

Specifications

Superstructure

UPPER REVOLVING FRAME:

Sumitomo designed, all-welded, precision machined, box type construction. A machined surface provided for mounting on turntable bearing.

TURNTABLE BEARING WITH INTERNAL SWING GEAR:

Single row shear ball type bearing with Sumitomo's special designed quick disconnecting device to separate outer race bolted to upper revolving frame from inner race bolted to crane carrier deck in quick and precise.

CONTROL SYSTEM:

System contains two quadruplicate tandem valves which are actuated by mechanical linkages through control levers for all motions. Working speed can be precisely controlled by stroke of floor type control levers in cooperation with pump control system and fine speed control system.

Pump control system — Manually controlled by ON-OFF switching of push button attached on a control lever. System allows minute operation and energy saving by means of reducing pump displacement.

Fine speed control system — Contains a special designed oil flow regulating valve on each hydraulic circuit so as to make a constant oil flow and a uniform working speed according to control lever stroke even changing load.

HYDRAULIC SYSTEM: System provided with two variable displacement axial piston pumps and one fixed displacement triplicate tandem gear pump for both independent and combined operations.

Main/aux. winch motor — Axial piston type with counter-balance valve, and wet disc type automatic brake.

Boom hoist cylinder — One; heavy-duty, double acting type with holding valve.

Boom telescoping cylinders — Three; heavy-duty, double acting type with holding valves.

Swing motor — One axial piston type with wet disc type brake.

Hydraulic oil reservoir — 800 liters capacity.

LOAD HOIST ASSEMBLY:

Main and aux. operating drums driven by independent hydraulic motor of bi-directional axial piston motor thru planetary and spur gear reduction unit powering the rope drum in either direction for hoisting and lowering load.

Brakes — Spring applied, power hydraulically released, multiple wet disc type automatic brake; built in each main and aux. hydraulic winch motor.

Drums — One piece, parallel grooved lagging with locking ratchet wheel cast integral;

involute-splined to drum shaft.

Drum locks — Electrically operated pawl.

Drum rollers — Available on both drums; these rollers are for right rope winding onto drums.

Drum root dia. — 380 mm (main).
380 mm (aux.).

Drum width — 787.5 mm (main).
661.5 mm (aux.).

Line pull — Max. 8,400 kg (main).
Max. 8,400 kg (aux.).

Line speed — Max. 130 mpm (main) at drum 5th layer.

Max. 120 mpm (aux.) at drum 4th layer.

SWING:

Driven by bi-directional axial piston hydraulic motor through a spur-and-planetary gear reduction unit powering swing pinion. Swing pinion meshes with internal teeth of swing (ring) gear of turntable bearing inner race.

Brakes — Manually controlled, spring-applied, power hydraulically released, multiple wet disc type brake; built in hydraulic motor.

Lock — Mechanically operated drop pin.

Speed — 2.1 rpm (high)/0.8 rpm (low).

OPERATOR'S CAB:

Acoustically treated, all new stamped, automotive type, full-vision, cushion rubber mounted, well-ventilated full compartment, roomy operator's cab with safety glass windows; provided with an arrangement of floor type control levers, built-in type air-conditioning, AM/FM radio with clock, sunvisor, sunshade, rear-view mirrors, intermittent window shield wiper with washer on both front and roof windows, and wind-up window glass on sliding door.

Instrument panel — Contains engine monitoring lamps, display panel of SUMITOMO Model SML-05A Load Moment Limiter, and engine tachometer; all located at left-hand side of operator.

Operator's seat — Full adjustable reclining seat.

MACHINERY CAB:

Equipped with hinged doors on both sides for machinery access and inspection.

UPPER MACHINERY JACK-UP DEVICE:

Optional extra; this device contains four hydraulically operated outrigger beams and jacks for self-disconnecting superstructure with boom from crane carrier quickly and precisely in cooperation with quick disconnecting type turntable bearing and remote control unit.

COUNTERWEIGHT:

"A" (4,500 kg), "B" (3,500 kg) and "C" (4,000 kg); mounted on rear of upper revolving frame. Counterweight "B" and "C" are power hydraulically raised and lowered for placement while "A" is fixed by bolt.

ELECTRICAL SYSTEM:

24-volt negative ground system; provided

with two 12-volt/150 AH batteries.

LIGHTING SYSTEM:

- Includes following lights.
- Two 60 W working lights;
 - One 60 W boom light;
 - One 10 W interior cab light;
 - One 60 W inspection light.

POWER UNIT:

Make & Model	Hino H07CT
Type	Water-cooled, 4-cycle, direct injection, turbo-charged diesel
No. of Cylinder	Six (6)
Bore & Stroke	110 mm × 118 mm
Displacement	6,728 cc
Rated Output	180 ps/2,100 rpm
Max. Torque	67 kg-m/1,600 rpm
Fuel Tank	250 liters

Boom Attachment

BOOM:

Sumitomo designed, 5-section, full power, box construction, telescoping boom with five boom head sheave machinery and two guide sheaves.

- Basic length** — 12.0 m.
- Max. length** — 45.1 m.
- Max. lifting height** — 45.5 m (w/45.1 m boom).
- Max. working radius** — 36.0 m (w/45.1 m boom).
- Hanger block** — Optional extra; this is with three sheaves, and attached to boom head shaft in case of 100 ton max. lift.

BOOM ELEVATION:

Hoisted and lowered by double acting type power hydraulic cylinder; a holding valve is provided on cylinder.

- Elevation speed** — Approx. 69 seconds from -2° to 83°.

BOOM TELESCOPING:

Extended and retracted by three power hydraulic cylinders in cooperation with by-cable-equalizing device between 3rd and 5th sections; a holding valve is provided on each cylinder.

- Boom telescoping mode change device** — Manually controlled by switching knob located on instrument panel; the device allows two boom telescoping modes of "A" and "B".
"A" mode — Second and third sections simultaneously first extended in full, and then, 4th and 5th sections simultaneously extended.
"B" mode — Four section from 2nd to 5th

simultaneously extended.

- Telescoping speed** — Approx. 136 seconds from 12.0 m to 33.1 m.

TILT JIB:

Optional extra; Sumitomo designed, 3-section, full power, box construction, telescoping jib with single boom head sheave; provided with power hydraulic tilt cylinders. This also equips jib-twist and -swingaway mechanism, and a 1.3 m adaptor for precise and quick placement on tip of main boom.

- Basic length** — 7.25 m
- Max. Length** — 18.50 m
- Max. lifting height** — 65.0 m (w/45.1 m boom and 18.5 m tilt jib).
- Max. working radius** — 44.5 m (w/45.1 m boom and 18.5 m tilt jib).
- Jib tilt angle** — 5° to 45° (against main boom).

SINGLE TOP SHEAVE:

Optional extra; attached to tip of 5th section of main boom. This is available for light load lift up to 6.5 ton with single part hoist line.

HOOK BLOCKS:

- 100 ton, with six sheaves plus hanger block with four sheaves.....Optional extra.
- 60 ton, with six sheaves.....Optional extra.
- 35 ton, with three sheaves.....Optional extra.
- 15 ton, with single sheave.....Optional extra.
- 6.5 ton, ball hookOptional extra.

CABLES:

- A 20 mm dia. of Tough Nuflex type with a 35.8 ton breaking load.
- Main crane hoist** — Std.; 260 m long.
- Aux. crane hoist** — Optional extra; 175 m long.

Crane Carrier

MAKE & MODEL:

Italian CVS FM4390 4-axle carrier with 2.75 m wide, 8x4/8x6 drive with 8x4/8x8 steer.

FRAME:

CVS special designed, all-welded box type torsion-resistant construction made of T-1 steel plate.

ENGINE:

Make & Model	Mercedes-Benz OM442A
Type	Water-cooled, 4-cycle, direct injection, diesel
No. of Cylinder	Eight (8)
Bore & Stroke	128 mm × 142 mm
Displacement	14,620 c.c.
Rated Output	354 ps/2,100 rpm
Max. Torque	163 kg-m/1,400 rpm
Fuel Tank	400 liters

TRANSMISSION:

German ZF-made, 6 forward speeds and 1 reverse automatic transmission model 6HP600, with torque converter and hydrodynamic retarder brake.

TRANSFER:

Two-speed type with coupling for first axle drive; installed third axle.

TRAVELLING SPEED:

Max. 70 kph (in case of crane carrier only).

