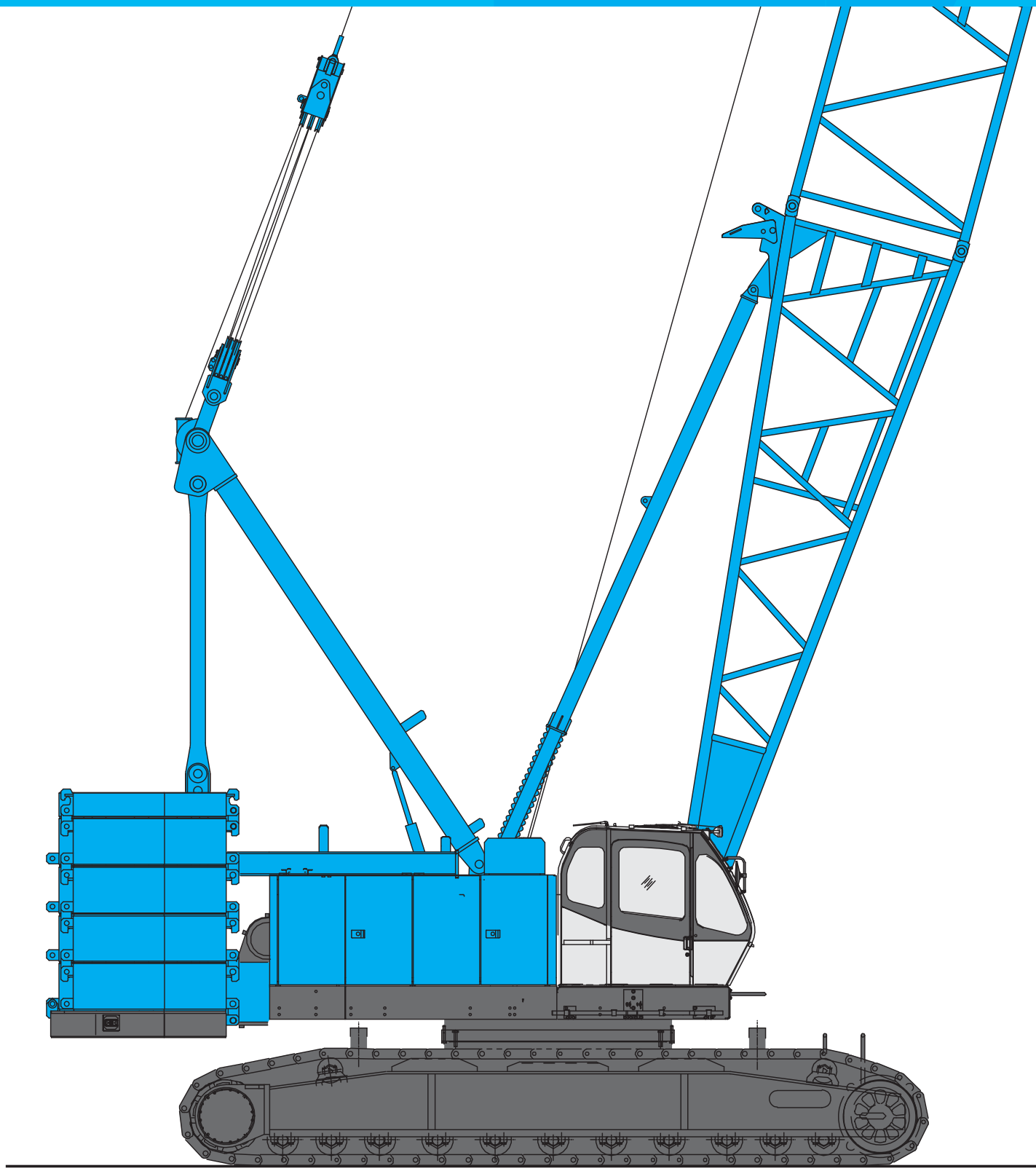
KOBELCO

HYDRAULIC CRAWLER CRANE

CKL1350i

Model: CKL1350i

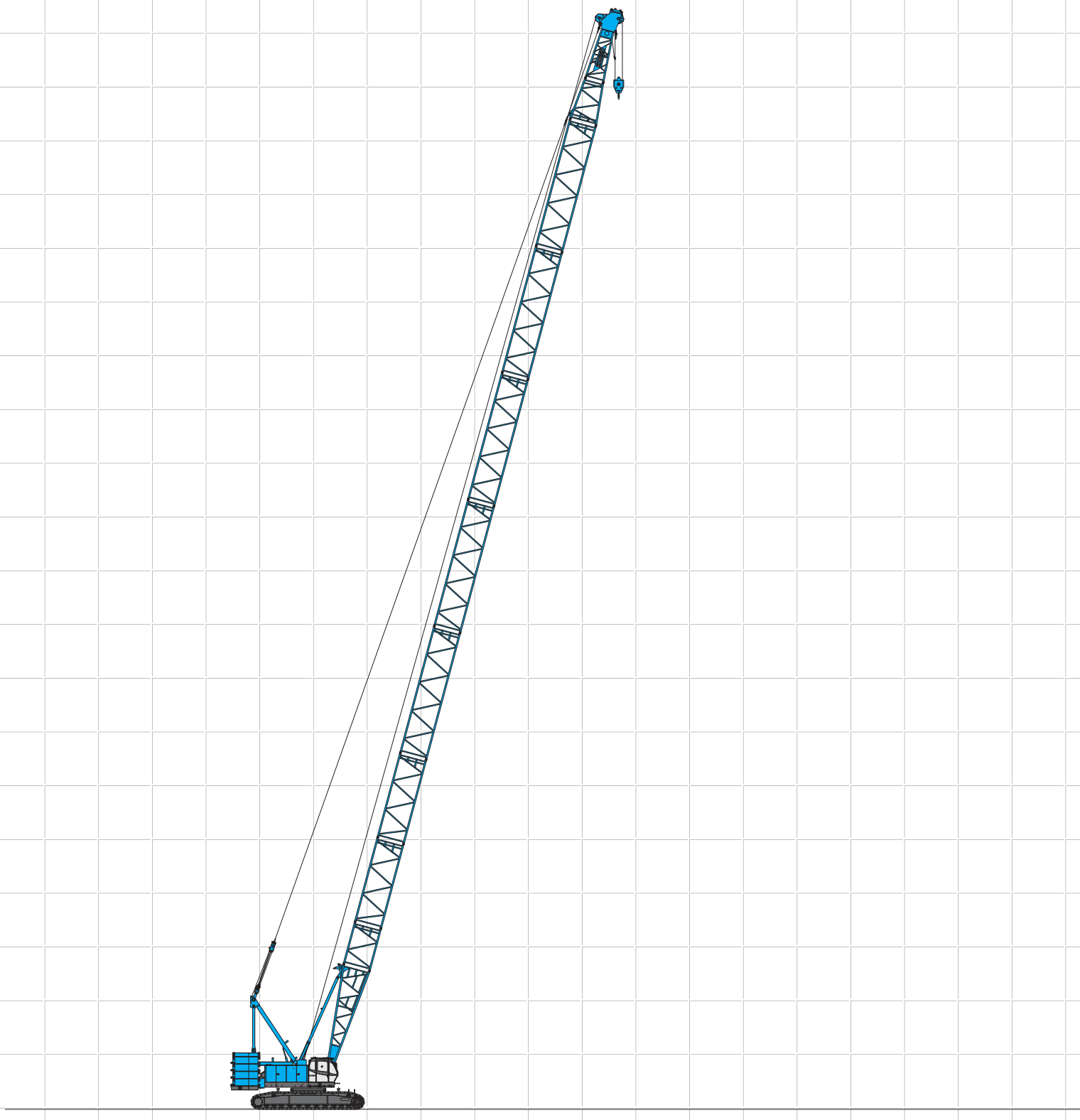


Max. Lifting Capacity: 150 t x 4.4 m
Max. Crane Boom Length: 76.2 m
Max. Fixed Jib Combination: 61.0 m + 30.5 m

