



## Upper Machinery

**UPPER FRAME:** All-welded, precision machined unit.

**TURNTABLE BEARING WITH INTEGRAL RING GEAR:** Outer race is bolted to upper frame, inner race with internal ring gear is bolted to lower frame. Swing pinion meshes with internal, integral ring gear. A machined surface is provided for mounting turntable bearing.

**CONTROL SYSTEM:** Remote controlled hydraulic servo for main hoist, aux. hoist, boom hoist and travel. Mechanical linkage type for swing. Working speed can be precisely controlled by lever stroke.

**PUMP CONTROL SYSTEM:** System reducing pump displacement enables both minute operation and saving energy.

**HYDRAULIC SYSTEM:** System combining variable displacement axial pumps and fixed displacement gear pumps provides both independent and combined operations of all functions.

**Main hoist/aux. hoist/boom hoist** — Axial piston motor with counterbalance valve.

**Swing motor** — Axial piston motor.

**Travel motor** — Axial piston motors with brake valves. Spring-applied/hydraulic-released multiple disc brakes are fitted.

**Hydraulic oil reservoir** — 160 liter capacity.

**LOAD HOIST ASSEMBLY:** Front (main) and rear (aux.) operating drums. Each driven by the bi-directional, axial piston motor through reduction gear powering the rope drum in either direction for hoisting or lowering load. 3rd drum equipped as optional extra.

**Clutches** — Power hydraulic actuated, internal expanding, self adjusting 2-shoe type.

**Brakes** — External contracting band type operated by foot pedal with locking latch. For crane mode, automatic brake (spring applied, hydraulically released) is applied when control lever in neutral position. For bucket mode, free-fall is available when control lever in neutral position.

**Locks** — Electrically operated drum lock pawl.

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

**Brake** — Spring applied, hydraulically released multiple disc type.

**Lock** — Electrically operated drum lock pawl.

**SWING:** Driven by axial piston motor, through reduction gear.

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

**Lock** — Mechanically operated pin connection frame lock.

**Speed** — 3.0 rpm.

**OPERATOR'S CAB:** Full vision compartment with safety glass panels, the completely independent cab is insulated against noise and vibration.

**COUNTERWEIGHT:** Removable, 2 block mounted on rear of upper frame by bolts.

**POWER UNIT:**

Make & Model	HINO HO6CT
Type	Water-cooled, 4-cycle diesel engine
No. of cylinders	6
Bore & Stroke	108mm x 118mm
Displacement	6,485 cc
Rated output	150 ps/2,100 rpm
Max. torque	52 kg-m/1,600 rpm
Fuel tank	290 liters

## Lower Machinery

**LOWER FRAME:** All welded robust rolled steel, box construction.

**SIDE FRAMES:** All welded robust rolled steel. Connected to lower frame by links and pins.

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

**Bottom** — 9 pcs. per side frame.

**Top** — 3 pcs. per side frame.

**DRIVE SPROCKETS:** Heat treated, involute splined to drive shaft mounted on antifriction bearings.

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

**TRACKS:** Heat treated, self cleaning, two lug type, multiple hinged shoes, 59 pcs. per side frame.

**Shoe width** — 760 mm

Tractor type link shoe (58 pcs. per side frame) is available as option.

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

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

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

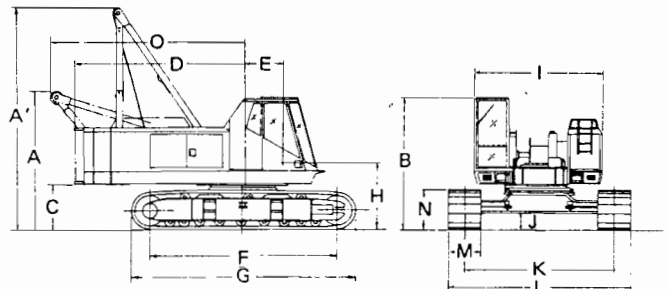
**Speed** — Two speed range

2.0 km/h ----- Pump control "OFF" (ordinary)

0.3 km/h ----- Pump control "ON"

### General Dimensions

A	: Height over low gantry unit	3.230m
A'	: Height over high gantry unit	5.430m
B	: Height of cab	3.105m
C	: Counterweight ground clearance	1.100m
D	: Radius of rear end	4.150m
E	: Center of rotation to boom foot pin	0.950m
F	: Center to center distance of tumbler	4.840m
G	: Overall length of crawler	5.725m
H	: Height from ground to boom foot pin	1.655m
I	: Overall width of house	3.090m
J	: Ground clearance	0.410m
K	: Center to center distance of crawler	
	extended	3.590m
	retracted	2.540m
L	: Overall width of crawler	
	extended	4.350m
	retracted	3.300m
M	: Shoe width	0.760m
N	: Height of shoe	0.965m
O	: Tail swing radius at low gantry	4.720m



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

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

International sales Div., 1-21, Kanda, Nishiki-cho, Chiyoda-ku, Tokyo, Japan

Telex: J27961 (AAR: SHIKENKI) Fax: Tokyo (03) 233-0138 Phone: Tokyo (03) 296-5284

Printed in Japan

# LS-118RH<sub>5</sub>

## LS-118RH-5 CRANE CAPACITIES (WITH CRANE BOOM):

(in metric tons)

Working radius (m)	Boom length (m)														
	12.20	15.25	18.30	21.35	24.40	27.45	30.50	33.55	36.60	39.65	42.70	45.75	48.80	51.85	
3.7	50.00														
4.0	44.00	43.50/3.9													
4.5	37.10	37.05	37.00												
5.0	30.90	30.80	30.70	30.50											
5.5	26.50	26.40	26.30	26.10	26.00										
6.0	23.60	23.50	23.40	23.30	23.10	23.00	19.20/6.6								
7.0	18.70	18.60	18.50	18.40	18.30	18.20	18.10	17.50/7.1	15.70/7.6						
8.0	15.58	15.40	15.30	15.20	15.10	15.00	14.90	14.80	14.70	13.90/8.2					
9.0	13.20	13.10	13.00	12.90	12.80	12.70	12.60	12.60	12.50	12.40	12.30	11.80/9.2			
10.0	11.60	11.50	11.40	11.30	11.20	11.10	11.00	10.90	10.80	10.70	10.60	10.50	10.40		
12.0	9.60/11.6	9.10	9.00	8.90	8.80	8.70	8.60	8.50	8.40	8.40	8.30	8.20	8.00	7.90	
14.0		7.60	7.50	7.40	7.30	7.20	7.10	7.00	7.00	6.90	6.80	6.60	6.50	6.40	
16.0		7.40/14.3	6.30	6.20	6.10	6.00	5.90	5.80	5.80	5.70	5.60	5.50	5.40	5.30	
18.0			5.90/16.9	5.20	5.10	5.10	5.00	4.90	4.90	4.80	4.70	4.60	4.50	4.40	
20.0				4.70/19.6	4.50	4.40	4.30	4.20	4.20	4.10	4.00	3.90	3.80	3.70	
22.0					3.90	3.80	3.70	3.60	3.70	3.50	3.40	3.30	3.20	3.10	
24.0					3.80/22.2	3.30	3.20	3.10	3.10	3.00	2.90	2.80	2.70	2.60	
26.0						3.00/24.9	2.80	2.70	2.70	2.60	2.50	2.40	2.30	2.20	
28.0							2.50/27.5	2.50	2.40	2.30	2.20	2.10	2.00	1.90	
30.0								2.20	2.10	2.00	1.90	1.80	1.70	1.60	
32.0									1.80	1.70	1.60	1.50	1.40	1.30	
34.0									1.50/32.8	1.50	1.40	1.20	1.10	1.00	