GRADEABILITY:

Approx. 35 degrees (in case of crane carrier only).

TURNING RADIUS:

10.6 meters with 4-wheel steer of axles 1 and 2; 6.3 meters with 8-wheel counter steer.

AXLES:

German Kessler-made, heavy-duty crane carrier axles. All four axles steered. Axles 1, 3 and 4 are driving axles with planetary hub reduction, and with lockable traverse differentials. Third axle also provides lockable longitudinal differential.

SUSPENSION:

All axles are with hydropneumatic suspension and automatic levelling, and are hydraulically lockable; the levelling can also be manually controlled from driver's cab.

TYRES:

French Michelin-made, eight 16.00 R25 tyres; all axles are with single tyre.

BRAKES:

Contains three brake system.

Service — Dual circuit, servo-air brake on all eight wheels; wheels of axles 1 and 2 are with disc type while conventional drum brake are utilized on wheels of axles 3 and 4.

Parking — Pneumatically operated spring-loaded brake on wheels of axles 3 and 4.

Auxiliary — Hydraulic retarder integrated with ZF automatic powershift.

STEERING:

ZF semi-integral power steering, dual circuit, with hydraulic servo mechanism, two engine-driven pumps and axle-driven auxiliary pump.

Steering modes — Available in following four modes.

- Conventional 4-Wheel-Steer of axles 1 and 2.
- Counter steer by 8-Wheel-Steer.
- Crab steer by 8-Wheel-Steer.
- Independent 4-Wheel-Steer of each axles 1/2 and 3/4.

OUTRIGGERS:

Full width, double box front and rear, welded to crane carrier frame. Four dual hydraulically telescoping beams with vertical hydraulic jacks and outrigger floats of slide type. Independent horizontal and vertical movement controls from either side of carrier. Hydraulic power supply is

from carrier engine-driven hydraulic pumps.

Outrigger extended width — Following width is available for certain operation.

- 7.4 m full width.
- 6.2 m intermediate width.
- 5.0 m intermediate width.
- 2.48 m original width.

FRONT CENTER JACK:

Hydraulically operated; mounted at front-center of crane carrier frame; this realizes crane lifting performances for 360° full swing circle.

FLOAT UNDER-PLATE:

Optional extras; four pieces of 28 mm thickness steel plates with lifting shackles; these plates are for making better machine stable condition by lowering ground contact pressure under outrigger floats.

DRIVER'S CAB:

Acoustically treated, all steel, two-man, semi under-floor, full width roomy cab with safety glass windows; provided with an arrangement of air-conditioning, radio, sunvisor, three window shield wipers with washers.

Cab instrumentation — Illuminated instrument panel with torque converter oil temperature gauge with green-and red-coloured indicators, hydraulic suspension oil pressure gauge, speedometer, odometer, tachometer, tachograph, hourmeter, three brake air pressure gauges, engine oil pressure gauge, water temperature gauge and fuel gauge with an arrangement of switches, lamps/lights and levers.

Operator's seat — Full adjustable seat with hydraulic damper.

ELECTRICAL SYSTEM:

24-volt negative ground system with two 12-volt/155 AH batteries.

LIGHTING SYSTEM:

Includes following lights.

- Two 55 W-50 W/65 W headlights.
- One 5 W interior cab light.
- Two 20 W (front)/25 W (rear) winker lamps (orange-coloured).
- One 35 W back light.
- Two 60 W fog lamps (yellow-coloured).
- Two 25 W brake/tail lamps (red-coloured).

BOOM REST:

Provided at rear of driver's cab; this equips a couple of rubber pads on boom contact part to absorb shocks when driving crane.

ROOF PLATE:

This is made of Aluminium, and is provided on cab roof to protect a contact between crane hoist cable(s) and cab roof, and a drop of boom slide shoe lubricant onto front window.

OPERATING WEIGHT:

Approx. 28,410 kg (with outriggers).

Safety Devices

SUMITOMO MODEL SML-05A LOAD MOMENT LIMITER:

This is a computerized total safe operation control system, and automatic over-load preventing system as standard equipment.

Construction — Comprises (1) load detecting devices with amplifier for both crane applications of main boom and tilt jib, (2) angle detectors for both main boom and tilt jib, (3) length detector for both main boom and tilt jib, (4) computerized Micro Processing Unit (M.P.U.), and (5) display panel.

Functions — This system functions that if lifting load is in excess of 90% of the rated load, a pre-warning is given with yellow-coloured warning light; if it is 100%, a warning is given with red-coloured light and annunciating alarm, and all peril side motions are automatically stopped. The machine, however, can be operated in safety side motions. The SML-05A also functions to automatically set up the crane capacities available by itself in accordance with the present machine conditions as to (1) counterweight arrangements, and (2) outrigger extended width which are automatically detected by this system and are indicated on switch board of the display panel. Furthermore, this system has a working height/radius limiting function with automatic stopping. Annunciating alarm is also a function of the SML-05A with eight kinds of the alarm like "attention! automatic stopping shortly".

Display panel indication — Display panel indicates (1) load ratio between rated and present lifting loads on main boom or tilt jib on display "A", (2) tilt jib angle to ground, or tilt jib angle to main boom, or tilt jib length on display "B", (3) main boom length, or height of main boom or tilt jib tip, or no. of integrat-ing revolution of main or aux. drum on display "C", (4) rated capacity or actual lifting load of main boom or tilt jib on display "D", and (5) working radius of main boom or tilt jib, or main boom angle on display "E". Display panel also indicates the present boom direction (over side, or over front, or over rear), and machine standing with correct jack-up with light.

HOOK OVER-HOIST LIMITING DEVICE:

Interlocked with the SML-05A for automatically preventing a hook over-hoist of main boom.

BOOM OVER-HOIST AND -LOWERING LIMITING DEVICE:

This is one of key safety devices; interlocked with the SML-05A also.

TILT JIB OVER-HOIST AND -LOWERING LIMITING DEVICE:

Optional extra; this is applicable in case of applying an optional tilt jib on the machine.

SWING LOCK:

Mechanically operated drop pin; available to firmly lock superstructure in two positions of facing front or rear to crane carrier.

DRUM LOCKS:

Electrically operated pawl locks; available on both main and aux. drums.

BOOM ANGLE INDICATOR:

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

SWING ALARM:

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

HOOK LATCH:

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

LEVEL GAUGE:

Bubble type; located on instrument panel of superstructure.

LEVER LOCKS:

Provided on all control levers (except swing lever) to lock levers in neutral.

ALL MOTION STOP SWITCH:

Located on instrument panel to stop all crane motions without engine stop.

ANNUNCIATING ALARMS:

This is one of functions of the SML-05A; provided with eight kinds of the alarm like "attention please, automatic stopping shortly".

SPEED SLOWDOWN DEVICE:

This is for speed slowdown of boom lowering, tilt jib lowering and swing motions which are just before automatic stopping. This function is also available for boom hoisting and tilt jib hoisting motions which are just before reaching cylinder rod stroke end to prevent a shock.

LOAD PERCENTAGE INDICATOR:

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 91 to 100% as marginal, and Red shows over 101% as over-loading.

MICROPHONE & LOUD-SPEAKER:

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

ANNUNCIATING SWING ALARM:

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

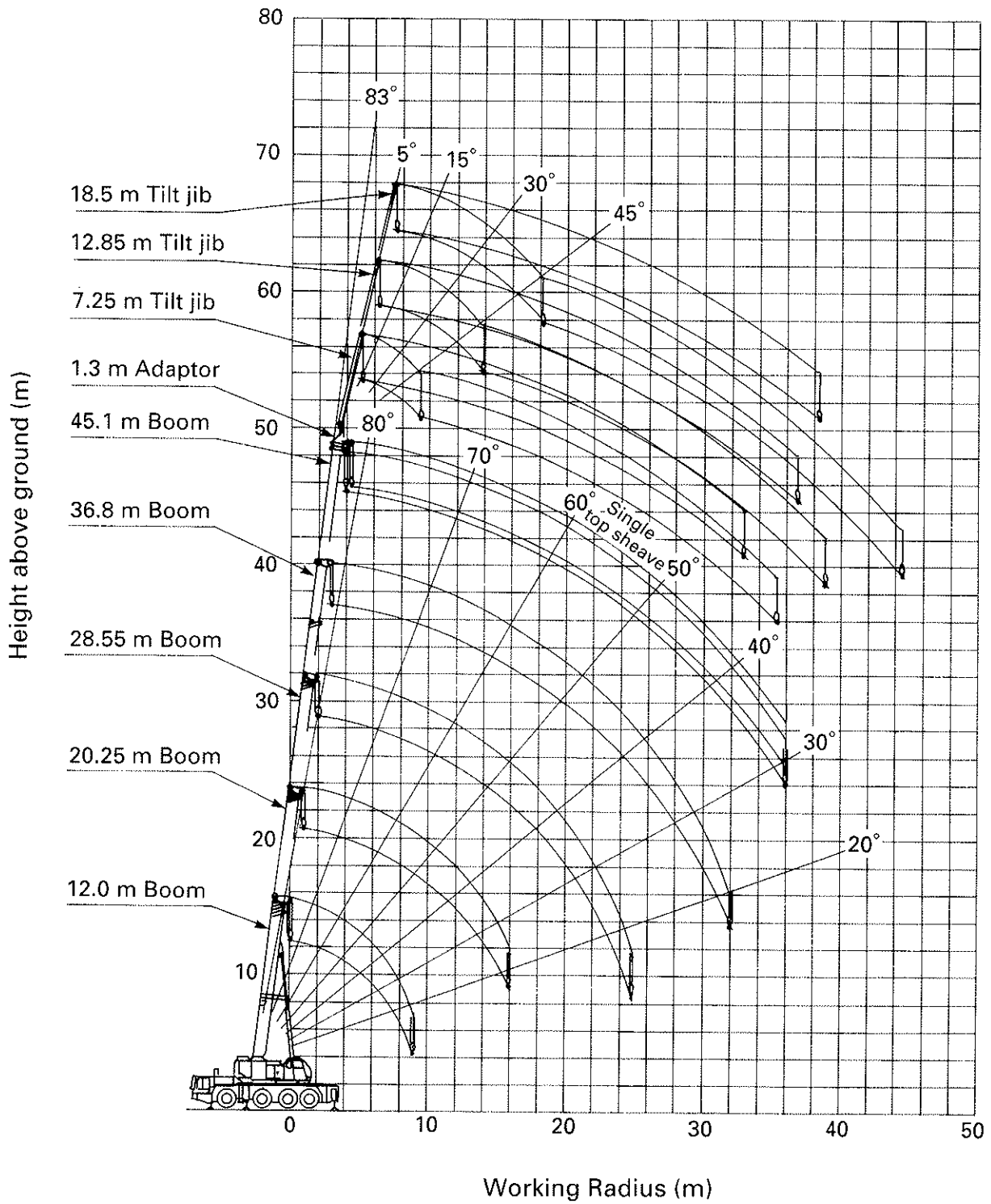
DRUM LIGHT & MIRROR:

Optional extra; these are available for aux. drum winch.

AUX. CRANE HOOK OVER-HOIST LIMITING DEVICE:

Optional extra; this is available for auxiliary crane hoist by optional tilt jib and/or single top sheave.

Working Ranges



Main Boom Crane Capacities

Crane Capacity Version "A"									
Boom length (m)	12.0	20.25		28.55		36.8		45.1	
Working radius (m)									
2.8	100.0	42.0	20.0						
3.0	93.0	42.0	20.0						
3.5	80.0	42.0	20.0	27.0	20.0				
4.0	71.0	42.0	20.0	27.0	20.0				
5.0	57.0	42.0	20.0	27.0	20.0	20.0	20.0		
6.0	47.0	42.0	20.0	27.0	20.0	20.0	20.0	12.0/6.5	
7.0	39.7	39.5	20.0	27.0	20.0	20.0	20.0	12.0	
8.0	34.0	34.4	20.0	24.2	20.0	20.0	18.5	12.0	
9.0	29.6	30.0	20.0	21.8	19.1	20.0	17.2	12.0	
10.0		26.2	20.0	19.9	17.9	18.0	16.0	12.0	
12.0		18.5	20.0	16.5	15.8	15.1	14.0	12.0	
14.0		13.7	15.2	13.5	14.0	12.7	12.3	11.0	
16.0		10.4	12.1	10.5	12.3	10.7	10.8	9.8	
18.0				8.3	10.2	9.0	9.6	8.6	
20.0				6.7	8.4	7.6	8.3	7.5	
22.0				5.3	7.0	6.3	7.1	6.6	
24.0				3.9	5.8	5.2	6.0	5.8	
26.0				3.3/25.0	5.1/25.0	4.3	5.0	5.0	
28.0						3.5	4.2	4.2	
30.0						2.6	3.4	3.5	
32.0						1.9	2.7	2.8	
34.0						1.6/33.0	2.3/33.0	2.1	
36.0								1.6	
38.0								1.1	
40.0								0.8	
Section's telescoping percentage (%)	Telescoping mode Section	A, B	A	B	A	B	A	B	A, B
	2nd	0	50	25	100	50	100	75	100
	3rd	0	50	25	100	50	100	75	100
	4th	0	0	25	0	50	50	75	100
	5th	0	0	25	0	50	50	75	100

Crane Capacity Version "B"									
Boom length (m)	12.0	20.25		28.55		36.8		45.1	
Working radius (m)									
2.8	87.0	42.0	20.0						
3.0	83.0	42.0	20.0						
3.5	74.0	42.0	20.0	27.0	20.0				
4.0	66.5	42.0	20.0	27.0	20.0				
5.0	55.0	42.0	20.0	27.0	20.0	20.0	20.0		
6.0	46.0	42.0	20.0	27.0	20.0	20.0	20.0	12.0/6.5	
7.0	39.5	39.5	20.0	27.0	20.0	20.0	20.0	12.0	
8.0	30.3	30.4	20.0	24.2	20.0	20.0	18.5	12.0	
9.0	24.0	24.3	20.0	21.8	19.1	20.0	17.2	12.0	
10.0		20.0	20.0	19.8	17.9	18.0	16.0	12.0	
12.0		14.1	15.4	14.1	15.8	15.1	14.0	12.0	
14.0		10.3	11.5	10.4	12.2	11.7	12.3	11.0	
16.0		7.7	8.9	7.9	9.5	9.1	9.8	9.8	
18.0				6.0	7.6	7.2	7.9	8.0	
20.0				4.6	6.1	5.8	6.4	6.5	
22.0				3.3	4.9	4.6	5.2	5.4	
24.0				2.0	3.9	3.7	4.3	4.4	
26.0				1.5/25.0	3.4/25.0	2.7	3.3	3.7	
28.0						1.8	2.4	2.8	
30.0						1.1	1.7	2.1	
32.0							1.1	1.5	
34.0								0.9	
36.0									
38.0									
40.0									
Section's telescoping percentage (%)	Telescoping mode Section	A, B	A	B	A	B	A	B	A, B
	2nd	0	50	25	100	50	100	75	100
	3rd	0	50	25	100	50	100	75	100
	4th	0	0	25	0	50	50	75	100
	5th	0	0	25	0	50	50	75	100

Crane Capacity Version "C"									
Boom length (m)	12.0	20.25		28.55		36.8		45.1	
Working radius (m)									
2.8	77.0	42.0	20.0						
3.0	73.5	42.0	20.0						
3.5	65.5	42.0	20.0	27.0	20.0				
4.0	58.5	42.0	20.0	27.0	20.0				
5.0	47.5	42.0	20.0	27.0	20.0	20.0	20.0		
6.0	38.2	38.0	20.0	27.0	20.0	20.0	20.0	12.0/6.5	
7.0	28.3	28.3	20.0	27.0	20.0	20.0	20.0	12.0	
8.0	21.9	22.1	20.0	22.0	20.0	20.0	18.5	12.0	
9.0	17.4	17.9	19.3	17.7	19.1	19.0	17.2	12.0	
10.0		14.7	16.0	14.6	16.5	15.9	16.0	12.0	
12.0		10.2	11.4	10.3	12.0	11.6	12.3	12.0	
14.0		7.3	8.5	7.5	9.1	8.7	9.4	9.4	
16.0		5.0	6.4	5.3	7.0	6.7	7.3	7.4	
18.0				3.4	5.4	5.2	5.8	5.9	
20.0				1.9	3.9	3.7	4.4	4.7	
22.0				0.7	2.7	2.5	3.2	3.5	
24.0					1.8	1.5	2.2	2.6	
26.0					1.3/25.0	0.7	1.4	1.7	
28.0							0.7	1.0	
30.0									
32.0									
34.0									
36.0									
38.0									
40.0									
Section's telescoping percentage (%)	Telescoping mode Section	A, B	A	B	A	B	A	B	A, B
	2nd	0	50	25	100	50	100	75	100
	3rd	0	50	25	100	50	100	75	100
	4th	0	0	25	0	50	50	75	100
	5th	0	0	25	0	50	50	75	100