CONFIGURATION

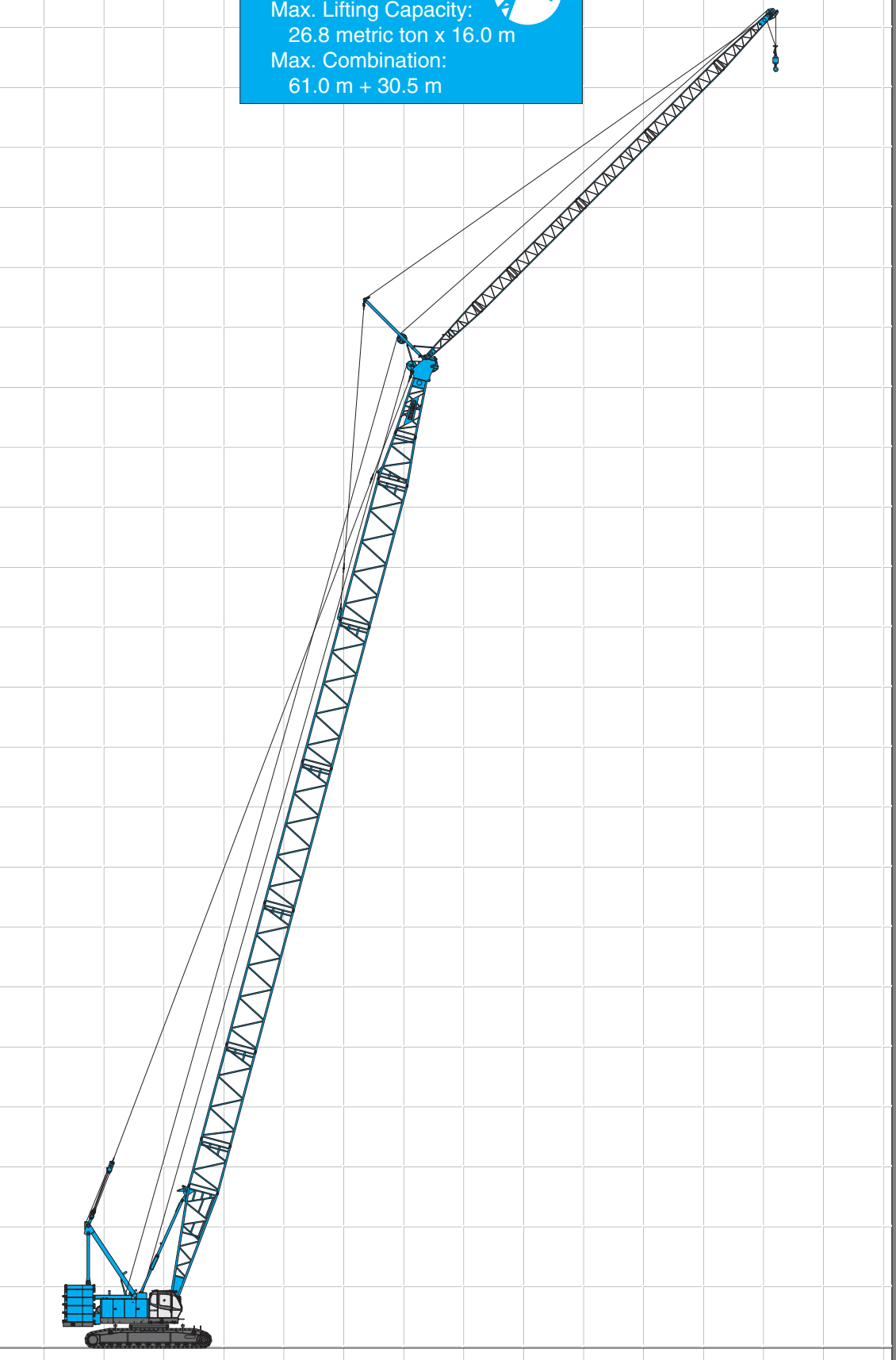
Crane Boom

Max. Lifting Capacity:
150 metric ton x 4.4 m
Max. Boom Length:
76.2 m



Fixed Jib

Max. Lifting Capacity:
26.8 metric ton x 16.0 m
Max. Combination:
61.0 m + 30.5 m