### Notes:

- Capacities shown are in metric tons and are based on 75% of minimum tipping loads — over the side — with machine standing level on firm supporting surface under ideal job conditions. Deductions from the lifting crane capacities must be made for weight of hook block.

Kind of hook block	50 t	15 t	5 t
Weight of hook block (t)	0.75 t	0.30 t	0.12 t

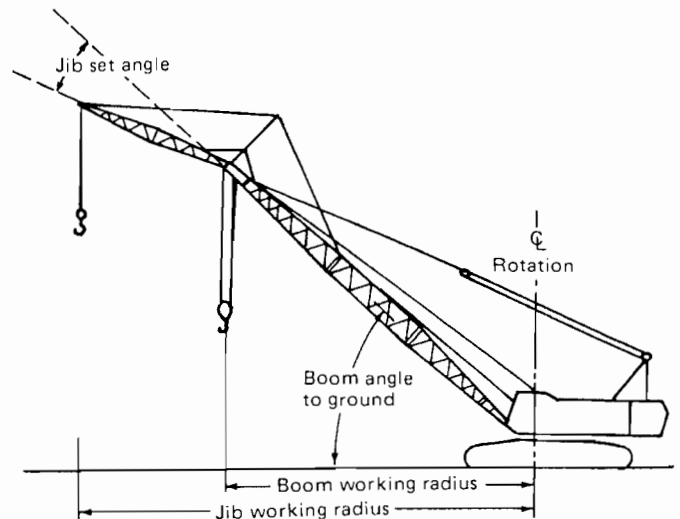
- When operating of the main boom peak sheaves with jib on boom the following deductions in machine lifting capacities must be made.

Jib length (m)	6.10	9.15	12.20	15.25
Weight to be deducted (t)	0.75	0.90	1.05	1.20

## LS-118RH<sub>5</sub> JIB CAPACITIES:

(in metric tons)

Jib length (m)	Jib set angle	Max. jib Capacities
6.10	10°	5.0
	30°	5.0
9.15	10°	5.0
	30°	5.0
12.20	10°	4.1
	30°	4.1
15.25	10°	3.3
	30°	3.3



### Notes:

- The jib capacities are equal to the crane lifting capacities of the main boom on which the jib is fixed except that they are restricted by the maximum jib capacities shown left.
- Jib working radius does not exceed the working radius of the main boom which fits the jib.
- Deductions from the jib capacities must be made for weight of jib hook block (0.12 t).
- Available boom length to attach the jib is from 21.35m to 42.7m. The maximum jib length is 15.25m.
- The jib set angle to boom must not exceed 30°.



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

- Boom connections . . . . . In-line pin connections.
- Basic boom . . . . . Two-piece, 12.2m basic length; 6.1m base and 6.1m top section; 1.2m deep and 1.27m wide at connections.
- Boom point machinery . . . . . Five head sheaves mounted on antifriction bearings.
- Boom extensions . . . . . Available in 3.05m, 6.1m and 9.15m lengths with pendants. Maximum boom length 51.85m.
- Jib . . . . . Two-piece; 6.1m basic length with 3.05m long base and top sections, 0.5m deep and 0.61m wide at connections.
- Jib extensions . . . . . Available in 3.05m jib extensions. Maximum jib length 15.25m.
- Boom plus jib length . . . . . 42.7m + 15.25m

Angle main chords, with bracing of angle steel is available as option.

**HOOK BLOCK:**

- 50 t, four sheaves . . . . . Standard
- 15 t, one sheave . . . . . Optional extra
- 5 t, no sheave . . . . . Standard for jib

**GANTRY:** Retractable high gantry.

**LINE SPEED:**

Drums	Root dia.	Type	Line speed (Hoisting, Lowering)		Cable dia.
			Pump control "OFF" (Ordinary)	Pump control "ON"	
Main hoist (Front)	400mm	Parallel grooved	High 80 m/min Low 40 m/min	High 15 m/min Low 7.5 m/min	20mm
Aux. hoist (Rear)	400mm	Parallel grooved	High 80 m/min Low 40 m/min	High 15 m/min Low 7.5 m/min	20mm
3rd drum (option)	320mm	Parallel grooved	65 m/min	12 m/min	16mm
Boom hoist	280mm	Parallel grooved	64 m/min	12 m/min	14mm

Notes:

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

**HOIST REEVING:**

No. of parts of line	Main hoist								
	9	8	7	6	5	4	3	2	1
Max. load (t)	50.0	44.8	39.2	33.6	28.0	22.4	16.8	11.2	5.6

**WORKING WEIGHT AND GROUND PRESSURE:**

Shoe width	Weight	Pressure
760mm	47.2t	0.60 kg/cm <sup>2</sup>

With basic boom and counterweight.

Weight without counterweight (with basic boom): approx. 29.8 t.

**COUNTERWEIGHT:** Total . . . 14.4 t.

**SAFETY DEVICE:** Hook over hoist limiting device, boom over hoist limiting device, boom angle indicator, boom back stop, drum pawl lock for main, aux. and boom hoist drum safety valve in hydraulic circuit, swing alarm, load moment limiter (optional extra).

