

Basic Machine

Upper Machinery

UPPER FRAME:

All-welded, precision machined unit.

TURNTABLE BEARING WITH INTEGRAL RING GEAR:

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

CONTROL SYSTEM:

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

PUMP CONTROL SYSTEM:

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

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

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

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

HYDRAULIC SYSTEM:

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

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

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

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

Travel motor — Axial piston motors (2-speed) with brake valve. Spring applied/hydraulically released multiple disc brake is fitted.

Hydraulic oil reservoir — 300 liters capacity.

LOAD HOIST ASSEMBLY:

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

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

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

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

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

Locks — Electrically operated drum lock pawl.

BOOM HOIST ASSEMBLY:

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

Brakes — Spring applied, hydraulically released multiple disc type.

Locks — Electrically operated drum lock pawl (with automatic locking device).

SWING:

Driven by axial piston motor, through reduction gear.

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

Locks — Mechanically operated pin connection house lock.

Speed — 4.3 min.⁻¹ < 4.3 rpm >.

Constant speed swing mechanism (option) — 4.3/1.2 min.⁻¹ < 4.3/1.2 rpm >.

OPERATOR'S CAB:

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

COUNTERWEIGHT:

Removable, 2-block, mounted on rear of upper frame by bolts.

POWER UNIT:

Make & Model	HINO HO7CT
Type	Water-cooled, 4-cycle, turbo-charged, diesel engine with auto cooling fan.
No. of cylinders	6
Bore & Stroke	110 mm x 118 mm
Displacement	6,728 cc
Rated output	132.4 kW/2,100 min. ⁻¹ < 180 ps/2,100 rpm >
Maximum torque	657 Nm/1,600 min. ⁻¹ < 67 kg-m/1,600 rpm >
Fuel tank	290 liters

Lower Machinery

LOWER FRAME:

All-welded robust rolled steel, box construction.

SIDE FRAME:

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

ROLLERS:

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

Bottom — 10 pcs. per side frame.

Top — 4 pcs. per side frame.

DRIVE SPROCKETS:

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

IDLERS:

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

TRACKS:

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

Shoe width — 760 mm.

TRACK TENSION ADJUSTER:

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

TRAVEL AND STEER:

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

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

Speed — Two speed range.

2.1 km/hr. — High speed position.

1.6 km/hr. — Low speed position.

Crane Attachment

CRANE BOOMS:

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

Boom connections — In-line pin connections.

Basic Boom — Two-piece, 12.20 m basic length: 6.10 m base and 6.10 m top section; 1,200 mm deep and 1,270 mm wide at connections.

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

Boom extensions — Optional extra; available in 3.05 m and 6.10 m lengths with pendants. Maximum boom length 51.80 m.

Basic fly Jib — Optional extra; two-piece; 9.15 m basic length with 4.575 m long base and top sections, 609 mm deep and 812 mm wide at connections.

Fly jib extension — Optional extra; available in 4.575m. Maximum fly jib length 18.30 m.

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

AUXILIARY SHORT JIB:

Optional extra; this is available to pin on top of boom in range of boom length from 12.20 m thru 48.75 m, and is available for 6.5ton lift as maximum under single part hoist line.

HOOK BLOCKS:

55 t with four sheaves — Standard.

35 t with three sheaves — Optional extra.

20 t with one sheave — Optional extra.

6.5 t ball hook — Optional extra.

TAGLINE WINDER:

Optional extra; available in three (3) kinds of types for clamshell bucket job application.

Hydraulic type — mounted in front of upper revolving frame.

Mechanical type — spring-wound, single stage drum type, mounted on boom.

Mechanical type — spring-wound, double stage drum type, mounted on boom.

FIARLEAD:

Optional extra; full-revolving type; available for dragline bucket job application.

GANTRY:

Retractable high gantry.

DRUM DATA:

Drums	Root dia.	Type	Line Speed (Hoisting, Lowering)	Cable dia.
Main hoist (Front)	480 mm	Parallel grooved	95~2 m/min.	22.4 mm
Aux. hoist (Rear)	480 mm	Parallel grooved	95~2 m/min.	22.4 mm
3rd drum	400 mm	Parallel grooved	60~3 m/min.	20 mm
Boom hoist	320 mm	Parallel grooved	62~3 m/min.	16 mm

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

HOIST REEVING:

No. of parts of line	Main hoist								Aux. hoist
	9	8	7	6	5	4	3	2	1
Max. load (t)	55.0	52.0	45.5	39.0	32.5	26.0	19.5	13.0	6.5

WORKING WEIGHT AND GROUND PRESSURE:

Shoe width	Weight	Pressure
760 mm	53.8 t	67.0 kPa <0.69 kg/cm ² >

With basic boom and counterweight.

COUNTERWEIGHT:

17.2 t in total.

SAFETY DEVICES:

Hook over hoist limiting device, dual boom over hoist and lowering limiting device, boom angle indicator, boom back stop, electrically operated drum pawl lock for main/aux. and boom hoist drums, automatic drum pawl locking device for boom hoist drum, audio visual type swing alarm, fool proof shut off main hydraulic line, key lock mode selector switch, individual control lever locks, safe and durable non-asbestos lining, non-skid surfaces on roof, computerized automatic over-load preventing system of SUMITOMO Model SML-06 Load Moment Limiter with annunciator type alarms and optional three color percentage indicator on load weighing device.

GRADEABILITY:

40% (22°) with basic boom and counterweight.

