

SPECIFICATIONS – KOBELCO P&H 550AS 50 TONS CRAWLER CRANE



P&H **KOBELCO**

550A-S
P&H
Kobelco

550A-S
**Crane, Tower Crane, Clamshell,
Pile Driver**

 **KOBE STEEL, LTD.**

Bulletin No. 550AS-103

Specifications

UPPER MACHINERY



ENGINE

(Standard)

Model Detroit Diesel 4-71
Type Direct injection
Cycle 2

No. of Cylinders 4
Bore x Stroke 108 mm (4.25") x 127 mm (5.0")
Displacement 4.66 liters (284 cubic inch)
Rated Horsepower 148PS @ 2,000 rpm
Max. Torque 55.3 kg-m (400 ft.-lbs.) @ 1,600 rpm
Cooling Water cooled
Starting Electric 24 volt
Air Cleaner Dry type
Fuel Tank Capacity 250 liters (66 US gal.), (Fuel tank with electrical fuel supply pump)

(Optional)

Nissan Diesel PD604, direct injection type, 6 cyl., 4 cycle, 152 PS @ 2,000 rpm.

THROTTLE

Twist grip control on swing lever.

PUMP DRIVE

Direct type.

HYDRAULIC PUMPS

One set of Piggyback multiple gear pumps. First pump for travel and hoist, second one for travel and boom hoist, third one for swing, crawler extension and optional third drum; fourth one for clutch and brake control.

OIL RESERVOIR

Capacity 350 liters (92.5 US gal.)
(With by-pass type return filters and suction strainer)

OIL COOLER

Mounted in front of engine radiator with partial oil flow.



BOOM HOIST ASSEMBLY

Driven with hydraulic radial piston motor through single stage gear reducer.

Brake: hydraulic counterbalance valve mounted on boom hoist motor and external contracting band type, 590 mm (23.23") dia. x 63.5 mm (2.5") wide, spring set hydraulically operated, fail safe brake.

Drum: 294 mm (11.57") pitch dia. x 158 mm (6.22") wide with 574 mm (22.6") dia. flanges, mounted antifriction bearings.

Drum total capacity 125 m (410')
Wire rope dia. 14 mm (0.55")
Line pull (1st layer) 6,080 kg (13,400 lbs.)
Line speed (1st layer)
Hoisting (max.) 45 m/min (147.6 fpm)
Lowering (max.) 45 m/min (147.6 fpm)



FRONT AND REAR DRUMS

One drum on one drum shaft system is employed for two sets, both front and rear drum shafts. Driven with hydraulic radial piston motor through single stage gear reducer.

Clutches: 622 mm (24.49") dia. x 89 mm (3.5") wide, band type, internal expanding, hydraulically operated.

Brakes: 749 mm (29.49") dia. x 102 mm (4.02") wide, band type, external contracting, hydraulically set brake and additional spring set, hydraulically operated, fail safe brakes.

Drums: 400 mm (15.75") pitch dia. x 541 mm (21.3") wide with 690 mm (27.17") dia. flanges. Grooved drums mounted on antifriction bearings. Front drum is for main hoist and rear drum is for aux. hoist.

Drum capacity (1st layer) 31 m (102')
Drum total capacity 250 m (820')
Wire rope dia. 20 mm (0.79")
Line pull (1st layer) 9,200 kg (20,300 lbs.)
Line speed (1st layer)
Hoisting 60/30 m/min (197/98 fpm)
Lowering 60/30 m/min (197/98 fpm)



SWING UNIT

Hydraulic axial plunger motor driving through planetary reducer to output swing pinion for 360° rotation.

Swing speed 2.8 rpm

SWING BRAKE

Hydraulic brake valve mounted on swing motor and spring set, hydraulically operated and manually locked, disc type brake mounted on swing reducer.

SWING CIRCLE

Single row ball bearing with integral swing gear.



CONTROL VALVES

Pressure compensating stack type 4-way valves, specially designed for smooth precise control of all functions.

CONTROLS

Three adjustable hand levers for swing control, front and rear drum controls and boom hoist control, two adjustable short hand levers for front and rear drum clutches, two short hand levers for propel drives, and two foot pedals for front and rear drum brakes. Hand throttle (twist grip) on swing lever.



OPERATOR'S CAB

800mm (31.5") wide, all weather, full vision cab with safety glass. Electric windshield wiper, operator's four way adjustable high-back seat (full-reclining type), removable dash panel (with engine speedometer, ammeter, coolant temperature gauge, hydraulic oil temperature gauge, control oil pressure pilot lamp and switches), service and emergency engine stop, autogreaser control panel.

GANTRY

High gantry, telescoping type.

COUNTERWEIGHT

Cast construction, two pieces, external bolt connected — removable manually.

Total weight approx. 14,000 kg (30,900 lbs.)

SAFETY

Pressure relief valves. Crane over hoist limiter, Boom over hoist limiter, Boom angle indicator (indicate, operating radius and rated load), Signal horn, Boom backstops, Boom hoist drum lock, Front and rear hoist drum lock, Swing brake lock, Load moment limiter (indicate, rated load, active load, operating radius and boom angle) — optional.

TOOLS AND ACCESSORIES

The machine is furnished with a set of tools and accessories.

LOWER MACHINERY

CARBODY AND AXLES

All-welded unitized constructions.



TRACTOR TYPE CRAWLERS

Crawler belt tension maintained by automatic spring loaded track tensioner. Crawler frames inserted to axles and fastened to lower frame with 4 braces to support 11 lower rollers in each frame. Crawler side frames are extendible by use of hydraulic cylinders to gain a more stable operating condition with the upper over the side.

CRAWLER DRIVE

Independent hydraulic propel drive built into each crawler side frame. Driven with hydraulic two speed radial piston motor through planetary reducer. Crawler drive sprocket attached directly to the reducer output shaft.

CRAWLER BRAKES

Hydraulic brake valve mounted on crawler drive motor and spring set hydraulic released disc type brake mounted on planetary reducer.

STEERING MECHANISM

The hydraulic propel system provides both skid steering (driving one track only) and counter-rotating steering (driving each track in opposite directions).

LOWER ROLLERS

Bushed type, heat treated steel forgings with double rolling surfaces and center guide, bolted to crawler frame. Floating type seats provided for bearings.

CRAWLER SHOES

Total number — both sides 112
Forged flat shoes — standard width 760 mm (30")

TRAVEL SPEED

High range (max.) 1.2 km/h (0.74 mph)
Low range (max.) 0.6 km/h (0.37 mph)
Speed range changed in operator's cab by means of change lever.

GRADEABILITY 40%

CRANE ATTACHMENTS



BASIC BOOM

Two piece, open throat lattice type tubular boom consisting of a tapered base section and a tapered tip section having five offset boom point sheaves 400 mm (15.75") pitch dia, on antifriction bearings. Sections are

pin connected. High tensile steel chords all welded. Boom extendible to 51.82 m (170')

Boom length 12.19 m (40')
Boom base section 6.10 m (20')
Boom tip section 6.10 m (20')

BOOM INSERT SECTIONS (OPTIONAL)

Boom insert available for extension, tubular lattice type, high tensile steel chords, all welded, pin connections. Available in 3.05 m (10'), 6.10 m (20') and 9.14 m (30') long.

BASIC JIB (OPTIONAL)

Two piece, open throat tubular lattice type, having single jib point sheave on antifriction bearing, high tensile steel chords, all welded, pin connections. Jib extendible to 15.24 m (50').

Basic length 6.10 m (20')
Jib base section 3.05 m (10')
Jib tip section 3.05 m (10')

JIB INSERT SECTION (OPTIONAL)

Jib insert available for extension, tubular lattice type high tensile steel chords, all welded, pin connections. Available in 3.05 m (10'), 6.10 m (20') long.



HOOK BLOCKS

50 metric ton block with four sheaves, swivel hook, safety latch and nine (9) parts hoist line.

13 metric ton block with single sheave swivel hook, safety latch and three (3) parts hoist line — optional.

5 metric ton weighted ball hook with safety latch for jib — optional.

DIAMETER OF WIRE ROPE

Hoist wire rope 20 mm (0.79")
Jib hoist wire rope (optional) 20 mm (0.79")
Boom hoist wire rope 14 mm (0.55")
Boom suspension wire rope 28 mm (1.10")
Jib suspension wire rope (optional) 18 mm (0.71")

BOOM HOIST REEVING

Twelve (12) parts line.

BOOM BACKSTOPS

Telescoping type with spring bumper.

CABLE GUIDE ROLLERS (OPTIONAL)

Use as required to eliminate wire rope interference.

WORKING WEIGHT

Working weight approx. 45,000 kg (99,200 lbs.)
Including 12.19 m (40') boom, 760 mm (30') shoes, 50 metric ton hook block and 14,000 kg (30,900 lbs.) counterweights.

GROUND PRESSURES

Machine w/760 mm (30") shoes 0.60 kg/cm² (8.5 psi)

TOWER CRANE ATTACHMENTS



TOWER BOOM

Lattice type tubular boom consisting of a tapered base section, two inserts (or three inserts) and a cap section. Sections are pin connected. High tensile steel chords all welded. Tower boom extendible to 38.71 m (127').

Length in four sections 17.37 m (57')
Base section 6.10 m (20')
1—insert 1.52 m (5')
1—insert 6.10 m (20')
Cap section 3.66 m (12')

TOWER INSERT SECTIONS (OPTIONAL)

Tower insert available for extension. Available in 3.05 m (10') and 9.14 m (30') long.

JIB

Basic Jib:

Four piece, open throat tubular lattice type, having single jib point sheave on antifriction bearing, high tensile steel chords, all welded, pin connections.

Length in four sections 13.72 m (45')
Base section 3.05 m (10')
1—insert 6.10 m (20')
1—insert 1.52 m (5')
Tip section 3.05 m (10')

Optional Jib:

Max. jib length with 32.61 m (107') tower 25.91 m (85')
Max. jib length with 38.71 m (127') tower 22.86 m (75')

JIB INSERT SECTIONS (OPTIONAL)

Jib insert available for extension. Available in 3.05 m (10') and 6.10 m (20') long.

HOOK BLOCK

13 metric ton block with single sheave, swivel hook, safety latch and two (2) parts hoist line.

DIAMETER OF WIRE LINE

Hoist wire rope 20 mm (0.79")
Tower hoist wire rope 14 mm (0.55")
Jib hoist wire rope 14 mm (0.55")
Tower suspension wire rope 28 mm (1.10")
Jib suspension wire rope 26 mm (1.02")

BOOM HOIST REEVING

Tower: Twelve (12) parts line. Jib: Twelve (12) parts line.

TOWER BOOM BACKSTOP

Telescoping type with spring bumper.

WORKING WEIGHT

Working weight approx. 52,200 kg (115,100 lbs.)
Including 38.71 m (127') tower boom, 19.81 m (65') jib, 760 mm (30") shoes, 13 metric ton hook block and 14,000 kg (30,900 lbs.) counterweight.

GROUND PRESSURES

Machine w/760 mm (30") shoes 0.68 kg/cm² (9.7 psi)

CLAMSHELL ATTACHMENTS



BASIC BOOM

Two piece, open throat lattice type tubular boom consisting of a tapered base section and a tapered tip section having five offset boom point sheaves 400 mm (15.75") pitch dia. on antifriction bearings. Sections

are pin connected. High tensile steel chords all welded. Boom extendible to 18.29 m (60').

Boom length	12.19 m (40')
Boom base section	6.10 m (20')
Boom tip section	6.10 m (20')

BOOM INSERT SECTIONS (OPTIONAL)

Boom insert available for extension, tubular lattice type, high tensile steel chords, all welded, pin connections. Available in 3.05 m (10') and 6.10 m (20') long.

DIAMETER OF WIRE ROPE

Boom hoist wire rope	14 mm (0.55")
Holding wire rope	20 mm (0.79")
Closing wire rope	20 mm (0.79")
Boom suspension wire rope	28 mm (1.10")

BOOM HOIST REEVING

Twelve (12) parts line.

BOOM BACKSTOPS

Telescoping type with spring bumper.

TAGLINE WINDER

Spring type.