**GRADEABILITY:** 40% (22°)  
with basic boom and counterweight

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

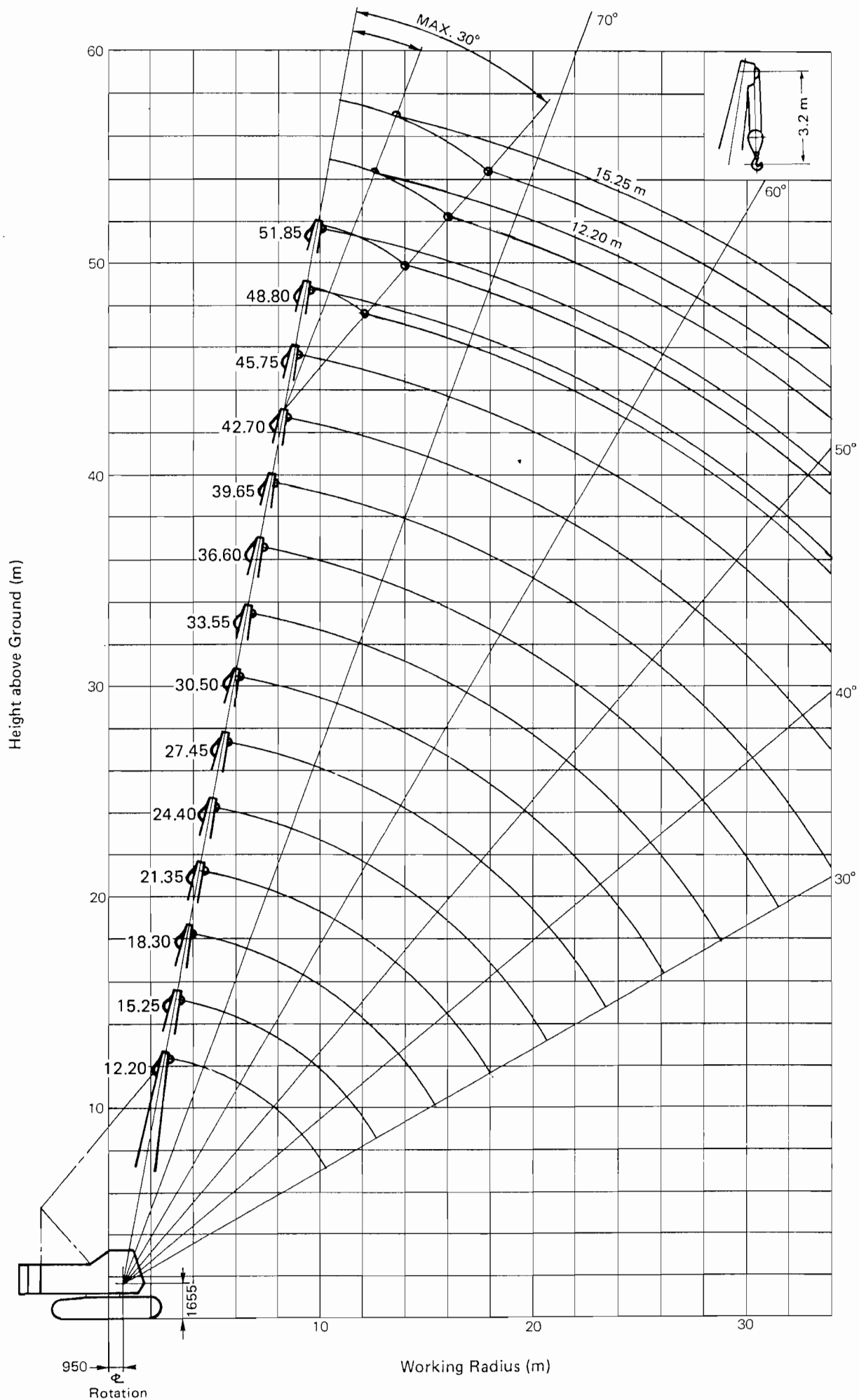
**SUMITOMO (S.H.I.) CONSTRUCTION MACHINERY CO., LTD.**

International sales Div., 1-21, Kanda, Nishiki-cho, Chiyoda-ku, Tokyo, Japan

# Crane 50 metric tons



## LS-118RH-5 CRANE WORKING RANGES





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

**Boom connections** . . . In-line pin connections.

**Basic boom** . . . Two-piece, 12.2m basic length; 6.1m base and 6.0m top section; 1.2m deep and 1.27 wide at connections.

**Boom point machinery** . . . Five head sheaves mounted on anti-friction bearings.

**Boom extensions** . . Available in 3.05m, 6.1m and 9.15m lengths with pendants. Maximum boom length 18.3m.

Angle main chords, with bracing of angle steel is available as option.

**COUNTERWEIGHT:** 14.4t

**SAFETY DEVICE:** Boom over hoist limiting device, drum pawl lock for closing, holding and boom hoist drum, swing lock, safety valve in hydraulic circuit, boom angle indicator, boom back stop.

**TAGLINE WINDER:** Spring-wound, drum-type mounted on boom, single stage type . . . . . Standard Spring-wound, drum-type mounted on boom, double stage type . . . . . Optional extra Hydraulic type mounted in front of the revolving frame . . . . . Optional extra

**GRADEABILITY:** 40% (22°) with basic boom, 1.0m<sup>3</sup> bucket and counterweight.

**MAXIMUM CLAMSHELL RATING:** 5.0t

**LINE SPEED:**

Drums	Root dia.	Type	Line speed (Holding, Closing)		Cable dia.
			Pump control "OFF" (Ordinary)	Pump control "ON"	
Holding	400mm	Parallel grooved	High 80 m/min Low 40 m/min	High 15 m/min Low 7.5 m/min	20mm
Closing	400mm	Parallel grooved	High 80 m/min Low 40 m/min	High 15 m/min Low 7.5 m/min	20mm
3rd drum (option)	320mm	Parallel grooved	65 m/min	12 m/min	16mm
Boom hoist	280mm	Parallel grooved	64 m/min	12 m/min	14mm

Notes:

- Above line speed is based on first layer.
- Above line speed varies with load.