Crane Capacity Version "D"									
Boom length (m)	12.0	20.25		28.55		36.8		45.1	
Working radius (m)									
2.8	80.0	42.0	20.0						
3.0	80.0	42.0	20.0						
3.5	80.0	42.0	20.0	27.0	20.0				
4.0	71.0	42.0	20.0	27.0	20.0				
5.0	56.0	42.0	20.0	27.0	20.0	20.0	20.0		
6.0	46.0	42.0	20.0	27.0	20.0	20.0	20.0	12.0/6.5	
7.0	38.5	39.0	20.0	27.0	20.0	20.0	20.0	12.0	
8.0	33.0	33.0	20.0	24.2	20.0	20.0	18.5	12.0	
9.0	28.2	27.9	20.0	21.8	19.1	20.0	17.2	12.0	
10.0		22.6	20.0	19.9	17.9	18.0	16.0	12.0	
12.0		15.8	17.5	15.7	15.8	15.1	14.0	12.0	
14.0		11.6	13.0	11.5	13.6	12.7	12.3	10.9	
16.0		8.7	10.0	8.7	10.6	10.0	10.8	9.7	
18.0				6.7	8.5	7.9	8.7	8.6	
20.0				5.2	6.8	6.3	7.1	7.1	
22.0				3.9	5.5	5.1	5.8	5.8	
24.0				2.6	4.4	4.1	4.8	4.8	
26.0				2.0/25.0	3.9/25.0	3.3	3.9	4.0	
28.0						2.3	3.0	3.2	
30.0						1.5	2.3	2.4	
32.0						0.8	1.6	1.7	
34.0							1.3/33.0	1.3	
36.0								1.0	
38.0									
40.0									
Section's telescoping percentage (%)	Telescoping mode Section	A, B	A	B	A	B	A	B	A, B
	2nd	0	50	25	100	50	100	75	100
	3rd	0	50	25	100	50	100	75	100
	4th	0	0	25	0	50	50	75	100
	5th	0	0	25	0	50	50	75	100

Crane Capacity Version "E"									
Boom length (m) Working radius (m)	12.0	20.25		28.55		36.8		45.1	
2.8	80.0	42.0	20.0						
3.0	80.0	42.0	20.0						
3.5	73.2	42.0	20.0	27.0	20.0				
4.0	65.2	42.0	20.0	27.0	20.0				
5.0	52.0	42.0	20.0	27.0	20.0	20.0	20.0		
6.0	42.4	42.0	20.0	27.0	20.0	20.0	20.0	12.0/6.5	
7.0	35.0	34.8	20.0	27.0	20.0	20.0	20.0	12.0	
8.0	26.5	26.6	20.0	24.2	20.0	20.0	18.5	12.0	
9.0	20.8	21.1	20.0	21.0	19.1	20.0	17.2	12.0	
10.0		17.2	18.7	17.1	17.9	18.0	16.0	12.0	
12.0		12.0	13.3	12.0	13.8	13.3	14.0	12.0	
14.0		8.6	9.8	8.7	10.4	9.9	10.7	10.7	
16.0		6.2	7.4	6.5	8.1	7.6	8.3	8.4	
18.0				4.7	6.3	6.0	6.6	6.7	
20.0				3.0	4.9	4.7	5.3	5.4	
22.0				1.6	3.8	3.5	4.2	4.4	
24.0					2.7	2.4	3.2	3.4	
26.0					2.2/25.0	1.4	2.2	2.5	
28.0						0.7	1.5	1.7	
30.0							0.8	1.1	
32.0									
34.0									
36.0									
38.0									
40.0									
Section's telescoping percentage (%)	Telescoping mode Section	A, B	A	B	A	B	A	B	A, B
	2nd	0	50	25	100	50	100	75	100
	3rd	0	50	25	100	50	100	75	100
	4th	0	0	25	0	50	50	75	100
	5th	0	0	25	0	50	50	75	100

Crane Capacity Version "F"									
Boom length (m) Working radius (m)	12.0	20.25		28.55		36.8		45.1	
2.8	70.0	42.0	20.0						
3.0	70.0	42.0	20.0						
3.5	62.0	42.0	20.0	27.0	20.0				
4.0	55.0	42.0	20.0	27.0	20.0				
5.0	43.0	42.0	20.0	27.0	20.0	20.0	20.0		
6.0	33.2	33.0	20.0	27.0	20.0	20.0	20.0	12.0/6.5	
7.0	24.4	24.5	20.0	24.0	20.0	20.0	20.0	12.0	
8.0	18.7	19.0	20.0	18.9	20.0	20.0	18.5	12.0	
9.0	14.8	15.2	16.7	15.1	17.1	16.5	16.2	12.0	
10.0		12.4	13.7	12.3	14.2	13.6	13.5	12.0	
12.0		8.4	9.6	8.5	10.2	9.7	9.7	10.0	
14.0		5.7	7.0	6.0	7.6	7.2	7.3	7.9	
16.0		3.4	5.0	3.7	5.7	5.2	5.6	6.1	
18.0				2.0	4.2	3.7	4.3	4.7	
20.0				0.7	2.8	2.4	3.3	3.4	
22.0					1.7	1.3	2.2	2.3	
24.0					0.8		1.3	1.4	
26.0								0.7	
28.0									
30.0									
32.0									
34.0									
36.0									
38.0									
40.0									
Section's telescoping percentage (%)	Telescoping mode Section	A, B	A	B	A	B	A	B	A, B
	2nd	0	50	25	100	50	100	75	100
	3rd	0	50	25	100	50	100	75	100
	4th	0	0	25	0	50	50	75	100
	5th	0	0	25	0	50	50	75	100

Crane Capacity Version "G"

Boom length (m) Working radius (m)		12.0	20.25		28.55		36.8		45.1
2.8		70.0	42.0	20.0					
3.0		70.0	42.0	20.0					
3.5		62.0	42.0	20.0	27.0	20.0			
4.0		55.0	42.0	20.0	27.0	20.0			
5.0		43.0	38.2	20.0	27.0	20.0	20.0	20.0	
6.0		29.5	29.0	20.0	27.0	20.0	20.0	20.0	12.0/6.5
7.0		21.5	21.6	20.0	21.0	20.0	20.0	20.0	12.0
8.0		16.3	16.6	18.2	16.5	18.0	18.0	18.1	12.0
9.0		12.8	13.2	14.6	13.1	14.5	14.5	14.5	12.0
10.0			10.6	12.0	10.5	12.0	11.9	11.9	12.0
12.0			7.0	8.2	7.0	8.5	8.3	8.3	9.0
14.0			4.3	5.8	4.6	6.2	6.0	6.1	6.8
16.0			2.2	3.8	2.5	4.6	4.4	4.6	5.2
18.0					1.0	3.1	2.8	3.5	3.8
20.0						1.9	1.5	2.3	2.6
22.0						0.9		1.4	1.6
24.0									0.8
26.0									
28.0									
30.0									
32.0									
34.0									
36.0									
38.0									
40.0									
Section's telescoping percentage (%)	Telescoping mode Section	A, B	A	B	A	B	A	B	A, B
	2nd	0	50	25	100	50	100	75	100
	3rd	0	50	25	100	50	100	75	100
	4th	0	0	25	0	50	50	75	100
	5th	0	0	25	0	50	50	75	100

Crane Capacity version "H"

Boom length (m) Working radius (m)	12.0
2.8	6.5
3.0	6.5
3.5	6.5
4.0	6.5
5.0	6.5
6.0	5.5
7.0	3.7
8.0	2.3
9.0	1.1

Notes:

- Capacities indicated in these charts are the maximum allowable, and are based on machine standing level on firm supporting surface under the ideal job conditions.
- Capacities are in metric tons, and are not more than 78% of minimum tipping loads except figures above bold lines which are based on factors other than those that would cause a tipping condition.