CRANE CAPACITIES :

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	39.60	42.65	45.70	48.75	51.80		
3.6	55.0															3.6
3.7	55.0															3.7
4.0	50.7	48.7/4.1														4.0
4.5	43.4	43.4	40.5/4.7													4.5
5.0	36.5	36.4	36.2	34.2/5.2	29.4/5.7											5.0
6.0	27.6	27.4	27.3	27.2	27.1	25.3/6.2	21.7/6.8									6.0
7.0	22.1	21.9	21.8	21.7	21.5	21.5	21.4	20.3/7.3	17.9/7.8							7.0
8.0	18.4	18.2	18.1	17.9	17.9	17.8	17.7	17.7	17.6	16.5/8.4	14.8/8.9					8.0
9.0	15.7	15.5	15.4	15.3	15.2	15.1	15.1	15.0	14.9	14.8	14.7	12.7/9.4				9.0
10.0	13.7	13.5	13.4	13.3	13.2	13.2	13.1	13.0	12.9	12.8	12.8	12.2	9.8	7.8/10.5	10.0	10.0
12.0	11.3/11.7	10.6	10.6	10.5	10.4	10.3	10.2	10.2	10.1	10.0	9.9	9.8	8.6	7.2	12.0	12.0
14.0		8.7	8.7	8.6	8.5	8.4	8.3	8.3	8.2	8.1	8.0	7.9	7.6	6.4	14.0	14.0
16.0		8.5/14.3	7.3	7.2	7.1	7.0	7.0	6.9	6.8	6.7	6.6	6.5	6.4	5.7	16.0	16.0
18.0			6.8/17.0	6.2	6.1	6.0	5.9	5.8	5.7	5.6	5.5	5.4	5.3	4.9	18.0	18.0
20.0				5.5/19.6	5.3	5.2	5.1	5.0	4.9	4.8	4.7	4.6	4.5	4.4	20.0	20.0
22.0					4.6	4.5	4.4	4.3	4.2	4.1	4.0	3.9	3.8	3.7	22.0	22.0
24.0						4.5/22.3	4.0	3.9	3.8	3.7	3.6	3.5	3.4	3.3	24.0	24.0
26.0							3.8/24.9	3.4	3.3	3.2	3.1	3.0	2.9	2.8	2.7	26.0
28.0								3.1/27.5	3.0	2.9	2.8	2.7	2.6	2.5	2.4	28.0
30.0									2.6	2.5	2.4	2.3	2.2	2.1	2.0	30.0
32.0									2.6/30.2	2.3	2.2	2.1	2.0	1.9	1.8	32.0
34.0										2.1/32.8	1.9	1.8	1.7	1.6	1.5	34.0
36.0											1.7/35.5	1.5	1.4	1.3	1.1	36.0
38.0												1.3	1.2	1.1		38.0
No. of part line	9	8	7	6	5	4	4	4	3	3	3	2	2	2	2	No. of part line

(EC4960012)

SUMITOMO SC 550-2

■ CRANE CAPACITIES (A) :

These capacity charts show the figures when handling load off main boom head sheaves in a case of mounting fly jib on top of main boom.

Boom length (m)	21.35						24.40					
Fly jib length (m)	9.15		13.70		18.30		9.15		13.70		18.30	
Fly jib offset angle (°)	10	30	10	30	10	30	10	30	10	30	10	30
Working radius (m)												
5.0	32.8/5.2	32.7/5.2	32.2/5.2	32.1/5.2	31.5/5.2	31.4/5.2	28.0/5.7	27.9/5.7	27.4/5.7	27.3/5.7	26.7/5.7	26.6/5.7
6.0	25.8	25.7	25.2	25.1	24.5	24.4	25.7	25.6	25.1	25.0	24.4	24.3
7.0	20.3	20.2	19.7	19.6	19.0	18.9	20.1	20.0	19.5	19.4	18.8	18.7
8.0	16.5	16.4	15.9	15.8	15.2	15.1	16.5	16.4	15.9	15.8	15.2	15.1
9.0	13.9	13.8	13.3	13.2	12.6	12.5	13.8	13.7	13.2	13.1	12.5	12.4
10.0	11.9	11.8	11.3	11.2	10.6	10.5	11.8	11.7	11.2	11.1	10.5	10.4
12.0	9.1	9.0	8.5	8.4	7.8	7.7	9.0	8.9	8.4	8.3	7.7	7.6
14.0	7.2	7.1	6.6	6.5	5.9	5.8	7.1	7.0	6.5	6.4	5.8	5.7
16.0	5.8	5.7	5.2	5.1	4.5	4.4	5.7	5.6	5.1	5.0	4.4	4.3
18.0	4.8	4.7	4.2	4.1	3.5	3.4	4.7	4.6	4.1	4.0	3.4	3.3
20.0	4.1/19.6	4.0/19.6	3.5/19.6	3.4/19.6	2.8/19.6	2.7/19.6	3.9	3.8	3.5	3.4	2.8	2.7
22.0							3.5	3.4	3.0	2.9	2.5	2.4
24.0							3.4/22.3	3.3/22.3	2.9/22.3	2.8/22.3	2.4/22.3	2.3/22.3
No. of part line	6	6	5	5	5	5	5	5	5	5	5	5

(EC4960310-1/4)