BUCKET

Max. allowable bucket capacity	1.0 m ³ (1.31 cu.yd.)
Max. allowable bucket weight (approx.)	2,200 kg (4,850 lbs.)

WORKING WEIGHT

Working weight approx. 46,800 kg (103,200 lbs.)
Including 12.19 m (40') boom, 760 mm (30") shoes, 1.0 m³ (1.31 cu.yd.) bucket and 14,000 kg (30,900 lbs.) counterweight.

GROUND PRESSURES

Machine w/760 mm shoes 0.62 kg/cm² (8.8 psi)

PILE DRIVER ATTACHMENTS



BASIC BOOM

Two piece, open throat lattice type tubular boom consisting of a tapered base section and a tapered tip section having five offset boom point sheaves 400 mm (15.75") pitch dia. on antifriction bearings. Sections are

pin connected. High tensile steel chords all welded. Boom extendible to 21.34 m (70').

Boom length	12.19 m (40')
Boom base section	6.10 m (20')
Boom tip section	6.10 m (20')

BOOM INSERT SECTIONS (OPTIONAL)

Boom insert available for extension, tubular lattice type, high tensile steel chords, all welded, pin connections. Available in 3.05 m (10'), 6.10 m (20') and 9.14 m (30') long.

BOOM HOIST REEVING

Twelve (12) parts line.

BOOM BACKSTOPS

Telescoping type with spring bumper.

LEADER (OPTIONAL)

KOBELCO Model LA45A Leader.

High tensile steel tubes, splice type leader with top sheaves on antifriction bearings. The leader has ladders on both sides of it, and has an angle indicator on the lower part of it.

(This leader is to be equipped on the boom of the P&H Model 550A-S Crawler Crane.)

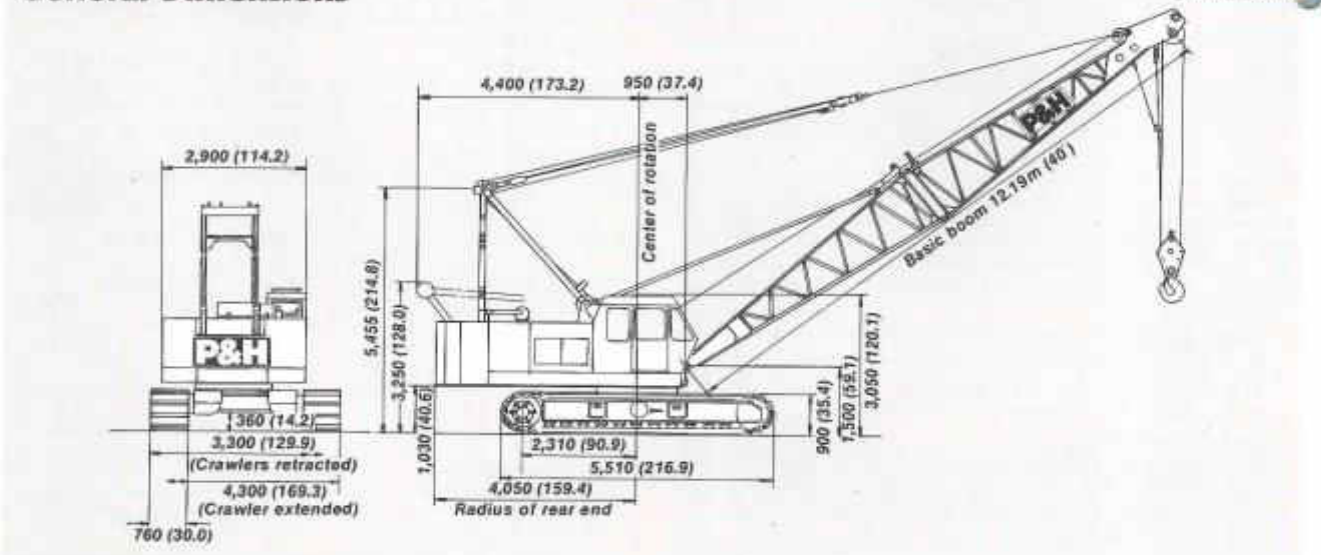
DIESEL PILE HAMMER

To serve for the efficient pile-driving work of the KOBELCO Model K25, K35 or K45 Diesel Pile Hammer.

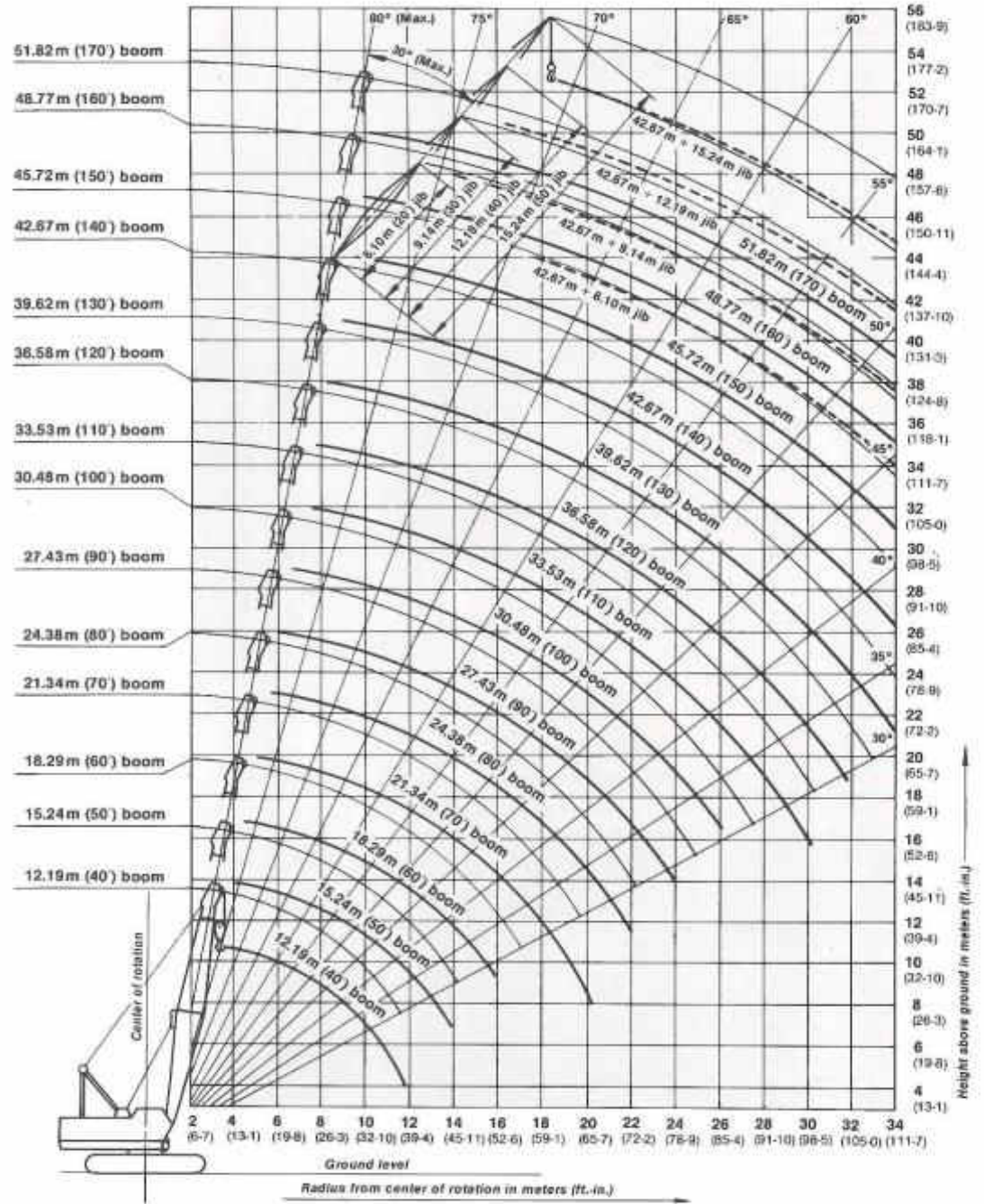
DRUM FUNCTIONS WHEN EQUIPPED WITH EACH ATTACHMENTS

Attachments Drum type	Crane	Tower Crane	Clamshell	Pile Driver
Front Drum	Main hoist line	Load line	Closing line	Hammer hoist line
Rear Drum	Jib hoist line	Tower hoist line	Holding line	Pile hoist line
Boom hoist Drum	Boom hoist line	Jib hoist line	Boom hoist line	Boom hoist line (Leader hoist line)

General Dimensions



Working Ranges



Lifting Capacities

RATED CRANE LOADS IN KGS (LBS.)—MAIN BOOM IN 360° WORK AREAS

Operating Radius in Meters (Ft.-in.)	12.19 m (40') Boom	15.24 m (50') Boom	18.29 m (60') Boom	21.34 m (70') Boom	24.38 m (80') Boom	27.43 m (90') Boom	30.48 m (100') Boom	33.53 m (110') Boom	36.58 m (120') Boom	39.62 m (130') Boom	42.67 m (140') Boom	45.72 m (150') Boom	48.77 m (160') Boom	51.82 m (170') Boom
3.7 (12-2)	50,000 (110,230)													
4.0 (13-1)	45,000 (99,210)	44,950 (99,100)												
4.5 (14-9)	37,200 (82,010)	37,150 (81,900)	37,100 (81,790)											
5.0 (16-5)	31,250 (68,890)	31,200 (68,780)	31,150 (68,670)	31,100 (68,560)										
5.5 (18-1)	26,800 (59,080)	26,750 (58,970)	26,700 (58,860)	26,650 (58,750)	26,600 (58,640)									
6.0 (19-8)	23,500 (51,810)	23,400 (51,590)	23,350 (51,480)	23,300 (51,370)	23,250 (51,260)	23,200 (51,150)								
7.0 (23-0)	18,700 (41,230)	18,600 (41,010)	18,550 (40,900)	18,500 (40,790)	18,450 (40,680)	18,400 (40,570)	18,350 (40,450)	18,300 (40,340)						
8.0 (26-3)	15,500 (34,170)	15,400 (33,950)	15,350 (33,840)	15,300 (33,730)	15,200 (33,510)	15,150 (33,400)	15,100 (33,290)	15,000 (33,070)	14,900 (32,850)	14,700 (32,410)				
9.0 (29-6)	13,200 (29,100)	13,100 (28,880)	13,000 (28,660)	12,950 (28,550)	12,900 (28,440)	12,850 (28,330)	12,800 (28,220)	12,700 (28,000)	12,600 (27,780)	12,550 (27,670)	12,500 (27,560)			
10.0 (32-10)	11,450 (25,240)	11,350 (25,020)	11,300 (24,910)	11,200 (24,690)	11,100 (24,470)	11,050 (24,360)	11,000 (24,250)	10,900 (24,030)	10,850 (23,920)	10,800 (23,810)	10,700 (23,590)	10,600 (23,370)	9,600 (21,160)	
12.0 (39-4)	9,000 (19,840)	8,900 (19,620)	8,800 (19,400)	8,750 (19,290)	8,700 (19,180)	8,650 (19,070)	8,600 (18,960)	8,500 (18,740)	8,400 (18,520)	8,350 (18,410)	8,250 (18,190)	8,200 (18,080)	8,100 (17,860)	7,700 (16,980)
14.0 (45-11)		7,300 (16,090)	7,200 (15,870)	7,150 (15,760)	7,050 (15,540)	7,000 (15,430)	6,900 (15,210)	6,850 (15,100)	6,800 (14,990)	6,700 (14,770)	6,600 (14,550)	6,500 (14,330)	6,400 (14,110)	6,300 (13,890)
16.0 (52-6)			6,000 (13,230)	5,950 (13,120)	5,900 (13,010)	5,800 (12,790)	5,750 (12,680)	5,650 (12,460)	5,600 (12,350)	5,500 (12,130)	5,400 (11,900)	5,350 (11,790)	5,300 (11,580)	5,200 (11,460)
18.0 (59-1)				5,100 (11,240)	5,000 (11,020)	4,900 (10,800)	4,850 (10,690)	4,750 (10,470)	4,700 (10,360)	4,600 (10,140)	4,500 (9,920)	4,450 (9,810)	4,400 (9,700)	4,300 (9,480)
20.0 (66-7)					4,400 (9,700)	4,300 (9,480)	4,200 (9,260)	4,150 (9,150)	4,050 (8,930)	3,950 (8,710)	3,900 (8,590)	3,800 (8,370)	3,700 (8,150)	3,650 (7,940)
22.0 (72-2)						3,700 (8,160)	3,650 (8,050)	3,550 (7,830)	3,500 (7,720)	3,400 (7,500)	3,350 (7,390)	3,250 (7,170)	3,200 (7,050)	3,100 (6,810)
24.0 (78-9)							3,200 (7,050)	3,100 (6,830)	3,000 (6,610)	2,950 (6,500)	2,800 (6,170)	2,700 (5,950)	2,600 (5,730)	2,500 (5,510)
26.0 (85-4)								2,750 (6,060)	2,650 (5,840)	2,600 (5,730)	2,500 (5,510)	2,400 (5,290)	2,300 (5,070)	2,250 (4,960)
28.0 (91-10)									2,350 (5,180)	2,250 (4,960)	2,200 (4,850)	2,100 (4,630)	2,000 (4,410)	1,900 (4,190)
30.0 (98-5)										2,100 (4,630)	2,000 (4,410)	1,900 (4,190)	1,850 (4,080)	1,750 (3,860)
32.0 (105-0)											1,750 (3,860)	1,700 (3,750)	1,600 (3,530)	1,500 (3,310)
34.0 (111-7)												1,450 (3,200)	1,350 (2,980)	1,250 (2,760)

OPERATION OF THIS EQUIPMENT IN EXCESS OF RATED LOADS OR DISREGARD OF INSTRUCTIONS VOIDS THE WARRANTY.