3. 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 weights are as follows:

100 t 1.74 ton 60 t 1.2 ton 35 t 0.50 ton
15 t 0.34 ton 6.5 t 0.16 ton

4. Machine operating conditions of seven (7) crane capacity versions from "A" to "G" are defined as follows:

(1) For Over Side Lift Case:

Outrigger Extended Width	Counterweight Arrangement			
	12.0 t	8.0 t	4.5 t	None
7.40 m full width	A	D	E	—
6.20 m intermediate width	B	E	F	—
5.00 m intermediate width	C	F	G	—
2.48 m original width	—	—	H	H

(2) For Over Front Lift Case:

Front Jack	Counterweight Arrangement			
	12.0 t	8.0 t	4.5 t	None
Use	A	D	E/H	H
No Use	C	F	G/H	H

Note: Outrigger extended width applied to the above seven (7) crane capacity versions is as follows:

"A" thru "G" versions — 5.0 m or more.
"H" version — 2.48 m.

(3) For Over Rear Lift Case:

Outrigger Extended Width	Counterweight Arrangement			
	12.0 t	8.0 t	4.5 t	None
5.0 m or more	A	D	E	—
2.48 m	—	—	H	H

Note:

Although lifting area and zone of three (3) cases mentioned above vary according to outrigger extended width, the Load Moment Limiter, Model SUMITOMO SML-05A as a computerized over-load preventing system, automatically sets up where is area and zone for three (3) lifting cases by itself accordingly.

5. Determining the crane capacities with tilt jib or single top mounted on main boom:

When handling load off main boom head sheaves, the following reductions in rated crane capacities must be made to compensate for tilt jib weight including 6.5 ton ball hook, or for single top including 6.5 ton ball hook:

Tilt jib length (m) /single top	Weight to be deducted (ton)			
	7.25	12.85	18.50	Single top
Main boom length (m)				
12.00	22.0	30.0	38.0	0.2
20.25 thru 45.1	2.7	3.0	3.3	

6. Single top crane capacities equal the rated crane capacities of main boom unless restricted by the maximum single top crane capacity of 6.5 ton.

7. All tilt jib crane capacities are defined under main boom angle; working radius shown in the tilt jib crane capacities are at 45.1 m.

Tilt jib must be operated under the condition that main boom telescoping is by "A" mode.

8. Capacities apply only to the machine as originally manufactured and normally equipped by SUMITOMO (S.H.I.) CONSTRUCTION MACHINERY CO., LTD.

Tilt Jib Crane Cap.

Crane Capacity Version "A"																								
Jib length	7.25m								12.85m								18.5m							
Jib angle	5°		15°		30°		45°		5°		15°		30°		45°		5°		15°		30°		45°	
Main boom angle (°)	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.
80.0	8.0	6.50	9.2	4.80	10.9	3.70	12.3	3.00	9.5	3.50	11.6	3.00	14.5	2.20	16.8	1.50	10.9	2.20	14.0	1.90	18.1	1.30	21.5	0.70
78.0	9.9	6.50	11.1	4.80	12.7	3.70	14.0	3.00	11.5	3.50	13.6	3.00	16.4	2.20	18.7	1.50	13.2	2.20	16.2	1.90	20.2	1.30	23.4	0.70
75.0	12.6	6.30	13.8	4.80	15.3	3.70	16.6	3.00	14.5	3.50	16.6	3.00	19.3	2.20	21.4	1.50	16.4	2.20	19.4	1.90	23.3	1.30	26.3	0.70
73.0	14.4	5.85	15.5	4.55	17.1	3.60	18.2	2.95	16.5	3.50	18.5	3.00	21.2	2.15	23.2	1.50	18.6	2.20	21.5	1.75	25.3	1.25	28.2	0.69
70.0	17.0	5.25	18.1	4.15	19.6	3.45	20.7	2.90	19.4	3.50	21.4	2.75	23.9	2.00	25.8	1.50	21.8	1.95	24.6	1.55	28.2	1.15	30.9	0.68
68.0	18.8	4.70	19.9	3.85	21.3	3.35	22.3	2.85	21.3	3.50	23.2	2.60	25.7	1.90	27.5	1.50	23.9	1.75	26.6	1.45	30.2	1.05	32.7	0.67
65.0	21.3	4.00	22.4	3.55	23.7	3.20	24.7	2.75	24.1	3.05	26.0	2.35	28.3	1.75	30.0	1.45	26.9	1.60	29.6	1.30	33.0	1.00	35.3	0.66
63.0	23.0	3.60	24.0	3.25	25.3	2.95	26.3	2.60	25.9	2.75	27.8	2.20	30.0	1.65	31.6	1.43	28.9	1.50	31.6	1.20	34.8	0.95	37.0	0.65
60.0	25.4	3.10	26.4	2.85	27.7	2.60	28.5	2.30	28.6	2.35	30.4	1.95	32.5	1.50	33.9	1.40	31.9	1.35	34.4	1.10	37.4	0.90	39.4	0.64
58.0	27.0	2.90	28.0	2.60	29.2	2.35	29.9	2.15	30.4	2.15	32.1	1.80	34.1	1.45	35.4	1.38	33.8	1.30	36.2	1.05	39.1	0.85	40.9	0.63
55.0	29.3	2.50	30.3	2.25	31.4	2.00	32.0	1.90	32.9	1.85	34.6	1.55	36.5	1.30	37.6	1.33	36.6	1.20	38.9	1.00	41.6	0.83	43.1	0.63
53.0	30.8	2.30	31.7	2.05	32.8	1.80	33.4	1.75	34.6	1.65	36.1	1.45	37.9	1.25	38.9	1.23	38.3	1.15	40.6	0.95	43.1	0.80	44.5	0.63
50.0	33.0	1.70	33.9	1.60	34.8	1.50	35.3	1.50	36.9	1.40	38.4	1.25	40.1	1.10	40.9	1.10	40.9	1.05	43.1	0.85	45.4	0.75	46.5	0.63
48.0	34.4	1.20	35.2	1.20	36.1	1.10	36.6	1.10	38.5	1.00	39.9	0.90	41.5	0.80	42.2	0.80	42.6	0.80	44.6	0.70	46.8	0.60	47.8	0.60
45.0	36.4	0.70	37.2	0.60	38.0	0.60			40.7	0.50														

Crane Capacity Version "B"																								
Jib length	7.25m								12.85m								18.5m							
Jib angle	5°		15°		30°		45°		5°		15°		30°		45°		5°		15°		30°		45°	
Main boom angle (°)	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.
80.0	8.0	6.50	9.2	4.80	10.9	3.70	12.3	3.00	9.5	3.50	11.6	3.00	14.5	2.20	16.8	1.50	10.9	2.20	14.0	1.90	18.1	1.30	21.5	0.70
78.0	9.9	6.50	11.1	4.80	12.7	3.70	14.0	3.00	11.5	3.50	13.6	3.00	16.4	2.20	18.7	1.50	13.2	2.20	16.2	1.90	20.2	1.30	23.4	0.70
75.0	12.6	6.30	13.8	4.80	15.3	3.70	16.6	3.00	14.5	3.50	16.6	3.00	19.3	2.20	21.4	1.50	16.4	2.20	19.4	1.90	23.3	1.30	26.3	0.70
73.0	14.4	5.85	15.5	4.55	17.1	3.60	18.2	2.95	16.5	3.50	18.5	3.00	21.2	2.15	23.2	1.50	18.6	2.20	21.5	1.75	25.3	1.25	28.2	0.69
70.0	17.0	5.25	18.1	4.15	19.6	3.45	20.7	2.90	19.4	3.50	21.4	2.75	23.9	2.00	25.8	1.50	21.8	1.95	24.6	1.55	28.2	1.15	30.9	0.68
68.0	18.8	4.70	19.9	3.85	21.3	3.35	22.3	2.85	21.3	3.50	23.2	2.60	25.7	1.90	27.5	1.50	23.9	1.75	26.6	1.45	30.2	1.05	32.7	0.67
65.0	21.3	4.00	22.4	3.55	23.7	3.20	24.7	2.75	24.1	3.05	26.0	2.35	28.3	1.75	30.0	1.45	26.9	1.60	29.6	1.30	33.0	1.00	35.3	0.66
63.0	23.0	3.60	24.0	3.25	25.3	2.95	26.3	2.60	25.9	2.75	27.8	2.20	30.0	1.65	31.6	1.43	28.9	1.50	31.6	1.20	34.8	0.95	37.0	0.65
60.0	25.4	3.10	26.4	2.85	27.7	2.60	28.5	2.30	28.6	2.35	30.4	1.95	32.5	1.50	33.9	1.40	31.9	1.35	34.4	1.10	37.4	0.90	39.4	0.64
58.0	27.0	2.40	28.0	2.30	29.2	2.10	29.9	2.10	30.4	2.00	32.1	1.80	34.1	1.45	35.4	1.38	33.8	1.30	36.2	1.05	39.1	0.85	40.9	0.63
55.0	29.3	1.50	30.3	1.40	31.4	1.30	32.0	1.30	32.9	1.20	34.6	1.10	36.5	1.00	37.6	0.90	36.6	1.00	38.9	0.90	41.6	0.70	43.1	0.63
53.0	30.8	1.00	31.7	1.00	32.8	0.90	33.4	0.80	34.6	0.80	36.1	0.70	37.9	0.60	38.9	0.60	38.3	0.60	40.6	0.50				
50.0																								
48.0																								
45.0																								