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SPECIFICATIONS

Power Plant

Model: Hino diesel engine P11C-UN
Type: Water-cooled, direct fuel injection, with turbocharger
Complies with NRMM (Europe) Stage IIIA and US EPA Tier III.
Displacement: 10,520 liters
Rated power: 247 kW/2,000 min^{-1} {rpm} (ISO)
Max. torque: 1,300 N·m/1,500 min^{-1}
Cooling system: Liquid, recirculating bypass
Starter: 24 V/6.0 kW
Radiator: Corrugated type core, thermostatically controlled
Air cleaner: Dry type with replaceable paper element
Throttle: Electric throttle control, twist grip type
Fuel filter: Replaceable paper element
Batteries: Two 12V, 150Ah/20HR capacity batteries, parallel connected.
Fuel tank capacity: 370 liters

Hydraulic System

Four variable displacement piston pumps are driven by heavy-duty pump drive. Two of variable displacement pumps are used in the main hook hoist circuit, auxiliary hook hoist circuit, and each propel circuit. One of the other two pumps is used in the boom hoist circuit and third hoist circuit. The other is used in the swing circuit.
Control: Full-flow hydraulic control system for infinitely variable pressure to front and rear drums, boom hoist brakes and clutches. Controls respond instantly to the touch, delivering smooth function operation.
Cooling: Oil-to-air heat exchanger (plate-fin type)
Filtration: Full-flow and bypass type with replaceable element
Electrical system: All wiring corded for easy servicing, individual fused branch circuits.

Max. relief valve pressure:
Load hoist, boom hoist and propel system:
31.9 MPa {325 kgf/cm^2}
Swing system: 27.5 MPa {280 kgf/cm^2}
Control system: 7.0 MPa {71 kgf/cm^2}
Reservoir capacity: 535 liters

Boom Hoisting System

Powered by a hydraulic motor through a planetary reducer.
Brake: A spring-set, hydraulically released multiple-disc brake is mounted on the boom hoist motor and operated through a counter-balance valve.
Drum lock: External ratchet for locking drum.
Drum: Single drum, grooved for 20 mm dia. wire rope.
Line speed: Single line on first drum layer
Hoisting/Lowering: 48 to 2 m/min

Diameter of wire ropes
Boom guy line: 30 mm
Boom hoist reeving: 12 parts of 20 mm dia. high strength wire rope
Boom backstops: Telescopic type with spring bumper
Required for all boom lengths

Load Hoist System

Front and rear drums for load hoist powered by a hydraulic variable plunger motors, driven through planetary reducers.
Negative brake: A spring-set, hydraulically released multiple-disc brake is mounted on the hoist motor and operated through a counter-balance valve. (Positive free fall brake is optional item.)
Drum lock: External ratchet for locking drum
Drums:
Front drum:
666 mm P.C.D. x 672 mm Lg. wide drum, grooved for 26 mm wire rope. Rope capacity is 275 m working length and 350 m storage length.
Rear drum:
666 mm P.C.D. x 672 mm Lg. wide drum, grooved for 26 mm wire rope. Rope capacity is 255 m working length and 350 m storage length.
Note: Rope lengths listed above denote drum capacity and may differ from actual rope lengths supplied when machinery is shipped.
Line speed: Single line on the first drum layer
Hoisting/Lowering: 120 to 3 m/min
Line pull:
Rated line pull (Single-line): 132 kN {13.5 tf}

Swing System

Swing unit is powered by hydraulic motor driving spur gear through planetary reducer, the swing system provides 360° rotation.
Swing parking brakes: A spring-set, hydraulically released multiple-disc brake is mounted on swing motor.
Swing circle: Single-row ball bearing with an integral internally cut swing gear.
Swing lock: Manually, four position lock for transportation
Swing speed: 2.1 min^{-1} {rpm}

Upper Structure

Torsion-free precision machined upper frame. All components are located clearly and service friendly. Engine with low noise level. Complies with EC Directive 2000/14/EC.
Counterweight: 53.0 t

Note: Lifting capacity setting with 48.0 t counterweight (without carbody weight) available as option.

Cab & Control

Totally enclosed, full vision cab with safety glass, high backed seat with a head-rest and armrests, and intermittent wiper and window washer (roof and front window).

Cab fittings:

Air conditioner, convenient compartment (for tool), cup holder, ashtray, cigarette lighter, sun visor, roof blind, tinted glass, floor mat, foot-rest, shoe tray

Controls:

Four adjustable levers for front drum, rear drum, boom drum and swing controls, and boom hoist pedal.

Lower Structure

Steel-welded carbody with axles. Crawler assemblies are designed with quick disconnect feature for individual removal as a unit from axles. Crawler belt tension is maintained by hydraulic jack force on the track-adjusting bearing block.

Carbody weight: 10.0 t

Crawler drive: Independent hydraulic propel drive is built into each crawler side frame. Each drive consists of a hydraulic motor propelling a driving tumbler through a planetary gear box. Hydraulic motor and gear box are built into the crawler side frame within the shoe width.

Crawler brakes: Spring-set, hydraulically released parking brakes are built into each propel drive.

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

Track rollers: Sealed track rollers for maintenance-free operation.

Shoes (flat): 60 shoes, 910 mm wide each crawler
(Optional 1,220 mm shoe is available)

Max. travel speed: 1.3/0.9 km/h

Max. gradeability: 30%

Weight

Including upper and lower machine, 53.0 t counterweight and 10.0 t carbody weight, 15.2 m basic boom (or 32.7 m basic luffing boom + 22.9 m basic luffing jib), hook and other accessories.

Specification	Weight	Ground pressure
Crane boom	Approx. 136 t,	106 kPa {1.08 kgf/cm^2}

Attachment

Boom and Jib:

Welded lattice construction using tubular, high-tensile steel chords with pin connections between sections.