- Operating radius is the horizontal distance from centerline of rotation to a vertical line through the centerline of gravity of the load.
- Ratings shown are only for combination of P&H manufactured upper, crawler, boom, jib and counterweights (14,000 kg (30,900 lbs.)).
- Ratings do not exceed 78% of tipping load. Deduct weight of hook block(s), slings, cement bucket and all other load handling accessories from main boom or jib rating shown.
- Boom backstops are required for all boom lengths. Boom inserts must be arranged as shown in the "Owner and Operator's Manual".
- Standard boom hoist reeving is 12 part line. Gentry must be in raised position for all "Crawlers extended" ratings.
- When boom is equipped with jib, main hook ratings must be reduced by 800 kg (1,760 lbs.) for 6.10 m (20') jib, 900 kg (1,980 lbs.) for 9.14 m (30') jib, 1,000 kg (2,200 lbs.) for 12.19 m (40') jib, 1,100 kg (2,430 lbs.) for 15.24 m (50') jib.
- Ratings shown are based on freely suspended loads and make no allowance for such factors as wind effect on lifted load, ground conditions, out-of-level, operating speeds or any other condition that could be detrimental to the safe operation of this equipment. The operator, therefore, has the responsibility to judge the existing conditions and reduce lifted loads and operating speeds accordingly.
- Crawler frames must be fully extended for all crane operations.

NOTE:
This P&H model 550A-S meets the requirements of Japanese Mobile Construction Type Crane Safety Code.

WARNING:

- Welding or other repair to tubular steel booms may weaken the structure. See your P&H dealer for authorized boom repair service. Unauthorized repair will void all warranties.
- The wind effect on the lifted load can cause sufficient side load to overstress boom or jib structure. When suspended load will not remain in line with boom, derate chart 25%. We recommend stopping operation when wind is above 10 m/sec. (22 mph) and tying off, or lowering, boom when wind is above 16 m/sec. (35 mph).

DRUM WORKING DATA

Function	Front Drum		Rear Drum	Boom Hoist Drum
	Main hoist line	Jib hoist line	Boom hoist line	Boom hoist line
Pitch dia.	mm (in.) 400 (15.75)	400 (15.75)	294 (11.57)	294 (11.57)
Drum length	mm (in.) 541 (21.30)	541 (21.30)	158 (6.22)	158 (6.22)
Wire rope dia.	mm (in.) 20 (0.79)	20 (0.79)	14 (0.55)	14 (0.55)
* Line speed	Hoisting m/min (fpm) 60/30 (197/98)	60/30 (197/98)	60/30 (197/98)	45 (148)
	Lowering m/min (fpm) 60/30 (197/98)	60/30 (197/98)	60/30 (197/98)	45 (148)
* Line pull	kg (lbs.) 9,200 (20,300)	9,200 (20,300)	6,080 (13,400)	6,080 (13,400)

Lifting Capacities

JIB RATED LOADS IN KGS (LBS.)

Operating Radius in Meters (Ft.-In.)	30.48 m (100') Boom				33.53 m (110') Boom				36.58 m (120') Boom			
	6.10 m (20') Jib	9.14 m (30') Jib	12.19 m (40') Jib	15.24 m (50') Jib	6.10 m (20') Jib	9.14 m (30') Jib	12.19 m (40') Jib	15.24 m (50') Jib	6.10 m (20') Jib	9.14 m (30') Jib	12.19 m (40') Jib	15.24 m (50') Jib
11.0 (36-1)	5,000 (11,020)				5,000 (11,020)							
12.0 (39-4)	5,000 (11,020)				5,000 (11,020)				5,000 (11,020)			
14.0 (45-11)	5,000 (11,020)	4,080 (8,990)			5,000 (11,020)	4,080 (8,990)			5,000 (11,020)	4,080 (8,990)		
16.0 (52-6)	5,000 (11,020)	4,080 (8,990)	3,180 (7,010)		5,000 (11,020)	4,080 (8,990)	3,180 (7,010)		5,000 (11,020)	4,080 (8,990)	3,180 (7,010)	
18.0 (59-1)	4,880 (10,890)	4,080 (8,990)	3,180 (7,010)	2,270 (5,000)	4,750 (10,470)	4,080 (8,990)	3,180 (7,010)	2,270 (5,000)	4,700 (10,360)	4,080 (8,990)	3,180 (7,010)	2,270 (5,000)
20.0 (65-7)	4,150 (9,150)	4,080 (8,990)	3,180 (7,010)	2,270 (5,000)	4,050 (8,930)	4,050 (8,930)	3,180 (7,010)	2,270 (5,000)	3,950 (8,710)	3,950 (8,710)	3,180 (7,010)	2,270 (5,000)
22.0 (72-2)	3,550 (7,830)	3,550 (7,830)	3,180 (7,010)	2,270 (5,000)	3,500 (7,720)	3,500 (7,720)	3,180 (7,010)	2,270 (5,000)	3,400 (7,500)	3,400 (7,500)	3,180 (7,010)	2,270 (5,000)
24.0 (78-9)	3,100 (6,830)	3,100 (6,830)	3,100 (6,830)	2,270 (5,000)	3,000 (6,610)	3,000 (6,610)	3,000 (6,610)	2,270 (5,000)	2,950 (6,500)	2,950 (6,500)	2,950 (6,500)	2,270 (5,000)
26.0 (85-4)	2,750 (6,060)	2,750 (6,060)	2,750 (6,060)	2,270 (5,000)	2,650 (5,840)	2,650 (5,840)	2,650 (5,840)	2,270 (5,000)	2,600 (5,730)	2,600 (5,730)	2,600 (5,730)	2,270 (5,000)
28.0 (91-10)					2,350 (5,180)	2,350 (5,180)	2,350 (5,180)	2,270 (5,000)	2,250 (4,960)	2,250 (4,960)	2,250 (4,960)	2,250 (4,960)
30.0 (98-5)					2,100 (4,630)	2,100 (4,630)	2,100 (4,630)	2,100 (4,630)	2,000 (4,410)	2,000 (4,410)	2,000 (4,410)	2,000 (4,410)
32.0 (105-0)									1,750 (3,860)	1,750 (3,860)	1,750 (3,860)	1,750 (3,860)

Operating Radius in Meters (Ft.-In.)	39.62 m (130') Boom				42.67 m (140') Boom			
	6.10 m (20') Jib	9.14 m (30') Jib	12.19 m (40') Jib	15.24 m (50') Jib	6.10 m (20') Jib	9.14 m (30') Jib	12.19 m (40') Jib	15.24 m (50') Jib
12.0 (39-4)	5,000 (11,020)							
14.0 (45-11)	5,000 (11,020)	4,080 (8,990)			5,000 (11,020)			
16.0 (52-6)	5,000 (11,020)	4,080 (8,990)	3,180 (7,010)		5,000 (11,020)	4,080 (8,990)		
18.0 (59-1)	4,600 (10,140)	4,080 (8,990)	3,180 (7,010)	2,270 (5,000)	4,500 (9,920)	4,080 (8,990)	3,180 (7,010)	
20.0 (65-7)	3,900 (8,600)	3,900 (8,600)	3,180 (7,010)	2,270 (5,000)	3,800 (8,380)	3,800 (8,380)	3,180 (7,010)	2,270 (5,000)
22.0 (72-2)	3,350 (7,390)	3,350 (7,390)	3,180 (7,010)	2,270 (5,000)	3,250 (7,170)	3,250 (7,170)	3,180 (7,010)	2,270 (5,000)
24.0 (78-9)	2,900 (6,390)	2,900 (6,390)	2,900 (6,390)	2,270 (5,000)	2,800 (6,170)	2,800 (6,170)	2,800 (6,170)	2,270 (5,000)
26.0 (85-4)	2,500 (5,510)	2,500 (5,510)	2,500 (5,510)	2,270 (5,000)	2,400 (5,290)	2,400 (5,290)	2,400 (5,290)	2,270 (5,000)
28.0 (91-10)	2,200 (4,850)	2,200 (4,850)	2,200 (4,850)	2,200 (4,850)	2,100 (4,630)	2,100 (4,630)	2,100 (4,630)	2,100 (4,630)
30.0 (98-5)	1,900 (4,190)	1,900 (4,190)	1,900 (4,190)	1,900 (4,190)	1,850 (4,080)	1,850 (4,080)	1,850 (4,080)	1,850 (4,080)
32.0 (105-0)	1,700 (3,750)	1,700 (3,750)	1,700 (3,750)	1,700 (3,750)	1,600 (3,530)	1,600 (3,530)	1,600 (3,530)	1,600 (3,530)
34.0 (111-7)	1,450 (3,200)	1,450 (3,200)	1,450 (3,200)	1,450 (3,200)	1,350 (2,980)	1,350 (2,980)	1,350 (2,980)	1,350 (2,980)

MAXIMUM BOOM LENGTH TO LIFT OFF GROUND

	Boom Only	Boom and Jib
Crawler Frames in Fully Extended Position	51.82 m (170')	42.67 m + 15.24 m (140' + 50')

WEIGHT OF HOOK BLOCK

Hook Blocks	Kg (Lbs.)
50 metric ton block with four sheaves (Std.)	600 (1,320)
13 metric ton block with single sheave (Opt.)	250 (550)
5 metric ton ball hook - for jib (Opt.)	120 (260)