Boom length (m)	27.45						30.50					
Fly jib length (m)	9.15		13.70		18.30		9.15		13.70		18.30	
Fly jib offset angle (°)	10	30	10	30	10	30	10	30	10	30	10	30
Working radius (m)												
6.0	23.9/6.2	23.8/6.2	23.3/6.2	23.2/6.2	22.6/6.2	22.5/6.2	20.3/6.8	20.2/6.8	19.7/6.8	19.6/6.8	19.0/6.8	18.9/6.8
7.0	20.1	20.0	19.5	19.4	18.8	18.7	20.0	19.9	19.4	19.3	18.7	18.6
8.0	16.4	16.3	15.8	15.7	15.1	15.0	16.3	16.2	15.7	15.6	15.0	14.9
9.0	13.7	13.6	13.1	13.0	12.4	12.3	13.7	13.6	13.1	13.0	12.4	12.3
10.0	11.8	11.7	11.2	11.1	10.5	10.4	11.7	11.6	11.1	11.0	10.4	10.3
12.0	8.9	8.8	8.3	8.2	7.6	7.5	8.8	8.7	8.2	8.1	7.5	7.4
14.0	7.0	6.9	6.4	6.3	5.7	5.6	6.9	6.8	6.3	6.2	5.6	5.5
16.0	5.6	5.5	5.0	4.9	4.3	4.2	5.6	5.5	5.0	4.9	4.3	4.2
18.0	4.6	4.5	4.0	3.9	3.3	3.2	4.5	4.4	3.9	3.8	3.2	3.1
20.0	3.8	3.7	3.4	3.3	2.7	2.6	3.7	3.6	3.3	3.2	2.6	2.5
22.0	3.4	3.3	2.9	2.8	2.4	2.3	3.3	3.2	2.8	2.7	2.3	2.2
24.0	2.9	2.8	2.6	2.5	2.1	2.0	2.8	2.7	2.5	2.4	2.0	1.9
26.0	2.6/24.9	2.5/24.9	2.3/24.9	2.2/24.9	1.9/24.9	1.8/24.9	2.3	2.2	1.9	1.8	1.6	
28.0							1.9/27.5	1.8/27.5	1.6/27.5	1.5/27.5		
No. of part line	4	4	4	4	4	4	4	4	4	4	3	3

(EC4960310-2/4)

Boom length (m)	33.55						36.60					
Jib length (m)	9.15		13.70		18.30		9.15		13.70		18.30	
Jib offset angle (°)	10	30	10	30	10	30	10	30	10	30	10	30
Working radius (m)												
7.0	18.9/7.3	18.8/7.3	18.3/7.3	18.2/7.3	17.6/7.3	17.5/7.3	16.5/7.8	16.4/7.8	15.9/7.8	15.8/7.8	15.2/7.8	15.1/7.8
8.0	16.3	16.2	15.7	15.6	15.0	14.9	16.2	16.1	15.6	15.5	14.9	14.8
9.0	13.6	13.5	13.0	12.9	12.3	12.2	13.5	13.4	12.9	12.8	12.2	12.1
10.0	11.6	11.5	11.0	10.9	10.3	10.2	11.5	11.4	10.9	10.8	10.2	10.1
12.0	8.8	8.7	8.2	8.1	7.5	7.4	8.7	8.6	8.1	8.0	7.4	7.3
14.0	6.9	6.8	6.3	6.2	5.6	5.5	6.8	6.7	6.2	6.1	5.5	5.4
16.0	5.5	5.4	4.9	4.8	4.2	4.1	5.4	5.3	4.8	4.7	4.1	4.0
18.0	4.4	4.3	3.8	3.7	3.1	3.0	4.3	4.2	3.7	3.6	3.0	2.9
20.0	3.6	3.5	3.2	3.1	2.5	2.4	3.5	3.4	3.1	3.0	2.4	2.3
22.0	3.2	3.1	2.7	2.6	2.2	2.1	3.1	3.0	2.6	2.5	2.1	2.0
24.0	2.7	2.6	2.4	2.3	1.9	1.8	2.6	2.5	2.3	2.2	1.8	1.7
26.0	2.2	2.1	1.8	1.7	1.6		2.1	2.0	1.7	1.6		
28.0	1.7	1.6					1.6	1.5				
30.0	1.4											
No. of part line	3	3	3	3	3	3	3	3	3	3	3	3

(EC4960310-3/4)

Boom length (m)	39.60					
Jib length (m)	9.15		13.70		18.30	
Jib offset angle (°)	10	30	10	30	10	30
Working radius (m)						
8.0	15.1/8.4	15.0/8.4	14.5/8.4	14.4/8.4	13.8/8.4	13.7/8.4
9.0	13.4	13.3	12.8	12.7	12.1	12.0
10.0	11.4	11.3	10.8	10.7	10.1	10.0
12.0	8.6	8.5	8.0	7.9	7.3	7.2
14.0	6.7	6.6	6.1	6.0	5.4	5.3
16.0	5.3	5.2	4.7	4.6	4.0	3.9
18.0	4.2	4.1	3.6	3.5	2.9	2.8
20.0	3.4	3.3	3.0	2.9	2.3	2.2
22.0	3.0	2.9	2.5	2.4	2.0	1.9
24.0	2.5	2.4	2.2	2.1	1.7	
26.0	2.0	1.9	1.6			
28.0	1.5					
No. of part line	3	3	3	3	3	3

(EC4960310-4/4)

■ CRANE CAPACITIES (B) :

This capacity chart show the figures when handling load off main boom head sheaves in a case of mounting auxiliary short jib on top of main boom.