Boom and Jib Length

	Min. Length (Min. Combination)	Max. Length (Max. Combination)
Crane Boom	15.2 m	76.2 m
Fixed Jib	24.4 m + 12.2 m	61.0 m + 30.5 m

Main Specifications (Model: CKL1350i)

Crane Boom	
Max. Lifting Capacity	150 t※/4.4 m
Max. Length	76.2 m
Fixed Jib	
Max. Lifting Capacity	26.8 t/16.0 m
Max. Length	30.5 m
Max. Combination	61.0 m + 30.5 m
Luffing Jib : OPTIONAL	
Max. Lifting Capacity	36 t/12.0 m
Max. Combination	47.9 m + 32.0 m, 44.8 m + 53.3 m
Main & Aux. Winch	
Max. Line Speed	120 m/min (1st layer)
Rated Line Pull (Single Line)	132 kN {13.5 tf}
Wire Rope Diameter	26 mm
Wire Rope Length	275 m (Main) 255 m (Aux.)
Brake Type	Spring-set hydraulically released (Nagative)
Free-Fall Brake Type	Wet-type multiple disc brake (Optional)
Working Speed	
Swing Speed	2.1 min^{-1} {rpm}
Travel Speed	1.3/0.9 km/h

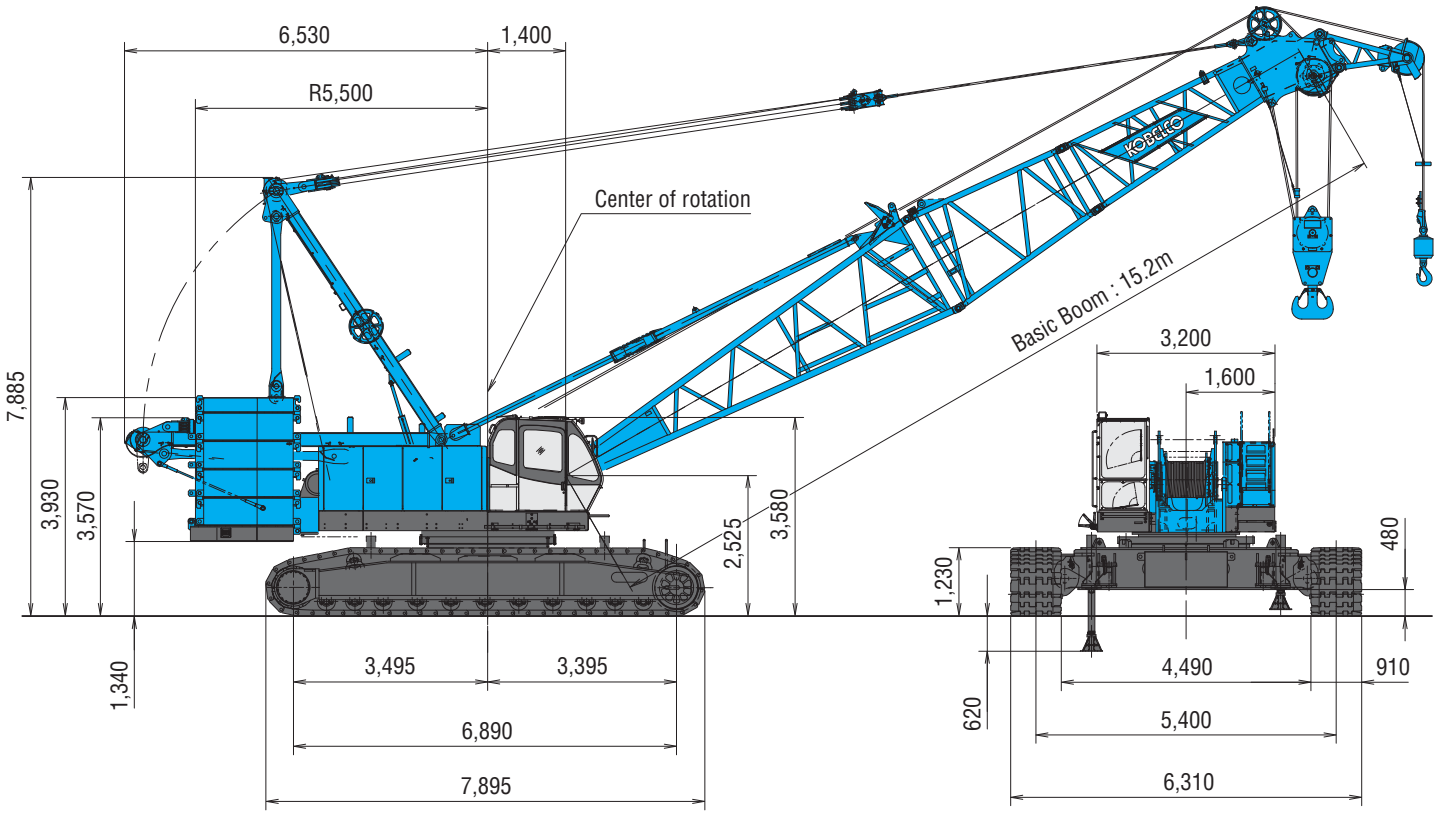
Power Plant	
Model	Hino P11C-UN
Engine Output	247 kW/2,000 min^{-1} {rpm}
Fuel Tank Capacity	370 liters
Hydraulic System	
Main Pumps	4 variable displacement
Max. Pressure	31.9 MPa {325 kgf/cm^2}
Hydraulic Tank Capacity	535 liters
Self-Removal Device	Standard counterweight removal
Weight	
Operating Weight*	Approx. 136 t
Ground Pressure*	106 kPa {1.08 kgf/cm^2}
Counterweight	53.0 t (Upper), 10.0 t (Lower)
Transport Weight**	Approx. 39.7 t

※ Auxiliary sheave is necessary.
* Including upper and lower machine, 53.0 t counterweight and 10.0 t carbody weight, basic boom, hook, and other accessories.
** Base machine with trans-lifter, 70 t hook, main and aux. winches (non-free fall) including wire rope, self removal device.
Units are SI units. { } indicates conventional units.