HOIST REEVING

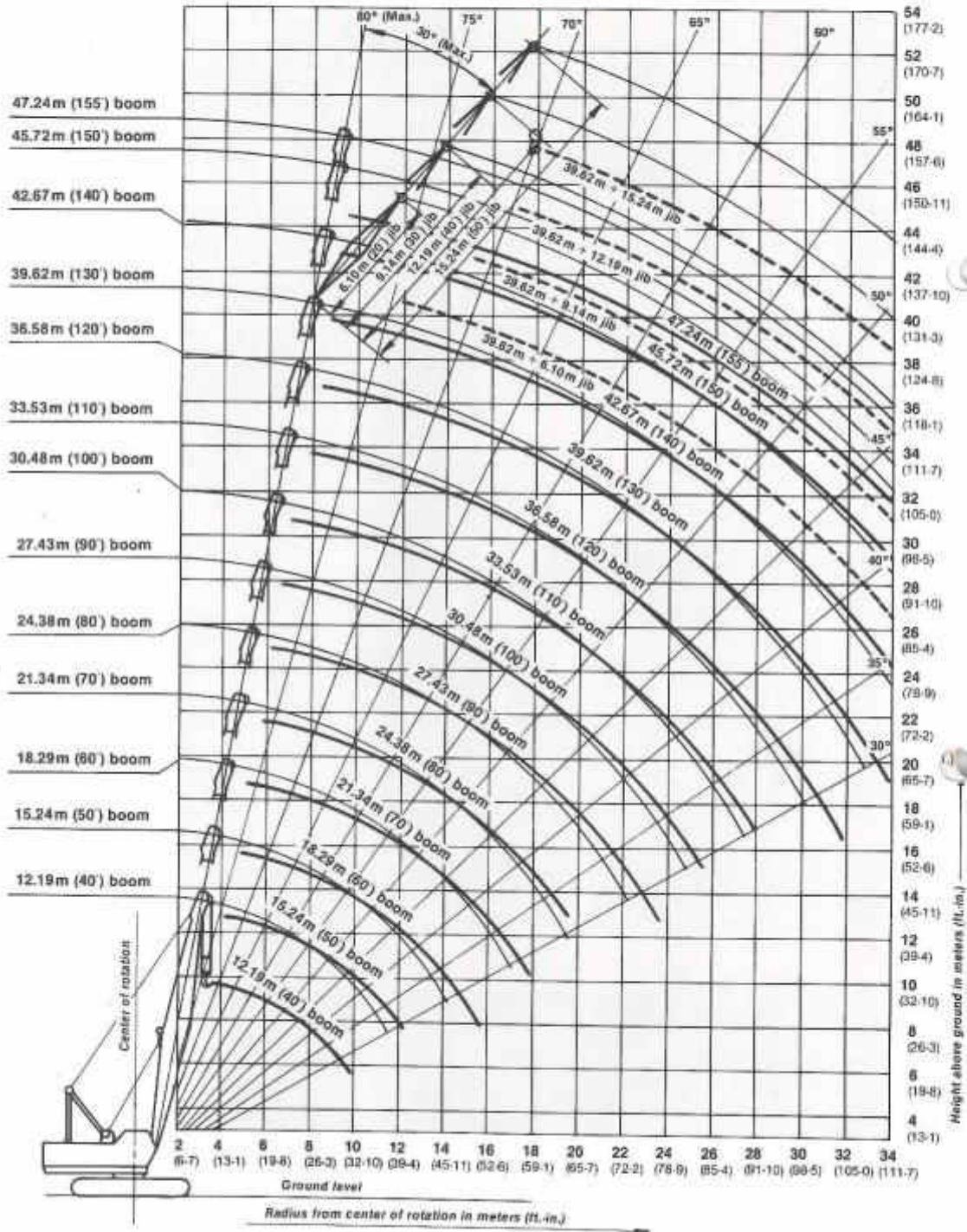
No. of Parts of Line	1	2	3	4	5
Max. Load - kg (lbs.)	5,600 (12,300)	11,200 (24,700)	16,800 (37,000)	22,400 (49,400)	28,000 (61,700)
No. of Parts of Line	6	7	8	9	
Max. Load - kg (lbs.)	33,600 (74,100)	39,200 (86,400)	44,800 (98,800)	50,000 (110,200)	

BOOM MAKE-UP ARRANGEMENT CHART

Boom Length Meters (Ft.)	Boom Arrangement
15.24 (50)	Base-A-Tip
18.29 (60)	Base-B-Tip, Base-A-A-Tip
21.34 (70)	Base-C-Tip, Base-A-B-Tip
24.38 (80)	Base-A-C-Tip, Base-A-A-B-Tip, Base-B-B-Tip
27.43 (90)	Base-B-C-Tip, Base-A-B-B-Tip
30.48 (100)	Base-C-C-Tip, Base-A-B-C-Tip, Base-A-B-A-B-Tip
33.53 (110)	Base-A-C-C-Tip, Base-B-B-C-Tip, Base-B-B-A-B-Tip
36.58 (120)	Base-B-C-C-Tip, Base-A-B-B-C-Tip
39.62 (130)	Base-B-C-A-C-Tip
42.67 (140)	Base-A-B-B-B-C-Tip, Base-B-C-B-C-Tip
45.72 (150)	Base-A-B-B-C-C-Tip
48.77 (160)	Base-B-B-B-C-C-Tip
51.82 (170)	Base-B-B-B-A-C-C-Tip

Base = 6.10 m (20'), Tip = 6.10 m (20')
 Inserts: A = 3.05 m (10'), B = 6.10 m (20'), C = 9.14 m (30')

Working Ranges



Lifting Capacities

RATED CRANE LOADS IN KGS (LBS.)—MAIN BOOM IN 360° WORK AREAS

Operating Radius in Meters (Ft., in.)	12.19 m (40') Boom	15.24 m (50') Boom	18.29 m (60') Boom	21.34 m (70') Boom	24.38 m (80') Boom	27.43 m (90') Boom	30.48 m (100') Boom	33.53 m (110') Boom	36.58 m (120') Boom	39.62 m (130') Boom	41.15 m (135') Boom	42.67 m (140') Boom	45.72 m (150') Boom	47.24 m (155') Boom	
3.7 (12-2)	50,000 (110,230)														
4.0 (13-1)	45,000 (99,210)	44,850 (98,890)													
4.5 (14-9)	37,200 (82,010)	37,050 (81,580)	37,000 (81,570)												
5.0 (16-5)	31,250 (68,890)	31,100 (68,560)	31,050 (68,450)	31,000 (68,340)											
5.5 (18-1)	26,800 (59,080)	26,650 (58,750)	26,600 (58,640)	26,550 (58,530)	26,500 (58,420)										
6.0 (19-8)	23,500 (51,810)	23,300 (51,370)	23,250 (51,260)	23,200 (51,150)	23,150 (51,040)	23,000 (50,710)									
7.0 (23-0)	18,700 (41,230)	18,500 (40,790)	18,450 (40,680)	18,400 (40,560)	18,350 (40,450)	18,200 (40,120)	18,150 (40,010)	18,100 (39,900)							
8.0 (26-3)	15,500 (34,170)	15,300 (33,730)	15,250 (33,620)	15,200 (33,510)	15,100 (33,290)	14,950 (32,960)	14,900 (32,850)	14,800 (32,630)	14,700 (32,410)	14,500 (31,970)					
9.0 (29-6)	13,200 (29,100)	13,000 (28,660)	12,900 (28,440)	12,850 (28,330)	12,800 (28,220)	12,650 (27,890)	12,600 (27,780)	12,500 (27,560)	12,400 (27,340)	12,350 (27,230)	12,200 (26,900)	12,200 (26,900)			
10.0 (32-10)	11,450 (25,240)	11,250 (24,800)	11,200 (24,690)	11,100 (24,470)	11,000 (24,250)	10,850 (23,920)	10,800 (23,810)	10,700 (23,590)	10,650 (23,480)	10,600 (23,370)	10,400 (22,930)	10,400 (22,930)	10,300 (22,710)	10,200 (22,490)	
12.0 (39-4)	9,000 (19,840)	8,800 (19,400)	8,700 (19,180)	8,650 (19,070)	8,600 (18,960)	8,450 (18,630)	8,400 (18,520)	8,300 (18,300)	8,200 (18,080)	8,150 (17,970)	7,950 (17,530)	7,950 (17,530)	7,900 (17,420)	7,800 (17,200)	
14.0 (45-11)		7,200 (15,870)	7,100 (15,650)	7,050 (15,540)	6,950 (15,320)	6,800 (14,990)	6,700 (14,770)	6,650 (14,660)	6,600 (14,550)	6,500 (14,330)	6,300 (13,890)	6,300 (13,890)	6,200 (13,670)	6,100 (13,450)	
15.0 (52-6)			5,900 (13,010)	5,850 (12,900)	5,800 (12,790)	5,600 (12,350)	5,550 (12,240)	5,450 (12,020)	5,400 (11,900)	5,300 (11,680)	5,100 (11,240)	5,100 (11,240)	5,050 (11,130)	4,950 (10,910)	
18.0 (59-1)				5,000 (11,020)	4,900 (10,800)	4,700 (10,360)	4,650 (10,250)	4,550 (10,030)	4,500 (9,920)	4,400 (9,700)	4,200 (9,260)	4,200 (9,260)	4,150 (9,150)	4,050 (8,930)	
20.0 (65-7)					4,300 (9,480)	4,200 (9,260)	4,000 (8,820)	3,950 (8,710)	3,850 (8,490)	3,750 (8,270)	3,700 (8,160)	3,500 (7,720)	3,500 (7,720)	3,400 (7,500)	3,300 (7,280)
22.0 (72-2)						3,600 (7,940)	3,450 (7,610)	3,350 (7,390)	3,300 (7,280)	3,200 (7,060)	3,150 (6,940)	2,950 (6,500)	2,950 (6,500)	2,900 (6,390)	2,800 (6,170)
24.0 (78-9)							3,000 (6,610)	2,900 (6,390)	2,800 (6,170)	2,750 (6,060)	2,700 (5,950)	2,500 (5,510)	2,500 (5,510)	2,400 (5,290)	2,300 (5,070)
26.0 (85-4)								2,550 (5,620)	2,450 (5,400)	2,400 (5,290)	2,300 (5,070)	2,100 (4,630)	2,100 (4,630)	2,000 (4,410)	1,900 (4,190)
28.0 (91-10)									2,150 (4,740)	2,050 (4,520)	2,000 (4,410)	1,800 (3,970)	1,800 (3,970)	1,700 (3,750)	1,600 (3,530)
30.0 (98-5)										1,900 (4,190)	1,800 (3,970)	1,700 (3,750)	1,550 (3,420)	1,450 (3,200)	1,350 (2,980)
32.0 (105-0)											1,950 (4,320)	1,500 (3,310)	1,300 (2,870)	1,200 (2,650)	1,100 (2,430)

OPERATION OF THIS EQUIPMENT IN EXCESS OF RATED LOADS OR DISREGARD OF INSTRUCTIONS VOIDS THE WARRANTY.

- Operating radius is the horizontal distance from centerline of rotation to a vertical line through the centerline of gravity of the load.
- Ratings shown are only for combination of P&H manufactured upper, crawler, boom, jib and counterweights (14,000 kg (30,900 lbs.)).
- Ratings do not exceed 78% of tipping load. Deduct weight of hook block(s), slings, cement bucket and all other load handling accessories from main boom or jib rating shown.
- Boom backstops are required for all boom lengths. Boom inserts must be arranged as shown in the "Owner and Operator's Manual".
- Standard boom hoist reeving is 12-part line. Gantry must be in raised position for all "Crawlers extended" ratings.
- When boom is equipped with jib, main hook ratings must be reduced by 800 kg (1,760 lbs.) for 6.10 m (20') jib, 900 kg (1,980 lbs.) for 9.14 m (30') jib, 1,000 kg (2,200 lbs.) for 12.19 m (40') jib, 1,100 kg (2,430 lbs.) for 15.24 m (50') jib.
- Ratings shown are based on freely suspended loads and make no allowance for such factors as wind effect on lifted load, ground conditions, out-of-level, operating speeds or any other condition that could be detrimental to the safe operation of this equipment. The operator, therefore, has the responsibility to judge the existing conditions and reduce lifted loads and operating speeds accordingly.
- Crawler frames must be fully extended for all crane operations.

NOTE:
This P&H model 550A-S meets the requirements of Japanese Mobile Construction Type Crane Safety Code.

WARNING:

- Welding or other repair to tubular steel booms may weaken the structure. See your P&H dealer for authorized boom repair service. Unauthorized repair will void all warranties.
- The wind effect on the lifted load can cause sufficient side load to overstress boom or jib structure. When suspended load will not remain in line with boom, derate chart 25%. We recommend stopping operation when wind is above 10 m/sec. (22 mph) and tying off, or lowering, boom when wind is above 16 m/sec. (35 mph).

