower jib angle detector; Tower jib hook over-hoist limiting device; Tower jib hook over-hoist and -lowering limiting device; Towercrane att. self-erection mode; Tower jib backstops; Dual tower jib over-hoist limiting device.

Transport Data

	Description	Q'ty	Dimensions L×W×H (mm)	Net weight (kg)	
	Basic machine (*)	1	9,080 ×3,400 ×3,160	35,800	
	Crawler side frame	2	@7,715 ×1,235 ×1,255	@13,500/27,000	
ine	Counterweight "A"	1	3,400 ×1,485 × 845	18,100	
ach	Counterweight "B"	1	1,165 ×1,575 × 970	11,000	
Basic machine	Counterweight "C"	1	1,420 × 985 ×1,010	7,800	
3asi	Counterweight "D"	1	865 ×1,400 ×1,010	6,400	
	Counterweight "E"	1	1,165 ×1,280 × 425	2,000	
	Carbody jack-up cyl.	4	@1,005 × 970 × 260	@250/1,000	
	Bottom sect. (w/backstops)	1	7,875 ×1,965 ×2,365	2,200	
	Top sect. (w/pendant ropes)	1	11,265 ×1,965 ×2,100	2,500	
	3.05m ext. (w/pendant ropes)	1	3,165 ×1,965 ×1,965	650	
<u>.</u>	6.10m ext. (w/pendant ropes)	1	6,215 ×1,965 ×1,965	1,050	
Liftcrane attachment	9.15m ext. (w/pendant ropes)	1	9,260 ×1,965 ×1,965	1,450	
3chi	Fly jib upper sect. (w/pendant ropes)	1	6,485 × 990 × 855	450	
att	Fly jib lower sect. (w/strut, backstops and pendant ropes)	1	6,220 × 990 ×1,130	800	
ane	6.10m fly jib ext. (w/pendant ropes)	1	6,170 × 990 × 835	300	
ffcr	100t hook block	1	2,120 × 620 × 820	1,400	
تــ	50t hook block	1	1,930 × 495 × 790	900	
	30t hook block	1	1,805 × 400 × 790	730	
	11t ball hook	1	1,210 × 350 × 350	400	
	Aux. short jib	1	1,700 × 690 × 875	300	
	Bottom sect. (w/backstops)	1	7,875 ×1,965 ×2,365	2,500	
	3.05m ext. (w/pendant ropes)	1	same as those of 3.05m 6.1	Om and Q 15m evt	
	6.10m ext. (w/pendant ropes)	1	same as those of 3.05m, 6.10m and 9.15m ext		
	9.15m ext. (w/pendant ropes)	1	shown above.		
ent	9.15m special ext. (w/expanded metal)(w/pendant ropes)	1	9,260 ×1,965 ×1,965	1,500	
hme	0.914m special ext.	1	1,220 ×2,010 ×2,410	800	
ttac	Tower head sect. (w/roller bracket)	1	6,430 ×1,925 ×2,390	1,300	
je a	Fan-shaped post	1	5,690 ×1,950 × 955	1,100	
crar	Tower jib top sect. (w/pendant ropes)	1	8,285 ×1,345 ×1,290	1,200	
Luffing towercrane attachm	Tower jib bottom sect. (w/backstops and pendant ropes)	1	9,290 ×2,075 ×1,290	1,200	
	3.05m jib ext. (w/pendant ropes)	1	3,135 ×1,345 ×1,290	250	
	6.10m jib ext. (w/pendant ropes)	1	6,185 ×1,345 ×1,445	450	
	6.10m tapered jib ext. (w/pendant ropes)	1	6,185 ×1,625 ×1,290	450	
	9.15m jib ext. (w/pendant ropes)	1	9,235 ×1,345 ×1,445	650	
	Tower jib bridle and bail	1	2,125 ×1,515 × 650	850	
	30t hook block	1	same as those of 30t hook blo	ck and 11t ball hook	
	11t ball hook	1	shown above.		

^(*) Basic machine includes (a) carbody frame, (b) A-frame gantry w/bail, (c) bridle, (d) main crane hoist cable, and (e) boom hoist cable, but without four-carbody frame jack-up cylinders.

MEMO

)	,
	, , , , , , , , , , , , , , , , , , ,
	······································
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
V., J	<i>y</i>
	······································
	······································