**GANTRY:** Retractable high gantry

**WORKING WEIGHT AND GROUND PRESSURE:**

Shoe width	Weight	Pressure
760 mm	49.7 t	0.63 kg/cm <sup>2</sup>

Notes:

- With basic boom, 1.0m<sup>3</sup> bucket and counterweight.
- Weight without counterweight and front attachment: approx. 29.8t

**LS-118RH5 CLAMSHELL CAPACITIES AND WORKING RANGES:**

(in metric tons)

Boom length (m)								
12.20			15.25			18.30		
R (m)	A (°)	L (t)	R (m)	A (°)	L (t)	R (m)	A (°)	L (t)
7.0	63.0	5.0						
8.0	57.5	5.0	8.0	64.6	5.0			
9.0	51.6	5.0	9.0	60.3	5.0	9.0	65.7	5.0
10.0	45.1	5.0	10.0	55.8	5.0	10.0	62.2	5.0
12.0	28.8	5.0	12.0	45.9	5.0	12.0	54.7	5.0
			14.0	33.9	5.0	14.0	46.5	5.0
						16.0	36.8	5.0

R: Working radius A: Boom angle L: Rated load

Notes:

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

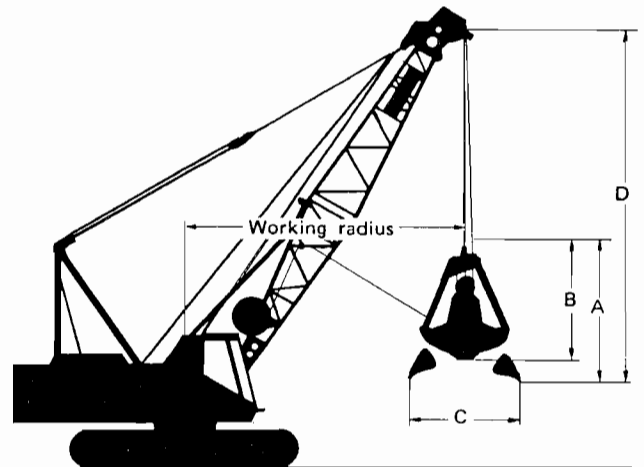
Bucket capacity	0.6m <sup>3</sup>	0.8m <sup>3</sup>	1.0m <sup>3</sup>	1.2m <sup>3</sup>
Bucket weight	1.6t	2.1t	2.5t	2.3t

- Boom length shall not exceed 19.0m.

- Apparent specific gravity of lifting material:

Earth . . . . . 1.7~1.8t/m<sup>3</sup>  
Gravel . . . . . 1.8~2.0t/m<sup>3</sup>

- High gantry is required and side frames must be extended for all operating conditions.



(in meters)

	Bucket capacity	0.6m <sup>3</sup>	0.8m <sup>3</sup>	1.0m <sup>3</sup>	*1.2m <sup>3</sup>
A	Bucket overall height (opened)	2.8	3.3	3.3	3.2
B	Bucket overall height (closed)	2.4	2.7	2.8	2.8
C	Bucket opening width	2.3	2.5	2.5	2.9
D	Bucket clearance	4.6	5.1	5.1	5.0

\* Light duty service

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International sales Div., 1-21, Kanda, Nishiki-cho, Chiyoda-ku, Tokyo, Japan

Telav: 027961 (AAR: SHIKENKI) Fax: Tokyo (03) 233-0138 Phone: Tokyo (03) 296-5284

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

**Boom connections** ---- in-line pin connections

**Basic boom** --- Two-piece, 12.2m basic length; 6.1m base and 6.1m top section; 1.2m deep and 1.27m wide at connections.

**Boom point machinery** --- One head sheave mounted on anti-friction bearings.

**Boom extensions** --- Available in 3.05m, 6.1m and 9.14m lengths with pendants.

Angle main chords, with bracing of angle steel is available as option.

**MAXIMUM DRAGLINE RATING:** 5.0 t

**GANTRY:** Retractable high gantry.

**LINE PULL AND LINE SPEED:**

**WORKING WEIGHT AND GROUND PRESSURE:**

Shoe width	Weight		Pressure
760 mm (Standard)	48.2 t	With basic boom	0.61 kg/cm <sup>2</sup>
	48.6 t	With 18.3m boom	0.62 kg/cm <sup>2</sup>

(With boom, 1.0m<sup>3</sup> bucket and counterweight)

**COUNTERWEIGHT:** 7.15 t ("A")

**SAFETY DEVICE:** Boom hoist limiting device, boom angle indicator, boom back stop, drum lock pawl for front, rear and boom hoist.

**FAIRLEAD:** Full-revolving type.

**GRADEABILITY:** 30% (17°)

Drums	Root dia.	Type	Line speed (Hoisting, Lowering)		Line pull	Cable dia.
			Pump control "OFF" (Ordinary)	Pump control "ON"		
In haul (Front)	400mm	Parallel grooved	High 80 m/min Low 40 m/min	High 15 m/min Low 7.5 m/min	15.0 t	20mm
Hoisting (Rear)	400mm	Parallel grooved	High 80 m/min Low 40 m/min	High 15 m/min Low 7.5 m/min	15.0 t	20mm
3rd drum (option)	320mm	Parallel grooved	65 m/min	12 m/min	---	16mm
Boom hoist	280mm	Parallel grooved	64 m/min	12 m/min	---	14mm

Above line speed varies with load.

Drum lagging (400mm root dia./for use of 22.4mm cable dia.) is available as option for dragline.

## LS-118RH5 DRAGLINE CAPACITIES AND WORKING RANGES:

(in metric tons)

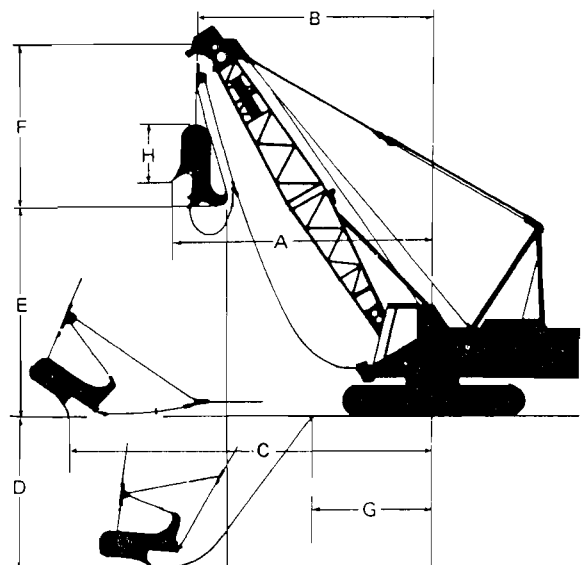
Boom length (m)		12.20			15.25			18.30			
Boom angle (°)		30	40	50	30	40	50	30	40	50	
Rated load (t)		5.0	5.0	5.0	5.0	5.0	5.0	4.1	4.8	5.0	
A	Max. dumping radius (m)	0.6m <sup>3</sup>	12.4	11.2	9.8	15.1	13.6	11.7	17.7	15.9	13.7
		0.8~1.0m <sup>3</sup>	12.5	11.3	9.9	15.2	13.7	11.8	17.8	16.0	13.8
		1.2m <sup>3</sup>	12.6	11.4	10.0	15.3	13.8	11.9	17.9	16.1	13.9
B	Working radius (m)	11.9	10.7	9.3	14.5	13.0	11.2	17.2	15.4	13.2	
C	Digging radius on G.L. (m)	15.2	14.9	14.1	18.6	18.1	17.1	21.9	21.3	20.1	
D	Digging depth (m)	8.3	8.0	7.5	10.8	10.5	9.7	13.3	12.9	12.0	
E	Dumping height (m)	0.6~0.8m <sup>3</sup>	3.6	5.4	5.9	5.1	7.3	9.2	6.6	9.3	11.6
		1.0~1.2m <sup>3</sup>	2.8	4.6	6.1	4.3	6.5	8.4	5.6	9.5	10.8
F	Bucket clearance (m)	0.6~0.8m <sup>3</sup>	3.95								
		1.0~1.2m <sup>3</sup>	4.75								