DRUM WORKING DATA

Function	Front Drum			Rear Drum			Boom Hoist Drum		
	Main hoist line	Jib hoist line	Boom hoist line	Main hoist line	Jib hoist line	Boom hoist line	Main hoist line	Jib hoist line	Boom hoist line
Pitch dia.	mm (in.)	400 (15.75)	400 (15.75)	294 (11.57)	400 (15.75)	400 (15.75)	294 (11.57)	400 (15.75)	400 (15.75)
Drum length	mm (in.)	541 (21.30)	541 (21.30)	158 (6.22)	541 (21.30)	541 (21.30)	158 (6.22)	541 (21.30)	541 (21.30)
Wire rope dia.	mm (in.)	20 (0.79)	20 (0.79)	14 (0.55)	20 (0.79)	20 (0.79)	14 (0.55)	20 (0.79)	20 (0.79)
*Line speed	Hoisting	m/min (fpm)	60/30 (197/98)	60/30 (197/98)	45 (148)	60/30 (197/98)	60/30 (197/98)	45 (148)	60/30 (197/98)
	Lowering	m/min (fpm)	60/30 (197/98)	60/30 (197/98)	45 (148)	60/30 (197/98)	60/30 (197/98)	45 (148)	60/30 (197/98)
*Line pull	kg (lbs.)	9,200 (20,300)	9,200 (20,300)	6,080 (13,400)	9,200 (20,300)	9,200 (20,300)	6,080 (13,400)	9,200 (20,300)	9,200 (20,300)

Lifting Capacities

JIB RATED LOADS IN KGS (LBS.)

Operating Radius in Meters (Ft.-In)	30.48 m (100') Boom				33.53 m (110') Boom			
	6.10 m (20') Jib	9.14 m (30') Jib	12.19 m (40') Jib	15.24 m (50') Jib	6.10 m (20') Jib	9.14 m (30') Jib	12.19 m (40') Jib	15.24 m (50') Jib
11.0 (36-1)	5,000 (11,020)				5,000 (11,020)			
12.0 (39-4)	5,000 (11,020)				5,000 (11,020)			
14.0 (45-11)	5,000 (11,020)	4,080 (8,990)			5,000 (11,020)	4,080 (8,990)		
16.0 (52-6)	5,000 (11,020)	4,080 (8,990)	3,180 (7,010)		5,000 (11,020)	4,080 (8,990)	3,180 (7,010)	
18.0 (59-1)	4,650 (10,250)	4,080 (8,990)	3,180 (7,010)	2,270 (5,000)	4,550 (10,030)	4,080 (8,990)	3,180 (7,010)	2,270 (5,000)
20.0 (65-7)	3,950 (8,710)	3,950 (8,710)	3,180 (7,010)	2,270 (5,000)	3,850 (8,490)	3,850 (8,490)	3,180 (7,010)	2,270 (5,000)
22.0 (72-2)	3,350 (7,390)	3,350 (7,390)	3,100 (6,830)	2,270 (5,000)	3,300 (7,280)	3,300 (7,280)	3,180 (7,010)	2,270 (5,000)
24.0 (78-9)	2,900 (6,390)	2,900 (6,390)	2,900 (6,390)	2,270 (5,000)	2,800 (6,170)	2,800 (6,170)	2,800 (6,170)	2,270 (5,000)
26.0 (85-4)	2,550 (5,620)	2,550 (5,620)	2,550 (5,620)	2,270 (5,000)	2,450 (5,400)	2,450 (5,400)	2,450 (5,400)	2,270 (5,000)
28.0 (91-10)					2,150 (4,740)	2,150 (4,740)	2,150 (4,740)	2,150 (4,740)
30.0 (98-5)					1,900 (4,190)	1,900 (4,190)	1,900 (4,190)	1,900 (4,190)
Operating Radius in Meters (Ft.-In)	36.58 m (120') Boom				39.62 m (130') Boom			
	6.10 m (20') Jib	9.14 m (30') Jib	12.19 m (40') Jib	15.24 m (50') Jib	6.10 m (20') Jib	9.14 m (30') Jib	12.19 m (40') Jib	15.24 m (50') Jib
12.0 (39-4)	5,000 (11,020)				5,000 (11,020)			
14.0 (45-11)	5,000 (11,020)	4,080 (8,990)			5,000 (11,020)	4,080 (8,990)		
16.0 (52-6)	5,000 (11,020)	4,080 (8,990)	3,180 (7,010)		5,000 (11,020)	4,080 (8,990)	3,180 (7,010)	
18.0 (59-1)	4,500 (9,920)	4,080 (8,990)	3,180 (7,010)	2,270 (5,000)	4,400 (9,700)	4,080 (8,990)	3,180 (7,010)	2,270 (5,000)
20.0 (65-7)	3,750 (8,270)	3,750 (8,270)	3,180 (7,010)	2,270 (5,000)	3,700 (8,160)	3,700 (8,160)	3,180 (7,010)	2,270 (5,000)
22.0 (72-2)	3,200 (7,050)	3,200 (7,050)	3,180 (7,010)	2,270 (5,000)	3,150 (6,940)	3,150 (6,940)	3,150 (6,940)	2,270 (5,000)
24.0 (78-9)	2,750 (6,060)	2,750 (6,060)	2,750 (6,060)	2,270 (5,000)	2,700 (5,950)	2,700 (5,950)	2,700 (5,950)	2,270 (5,000)
26.0 (85-4)	2,400 (5,290)	2,400 (5,290)	2,400 (5,290)	2,270 (5,000)	2,300 (5,070)	2,300 (5,070)	2,300 (5,070)	2,270 (5,000)
28.0 (91-10)	2,050 (4,520)	2,050 (4,520)	2,050 (4,520)	2,050 (4,520)	2,000 (4,410)	2,000 (4,410)	2,000 (4,410)	2,000 (4,410)
30.0 (98-5)	1,800 (3,970)	1,800 (3,970)	1,800 (3,970)	1,800 (3,970)	1,700 (3,750)	1,700 (3,750)	1,700 (3,750)	1,700 (3,750)
32.0 (105-0)	1,550 (3,420)	1,550 (3,420)	1,550 (3,420)	1,550 (3,420)	1,500 (3,310)	1,500 (3,310)	1,500 (3,310)	1,500 (3,310)

MAXIMUM BOOM LENGTH TO LIFT OFF GROUND

	Boom Only	Boom and Jib
Crawler Frames in Fully Extended Position	47.24 m (155')	39.62 m + 15.24 m (130' + 50')

WEIGHT OF HOOK BLOCK

Hook Blocks	Kg (Lbs.)
50 metric ton block with four sheaves (Std.)	600 (1,320)
13 metric ton block with single sheave (Opt.)	250 (550)
5 metric ton ball hook - for jib (Opt.)	120 (260)

HOIST REEVING

No. of Parts of Line	1	2	3	4	5
Max. Load - kg (lbs.)	5,600 (12,300)	11,200 (24,700)	16,800 (37,000)	22,400 (49,400)	28,000 (61,700)
No. of Parts of Line	6	7	8	9	
Max. Load - kg (lbs.)	33,600 (74,100)	39,200 (86,400)	44,800 (98,800)	50,000 (110,200)	

BOOM MAKE-UP ARRANGEMENT CHART

Boom length Meters (Ft.)	Boom Arrangement
15.24 (50)	Base-B-Tip
18.29 (60)	Base-C-Tip
21.34 (70)	Base-B-C-Tip, Base-D-Tip
24.38 (80)	Base-C-C-Tip, Base-B-D-Tip
27.43 (90)	Base-B-C-C-Tip, Base-C-D-Tip
30.48 (100)	Base-B-C-D-Tip, Base-D-D-Tip
33.53 (110)	Base-C-C-D-Tip, Base-B-D-D-Tip
36.58 (120)	Base-B-C-C-D-Tip, Base-C-D-D-Tip
39.62 (130)	Base-B-C-D-D-Tip
41.15 (135)	Base-A-B-C-D-D-Tip
42.67 (140)	Base-C-C-D-D-Tip
45.72 (150)	Base-B-C-C-D-D-Tip
47.24 (155)	Base-A-B-C-C-D-D-Tip

Base=6.10m(20'), Tip=6.10m(20')
 Inserts: A=1.52m(5'), B=3.05m(10'), C=6.10m(20'), D=9.14m(30')

Clamshell

1.0m³
18.29m max. Boom

CLAMSHELL RATED LOADS IN KGS (LBS.)

Operating Radius in Meters (Ft.-In.)	12.19 m (40') Boom	15.24 m (50') Boom	18.29 m (60') Boom
6.0 (19-8)	4,200 (9,260)		
7.0 (23-0)	4,200 (9,260)	4,200 (9,260)	
8.0 (26-3)	4,200 (9,260)	4,200 (9,260)	4,200 (9,260)
9.0 (29-6)	4,200 (9,260)	4,200 (9,260)	4,200 (9,260)
10.0 (32-10)	4,200 (9,260)	4,200 (9,260)	4,200 (9,260)
12.0 (39-4)		4,200 (9,260)	4,200 (9,260)
14.0 (45-11)		4,200 (9,260)	4,200 (9,260)
16.0 (52-6)			4,200 (9,260)

Above ratings are combined weights of bucket and material. Clamshell ratings shown also apply to grapple and all other material handling buckets except draglines. For clamshell operations, the weight of bucket is considered a part of the load and the total weight of bucket plus contents must not exceed the corresponding rating shown. Ratings are contingent upon machine being equipped with proper P&H boom.

- Maximum boom length recommended for clamshell operation 18.29 m (60')
 - Limit on clamshell rating 4,200 kg (9,260 lbs.)
 - Maximum allowable bucket size 1.0 m³ (1.31 cu.yd.)
 - Maximum allowable bucket weight 2,200 kg (4,850 lbs.)
- Larger size may be approved depending on type of material, type of bucket—within limitations rating charts.

NOTE: To select bucket size best suited for your application, use the following formula: Refer to charts above to offset clamshell capacity in kgs. Clamshell capacity = (cubic meter capacity of bucket) x (weight of material per cubic meter) + (weight of specific clamshell bucket)

BOOM MAKE-UP ARRANGEMENT CHART

Boom Length Meters (Ft.)	Boom Arrangement
15.24 (50')	Base—A—Tip
18.29 (60')	Base—A—A—Tip, Base—B—Tip

Base = 6.10 m (20'); Tip = 6.10 m (20')
Inserts: A = 3.05 m (10'); B = 6.10 m (20')

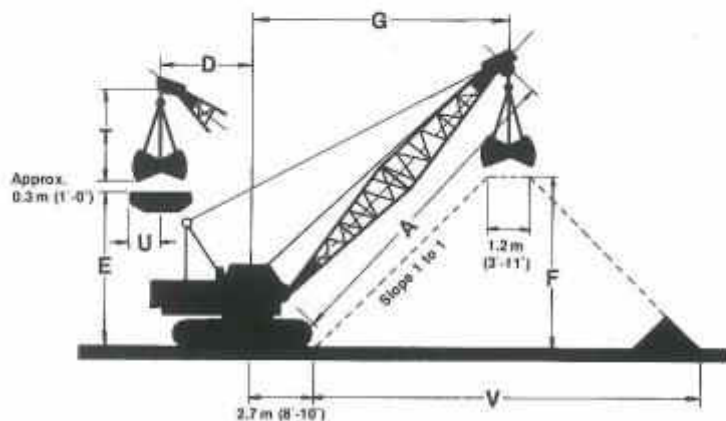
DRUM WORKING DATA

Function	Front Drum		Boom Hoist Drum
	Closing line	Holding line	Boom hoist line
Pitch dia.	mm (in.) 400 (15.75)	400 (15.75)	294 (11.57)
Drum length	mm (in.) 541 (21.30)	541 (21.30)	168 (6.22)
Wire rope dia.	mm (in.) 20 (0.79)	20 (0.79)	14 (0.55)
* Line speed	Hoisting m/min (fpm) 60/30 (197/98)	60/30 (197/98)	45 (148)
	Lowering m/min (fpm) 60/30 (197/98)	60/30 (197/98)	45 (148)
* Line pull	kg (lbs.) 9,200 (20,300)	9,200 (20,300)	6,080 (13,400)

* Line Pulls and Line Speeds based on single part line—maximum pressure 175 kg/cm² (2,500 psi)—single wrap of cable on drum and engine at full load speed.