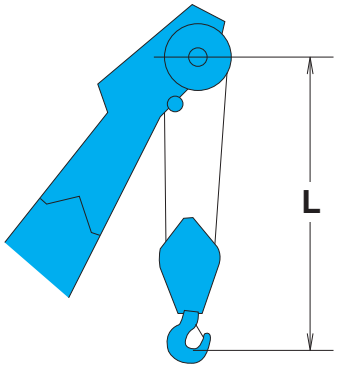
GENERAL DIMENSIONS

Crane Boom

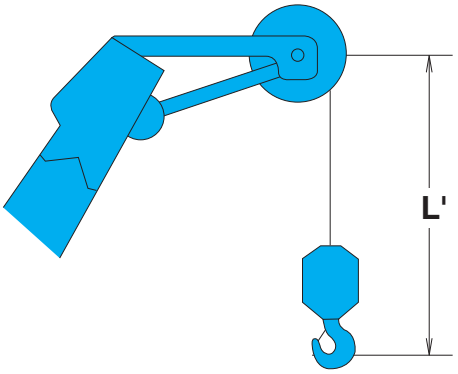
(Unit: mm)



Limit of Hook Lifting



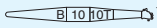
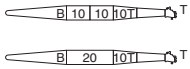
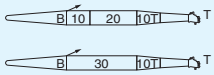
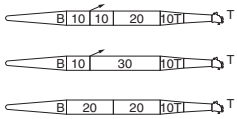
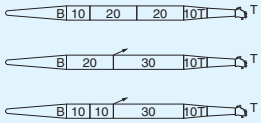
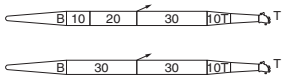
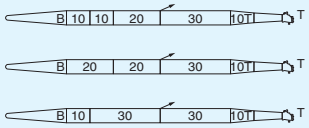
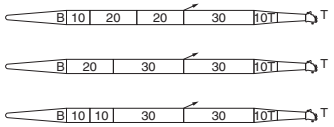
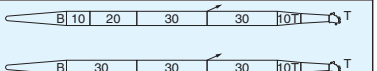
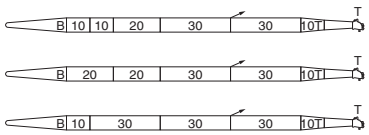
Hook	L
150 t hook	4.7 m
70 t hook	4.5 m
35 t hook	4.3 m



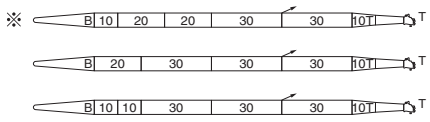
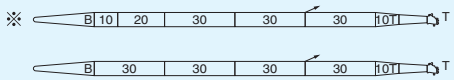
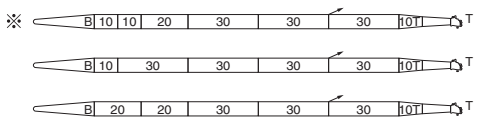
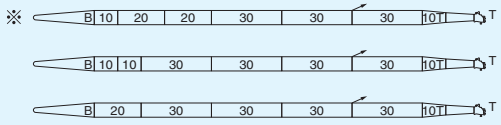
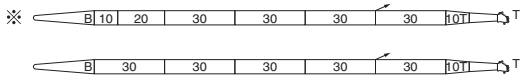
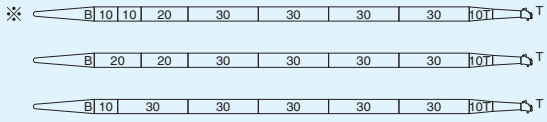
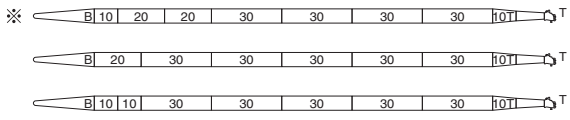
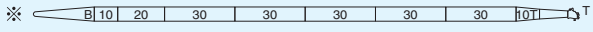
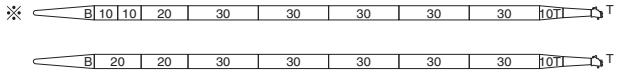
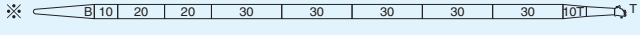
Hook	L'
13.5 t ball hook	3.7 m
13.5 t swivel hook	3.4 m

BOOM AND JIB ARRANGEMENTS

Crane Boom Arrangements

Boom length m (ft)	Boom arrangement
15.2 (50)	
18.3 (60)	※ 
21.3 (70)	※ 
24.4 (80)	※ 
27.4 (90)	※ 
30.5 (100)	※ 
33.5 (110)	※ 
36.6 (120)	※ 
39.6 (130)	※ 
42.7 (140)	※ 
45.7 (150)	※ 

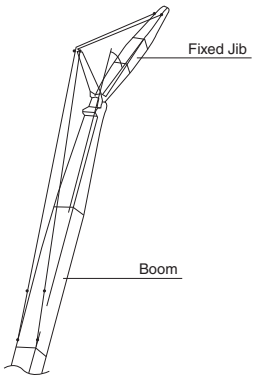
Symbol	Boom Length	Remarks
B	7.6 m	Boom Base
T	4.6 m	Boom Top
10T	3.0 m	Tapered Boom
10	3.0 m	Insert Boom
20	6.1 m	Insert Boom
30	9.1 m	Insert Boom

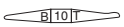
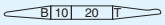
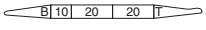
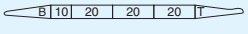
Boom length m (ft)	Boom arrangement
48.8 (160)	※ 
51.8 (170)	※ 
54.9 (180)	※ 
57.9 (190)	※ 
61.0 (200)	※ 
64.0 (210)	※ 
67.1 (220)	※ 
70.1 (230)	※ 
73.2 (240)	※ 
76.2 (250)	※ 

mark shows the guy line installing position when the fixed jib is used.

※ Indicates the most flexible combination of insert booms, which can be modified to form all shorter boom arrangements.