- Weight of bucket plus material shall not exceed above rated loads.
- Boom length shall not exceed 18.3m.
- High gantry is required and side frame must be extended for all operating conditions.  
Dimension C and D vary considerably depending on digging conditions and skill of the operator.
- Apparent specific gravity of lifting material:  
Earth .....1.7 ~ 1.8 t/m<sup>3</sup>  
Gravel .....1.8 ~ 2.0 t/m<sup>3</sup>

**Kind of bucket** (manufacturer's specification)

Bucket capacity (m <sup>3</sup> )	Weight (t)
0.6	0.93
0.8	1.17
1.0	1.40
1.2*	1.60

\*; medium or light duty use.



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



TOWER BOOMS: Lattice constructions; round tubular main chords, alloy, hi-ten steel, with bracing of round steel tubing.

Boom connections . . . . . In-line pin connections.

Basic boom . . . . . Two-piece 12.20m basic length; 6.10m base and 6.10m top section. 1.2m deep and 1.27m wide at connections.

Boom point machinery . . . . Four head sheaves mounted on antifriction bearings.

Tower boom extensions . . . Available in 3.05m and 6.10m lengths with pendants. Maximum boom length 48.80m.

Jib . . . . . Two-piece, 6.10m basic length with 3.05m long base and top sections. 0.5m deep and 0.61m wide at connections.

Jib extensions . . . . . Available in 3.05m jib extension. Maximum jib length 15.25m.

Tower boom plus jib . . . . 42.70m + 15.25m length

HOOK BLOCKS:

50t, four sheaves . . . . . Standard

15t, one sheave . . . . . Optional extra

5t, no sheave . . . . . Standard for jib

### LS-118RH<sub>5</sub> CRANE LIFTING CAPACITIES (WITH TOWER BOOM)

Unit: metric tons

Working radius (m)	Boom length (m)													Working radius (m)	
	12.20	15.25	18.30	21.35	24.40	27.45	30.50	33.55	36.60	39.65	42.70	45.75	48.80		
3.7	50.00														3.7
4.0	43.90	43.35/39													4.0
4.5	36.90	36.85	36.80												4.5
5.0	30.75	30.65	30.55	30.35											5.0
5.5	26.35	26.25	26.15	26.05	25.85										5.5
6.0	23.45	23.35	23.25	23.15	22.95	22.85	19.00/6.6								6.0
7.0	18.55	18.45	18.35	18.25	18.15	18.05	17.95	17.30/7.1	15.55/7.6						7.0
8.0	15.35	15.25	15.15	15.10	14.90	14.80	14.70	14.60	14.50	13.75/8.2					8.0
9.0	13.05	12.95	12.85	12.75	12.65	12.60	12.50	12.40	12.30	12.20	12.10	11.60/9.2			9.0
10.0	11.40	11.35	11.25	11.15	11.05	10.95	10.85	10.75	10.65	10.55	10.45	10.35	8.95		10.0
12.0	9.40/11.6	8.90	8.85	8.75	8.65	8.55	8.45	8.35	8.25	8.20	8.15	8.00	7.85		12.0
14.0		7.40	7.30	7.20	7.10	7.00	6.90	6.80	6.80	6.70	6.60	6.40	6.35		14.0
16.0		7.30/14.3	6.15	6.05	5.95	5.85	5.75	5.65	5.60	5.55	5.45	5.35	5.25		16.0
18.0			5.85/16.9	5.10	5.00	4.90	4.80	4.70	4.65	4.60	4.50	4.40	4.30		18.0
20.0				4.60/19.8	4.30	4.20	4.10	4.00	3.95	3.90	3.80	3.75	3.65		20.0
22.0					3.75	3.65	3.55	3.45	3.40	3.35	3.25	3.15	3.05		22.0
24.0					3.70/22.2	3.15	3.05	2.95	2.90	2.85	2.75	2.65	2.60		24.0
26.0						2.95/24.9	2.65	2.60	2.55	2.45	2.40	2.20	2.10		26.0
28.0							2.35/27.5	2.30	2.20	2.10	2.05	1.90	1.80		28.0
30.0								2.00	1.90	1.85	1.75	1.60	1.50		30.0
32.0									1.60	1.55	1.45	1.35	1.25		32.0
34.0									1.35/32.8	1.35	1.25	1.05	0.95		34.0

**Notes:**

1. Capacities shown are in metric tons and are based on 75% of minimum tipping loads – over the side – with machine standing level on firm supporting surface under ideal job conditions. Deductions from the lifting crane capacities must be made for weight of hook block.

Kind of hook block (t)	50	15	5
Weight of hook block (t)	0.75	0.3	0.12

2. When operating of the main boom peak sheaves with jib on boom the following deductions in machine lifting capacities must be made.