CLAMSHELL WORKING RANGES IN METERS (FT.-IN.)

A Boom Length	12.19 m (40')		15.24 m (50')		18.29 m (60')	
D Operating Radius in Meters (Ft.-In.)	HEIGHT AND 1/2 WIDTH OF BIN					
	E	U	E	U	E	U
6.0 (19-8)	9.08 (29-9)	0.92 (3-0)				
7.0 (23-0)	8.59 (28-2)	1.28 (4-2)	11.97 (39-3)	0.88 (2-11)		
8.0 (26-3)	7.96 (26-1)	1.70 (5-7)	11.50 (37-9)	1.15 (3-9)	14.83 (48-8)	0.87 (2-10)
9.0 (29-6)	7.17 (23-6)	2.19 (7-2)	10.92 (35-10)	1.46 (4-9)	14.38 (47-2)	1.06 (3-6)
10.0 (32-10)	6.18 (20-3)	2.86 (9-5)	10.21 (33-6)	1.82 (6-0)	13.88 (45-6)	1.32 (4-4)
12.0 (39-4)			8.47 (27-9)	2.75 (9-0)	13.16 (43-2)	1.87 (6-2)
14.0 (45-11)			5.82 (19-1)	4.41 (14-6)	10.82 (35-6)	2.63 (8-8)
16.0 (52-6)					8.40 (27-7)	3.75 (12-4)
Height and Width of Stock Pile	F	V	F	V	F	V
	6.47 (21-3)	14.14 (46-5)	8.59 (28-2)	18.38 (60-4)	11.34 (37-2)	23.88 (78-4)
G Radius	9.77 (32-1)		11.89 (39-0)		14.07 (46-2)	
T Bucket Height	Varies up to 3.00 m (9'-10") depending upon make and capacity of bucket.					



Lifting Capacities

JIB RATED LOADS IN KGS (LBS.)

Operating Radius in Meters (Ft.-In)	30.48 m (100') Boom				33.53 m (110') Boom			
	6.10 m (20') Jib	9.14 m (30') Jib	12.19 m (40') Jib	15.24 m (50') Jib	6.10 m (20') Jib	9.14 m (30') Jib	12.19 m (40') Jib	15.24 m (50') Jib
11.0 (36-1)	5,000 (11,020)				5,000 (11,020)			
12.0 (39-4)	5,000 (11,020)				5,000 (11,020)			
14.0 (45-11)	5,000 (11,020)	4,080 (8,990)			5,000 (11,020)	4,080 (8,990)		
16.0 (52-6)	5,000 (11,020)	4,080 (8,990)	3,180 (7,010)		5,000 (11,020)	4,080 (8,990)	3,180 (7,010)	
18.0 (59-1)	4,650 (10,250)	4,080 (8,990)	3,180 (7,010)	2,270 (5,000)	4,550 (10,030)	4,080 (8,990)	3,180 (7,010)	2,270 (5,000)
20.0 (65-7)	3,950 (8,710)	3,950 (8,710)	3,180 (7,010)	2,270 (5,000)	3,850 (8,490)	3,850 (8,490)	3,180 (7,010)	2,270 (5,000)
22.0 (72-2)	3,350 (7,390)	3,350 (7,390)	3,100 (6,830)	2,270 (5,000)	3,300 (7,280)	3,300 (7,280)	3,180 (7,010)	2,270 (5,000)
24.0 (78-9)	2,900 (6,390)	2,900 (6,390)	2,900 (6,390)	2,270 (5,000)	2,800 (6,170)	2,800 (6,170)	2,800 (6,170)	2,270 (5,000)
26.0 (85-4)	2,550 (5,620)	2,550 (5,620)	2,550 (5,620)	2,270 (5,000)	2,450 (5,400)	2,450 (5,400)	2,450 (5,400)	2,270 (5,000)
28.0 (91-10)					2,150 (4,740)	2,150 (4,740)	2,150 (4,740)	2,150 (4,740)
30.0 (98-5)					1,900 (4,190)	1,900 (4,190)	1,900 (4,190)	1,900 (4,190)
Operating Radius in Meters (Ft.-In)	36.58 m (120') Boom				39.62 m (130') Boom			
	6.10 m (20') Jib	9.14 m (30') Jib	12.19 m (40') Jib	15.24 m (50') Jib	6.10 m (20') Jib	9.14 m (30') Jib	12.19 m (40') Jib	15.24 m (50') Jib
12.0 (39-4)	5,000 (11,020)				5,000 (11,020)			
14.0 (45-11)	5,000 (11,020)	4,080 (8,990)			5,000 (11,020)	4,080 (8,990)		
16.0 (52-6)	5,000 (11,020)	4,080 (8,990)	3,180 (7,010)		5,000 (11,020)	4,080 (8,990)	3,180 (7,010)	
18.0 (59-1)	4,500 (9,920)	4,080 (8,990)	3,180 (7,010)	2,270 (5,000)	4,400 (9,700)	4,080 (8,990)	3,180 (7,010)	2,270 (5,000)
20.0 (65-7)	3,750 (8,270)	3,750 (8,270)	3,180 (7,010)	2,270 (5,000)	3,700 (8,160)	3,700 (8,160)	3,180 (7,010)	2,270 (5,000)
22.0 (72-2)	3,200 (7,050)	3,200 (7,050)	3,180 (7,010)	2,270 (5,000)	3,150 (6,940)	3,150 (6,940)	3,150 (6,940)	2,270 (5,000)
24.0 (78-9)	2,750 (6,060)	2,750 (6,060)	2,750 (6,060)	2,270 (5,000)	2,700 (5,950)	2,700 (5,950)	2,700 (5,950)	2,270 (5,000)
26.0 (85-4)	2,400 (5,290)	2,400 (5,290)	2,400 (5,290)	2,270 (5,000)	2,300 (5,070)	2,300 (5,070)	2,300 (5,070)	2,270 (5,000)
28.0 (91-10)	2,050 (4,520)	2,050 (4,520)	2,050 (4,520)	2,050 (4,520)	2,000 (4,410)	2,000 (4,410)	2,000 (4,410)	2,000 (4,410)
30.0 (98-5)	1,800 (3,970)	1,800 (3,970)	1,800 (3,970)	1,800 (3,970)	1,700 (3,750)	1,700 (3,750)	1,700 (3,750)	1,700 (3,750)
32.0 (105-0)	1,550 (3,420)	1,550 (3,420)	1,550 (3,420)	1,550 (3,420)	1,500 (3,310)	1,500 (3,310)	1,500 (3,310)	1,500 (3,310)

MAXIMUM BOOM LENGTH TO LIFT OFF GROUND

Crawler Frames in Fully Extended Position	Boom Only	Boom and Jib
	47.24 m (155')	39.62 m + 15.24 m (130' + 50')

WEIGHT OF HOOK BLOCK

Hook Blocks	Kg (Lbs.)
50 metric ton block with four sheaves (Std.)	600 (1,320)
13 metric ton block with single sheave (Opt.)	250 (550)
5 metric ton ball hook — for jib (Opt.)	120 (260)

HOIST REEVING

No. of Parts of Line	1					2				3			4		5
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Max. Load — kg (lbs.)	5,600 (12,300)	11,200 (24,700)	16,800 (37,000)	22,400 (49,400)	28,000 (61,700)	33,600 (74,100)	39,200 (86,400)	44,800 (98,900)	50,400 (110,200)	56,000 (123,000)	61,600 (136,700)	67,200 (148,000)	72,800 (160,300)	78,400 (172,600)	84,000 (184,900)
No. of Parts of Line	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Max. Load — kg (lbs.)	33,600 (74,100)	39,200 (86,400)	44,800 (98,900)	50,400 (110,200)	56,000 (123,000)	61,600 (136,700)	67,200 (148,000)	72,800 (160,300)	78,400 (172,600)	84,000 (184,900)	89,600 (197,200)	95,200 (209,500)	100,800 (221,800)	106,400 (234,100)	112,000 (246,400)

BOOM MAKE-UP ARRANGEMENT CHART

Boom length Meters (Ft.)	Boom Arrangement
15.24 (50)	Base-B-Tip
18.29 (60)	Base-C-Tip
21.34 (70)	Base-B-C-Tip, Base-D-Tip
24.38 (80)	Base-C-C-Tip, Base-B-D-Tip
27.43 (90)	Base-B-C-C-Tip, Base-C-D-Tip
30.48 (100)	Base-B-C-D-Tip, Base-D-D-Tip
33.53 (110)	Base-C-C-D-Tip, Base-B-D-D-Tip
36.58 (120)	Base-B-C-C-D-Tip, Base-C-D-D-Tip
39.62 (130)	Base-B-C-D-D-Tip
41.15 (135)	Base-A-B-C-D-D-Tip
42.67 (140)	Base-C-C-D-D-Tip
45.72 (150)	Base-B-C-C-D-D-Tip
47.24 (155)	Base-A-B-C-C-D-D-Tip

Base=6.10m(20'), Tip=6.10m(20')
 Inserts: A=1.52m(5'), B=3.05m(10'), C=6.10m(20'), D=9.14m(30')

Clamshell

1.0m³
18.29m max. Boom

CLAMSHELL RATED LOADS IN KGS (LBS.)

Operating Radius in Meters (Ft.-In.)	12.19 m (40') Boom	15.24 m (50') Boom	18.29 m (60') Boom
6.0 (19-8)	4,200 (9,260)		
7.0 (23-0)	4,200 (9,260)	4,200 (9,260)	
8.0 (26-3)	4,200 (9,260)	4,200 (9,260)	4,200 (9,260)
9.0 (29-6)	4,200 (9,260)	4,200 (9,260)	4,200 (9,260)
10.0 (32-10)	4,200 (9,260)	4,200 (9,260)	4,200 (9,260)
12.0 (39-4)		4,200 (9,260)	4,200 (9,260)
14.0 (45-11)		4,200 (9,260)	4,200 (9,260)
16.0 (52-6)			4,200 (9,260)

Above ratings are combined weights of bucket and material. Clamshell ratings shown also apply to grapple and all other material handling buckets except dragline. For clamshell operations, the weight of bucket is considered a part of the load and the total weight of bucket plus contents must not exceed the corresponding rating shown. Ratings are contingent upon machine being equipped with proper P&H boom.

- Maximum boom length recommended for clamshell operation 18.29 m (60')
 - Limit on clamshell rating 4,200 kg (9,260 lbs.)
 - Maximum allowable bucket size 1.0 m³ (1.31 cu.yd.)
 - Maximum allowable bucket weight 2,200 kg (4,850 lbs.)
- Larger size may be approved depending on type of material, type of bucket—within limitations rating charts.

NOTE: To select bucket size best suited for your application, use the following formula: Refer to charts above to offset clamshell capacity in kgs. Clamshell capacity = (cubic meter capacity of bucket) x (weight of material per cubic meter) + (weight of specific clamshell bucket)

BOOM MAKE-UP ARRANGEMENT CHART

Boom Length Meters (Ft.)	Boom Arrangement
15.24 (50')	Base-A-Tip
18.29 (60')	Base-A-A-Tip, Base-B-Tip

Base = 6.10 m (20'); Tip = 6.10 m (20')
Inserts: A = 3.05 m (10'); B = 6.10 m (20')

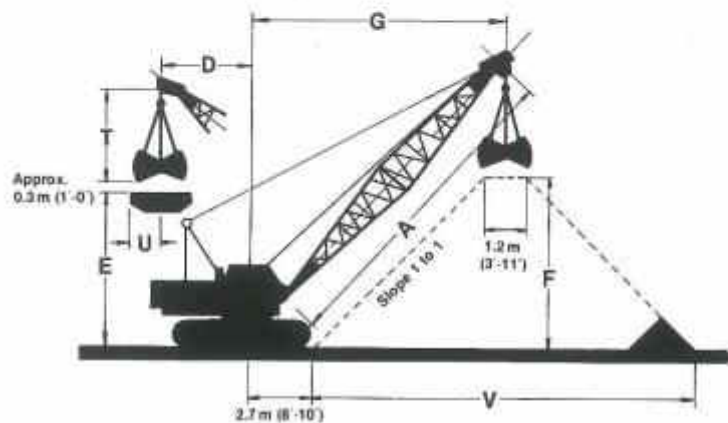
DRUM WORKING DATA

Function		Front Drum	Rear Drum	Boom Hoist Drum
		Closing line	Holding line	Boom hoist line
Pitch dia.	mm (in.)	400 (15.75)	400 (15.75)	294 (11.57)
Drum length	mm (in.)	541 (21.30)	541 (21.30)	158 (6.22)
Wire rope dia.	mm (in.)	20 (0.79)	20 (0.79)	14 (0.55)
* Line speed	Holting m/min (fpm)	60/30 (197/98)	60/30 (197/98)	45 (148)
	Lowering m/min (fpm)	60/30 (197/98)	60/30 (197/98)	45 (148)
* Line pull	kg (lbs.)	9,200 (20,300)	9,200 (20,300)	6,080 (13,400)

* Line Pulls and Line Speeds based on single part line—maximum pressure 175 kg/cm² (2,500 psi)—single wrap of cable on drum and engine at full load speed.