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	39.60	42.65	45.70	48.75	
3.6	54.3													3.6
3.7	54.3													3.7
4.0	50.0	48.0/4.1												4.0
4.5	42.7	42.7	39.8/4.7											4.5
5.0	35.8	35.7	35.5	33.5/5.2	28.7/5.7									5.0
6.0	26.9	26.7	26.6	26.5	26.4	24.6/6.2	21.0/6.8							6.0
7.0	21.4	21.2	21.1	21.0	20.8	20.8	20.7	19.6/7.3	17.2/7.8					7.0
8.0	17.7	17.5	17.4	17.2	17.2	17.1	17.0	17.0	16.9	15.8/8.4	14.1/8.9			8.0
9.0	15.0	14.8	14.7	14.6	14.5	14.4	14.4	14.3	14.2	14.1	14.0	12.0/9.4		9.0
10.0	13.0	12.8	12.7	12.6	12.5	12.5	12.4	12.3	12.2	12.1	12.1	11.5	9.1	10.0
12.0	10.6/11.7	9.9	9.9	9.8	9.7	9.6	9.5	9.5	9.4	9.3	9.2	9.1	7.9	12.0
14.0		8.0	8.0	7.9	7.8	7.7	7.6	7.6	7.5	7.4	7.3	7.2	6.9	14.0
16.0		7.8/14.3	6.6	6.5	6.4	6.3	6.3	6.2	6.1	6.0	5.9	5.8	5.7	16.0
18.0			6.1/17.0	5.5	5.4	5.3	5.2	5.1	5.0	4.9	4.8	4.7	4.6	18.0
20.0				4.8/19.6	4.6	4.5	4.4	4.3	4.2	4.1	4.0	3.9	3.8	20.0
22.0					3.9	3.8	3.7	3.6	3.5	3.4	3.3	3.2	3.1	22.0
24.0					3.8/22.3	3.3	3.2	3.1	3.0	2.9	2.8	2.7	2.6	24.0
26.0						3.1/24.9	2.7	2.6	2.5	2.4	2.3	2.2	2.1	26.0
28.0							2.4/27.5	2.3	2.2	2.1	2.0	1.9	1.8	28.0
30.0								1.9	1.8	1.7	1.6	1.5	1.4	30.0
32.0								1.9/30.2	1.6	1.5	1.4	1.3		32.0
34.0									1.4/32.8	1.2				34.0
No. of part line	9	8	7	6	5	4	4	4	3	3	3	2	2	No. of part line

(EC4960290)

■ AUX. SHORT JIB CAPACITIES :

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	39.60	42.65	45.70	48.75	
4.5	6.5/4.2	6.5/4.7												4.5
5.0	6.5	6.5	6.5/5.2	6.5/5.8										5.0
6.0	6.5	6.5	6.5	6.5	6.5/6.3	6.5/6.8								6.0
7.0	6.5	6.5	6.5	6.5	6.5	6.5	6.5/7.4	6.5/7.9						7.0
8.0	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5/8.4					8.0
9.0	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5/9.5				9.0
10.0	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5/10.5	10.0
12.0	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	12.0
14.0	6.5/12.8	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	14.0
16.0		6.5/15.4	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.4	6.3	6.2	16.0
18.0			6.1	6.0	5.9	5.8	5.7	5.6	5.5	5.4	5.3	5.2	5.1	18.0
20.0			6.0/18.1	5.2	5.1	5.0	4.9	4.8	4.7	4.6	4.5	4.4	4.3	20.0
22.0				4.9/20.7	4.4	4.3	4.2	4.1	4.0	3.9	3.8	3.7	3.6	22.0
24.0					4.0/23.4	3.8	3.7	3.6	3.5	3.4	3.3	3.2	3.1	24.0
26.0						3.3	3.2	3.1	3.0	2.9	2.8	2.7	2.6	26.0
28.0							2.9	2.8	2.7	2.6	2.5	2.4	2.3	28.0
30.0							2.7/28.6	2.4	2.3	2.2	2.1	2.0	1.9	30.0
32.0								2.2/31.3	2.1	2.0	1.9	1.8	1.7	32.0
34.0									1.8/33.9	1.7	1.6	1.5	1.4	34.0
36.0										1.4	1.3	1.2		36.0
38.0										1.3/36.6	1.1			38.0
No. of part line	1	1	1	1	1	1	1	1	1	1	1	1	1	No. of part line

(EC4960300)

■ **FLY JIB CAPACITIES :**

Boom length (m)	21.35						24.40						27.45						
Jib length (m)	9.15		13.70		18.30		9.15		13.70		18.30		9.15		13.70		18.30		
Jib offset angle (°)	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	
Working radius (m)																			
8.0	6.5/8.1						6.5/8.6												
9.0	6.5		6.5/9.9				6.5						6.5/9.2						
10.0	6.5	5.0/10.9	6.5		4.5/11.2		6.5	5.0/11.4	6.5/10.4		4.5/11.7		6.5	5.0/11.9	6.5/10.9				
12.0	6.5	5.0	6.5	5.0/13.9	4.5		6.5	5.0	6.5		4.5		6.5	5.0	6.5		4.5/12.2		
14.0	6.5	5.0	6.5	5.0	4.5		6.5	5.0	6.5	5.0/14.4	4.5		6.5	5.0	6.5	5.0/14.9	4.5		
16.0	6.5	5.0	6.5	5.0	4.5	3.2/16.5	6.5	5.0	6.5	5.0	4.5	3.2/17.0	6.5	5.0	6.5	5.0	4.5	3.2/17.5	
18.0	6.2	5.0	6.2	5.0	4.5	3.2	6.1	5.0	6.1	5.0	4.5	3.2	6.0	5.0	6.0	5.0	4.5	3.2	
20.0	5.4	5.0	5.4	5.0	4.5	3.2	5.3	5.0	5.3	5.0	4.5	3.2	5.2	5.0	5.2	5.0	4.5	3.2	
22.0	4.7	4.7	4.7	4.6	4.5	3.2	4.6	4.6	4.6	4.6	4.5	3.2	4.5	4.5	4.5	4.5	4.5	3.2	
24.0	4.2	4.2	4.2	4.2	4.2	3.2	4.1	4.1	4.1	4.1	4.1	3.2	4.0	4.0	4.0	4.0	4.0	3.2	
26.0	3.7	3.7	3.7	3.7	3.7	3.2	3.6	3.6	3.6	3.6	3.6	3.2	3.5	3.5	3.5	3.5	3.5	3.2	
28.0	3.3	3.4	3.4	3.4	3.4	3.2	3.2	3.3	3.3	3.3	3.3	3.2	3.1	3.2	3.2	3.2	3.2	3.2	3.2
30.0	3.2/28.4	3.2/29.0	3.0	3.0	3.0	3.0	2.8	2.9	2.9	2.9	2.9	2.9	2.7	2.8	2.8	2.8	2.8	2.8	2.8
32.0			2.7	2.8	2.7	2.8	2.6/31.1	2.6/31.7	2.6	2.7	2.6	2.7	2.4	2.5	2.5	2.6	2.5	2.6	
34.0			2.6/32.8	2.6/33.6	2.4	2.6			2.3	2.4	2.3	2.5	2.1/33.7	2.2	2.2	2.3	2.2	2.4	
36.0					2.2	2.3			2.2/35.4	2.1	2.1	2.2		2.2/34.3	2.0	2.0	2.0	2.1	
38.0					2.1/37.0	2.1				2.1/36.2	1.9	2.0			1.7	1.8	1.8	1.9	
40.0						2.1/38.2						1.7/39.6	1.8			1.7/38.1	1.7/38.9	1.6	1.7
42.0													1.7/40.8					1.4	1.5
44.0																		1.4/42.3	1.4/43.4