Crane Capacity Version "C"																								
Jib length	7.25m								12.85m								18.5m							
Jib angle	5°		15°		30°		45°		5°		15°		30°		45°		5°		15°		30°		45°	
Main boom angle (°)	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.
80.0	8.0	6.50	9.2	4.80	10.9	3.70	12.3	3.00	9.5	3.50	11.6	3.00	14.5	2.20	16.8	1.50	10.9	2.20	14.0	1.90	18.1	1.30	21.5	0.70
78.0	9.9	6.50	11.1	4.80	12.7	3.70	14.0	3.00	11.5	3.50	13.6	3.00	16.4	2.20	18.7	1.50	13.2	2.20	16.2	1.90	20.2	1.30	23.4	0.70
75.0	12.6	6.30	13.8	4.80	15.3	3.70	16.6	3.00	14.5	3.50	16.6	3.00	19.3	2.20	21.4	1.50	16.4	2.20	19.4	1.90	23.3	1.30	26.3	0.70
73.0	14.4	5.85	15.5	4.55	17.1	3.60	18.2	2.95	16.5	3.50	18.5	3.00	21.2	2.15	23.2	1.50	18.6	2.20	21.5	1.75	25.3	1.25	28.2	0.69
70.0	17.0	5.25	18.1	4.15	19.6	3.45	20.7	2.90	19.4	3.50	21.4	2.75	23.9	2.00	25.8	1.50	21.8	1.95	24.6	1.55	28.2	1.15	30.9	0.68
68.0	18.8	4.70	19.9	3.85	21.3	3.35	22.3	2.85	21.3	3.50	23.2	2.60	25.7	1.90	27.5	1.50	23.9	1.75	26.6	1.45	30.2	1.05	32.7	0.67
65.0	21.3	3.40	22.4	3.20	23.7	3.00	24.7	2.75	24.1	2.90	26.0	2.35	28.3	1.75	30.0	1.45	26.9	1.60	29.6	1.30	33.0	1.00	35.3	0.66
63.0	23.0	2.50	24.0	2.40	25.3	2.20	26.3	2.00	25.9	2.10	27.8	1.90	30.0	1.65	31.6	1.43	28.9	1.50	31.6	1.20	34.8	0.95	37.0	0.65
60.0	25.4	1.40	26.4	1.30	27.7	1.20	28.5	1.10	28.6	1.20	30.4	1.00	32.5	0.90	33.9	0.80	31.9	0.90	34.4	0.80	37.4	0.60	39.4	0.50
58.0	27.0	0.80	28.0	0.80	29.2	0.70	29.9	0.70	30.4	0.60	32.1	0.50	34.1	0.50			33.8	0.50						
55.0																								
53.0																								
50.0																								
48.0																								
45.0																								

Crane Capacity Version "D"																								
Jib length	7.25m								12.85m								18.5m							
Jib angle	5°		15°		30°		45°		5°		15°		30°		45°		5°		15°		30°		45°	
Main boom angle (°)	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.
80.0	8.0	6.50	9.2	4.80	10.9	3.70	12.3	3.00	9.5	3.50	11.6	3.00	14.5	2.20	16.8	1.50	10.9	2.20	14.0	1.90	18.1	1.30	21.5	0.70
78.0	9.9	6.50	11.1	4.80	12.7	3.70	14.0	3.00	11.5	3.50	13.6	3.00	16.4	2.20	18.7	1.50	13.2	2.20	16.2	1.90	20.2	1.30	23.4	0.70
75.0	12.6	6.30	13.8	4.80	15.3	3.70	16.6	3.00	14.5	3.50	16.6	3.00	19.3	2.20	21.4	1.50	16.4	2.20	19.4	1.90	23.3	1.30	26.3	0.70
73.0	14.4	5.85	15.5	4.55	17.1	3.60	18.2	2.95	16.5	3.50	18.5	3.00	21.2	2.15	23.2	1.50	18.6	2.20	21.5	1.75	25.3	1.25	28.2	0.69
70.0	17.0	5.25	18.1	4.15	19.6	3.45	20.7	2.90	19.4	3.50	21.4	2.75	23.9	2.00	25.8	1.50	21.8	1.95	24.6	1.55	28.2	1.15	30.9	0.68
68.0	18.8	4.70	19.9	3.85	21.3	3.35	22.3	2.85	21.3	3.50	23.2	2.60	25.7	1.90	27.5	1.50	23.9	1.75	26.6	1.45	30.2	1.05	32.7	0.67
65.0	21.3	4.00	22.4	3.55	23.7	3.20	24.7	2.75	24.1	3.05	26.0	2.35	28.3	1.75	30.0	1.45	26.9	1.60	29.6	1.30	33.0	1.00	35.3	0.66
63.0	23.0	3.60	24.0	3.25	25.3	2.95	26.3	2.60	25.9	2.75	27.8	2.20	30.0	1.65	31.6	1.43	28.9	1.50	31.6	1.20	34.8	0.95	37.0	0.65
60.0	25.4	3.10	26.4	2.85	27.7	2.60	28.5	2.30	28.6	2.35	30.4	1.95	32.5	1.50	33.9	1.40	31.9	1.35	34.4	1.10	37.4	0.90	39.4	0.64
58.0	27.0	2.90	28.0	2.60	29.2	2.35	29.9	2.15	30.4	2.15	32.1	1.80	34.1	1.45	35.4	1.38	33.8	1.30	36.2	1.05	39.1	0.85	40.9	0.63
55.0	29.3	2.00	30.3	1.90	31.4	1.80	32.0	1.70	32.9	1.60	34.6	1.50	36.5	1.30	37.6	1.30	36.6	1.20	38.9	1.00	41.6	0.83	43.1	0.63
53.0	30.8	1.40	31.7	1.40	32.8	1.30	33.4	1.20	34.6	1.10	36.1	1.10	37.9	1.00	38.9	0.90	38.3	0.90	40.6	0.80	43.1	0.70	44.5	0.63
50.0	33.0	0.70	33.9	0.70	34.8	0.70	35.3	0.60	36.9	0.60	38.4	0.50												
48.0																								
45.0																								

Crane Capacity Version "E"