CLAMSHELL WORKING RANGES IN METERS (FT.-IN.)

A Boom Length	12.19 m (40')		15.24 m (50')		18.29 m (60')	
D Operating Radius in Meters (Ft.-In.)	HEIGHT AND 1/2 WIDTH OF BIN					
	E	U	E	U	E	U
6.0 (19-8)	9.08 (29-9)	0.92 (3-0)				
7.0 (23-0)	8.59 (28-2)	1.28 (4-2)	11.97 (39-3)	0.88 (2-11)		
8.0 (26-3)	7.96 (26-1)	1.70 (5-7)	11.50 (37-9)	1.15 (3-9)	14.83 (48-8)	0.87 (2-10)
9.0 (29-6)	7.17 (23-6)	2.19 (7-2)	10.92 (35-10)	1.46 (4-9)	14.38 (47-2)	1.06 (3-6)
10.0 (32-10)	6.18 (20-3)	2.86 (9-5)	10.21 (33-6)	1.82 (6-0)	13.88 (45-6)	1.32 (4-4)
12.0 (39-4)			8.47 (27-9)	2.75 (9-0)	13.16 (43-2)	1.87 (6-2)
14.0 (45-11)			5.82 (19-1)	4.41 (14-6)	10.82 (35-6)	2.63 (8-8)
16.0 (52-6)					8.40 (27-7)	3.75 (12-4)
Height and Width of Stock Pile	F	V	F	V	F	V
	6.47 (21-3)	14.14 (46-5)	8.59 (28-2)	18.38 (60-4)	11.34 (37-2)	23.88 (78-4)
G Radius	9.77 (32-1)		11.89 (39-0)		14.07 (46-2)	
T Bucket Height	Varies up to 3.00 m (9'-10") depending upon make and capacity of bucket.					



Tower Crane

10 metric ton Crane Load
38.71m Tower and 19.81m Jib

Lifting Capacities

RATED CRANE LOADS IN KGS (LBS.)

Operating Radius in Meters (Ft.-In.)	32.61 m (107') Tower			35.66 m (117'), 38.71 m (127') Tower		38.71 m (127') Tower	35.66 (117') Tower	32.61 m (107') Tower	35.66 m (117'), 38.71 m (127') Tower	32.61 m (107') Tower
	13.72 m (45') Jib	16.76 m (55') Jib	19.81 m (65') Jib	13.72 m (45') Jib	16.76 m (55') Jib	19.81 m (65') Jib	19.81 m (65') Jib	19.81 m (65') Jib	22.86 m (75') Jib	26.91 m (89') Jib
7.0 (23-0)	10,000 (22,000)			8,000 (17,600)						
8.0 (26-3)	10,000 (22,000)	10,000 (22,000)		8,000 (17,600)	8,000 (17,600)					
9.0 (29-6)	10,000 (22,000)	10,000 (22,000)	10,000 (22,000)	8,000 (17,600)	8,000 (17,600)	8,000 (17,600)	8,000 (17,600)			
10.0 (32-10)	10,000 (22,000)	10,000 (22,000)	10,000 (22,000)	8,000 (17,600)	8,000 (17,600)	8,000 (17,600)	8,000 (17,600)	7,500 (16,500)	6,500 (14,300)	
11.0 (36-1)	8,500 (19,400)	8,500 (19,400)	8,500 (19,400)	8,000 (17,600)	8,000 (17,600)	8,000 (17,600)	8,000 (17,600)	7,500 (16,500)	6,500 (14,300)	4,700 (10,400)
12.0 (39-4)	8,000 (17,600)	8,000 (17,600)	8,000 (17,600)	8,000 (17,600)	8,000 (17,600)	8,000 (17,600)	8,000 (17,600)	7,500 (16,500)	6,500 (14,300)	4,700 (10,400)
14.0 (45-11)	6,900 (15,200)	6,900 (15,200)	6,900 (15,200)	6,900 (15,200)	6,900 (15,200)	6,900 (15,200)	6,900 (15,200)	6,500 (14,300)	6,500 (14,300)	4,700 (10,400)
16.0 (52-6)		6,000 (13,200)	6,000 (13,200)		6,000 (13,200)	6,000 (13,200)	6,000 (13,200)	5,600 (12,300)	5,600 (12,300)	4,100 (9,000)
18.0 (59-1)			5,300 (11,700)			5,300 (11,700)	5,300 (11,700)	4,900 (10,800)	4,900 (10,800)	3,600 (7,900)
19.0 (62-4)						4,800 (10,600)				
20.0 (65-7)			4,800 (10,600)				4,800 (10,600)	4,400 (9,700)	4,400 (9,700)	3,200 (7,100)
22.0 (72-2)								4,000 (8,800)	4,000 (8,800)	2,800 (6,200)
24.0 (78-9)										2,600 (5,700)
25.0 (82-0)										2,500 (5,500)

NOTE: Major precautions for this model are identical to those for 550A-S Crawler Crane.

OPERATION OF THIS EQUIPMENT IN EXCESS OF RATED LOADS OR DISREGARD OF INSTRUCTIONS VOIDS THE WARRANTY.

DRUM WORKING DATA

Function		Front Drum	Rear Drum	Boom Hoist Drum
		Load line	Tower hoist line	Jib hoist line
Pitch dia.	mm (in.)	400 (15.75)	433 (17.04)	294 (11.57)
Drum length	mm (in.)	541 (21.30)	541 (21.30)	158 (6.22)
Wire rope dia.	mm (in.)	20 (0.79)	14 (0.55)	14 (0.55)
* Line speed	Hoisting	m/min (197/98)	60/30 (197/98)	45 (148)
	Lowering	m/min (197/98)	60/30 (197/98)	45 (148)
* Line pull	kg (lbs.)	9,200 (20,300)	9,200 (20,300)	6,080 (13,400)

* Line Pulls and Line Speeds based on single part line, Single wrap of cable on drum and engine at full load speed.

HOIST REEVING

No. of Parts of Line	1	2
Max. Load - kg (lbs.)	5,000 (11,000)	10,000 (22,000)

TOWER BOOM MAKE-UP ARRANGEMENT CHART

Tower Boom Length Meters (Ft.)	Tower Boom Arrangement
17.37 (57)	Base-A-B-B-Cap, Base-A-C-Cap
20.42 (67)	Base-A-B-C-Cap, Base-A-D-Cap
23.47 (77)	Base-A-B-B-C-Cap, Base-A-B-D-Cap
26.52 (87)	Base-A-B-B-D-Cap, Base-A-C-D-Cap
29.57 (97)	Base-A-D-D-Cap, Base-A-B-C-D-Cap
32.61 (107)	Base-A-B-B-C-D-Cap, Base-A-B-D-D-Cap
35.66 (117)	Base-A-B-B-D-D-Cap, Base-A-C-D-D-Cap
38.71 (127)	Base-A-B-C-D-D-Cap

Base=6.10m(20'), Cap=3.66m(12')

Inserts: A=1.52m(5'), B=3.05m(10'), C=6.10m(20'), D=9.14m(30')

JIB MAKE-UP ARRANGEMENT CHART

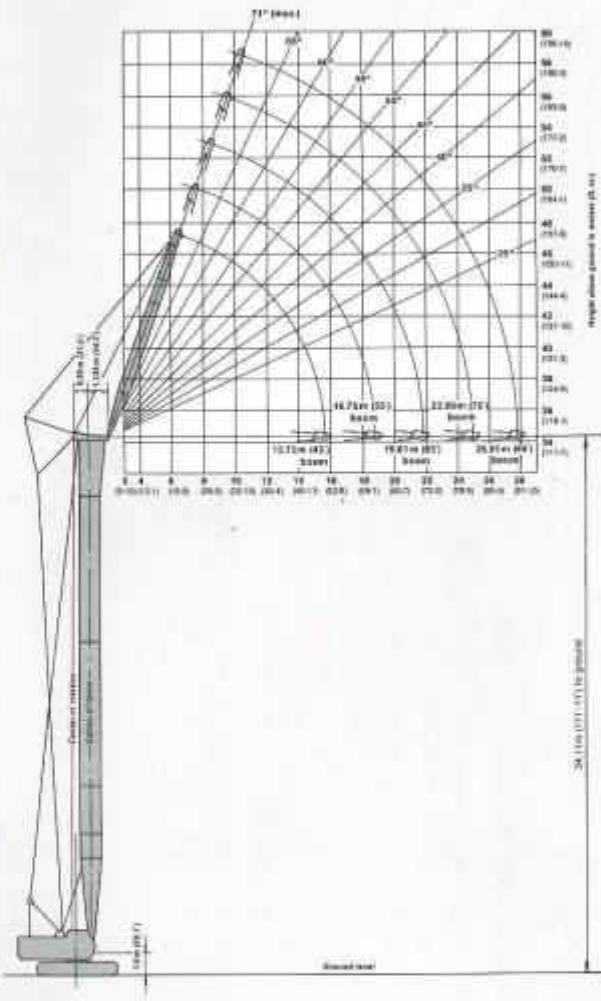
Jib Length Meters (Ft.)	Jib Arrangement
13.72 (45)	Base-C-A-Tip
16.76 (55)	Base-C-B-A-Tip
19.81 (65)	Base-C-B-B-A-Tip, Base-C-C-A-Tip
22.86 (75)	Base-C-C-B-A-Tip
25.91 (85)	Base-C-C-B-B-A-Tip

Base=3.05m(10'), Tip=3.05m(10')

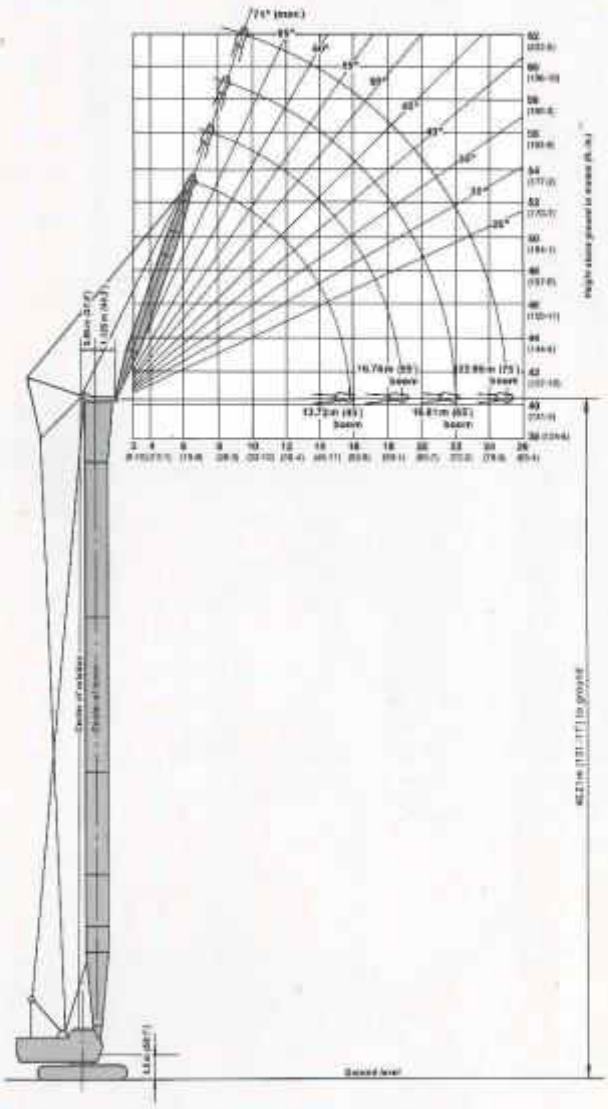
Inserts: A=1.52m(5'), B=3.05m(10'), C=6.10m(20')