3. High gantry is required and side frames must be extended for all operating conditions.

### LS 118RH<sub>5</sub> JIB CAPACITIES

Unit: metric tons

Jib length (m)	6.10	9.15	12.20	15.25	Short Jib
Jib set angle (°)					
10	5.0	5.0	4.1	3.3	See note
30	5.0	5.0	4.1	3.3	See note
Weight to be deducted (t)	0.75	0.90	1.05	1.20	0.3

### LS-118RH<sub>5</sub> SHORT JIB LIFTING CAPACITY

**Notes:**

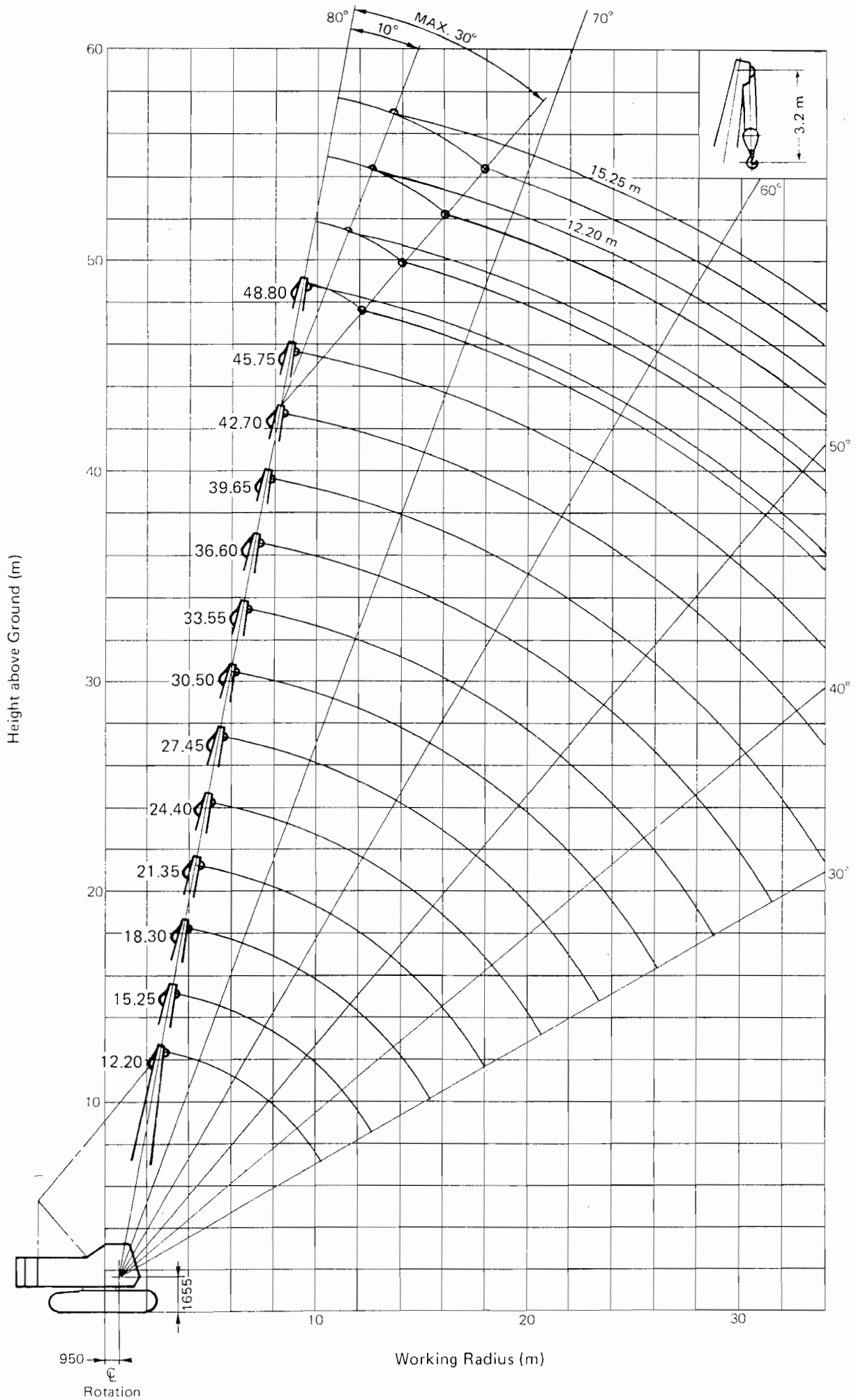
1. Rated load of auxiliary hook is equal to the main boom lifting capacity at each working radius minus 0.2 ton subject to maximum 5 ton load.

Deduction from the lifting capacity of auxiliary hook must be made for weight of main hook, aux. hook and other entire sling tools.

2. Main hook lifting capacity when equipped short jib shall be rated load of main boom at each working radius minus 0.3 ton. Deduction from the lifting capacities of main hook must be made for weight of main hook, aux. hook and other entire sling tools.

3. Short jib is applicable for main boom length from 12.2m to 45.75m.

# LS-118RH.5 CRANE WORKING RANGES WITH TOWER BOOM







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

- Tower connections . . . . . In-line pin connections.
- Basic tower . . . . . Five-piece, 20.85 m basic length; 6.10m base, one 1.525m, one 6.10m (with expanded metal) one 6.10m extensions and 1.04m cap sections; 1.2m deep and 1.27m wide at connection.
- Tower extensions . . . . . Available in 3.05m, 6.10m length with pendants. Maximum tower length 39.14m.
- Basic tower jib . . . . . Four-piece, 16.0m basic length; 5.5m base, two 3.0m extensions and 4.5m top section; 0.7m deep and 0.7m wide at connections.
- Tower jib point machinery . . . . . One head sheave mounted on antifriction bearings.
- Tower jib extensions . . . . . Available in 3.00m length. Maximum tower jib length 25.0m.
- Maximum tower plus . . . . . 39.14m tower + 22.0m tower jib.  
tower jib length

**HOOK BLOCKS:**  
 10t, one sheave . . . . . Standard

**GANTRY:** Retractable high gantry.

**LINE SPEED:**

Drums	Root dia.	Type	Line speed (Hoisting, Lowering)		Cable dia.
			Pump control "OFF" (Ordinary)	Pump control "ON"	
Main hoist (Front)	400mm	Parallel grooved	High 80 m/min Low 40 m/min	High 15 m/min Low 7.5 m/min	20mm
Tower jib hoist	484mm	Parallel grooved	47 m/min	8.8 m/min	16mm
Tower hoist	280mm	Parallel grooved	64 m/min	12 m/min	14mm

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

**HOIST REEVING:**

No. of parts of line	2
Max. load t	10

**WORKING WEIGHT AND GROUND PRESSURE:**

Shoe width	Weight	Pressure
760mm	52.9 t	0.68 kg/cm <sup>2</sup>

With 39.14m tower plus 22.0m tower jib and counterweight A, B.

**COUNTERWEIGHT:** A 7.15 t, B 7.25 t  
 Total ..... 14.4 t

**SAFETY DEVICE:** Hook over hoist limiting device, tower over hoist limiting device, tower and indicator, tower back stop, drum pawl lock for main, tower jib, and tower hoist drum, safety valve in hydraulic circuit, swing lock, swing alarm, automatic overload preventing device (optional extra).