Fixed Jib Arrangements



Crane boom length	Jib length m (ft)	Jib arrangement
24.4 m ≀ 61.0 m	12.2 (40)	
	18.3 (60)	
	24.4 (80)	
	30.5 (100)	

Symbol	Jib Length	Remarks
B	4.6 m	Jib Base
T	4.6 m	Jib Top
10	3.0 m	Insert Jib
20	6.1 m	Insert Jib

Hook Blocks

A range of hook blocks can be specified, each with a safety latch.

Hooks	Weight (kg)	No. of sheaves	No. of lines and max. rated loads (t)							
			1	2	3	4	5	6	7	8
150-t	1,700	6	-	27.0	40.5	54.0	67.5	81.0	94.5	108.0
70-t	1,200	3	-	27.0	40.5	54.0	67.5	70.0	-	-
35-t	900	1	-	27.0	35.0	-	-	-	-	-
13.5-t ball hook	450	0	13.5	-	-	-	-	-	-	-
13.5-t swivel hook	100	0	13.5	-	-	-	-	-	-	-

Hooks	Weight (kg)	No. of sheaves	No. of lines and max. rated loads (t)		
			9	10	12※
150-t	1,700	6	121.5	135.0	150.0
70-t	1,200	3	-	-	-
35-t	900	1	-	-	-
13.5-t ball hook	450	0	-	-	-
13.5-t swivel hook	100	0	-	-	-

※Auxiliary sheave is necessary.

Main Hoist Drum Rated Loads in Metric Tons

No. of Parts of Line	1	2	3	4	5	6	7	8
Max. Loads (t)	13.5	27.0	40.5	54.0	67.5	81.0	94.5	108.0

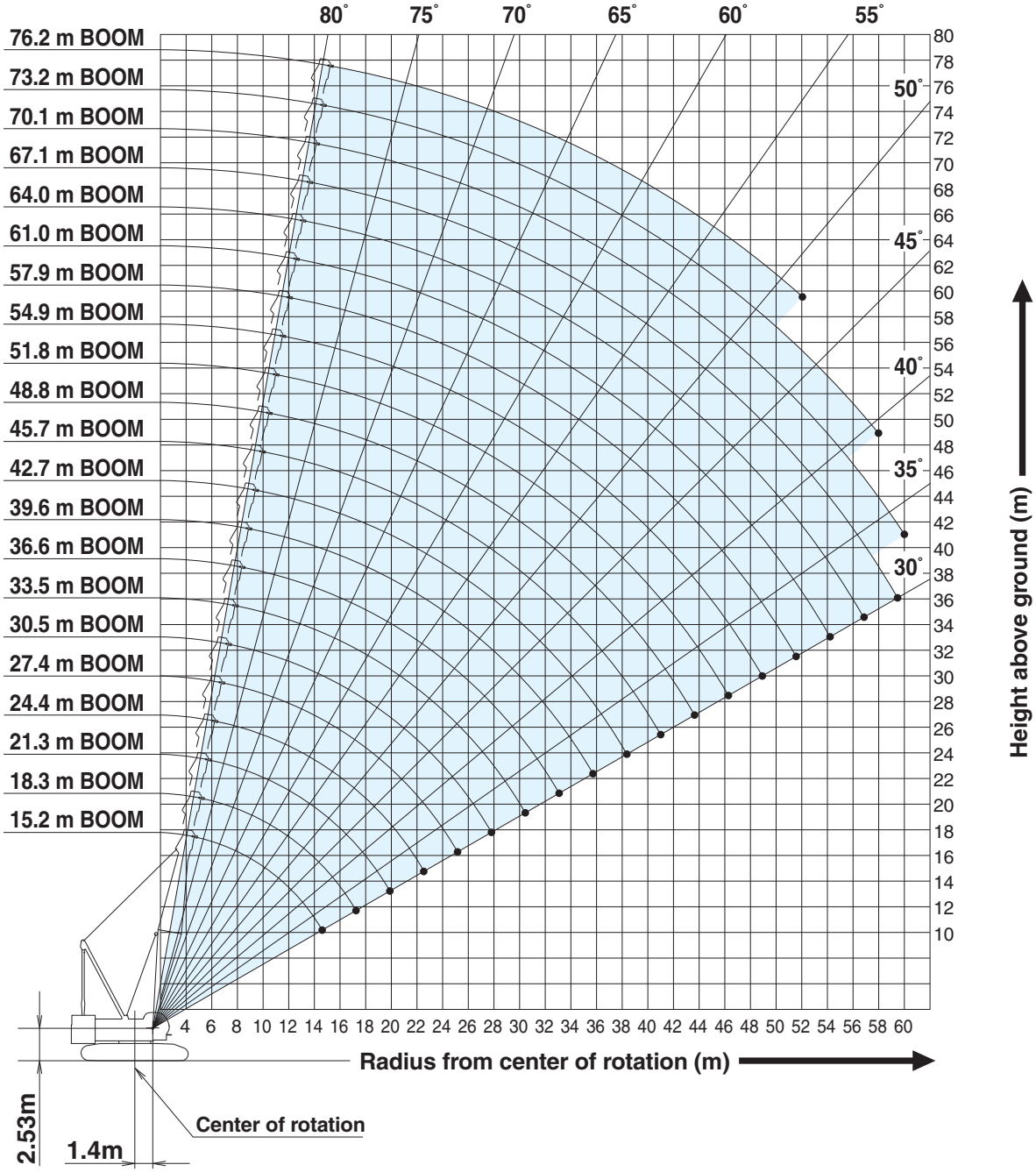
No. of Parts of Line	9	10	12
Max. Loads (t)	121.5	135.0	150.0

Symbols for Attachments:

Crane Boom | Auxiliary Sheave for Crane Boom | Fixed Jib

WORKING RANGES AND LIFTING CAPACITIES

Crane Boom Working Ranges



NOTES:

1. Ratings according to EN13000.
2. Ratings in metric tons for 360° working area.
3. Operating radius is the horizontal distance from center of rotation to a vertical line through the center of gravity of the load.
4. Weight of hook block(s), slings and other load handling accessories is included in rated load. Their total weight must be subtracted from rated load to obtain weight that can be lifted.
5. 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. Operator, therefore, has the responsibility to judge the existing conditions and reduce lifted loads and operating speeds accordingly.
6. Ratings are for operation on a firm and level surface, up to 1% gradient.
7. At radii and boom lengths where no ratings are shown on chart, operation is not intended nor approved.
8. Boom inserts and guy lines must be arranged as shown in the "Operator's Manual".
9. Boom hoist reeving is 12 part line.
10. Gantry must be in raised position for all conditions.
11. Boom backstops are required for all boom lengths.
12. The boom should be erected over the front of crawlers, not laterally.
13. Ratings shown in [ ] are determined by the strength of the boom or other structural component.
14. When erecting or lowering the boom length of 73.2 m or over, the pillow plate for erection must be placed at the end of crawlers.
15. Instruction in the "Operator's Manual" must be strictly observed when operating the machine.
16. Crane boom ratings: Deduct weight of hook block, slings, and all other load handling accessories from crane boom ratings shown.
17. Auxiliary sheave ratings for crane boom: Deduct weight of hook block, slings, and all other load handling accessories from auxiliary sheave ratings for crane boom shown.
18. Crane boom lengths for auxiliary sheave mounting are 15.2 m to 73.2 m.
19. Auxiliary sheave is necessary for 12 of parts of line.

Crane Boom Lifting Capacity

Unit: metric ton

Counterweight: 53.0 t, Carbody weight: 10.0 t

Working radius (m) \ Boom length (m)	15.2	18.3	21.3	24.4	27.4	30.5	33.5	36.6	39.6	42.7	45.7	48.8	Boom length (m) \ Working radius (m)
4.5	4.4 m/150.0※												**4.5**
5.0	131.1	5.1 m/128.4	5.6 m/117.2										**5.0**
6.0	110.4	110.1	109.6	6.1 m/107.8	6.7 m/95.1								**6.0**
7.0	95.1	94.8	93.3	91.1	89.3	7.2 m/84.2	7.7 m/75.3						**7.0**
8.0	79.5	79.9	79.1	77.4	75.9	74.6	72.4	8.2 m/67.8	8.8 m/61.7				**8.0**
9.0	67.7	68.8	68.5	67.2	66.0	64.9	62.5	61.5	60.0	9.3 m/56.3	9.8 m/51.8		**9.0**
10.0	58.4	59.0	59.0	58.8	58.3	57.4	56.5	55.0	53.6	52.2	50.9	10.4 m/47.8	**10.0**
12.0	44.3	45.7	45.6	45.4	45.2	45.2	45.1	44.9	44.1	43.0	42.0	41.0	**12.0**
14.0	33.5	37.1	37.0	36.8	36.6	36.5	36.5	36.3	36.2	36.1	35.6	34.7	**14.0**
16.0	14.8 m/29.3	30.0	31.0	30.8	30.6	30.5	30.4	30.2	30.1	30.0	29.9	29.8	**16.0**
18.0		17.5 m/24.8	26.6	26.4	26.2	26.1	26.0	25.8	25.7	25.6	25.4	25.3	**18.0**
20.0			21.7	23.0	22.8	22.7	22.6	22.4	22.3	22.2	22.0	21.9	**20.0**
22.0			20.1 m/21.3	19.9	20.1	20.0	19.9	19.7	19.6	19.5	19.3	19.2	**22.0**
24.0				22.8 m/18.5	18.0	17.9	17.7	17.5	17.4	17.3	17.1	17.0	**24.0**
26.0					25.4 m/16.0	16.1	16.0	15.7	15.6	15.5	15.3	15.2	**26.0**
28.0						14.2	14.5	14.2	14.1	13.9	13.8	13.6	**28.0**
30.0						28.1 m/14.1	13.2	12.9	12.8	12.7	12.5	12.3	**30.0**
32.0							30.7 m/12.5	11.8	11.7	11.5	11.4	11.2	**32.0**
34.0								33.3 m/10.9	10.8	10.6	10.4	10.3	**34.0**
36.0									9.7	9.8	9.6	9.4	**36.0**
38.0										8.9	8.8	8.7	**38.0**
40.0										38.6 m/8.6	8.1	8.0	**40.0**
42.0											41.2 m/7.5	7.4	**42.0**
44.0												43.9 m/6.5	**44.0**
Reeves	12	10	9	8	8	7	6	6	5	5	4	4	**Reeves**

※Auxiliary sheave is necessary.

Working radius (m) \ Boom length (m)	51.8	54.9	57.9	61.0	64.0	67.1	70.1	73.2	76.2	Boom length (m) \ Working radius (m)
10.0	10.9 m/44.2	11.4 m/40.1	11.9m/38.4							**10.0**
12.0	40.0	39.1	38.2	12.5 m/35.8	13.0 m/33.4	13.5 m/26.7				**12.0**
14.0	33.9	33.2	32.5	31.7	30.9	26.7	14.1 m/26.7	14.6 m/24.4	15.1 m/20.4	**14.0**
16.0	29.3	28.7	28.1	27.4	26.7	26.3	25.7	22.7	19.4	**16.0**
18.0	25.2	25.1	24.6	24.0	23.4	23.0	22.5	20.6	17.5	**18.0**
20.0	21.7	21.6	21.5	21.2	20.7	20.4	19.9	18.8	15.8	**20.0**
22.0	19.0	18.9	18.8	18.6	18.4	18.1	17.7	17.1	14.3	**22.0**
24.0	16.8	16.7	16.6	16.4	16.2	16.2	15.8	15.4	13.0	**24.0**
26.0	15.0	14.9	14.7	14.6	14.4	14.4	14.2	13.8	11.8	**26.0**
28.0	13.5	13.4	13.2	13.1	12.9	12.8	12.7	12.4	10.7	**28.0**
30.0	12.2	12.1	11.9	11.7	11.6	11.5	11.4	11.2	9.7	**30.0**
32.0	11.1	10.9	10.8	10.6	10.4	10.4	10.2	10.0	8.8	**32.0**
34.0	10.1	10.0	9.8	9.6	9.4	9.4	9.2	9.1	8.0	**34.0**
36.0	9.2	9.1	8.9	8.8	8.6	8.5	8.4	8.2	7.2	**36.0**
38.0	8.5	8.4	8.2	8.0	7.8	7.8	7.6	7.4	6.5	**38.0**
40.0	7.8	7.7	7.5	7.3	7.1	7.1	6.9	6.7	5.8	**40.0**
42.0	7.2	7.1	6.9	6.7	6.5	6.5	6.3	6.1	5.2	**42.0**
44.0	6.7	6.5	6.4	6.2	6.0	5.9	5.7	5.5	4.6	**44.0**
46.0	5.9	6.0	5.9	5.7	5.4	5.3	5.2	4.9	4.0	**46.0**
48.0	46.5 m/5.7	5.3	5.4	5.2	4.9	4.9	4.7	4.4	3.5	**48.0**
50.0		49.2 m/4.8	4.7	4.7	4.5	4.4	4.2	4.0	2.9	**50.0**
52.0			51.8 m/4.1	4.2	4.1	4.0	3.8	3.6	2.4	**52.0**
54.0				3.6	3.6	3.5	3.4	3.2		**54.0**
56.0				54.4 m/3.4	3.0	3.1	3.0	2.8		**56.0**
58.0					57.1m/2.8	2.6	2.5	2.4		**58.0**
60.0						59.7 m/2.2	2.1			**60.0**
Reeves	4	3	3	3	3	2	2	2	2	**Reeves**