Jib length	7.25m								12.85m								18.5m							
	5°		15°		30°		45°		5°		15°		30°		45°		5°		15°		30°		45°	
Main boom angle (°)	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.
80.0	8.0	6.50	9.2	4.80	10.9	3.70	12.3	3.00	9.5	3.50	11.6	3.00	14.5	2.20	16.8	1.50	10.9	2.20	14.0	1.90	18.1	1.30	21.5	0.70
78.0	9.9	6.50	11.1	4.80	12.7	3.70	14.0	3.00	11.5	3.50	13.6	3.00	16.4	2.20	18.7	1.50	13.2	2.20	16.2	1.90	20.2	1.30	23.4	0.70
75.0	12.6	6.30	13.8	4.80	15.3	3.70	16.6	3.00	14.5	3.50	16.6	3.00	19.3	2.20	21.4	1.50	16.4	2.20	19.4	1.90	23.3	1.30	26.3	0.70
73.0	14.4	5.85	15.5	4.55	17.1	3.60	18.2	2.95	16.5	3.50	18.5	3.00	21.2	2.15	23.2	1.50	18.6	2.20	21.5	1.75	25.3	1.25	28.2	0.69
70.0	17.0	5.25	18.1	4.15	19.6	3.45	20.7	2.90	19.4	3.50	21.4	2.75	23.9	2.00	25.8	1.50	21.8	1.95	24.6	1.55	28.2	1.15	30.9	0.68
68.0	18.8	4.70	19.9	3.85	21.3	3.35	22.3	2.85	21.3	3.50	23.2	2.60	25.7	1.90	27.5	1.50	23.9	1.75	26.6	1.45	30.2	1.05	32.7	0.67
65.0	21.3	4.00	22.4	3.55	23.7	3.20	24.7	2.75	24.1	3.05	26.0	2.35	28.3	1.75	30.0	1.45	26.9	1.60	29.6	1.30	33.0	1.00	35.3	0.66
63.0	23.0	3.30	24.0	3.10	25.3	2.80	26.3	2.60	25.9	2.75	27.8	2.20	30.0	1.65	31.6	1.43	28.9	1.50	31.6	1.20	34.8	0.95	37.0	0.65
60.0	25.4	2.10	26.4	1.90	27.7	1.80	28.5	1.70	28.6	1.70	30.4	1.50	32.5	1.30	33.9	1.20	31.9	1.35	34.4	1.10	37.4	0.90	39.4	0.64
58.0	27.0	1.40	28.0	1.30	29.2	1.20	29.9	1.20	30.4	1.10	32.1	1.00	34.1	0.90	35.4	0.80	33.8	0.90	36.2	0.80	39.1	0.60	40.9	0.60
55.0	29.3	0.60	30.3	0.50	31.4	0.50																		
53.0																								
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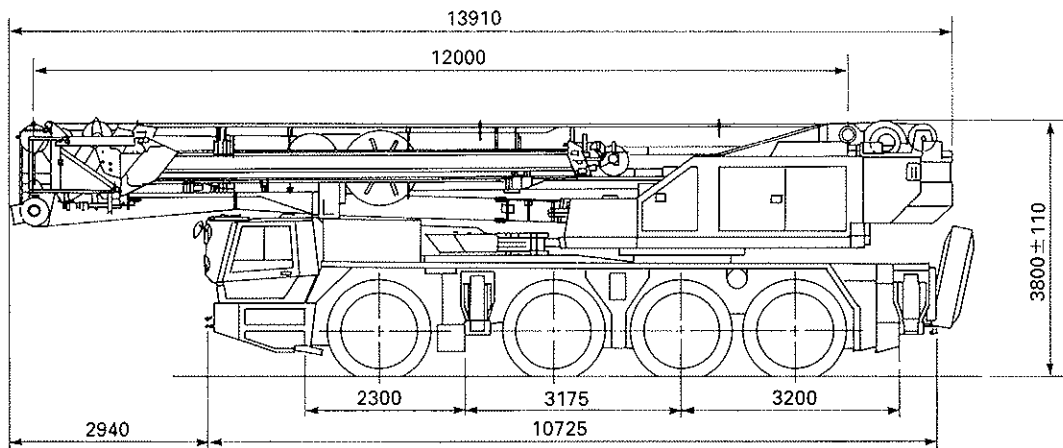
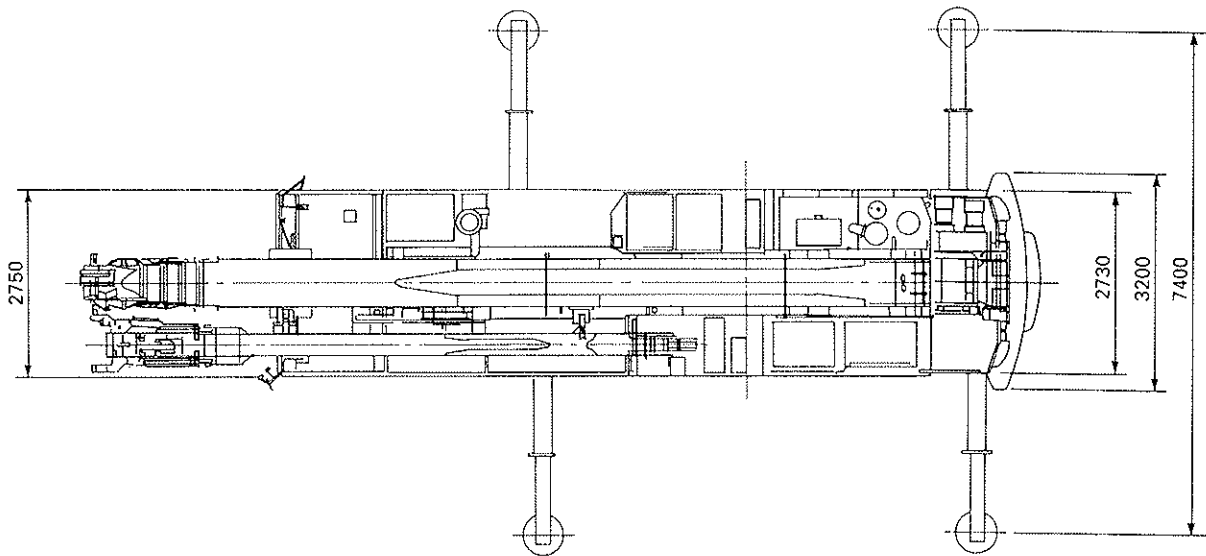
Crane Capacity Version "F"

Jib length	7.25m								12.85m								18.5m							
	5°		15°		30°		45°		5°		15°		30°		45°		5°		15°		30°		45°	
Main boom angle (°)	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.
80.0	8.0	6.50	9.2	4.80	10.9	3.70	12.3	3.00	9.5	3.50	11.6	3.00	14.5	2.20	16.8	1.50	10.9	2.20	14.0	1.90	18.1	1.30	21.5	0.70
78.0	9.9	6.50	11.1	4.80	12.7	3.70	14.0	3.00	11.5	3.50	13.6	3.00	16.4	2.20	18.7	1.50	13.2	2.20	16.2	1.90	20.2	1.30	23.4	0.70
75.0	12.6	6.30	13.8	4.80	15.3	3.70	16.6	3.00	14.5	3.50	16.6	3.00	19.3	2.20	21.4	1.50	16.4	2.20	19.4	1.90	23.3	1.30	26.3	0.70
73.0	14.4	5.85	15.5	4.55	17.1	3.60	18.2	2.95	16.5	3.50	18.5	3.00	21.2	2.15	23.2	1.50	18.6	2.20	21.5	1.75	25.3	1.25	28.2	0.69
70.0	17.0	4.80	18.1	4.15	19.6	3.45	20.7	2.90	19.4	3.50	21.4	2.75	23.9	2.00	25.8	1.50	21.8	1.95	24.6	1.55	28.2	1.15	30.9	0.68
68.0	18.8	3.70	19.9	3.40	21.3	3.10	22.3	2.85	21.3	3.20	23.2	2.60	25.7	1.90	27.5	1.50	23.9	1.75	26.6	1.45	30.2	1.05	32.7	0.67
65.0	21.3	2.30	22.4	2.10	23.7	1.90	24.7	1.80	24.1	1.90	26.0	1.60	28.3	1.40	30.0	1.30	26.9	1.50	29.6	1.30	33.0	1.00	35.3	0.66
63.0	23.0	1.40	24.0	1.30	25.3	1.20	26.3	1.10	25.9	1.20	27.8	1.00	30.0	0.90	31.6	0.70	28.9	0.90	31.6	0.70	34.8	0.60	37.0	0.50
60.0	25.4	0.50																						
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Crane Capacity Version "G"