**NOTE:** Crane boom must not be used for tower configuration.

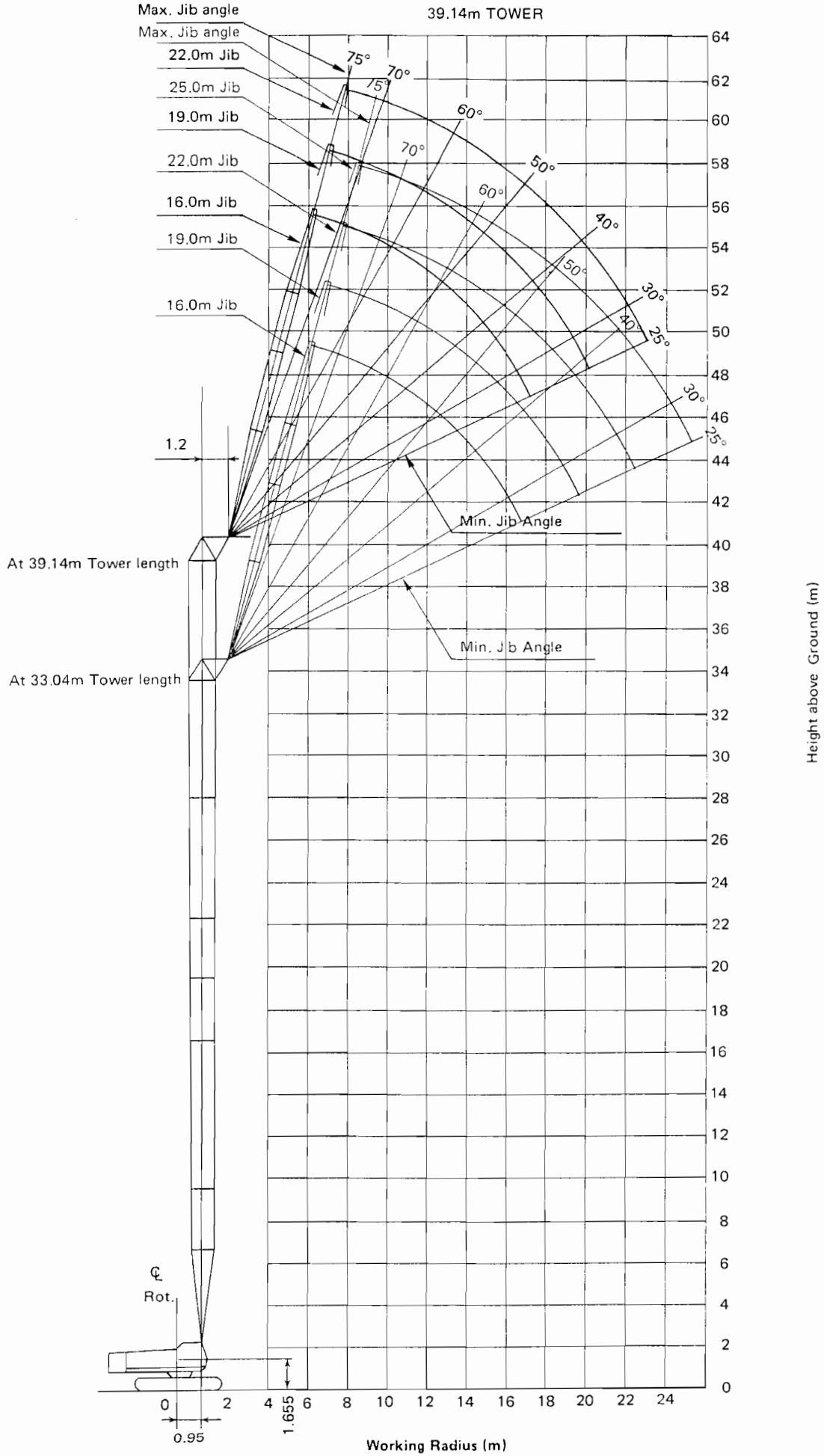
We are constantly improving our products and therefore reserve the right to change designs and specifications

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

International sales Div., 1-21, Kanda, Nishiki-cho, Chiyoda-ku, Tokyo, Japan



LS-118RH<sub>5</sub> TOWER CRANE WORKING RANGES:



# LS-118RH5

## LS 118RH5 TOWER CRANE CAPACITIES:

Unit: metric tons

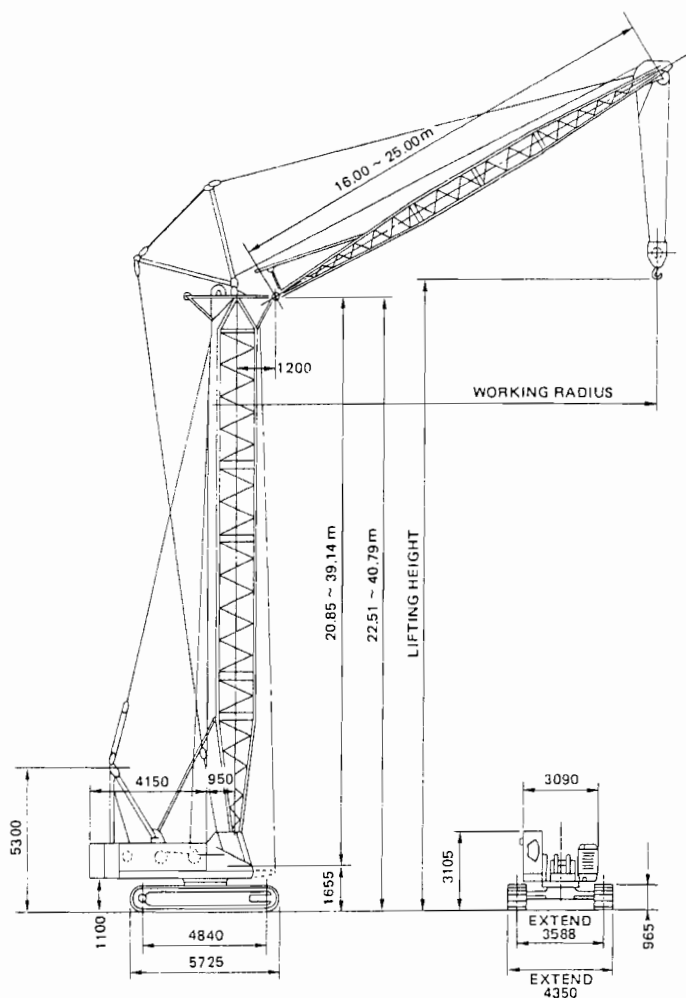
Tower length (m)	20.85 ~ 33.04								36.09 ~ 39.14					
Jib length (m)	16.0		19.0		22.0		25.0		16.0		19.0		22.0	
Working radius (m)	Tower Jib Angle	Load	Tower Jib Angle	Load	Tower Jib Angle	Load	Tower Jib Angle	Load	Tower Jib Angle	Load	Tower Jib Angle	Load	Tower Jib Angle	Load
6.6	75	10.0							75	8.0				
7.0	73	10.0	75	10.0/7.3					73	8.0	75	8.0/7.3		
8.0	69	10.0	73	10.0	75	7.5/8.1	75	4.7/8.9	69	8.0	73	8.0	75	6.5/8.1
9.0	65	10.0	70	10.0	72	7.5	75	4.7	65	8.0	70	8.0	72	6.5
10.0	61	10.0	66	10.0	70	7.5	72	4.7	61	8.0	66	8.0	70	6.5
12.0	53	8.0	59	8.0	64	7.5	67	4.7	53	8.0	59	8.0	64	6.5
14.0	43	6.9	52	6.9	58	6.5	62	4.7	43	6.9	52	6.9	58	6.5
16.0	31	6.0	44	6.0	52	5.6	57	4.1	31	6.0	44	6.0	52	5.6
18.0	25	5.7/16.7	34	5.3	44	4.9	51	3.6	25	5.7/16.7	34	5.3	44	4.9
20.0			25	5.0/19.5	36	4.5	45	3.2			25	5.0/19.5	36	4.5
22.0					25	4.0/22.2	38	2.8					25	4.0/22.2
24.0							30	2.6						
24.9							25	2.5						