(EC4960320-1/3)

Boom length (m)	30.50						33.55						36.60						
Jib length (m)	9.15		13.70		18.30		9.15		13.70		18.30		9.15		13.70		18.30		
Jib offset angle (°)	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	
Working radius (m)																			
9.0	6.5/9.7																		
10.0	6.5		6.5/11.4				6.5/10.2						6.5/10.8						
12.0	6.5	5.0/12.5	6.5		4.5/12.8		6.5	5.0/13.0	6.5		4.5/13.3		6.5	5.0/13.5	6.5/12.5		4.5/13.8		
14.0	6.5	5.0	6.5	5.0/15.4	4.5		6.5	5.0	6.5		4.5		6.5	5.0	6.5		4.5		
16.0	6.5	5.0	6.5	5.0	4.5		6.5	5.0	6.5	5.0	4.5		6.5	5.0	6.5	5.0/16.5	4.5		
18.0	5.9	5.0	5.9	5.0	4.5	3.2/18.1	5.8	5.0	5.8	5.0	4.5	3.2/18.6	5.7	5.0	5.7	5.0	4.5	3.2/19.1	
20.0	5.1	5.0	5.1	5.0	4.5	3.2	5.0	5.0	5.0	5.0	4.5	3.2	4.9	4.9	4.9	4.9	4.5	3.2	
22.0	4.4	4.4	4.4	4.4	4.4	3.2	4.3	4.3	4.3	4.3	4.3	3.2	4.2	4.2	4.2	4.2	4.2	3.2	
24.0	3.9	3.9	3.9	3.9	3.9	3.2	3.8	3.8	3.8	3.8	3.8	3.2	3.7	3.7	3.7	3.7	3.7	3.2	
26.0	3.4	3.4	3.4	3.4	3.4	3.2	3.3	3.3	3.3	3.3	3.3	3.2	3.2	3.2	3.2	3.2	3.2	3.2	
28.0	3.0	3.1	3.1	3.1	3.1	3.1	3.0	3.0	3.0	3.0	3.0	3.0	2.8	2.9	2.9	2.9	2.9	2.9	
30.0	2.6	2.7	2.7	2.7	2.7	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.5	2.5	2.5	2.5	2.5	2.5	
32.0	2.3	2.4	2.4	2.5	2.4	2.5	2.2	2.3	2.3	2.4	2.3	2.4	2.2	2.3	2.3	2.3	2.3	2.3	
34.0	2.0	2.1	2.1	2.2	2.1	2.3	1.9	2.0	2.0	2.2	2.0	2.2	1.8	1.9	1.9	2.1	1.9	2.1	
36.0	1.7	1.9	1.9	1.9	1.9	2.0	1.6	1.8	1.8	1.8	1.8	1.9	1.5	1.7	1.7	1.7	1.7	1.8	
38.0	1.7/36.3	1.8/36.9	1.6	1.7	1.7	1.8	1.4	1.5	1.5	1.6	1.6	1.7	1.3	1.4	1.4	1.5	1.5	1.6	
40.0			1.4	1.5	1.5	1.6	1.3/39.0	1.3/39.6	1.3	1.4	1.4	1.5	1.1	1.2	1.2	1.3	1.3	1.4	
42.0			1.3/40.7	1.4/41.5	1.3	1.4			1.1	1.2	1.2	1.3				1.0	1.1	1.1	1.2
44.0					1.1	1.2					1.0	1.1							1.0

(EC4960320-2/3)

Boom length (m)	39.60					
Jib length (m)	9.15		13.70		18.30	
Jib offset angle (°)	10	30	10	30	10	30
Working radius (m)						
10.0	6.5/11.3					
12.0	6.5		6.5/13.0			
14.0	6.5	5.0/14.1	6.5		4.5/14.4	
16.0	6.5	5.0	6.5	5.0/17.0	4.5	
18.0	5.6	5.0	5.6	5.0	4.5	3.2/19.6
20.0	4.8	4.8	4.8	4.8	4.5	3.2
22.0	4.1	4.1	4.1	4.1	4.1	3.2
24.0	3.6	3.6	3.6	3.6	3.6	3.2
26.0	3.1	3.1	3.1	3.1	3.1	3.1
28.0	2.7	2.8	2.8	2.8	2.8	2.8
30.0	2.4	2.4	2.4	2.4	2.4	2.4
32.0	2.1	2.2	2.2	2.2	2.2	2.2
34.0	1.8	1.9	1.9	1.9	1.9	2.0
36.0	1.4	1.6	1.6	1.6	1.6	1.7
38.0	1.2	1.3	1.3	1.4	1.4	1.5
40.0		1.1	1.1	1.2		1.3
42.0						1.1