Working Ranges

With 32.61m (107') Tower Boom



With 38.71m (127') Tower Boom



Pile Driver

KOBELCO LA45A 30m Leader
K25, K35, K45 Diesel Pile Hammer

BATTERING WORK CAPACITIES

Leader length m (ft.-in.)	Boom length m (ft.-in.)	Type of pile hammer	Max. batter angle (Backward)
21.0 (68-11)	15.24 (50)	K25	9°
24.0 (78-9)	18.29 (60)		10°
27.0 (88-7)	18.29 (60)		10°
30.0 (98-5)	21.34 (70)	K35	9°
21.0 (68-11)	15.24 (50)		10°
24.0 (78-9)	18.29 (60)		10°
27.0 (88-7)	18.29 (60)	K45	9°
21.0 (68-11)	15.24 (50)		10°
24.0 (78-9)	18.29 (60)		7°
27.0 (88-7)	18.29 (60)		

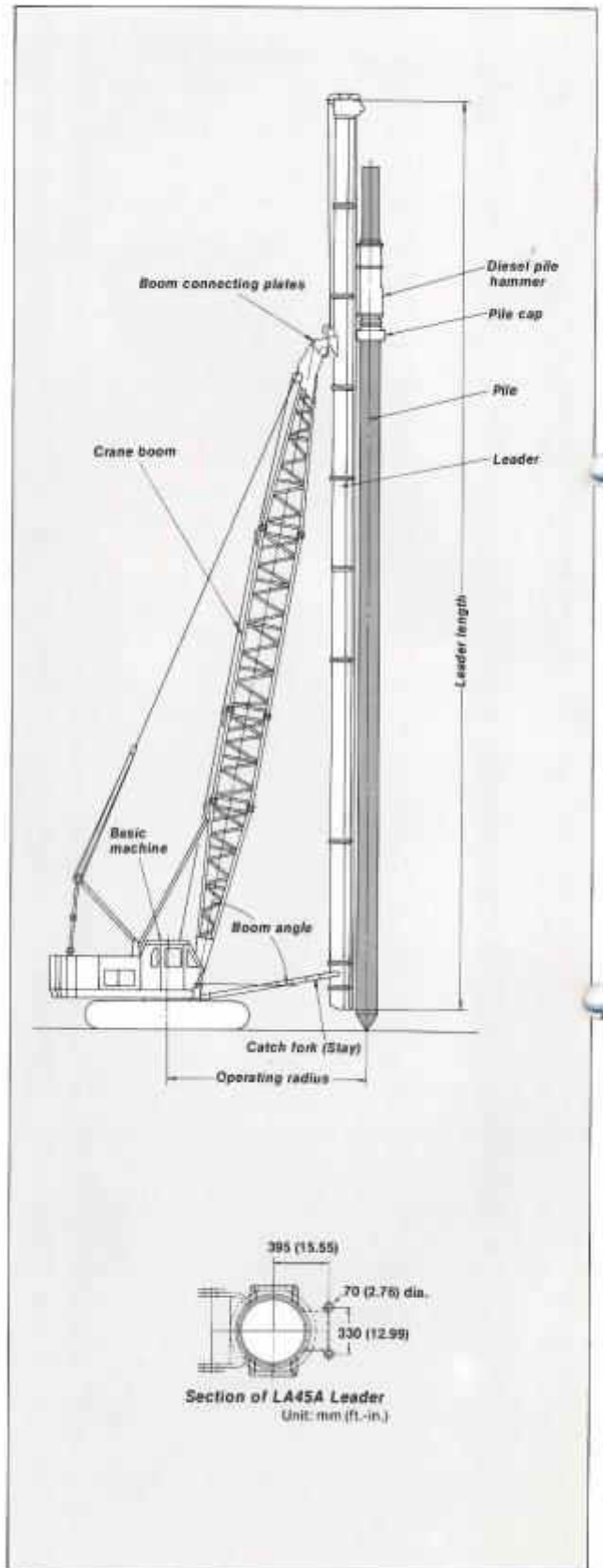
NOTE:

1. It is not possible to work in leader inclined forward.
2. Pile dragging shall be effected with leader in vertical posture.
3. Permissible weight for pile dragging does not exceed a range in vertical posture specified in working capacity table.

DRUM WORKING DATA

		Front Drum	Rear Drum	Boom Hoist Drum
Function		Hammer hoist line	Pile hoist line	Boom hoist line
Pitch dia.	mm (in.)	400 (15.75)	400 (15.75)	294 (11.57)
Drum length	mm (in.)	541 (21.30)	541 (21.30)	158 (6.22)
Wire rope dia.	mm (in.)	20 (0.79)	20 (0.79)	14 (0.55)
* Line speed	Hoisting	m/min (fpm)	60/30 (197/98)	45 (148)
	Lowering	m/min (fpm)	60/30 (197/98)	45 (148)
* Line pull	kg (lbs.)	9,300 (20,300)	9,200 (20,300)	6,080 (13,400)

* Line Pulls and Line Speeds based on single part line—maximum pressure 175 kg/cm² (2,500 psi)—single wrap of cable on drum and engine at full load speed.



550A-S—LA45A RATED CAPACITIES

Diesel pile hammer	Model		K25							
	Weight	kg (lbs.)	5,200 (11,500)							
	Cap weight	kg (lbs.)	500 (1,100)							
Boom length	m (ft.-in.)		15.24 (50)		18.29 (60)		18.29 (60)		21.34 (70)	
Leader length	m (ft.-in.)		21.0 (68-11)		24.0 (78-9)		27.0 (88-7)		30.0 (98-5)	
Pile length	m (ft.-in.)		15.0—14.5 (49-3—47-7)		18.0—17.5 (59-1—57-5)		21.0—20.5 (68-11—67-3)		24.0—23.5 (78-9—77-1)	
Boom angle			R = Operating radius — m (ft.-in.) W = Pile weight — kg (lbs.)							
			R	W	R	W	R	W	R	W
82°			—	—	5.2 (17-1)	6,500 (14,300)	5.2 (17-1)	6,500 (14,300)	5.6 (18-4)	6,500 (14,300)
81°			—	—	5.5 (18-1)	6,500 (14,300)	5.5 (18-1)	6,500 (14,300)	6.0 (19-8)	6,500 (14,300)
80°			5.3 (17-5)	6,500 (14,300)	5.8 (19-0)	6,500 (14,300)	5.8 (19-0)	6,500 (14,300)	6.4 (21-0)	6,000 (13,200)
79°			5.6 (18-4)	6,500 (14,300)	6.2 (20-4)	6,500 (14,300)	6.2 (20-4)	6,500 (14,300)	6.7 (22-0)	5,500 (12,100)
78°			5.8 (19-0)	6,500 (14,300)	6.5 (21-4)	6,500 (14,300)	6.5 (21-4)	6,500 (14,300)	7.1 (23-4)	5,000 (11,000)
77°			6.1 (20-0)	6,500 (14,300)	6.8 (22-4)	6,500 (14,300)	6.8 (22-4)	6,000 (13,200)	7.5 (24-7)	4,500 (9,900)
76°			6.4 (21-0)	6,500 (14,300)	7.1 (23-4)	6,000 (13,200)	7.1 (23-4)	5,500 (12,100)	7.8 (25-7)	4,000 (8,800)
75°			6.6 (21-8)	6,500 (14,300)	7.4 (24-3)	5,500 (12,100)	7.4 (24-3)	6,000 (13,200)		
Diesel pile hammer	Model		K35							
	Weight	kg (lbs.)	7,500 (16,500)							
	Cap weight	kg (lbs.)	1,000 (2,200)							
Boom length	m (ft.-in.)		15.24 (50)		18.29 (60)		18.29 (60)		21.34 (70)	
Leader length	m (ft.-in.)		21.0 (68-11)		24.0 (78-9)		27.0 (88-7)		30.0 (98-5)	
Pile length	m (ft.-in.)		14.0—13.5 (45-11—44-3)		17.0—16.5 (55-9—54-2)		20.0—19.5 (65-7—64-0)		23.0 (75-6)	
Boom angle			R = Operating radius — m (ft.-in.) W = Pile weight — kg (lbs.)							
			R	W	R	W	R	W	R	W
82°			—	—	5.3 (17-5)	6,500 (14,300)	5.3 (17-5)	5,500 (12,100)	5.7 (18-8)	5,000 (11,000)
81°			—	—	5.6 (18-4)	6,500 (14,300)	5.6 (18-4)	5,500 (12,100)	6.1 (20-0)	5,000 (11,000)
80°			5.4 (17-9)	8,000 (17,600)	5.9 (19-4)	6,500 (14,300)	5.9 (19-4)	5,500 (12,100)	6.4 (21-0)	4,500 (9,900)
79°			5.6 (18-4)	8,000 (17,600)	6.2 (20-4)	6,500 (14,300)	6.2 (20-4)	5,500 (12,100)	6.8 (22-4)	3,500 (7,700)
78°			5.9 (19-4)	8,000 (17,600)	6.5 (21-4)	6,000 (13,200)	6.5 (21-4)	5,500 (12,100)	7.2 (23-7)	2,500 (5,500)
77°			6.2 (20-4)	7,500 (16,500)	6.8 (22-8)	5,500 (12,100)	6.8 (22-8)	4,500 (9,900)	7.6 (24-11)	1,500 (3,300)
76°			6.4 (21-0)	7,000 (15,400)	7.2 (23-7)	4,500 (9,900)	7.2 (23-7)	3,500 (7,700)		
75°			6.7 (22-0)	6,000 (13,200)	7.5 (24-7)	4,000 (8,800)	7.5 (24-7)	3,000 (6,600)		
Diesel pile hammer	Model		K45							
	Weight	kg (lbs.)	10,900 (23,100)							
	Cap weight	kg (lbs.)	1,800 (4,000)							
Boom length	m (ft.-in.)		15.24 (50)		18.29 (60)		18.29 (60)			
Leader length	m (ft.-in.)		21.0 (68-11)		24.0 (78-9)		27.0 (88-7)			
Pile length	m (ft.-in.)		13.5 (44-3)		17.0—16.5 (55-9—54-2)		20.0—19.5 (65-7—64-0)			
Boom angle			R = Operating radius — m (ft.-in.) W = Pile weight — kg (lbs.)							
			R	W	R	W	R	W		
82°			—	—	5.4 (17-9)	4,500 (9,900)	5.4 (17-9)	3,500 (7,700)		
81°			—	—	5.7 (18-8)	4,500 (9,900)	5.7 (18-8)	3,500 (7,700)		
80°			5.5 (18-1)	6,000 (13,200)	6.0 (19-8)	4,500 (9,900)	6.0 (19-8)	3,000 (6,600)		
79°			5.7 (18-8)	6,000 (13,200)	6.3 (20-8)	3,500 (7,700)	6.3 (20-8)	2,500 (5,500)		
78°			6.0 (19-8)	5,500 (12,100)	6.6 (21-8)	2,500 (5,500)	6.6 (21-8)	1,500 (3,300)		
77°			6.3 (20-8)	5,000 (11,000)	7.0 (23-0)	1,500 (3,300)				
76°			6.5 (21-4)	4,000 (8,800)						
75°			6.8 (22-4)	3,500 (7,700)						

NOTE: 1. Crawler frames in fully extended position.
 2. Width of crawler shoes 760 mm (30")
 3. Operating radius is horizontal distance from centerline of rotation to a vertical line through the center of the pile.
 4. Angle of pile dragging rope with leader 10°