### Notes:

- Capacity shown are based on structural strength and machine standing level on firm supporting surface under ideal job conditions.
- Deductions from the tower crane capacities must be made for following weight of hook block.

Kind of hook block t	10
Weight of hook block t	0.3

- High gantry is required and side frames must be extended for all operating conditions.



### LS 118RH5 TOWER AND TOWER JIB COMBINATION:

○ : Available, X : Not available

Tower Jib	16.0	19.0	22.0	25.0
20.85	○	X	X	X
23.90	○	○	X	X
26.95	○	○	○	X
30.00	○	○	○	○
33.04	○	○	○	○
36.09	○	○	○	X
39.19	○	○	○	X

**STANDARD/OPTIONAL EQUIPMENT LIST:**

**LS 118RH5 MEASUREMENT AND WEIGHT IN TRANSPORTATION**

	Standard	Optional	Description	Dimensions (cm)	Gross Weight (kg)		
BASIC MACHINE	(Body) ● Main and auxiliary hoist drum ● Boom hoist drum ● Retractable high gantry ● Retractable side frames ● 760mm wide flat shoe ● Automatic shoe tensioner ● Cigarette lighter ● Wiper (Front and Roof) ● Working light ● Back mirror ● Level gauge inside of cab ● Hydraulic pressure gauge ● Fully adjustable reclining seat ● Socket for 24V supply ● Interior light ● Ash tray ● Engine tachometer ● Fuel level gauge ● Water temperature gauge ● Hydraulic oil temperature gauge ● Engine glow (heat indicator lamp) ● Service monitor lamps 1 Engine oil filter warning lamp 2 Engine oil pressure warning lamp 3 Overheat lamp 4 Radiator water level 5 Engine air cleaner warning lamp 6 Charge lamp 7 Battery electrolyte level 8 Swing brake ● Manual holder ● Hand throttle ● Foot throttle ● Standard tools ● Cord reel for boom	● Drum roller  ● Fuel pump ● Sunvisor ● Cab radio ● Cab heater ● Cab air conditioner ● Cab fan ● Drum mirror ● Overload indicator lamp ● Cord reel for jib ● Sun shade	LS 118RH5 Hydraulic Tower Crane Basic Machine Ass'y	765 x 330 x 323	29,800		
			Counterweight "A"	310 x 60 x 164	7,150		
			Counterweight "B"	310 x 70 x 104	7,250		
			Basic Boom Bottom Section Top Section	756 x 160 x 260	3,600		
	ATTACHMENT	CRANE	● 12.20m basic boom ● 50ton hook block ● Boom back stop ● Boom hoist rope ● Main hoist rope	● Boom extensions — 3.05m, 6.10m ● Short jib ● 6.10 basic jib ● Jib extensions 3.05m ● Hook blocks, 15 ton, and 5 ton ● Auxiliary hoist rope	Basic Tower Jib Boom Ass'y Upper Tower Jib Boom 1 Lower Tower Jib Boom 1 Guide Post 1 Tower Jib Back Stop 2 Front & Rear Post 1 Tension Bar 2 Bridle 1	700 x 146 x 200	2,500
			TOWER	● 20.85m basic tower ● 16.0m basic tower jib ● 10 ton hook block ● Tower hoist rope ● Tower jib hoist rope ● Main hoist rope ● Tower back stop ● Tower jib back stop ● Tower head machinery with posts	● Tower jib extension — 3.05m ● Tower extensions — 3.05m, 6.10m  ● Tower front stay	Tower Head Ass'y	391 x 164 x 159
		CLAMSHELL		● 12.2m basic boom ● 1.0m <sup>3</sup> bucket ● Tagline winder (Single stage type) ● Clamshell rope	● Boom extensions — 3.05m, 6.10m ● 0.6m <sup>3</sup> bucket ● 0.8m <sup>3</sup> bucket ● 1.2m <sup>3</sup> bucket ● Tagline winder (hydraulic type) ● Tagline winder (double stage type)	6.10M Extension Boom  3.05M Extension Boom 1.5M Extension Boom	620 x 155 x 145  315 x 155 x 145 162 x 155 x 145
			SAFETY DEVICE	● Automatic boom overhoist preventing device (crane) ● Automatic tower jib overhoist preventing device (tower) ● Anti-Two block device (crane/tower) ● Boom angle indicator (crane) ● Tower angle indicator (tower) ● Safety valve in hydraulic circuit ● Drum pawl locks for all drums ● Swing alarming device ● Swing lock ● Multi-disc friction type parking brake ● Automatic brake for all drums.	● Automatic overload preventing device (crane/tower) ● Anti-Two block device (crane jib) ● Anti-two block device (short jib)	3.05M Extension Tower Jib Boom  3.05M Extension Tower Jib Boom (5 pcs. in the crate)  S.T.D. Spare Parts Tools & Accessories	308 x 98 x 90  931 x 172 x 106  200 x 180 x 150