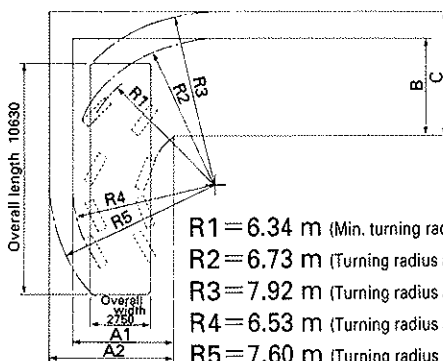
Jib length	7.25m								12.85m								18.5m							
	5°		15°		30°		45°		5°		15°		30°		45°		5°		15°		30°		45°	
Main boom angle (°)	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.	Working radius (m)	Cap.
80.0	8.0	6.50	9.2	4.80	10.9	3.70	12.3	3.00	9.5	3.50	11.6	3.00	14.5	2.20	16.8	1.50	10.9	2.20	14.0	1.90	18.1	1.30	21.5	0.70
78.0	9.9	6.50	11.1	4.80	12.7	3.70	14.0	3.00	11.5	3.50	13.6	3.00	16.4	2.20	18.7	1.50	13.2	2.20	16.2	1.90	20.2	1.30	23.4	0.70
75.0	12.6	6.20	13.8	4.80	15.3	3.70	16.6	3.00	14.5	3.50	16.6	3.00	19.3	2.20	21.4	1.50	16.4	2.20	19.4	1.90	23.3	1.30	26.3	0.70
73.0	14.4	4.70	15.5	4.20	17.1	3.60	18.2	2.95	16.5	3.50	18.5	3.00	21.2	2.15	23.2	1.50	18.6	2.20	21.5	1.75	25.3	1.25	28.2	0.69
70.0	17.0	3.10	18.1	2.80	19.6	2.50	20.7	2.40	19.4	2.60	21.4	2.30	23.9	2.00	25.8	1.50	21.8	1.95	24.6	1.55	28.2	1.15	30.9	0.68
68.0	18.8	2.30	19.9	2.10	21.3	1.90	22.3	1.80	21.3	1.90	23.2	1.70	25.7	1.50	27.5	1.40	23.9	1.60	26.6	1.40	30.2	1.05	32.7	0.67
65.0	21.3	1.40	22.4	1.20	23.7	1.10	24.7	1.00	24.1	1.10	26.0	0.90	28.3	0.70	30.0	0.60	26.9	0.80	29.6	0.70	33.0	0.50		
63.0	23.0	0.60	24.0	0.50	25.3	0.50																		
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General Dimensions



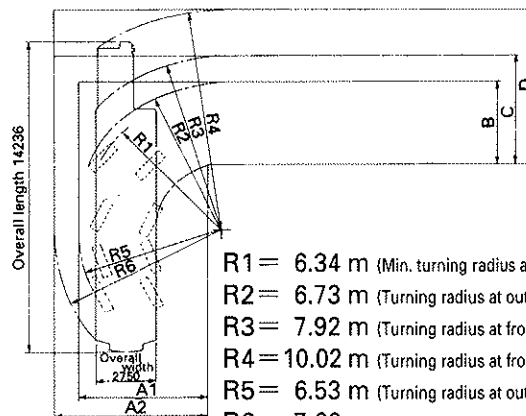
SA 1000 Min. Path Width for Square Turn

■ For Crane Carrier Only:



- R1 = 6.34 m (Min. turning radius at center of 1st axle tyre)
- R2 = 6.73 m (Turning radius at outside of 1st axle tyre)
- R3 = 7.92 m (Turning radius at front corner of chassis)
- R4 = 6.53 m (Turning radius at outside of 4th axle tyre)
- R5 = 7.60 m (Turning radius at rear corner of chassis)
- A1 = 4.64 m (Necessary entrance width for wheel)
- A2 = 5.66 m (Necessary entrance width for chassis)
- B = 4.47 m (Necessary exit width for wheel)
- C = 5.66 m (Necessary exit width for chassis)

■ For Complete Unit With Boom And Tilt Jib:



- R1 = 6.34 m (Min. turning radius at center of 1st axle tyre)
- R2 = 6.73 m (Turning radius at outside of 1st axle tyre)
- R3 = 7.92 m (Turning radius at front corner of chassis)
- R4 = 10.02 m (Turning radius at front corner of tilt jib)
- R5 = 6.53 m (Turning radius at outside of 4th axle tyre)
- R6 = 7.66 m (Turning radius at rear corner of superstructure)
- A1 = 5.90 m (Necessary entrance width for wheel)
- A2 = 7.03 m (Necessary entrance width for chassis)
- B = 3.74 m (Necessary exit width for wheel)
- C = 4.94 m (Necessary exit width for chassis)
- D = 7.03 m (Necessary exit width for boom tip)

Std. and Opt. Equipment

	Standard equipment	Optional equipment
Superstructure	<ul style="list-style-type: none"> ● Hino H07CT diesel engine; ● Hydraulic system with two variable displacement axial piston pumps and one fixed displacement triplicate tandem gear pump; ● Control system with two quadruplicate tandem valves with floor type control levers; provided with pump control and fine speed control systems; ● Main and aux. drum winches driven by independent hyd. motor with wet disc type automatic brake; ● Hydrostatic swing mechanism with wet disc type brake and quick-disconnect type turntable bearing; ● Counterweights "A" (4.5 t) and "B" (3.5 t) w/power hydraulic raising/lowering device; ● All new stamped automotive type operator's cab with an arrangement of floor type control levers and reclining seat; ● Machinery cab with hinged doors; ● Electrical system with two 12-volt/150 AH batteries; ● Lighting system: <ul style="list-style-type: none"> · Two 60 W working lights; · One 60 W boom light; · One 10 W interior cab light; · One 60 W inspection light; ● Accessories: <ul style="list-style-type: none"> · Air-conditioning (built-in type); · Engine monitoring lamps; · Engine tachometer; · Engine glow plug indicator; · AM/FM radio with clock; · Sunvisor; · Sunshade; · Intermittent wind shield wiper with washer on front and roof windows; · Two rear-view mirrors; · Foot and hand throttles; · Cigarette lighter; · Cup holder; · Ash tray; · Manual holder; · Hyd. oil temp. gauge; · Hyd. oil pressure gauge; · Water temp. gauge. 	<ul style="list-style-type: none"> ● Upper machinery jack-up device with 4-hydraulically operated outrigger beams and jacks w/remote control unit; ● Re-fuel pump.
Boom Attachment	<ul style="list-style-type: none"> ● 12.0m-45.1m long, five-section, full power, box construction, telescoping boom; ● Boom elevation mechanism; ● Boom telescoping mechanism; ● 20mm dia. by 260m long main crane hoist cable. 	<ul style="list-style-type: none"> ● 7.25m-18.50m long, three-section, full power, box construction, telescoping type tilt jib; ● Single top sheave; ● 80 ton hook block; ● 55 ton hook block; ● 35 ton hook block; ● 15 ton hook block; ● 6.5 ton ball hook; ● 20mm dia. by 175m long aux. crane hoist cable; ● Hanger block with two sheaves; this is required in a case of an 80 ton max. lift.

	Standard equipment	Optional equipment
Crane Carrier	<ul style="list-style-type: none"> ● CVS FM4390 4-axle carrier, 8×4/8×6 drive with 8×4/8×8 steer; ● Mercedes-Benz OM442A carrier engine; ● ZF 6HP600 automatic transmission with torque converter and retarder; ● Kessler-made, heavy-duty crane carrier axles; ● Hydropneumatic suspension mechanism; ● Michelin 16.00 R25 tyres; ● Four hyd. outriggers; ● Front center jack; ● Electrical system with two 12-volt 155 AH batteries; ● Lighting system: <ul style="list-style-type: none"> · Two 55 W-50 W/65 W headlights; · Two 20 W (front)/25 W (rear) winker lamps (orange-coloured); · One 35 W back light; · Two 60 W fog lamps (yellow-coloured); · Two 25 W brake/tail lamps (red-coloured); · One 5 W interior cab light; ● Accessories: <ul style="list-style-type: none"> · T/C oil temp. gauge; · Hyd. suspension oil pressure gauge; · Speedometer; · Odometer; · Tachometer; · Tachograph; · Hourmeter; · Brake air pressure gauges; · Engine oil pressure gauge; · Water temp. gauge; · Fuel gauge; · Air-conditioning; · Radio; · Two rear-view mirrors; · One front-view mirror; · Three intermittent wind shield wipers with washer; · Sunvisor; · Sunshade. 	<ul style="list-style-type: none"> ● Float under-plate; ● Spare tyre and rim; ● Spare tyre only; ● Spare rim only.
Safety Devices	<ul style="list-style-type: none"> ● SUMITOMO SML-05A Load Moment Limiter; ● Hook over-hoist limiting device; ● Boom over-hoist and -lowering limiting device; ● Load percentage indicator; ● Swing lock; ● Drum locks; ● Boom angle indicator; ● Swing alarm; ● Hook latch; ● Level gauge; ● Lever locks; ● All motion stop switch; ● Annunciating alarms; ● Speed slowdown device; ● Tape-type non-skid material; provided on upper surfaces of main boom (and tilt jib). 	<ul style="list-style-type: none"> ● Microphone and loud-speaker; ● Annunciating swing alarm; ● Drum light and mirror. ● Aux. crane hook over-hoist limiting device; ● Tilt jib over-hoist and -lowering limiting device.

SA1000



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SA 1000

100-M ton All Terrain Crane

Technical Data