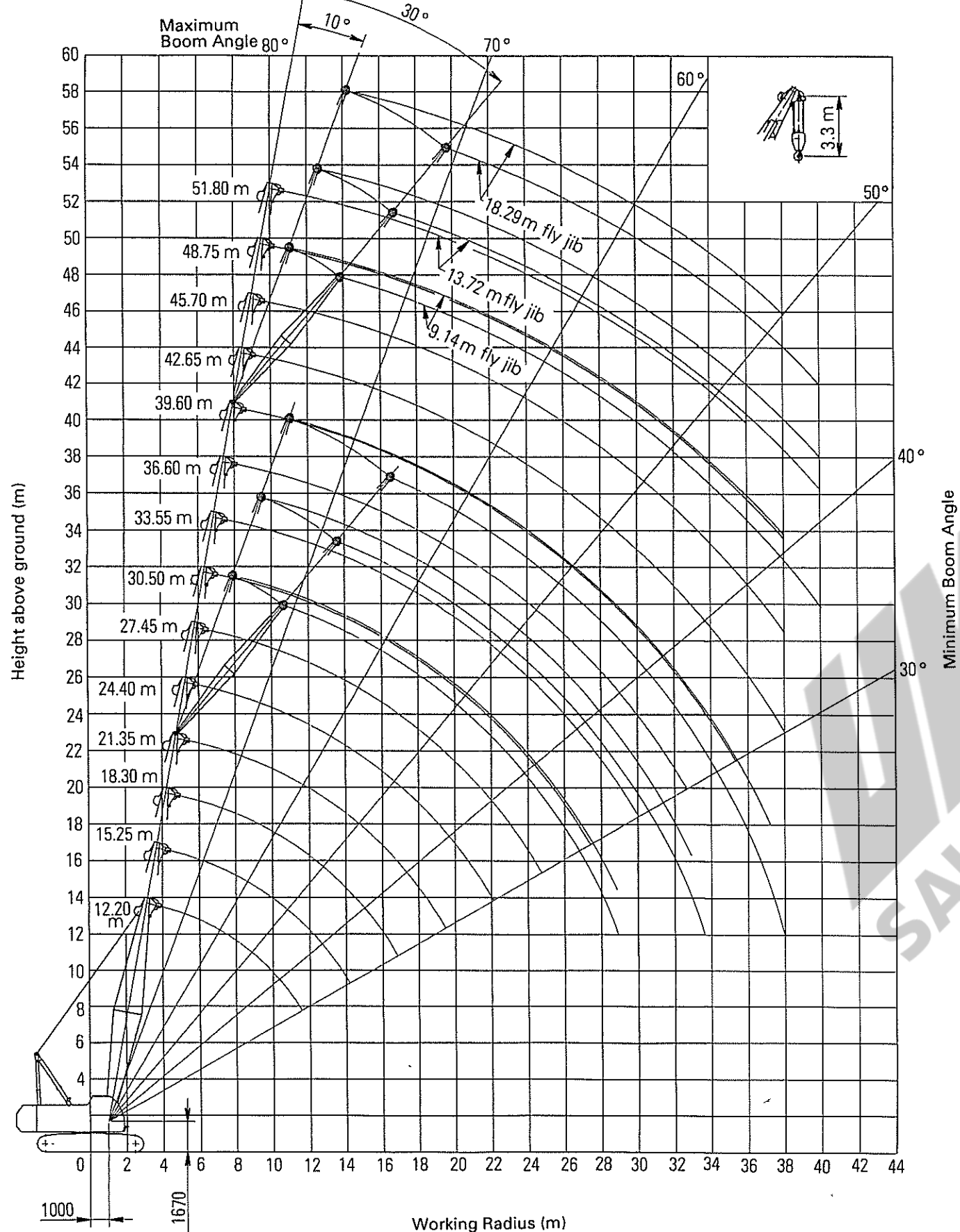
(EC4960320-3/3)

Notes — Crane/fly jib/aux. short jib capacities:

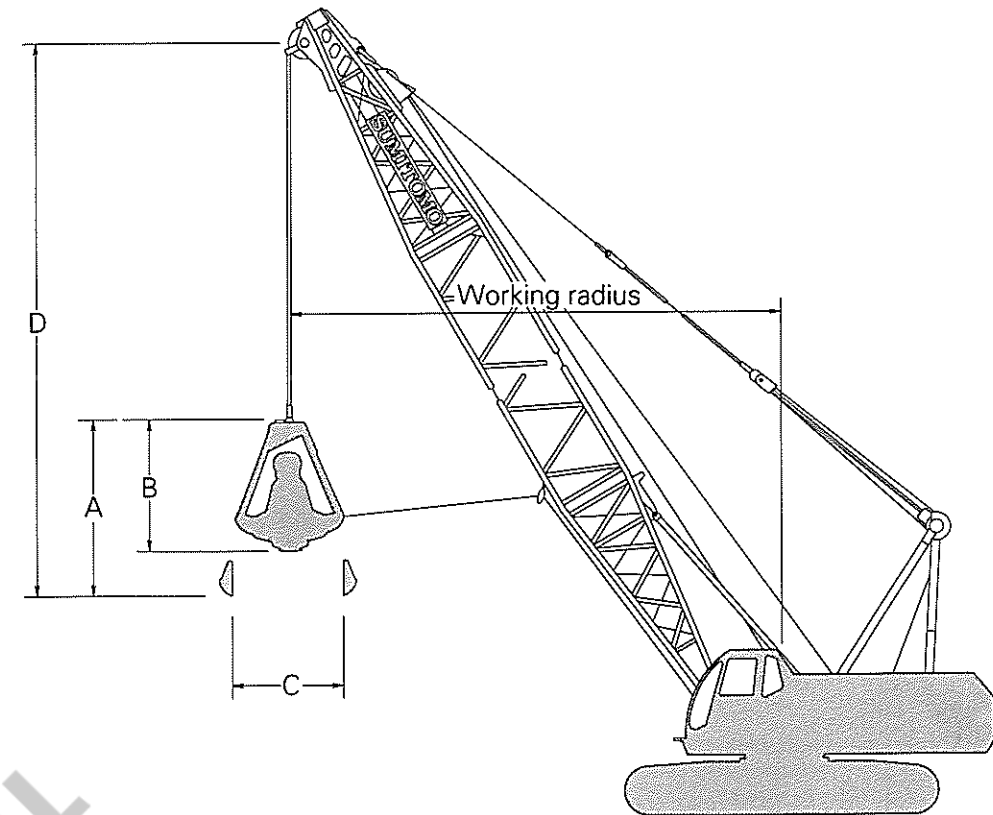
- Capacities included in these charts are the maximum allowable, and are based on machine standing level on firm supporting surface under ideal job conditions.
- Capacities are in metric tons, and are not more than 78% of minimum tipping loads except the figures surrounded by bold lines which are based on other factor of machine structural limitation.
- 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, load weighing

- devices, or other suspended gear.
SUMITOMO's hook block weight is as follows:
55ton0.75t 35ton0.5t
20ton0.35t 6.5ton0.33t
- All capacities are rated for 360° swing.
 - Least stable rated position is over the side.
 - Crawler side frame must be fully extended for all operating conditions.
 - Counterweight must be 17.2ton for all capacities.
 - Attachment must be erected and lowered over the ends of the crawler mounting.
 - Maximum fly jib length permitted is 18.30m, and maximum boom and fly jib combination length permitted is 39.60m boom plus 18.30m fly jib.
 - Capacities apply only to the machine as originally manufactured and normally equipped by Sumitomo (S.H.I.) Construction Machinery Co., Ltd.

■ **WORKING RANGES :**



■ **CLAMSHELL :**



CLAMSHELL CAPACITIES & 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	63.7	6.5						
8.0	58.2	6.5	8.0	65.2	6.5			
9.0	52.3	6.5	9.0	60.9	6.5	9.0	66.1	6.5
10.0	45.9	6.5	10.0	56.4	6.5	10.0	62.6	6.5
12.0	29.9	6.5	12.0	46.6	6.5	12.0	55.2	6.5
			14.0	34.7	6.5	14.0	47.0	6.5
						16.0	37.4	6.5

(ECA00336A)

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

Notes:

- Following weight of bucket plus load should not exceed above rated loads.
- Boom length shall not exceed 18.30 m.
- Apparent specific gravity of lifting material:
Earth1.7~1.8 t/m³
Gravel1.8~2.0 t/m³
- High gantry is required and side frames must be extended for all operating conditions.

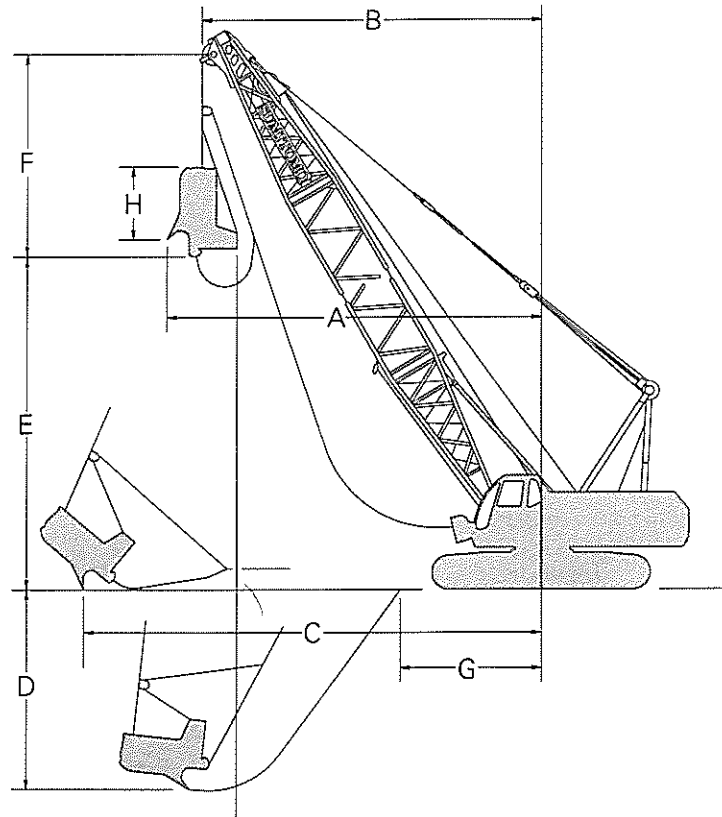
BUCKET DATA :

(In meters)

	Bucket capacity	0.6 m ³	0.8 m ³	1.0 m ³	※1.2 m ³
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

■ **DRAGLINE :**



DRAGLINE CAPACITIES & WORKING RANGES:

Boom length (m)		12.20			15.25			18.30			
Boom angle (°)		30	40	50	30	40	50	30	40	50	
Rated load (t)		6.5	6.5	6.5	6.5	6.5	6.5	6.3	6.5	6.5	
A	Max. dumping radius (m)	0.6 m ³	12.5	11.3	9.9	15.1	13.7	11.8	17.8	16.0	13.8
		0.8 ~ 1.0 m ³	12.8	11.6	10.2	15.4	14.0	12.1	18.1	16.3	14.1
		1.2 m ³	12.7	11.5	10.1	15.3	13.9	12.0	18.0	16.2	14.0
B	Working radius (m)	12.0	10.8	9.4	14.6	13.2	11.3	17.3	15.5	13.3	
C	Digging radius on G. L. (m)	15.4	15.0	14.2	18.7	18.2	17.2	22.1	21.4	20.2	
D	Digging depth (m)	8.3	8.0	7.4	10.8	10.4	9.6	13.3	12.8	11.9	
E	Dumping height (m)	0.6 ~ 0.8 m ³	3.6	5.3	6.8	5.1	7.3	9.1	6.7	9.2	11.4
		1.0 ~ 1.2 m ³	2.8	4.5	6.0	4.3	6.5	8.3	5.9	8.4	10.6
F	Bucket clearance(m)	0.6 ~ 0.8 m ³	3.95								
		1.0 ~ 1.2 m ³	4.75								

(ECA00337A)

- Weight of bucket plus material shall not exceed above rated loads.
- Boom length shall not exceed 18.30 m.
- 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/m³
Gravel.....1.8~2.0 t/m³

BUCKET DATA:

Bucket capacity (m ³)	Weight (t)
0.6	0.93
0.8	1.17
1.0	1.40
※ 1.2	1.60

※ Medium or light duty service

■ **STANDARD AND OPTIONAL EQUIPMENT :**



STANDARD EQUIPMENT

Superstructure:

- Hino HO7CT diesel engine with an 180 ps rated output;
- Main and aux. drum winches of 15 ton line pull driven by independent hyd. motor w/independent hyd. circuit;
- Hydraulic system w/three variable displacement axial piston pumps and one fixed displacement gear pump;
- Control system w/one each of duplicate and triplicate tandem valves, and floor type control levers;
- Motorcycle type "SC" controller;
- Hydrostatic boom hoist mechanism w/retractable A-frame gantry;
- Hydrostatic swing mechanism w/turntable bearing;
- 17.2 ton counterweight;
- All new stamped automotive type operator's cab;
- Machinery cab;
- 24-volt electrical system;
- Lighting system:
 - Two 60 W working lights;
 - One 15 W interior cab light;
- Accessories:
 - Built-in type full air-conditioning;
 - Engine monitoring lamps;
 - Engine tachometer;
 - Fuel gauge;
 - Thermometer;
 - Hyd. oil temp. gauge;
 - Pilot line pressure gauge;
 - Level gauge;
 - Foot throttle;
 - Intermittent window shield wipers with washers;
 - Rear view mirrors;
 - Re-fuel pump;
 - Cigar lighter;
 - Ash tray;
 - Book holder;
 - Sunvisor;
 - Sunshades;
 - Cup holder;
 - Non-skid surfaces;
 - Cab front step;
 - Cab floor mat;
 - Superstructure under-cover;
 - Std. spare parts and tools.

Undercarriage

- 3.590 mm gauge by 5.715 mm long crawler lower;
- 760 mm wide track shoes;
- Hydrostatic crawler drive units w/shoe-in type traction motor;
- Life-time lubricated track components;
- Automatic track tension adjusting devices;
- Side frame retracting cylinder;
- Level gauge;
- Crawler side steps.

Boom Attachment:

- 12.20 m tubular basic boom;
- 55 ton hook block;
- Bail and bridle assemblies;
- Main crane hoist cable; 22.4 mm dia./182 m long;
- Boom hoist cable; 16 mm dia./172 m long.

Safety Devices:

- SUMITOMO SML-06 Load Moment Limiter;
- Eight kinds of annunciating alarms;
- Main and aux. drum pawl locks;
- Boom hoist drum pawl lock (w/automatic pawl locking device);
- Swing lock;
- Swing warning flash lamps w/buzzer;
- Hook over-hoist limiting device;
- Boom over-hoist and -lowering limiting device;
- Dual boom over-hoist limiting device;
- Boom backstops;
- Boom angle indicator;
- Swing brake lamp;
- Signal horn;
- Travel alarm;
- Control lever locks;
- Fool proof shut-off;
- Key lock mode selector;
- Hook latch;
- Automatic warning lamp for safety device switch cut-off.



OPTIONAL EQUIPMENT

- 3.05 m boom extension;
- 6.10 m boom extension;
- 9.15 m tubular basic fly jib;
- 4.575 m fly jib extension;
- 35 ton hook block;
- 20 ton hook block;
- 6.5 ton ball hook;
- Aux. short jib;
- 22.4 mm dia. aux. crane hoist cable;
- Third drum winch w/cable;
- Pump balancer;
- Constant speed swing mechanism;
- Disk type swing brake;
- Lifting height meter;
- AM/FM radio w/clock;
- Drum rollers;
- Hydraulic tagline winder;
- Fairlead;
- Clamshell bucket;
- Dragline bucket;
- Drum mirror;
- Stone guard; this is for operator's cab;
- Fire extinguisher;
- Drum light;
- Microphone & loud speaker;
- Swing warning w/annunciation;
- Aux. hook over-hoist limiting device;
- Three color percentage indicator;
- Catwalk, along both sides of machinery cab;
- Boom skywalk.