Note:
Ratings according to EN13000.
Ratings shown in [ ] are determined by the strength of the boom or other structural components.
Refer to notes P12.

Auxiliary Sheave Lifting Capacity for Crane Boom (With 70 t Main Hook)

Unit: metric ton

Counterweight: 53.0 t, Carbody weight: 10.0 t

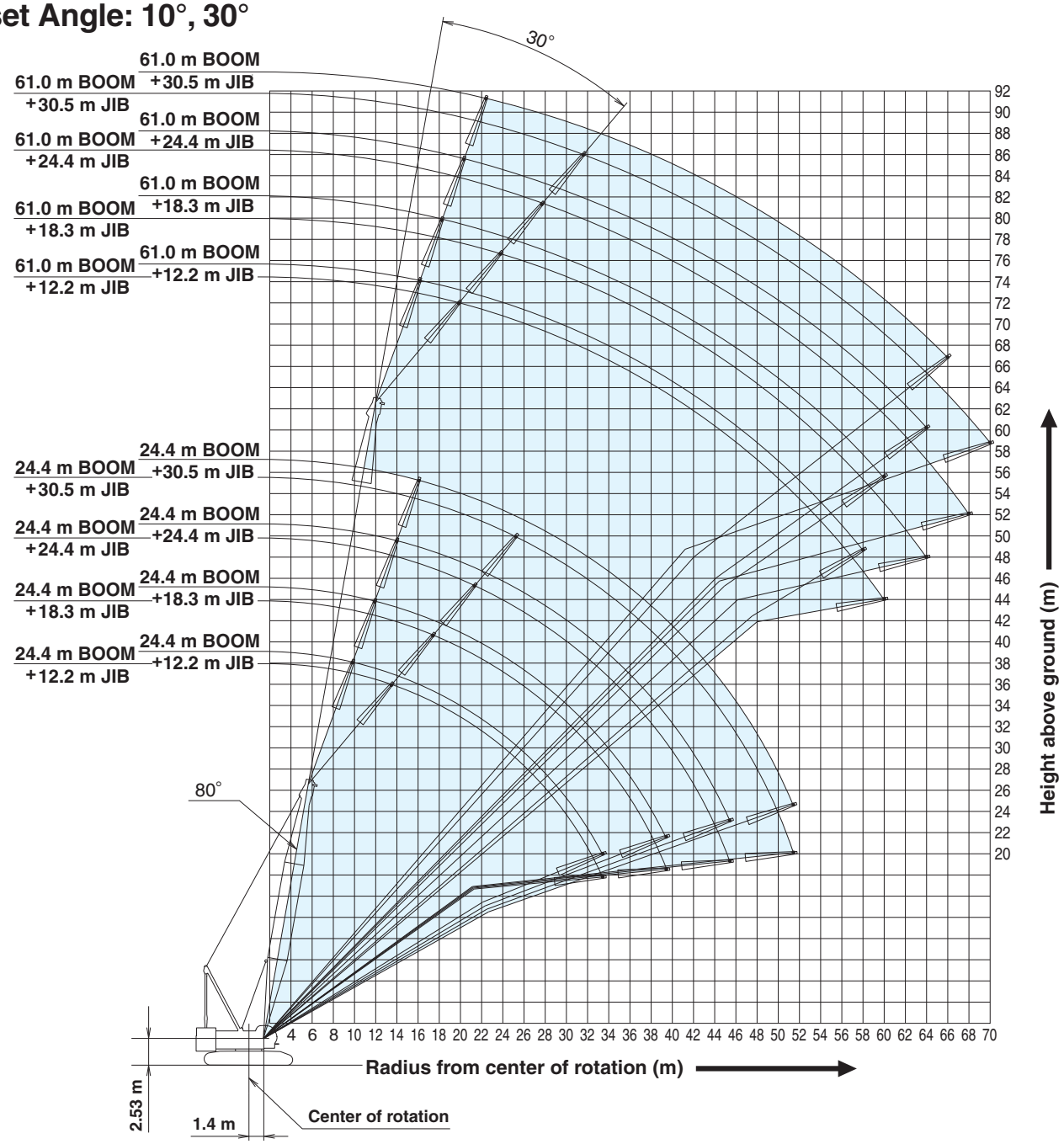
Working radius (m) \ Boom length (m)	15.2	18.3	21.3	24.4	27.4	30.5	33.5	36.6	39.6	42.7	45.7	48.8	Boom length (m) \ Working radius (m)
5.0	5.5 m/27.0												5.0
6.0	27.0	6.1 m/27.0	6.6 m/27.0										6.0
7.0	27.0	27.0	27.0	7.1 m/27.0	7.7 m/27.0								7.0
8.0	27.0	27.0	27.0	27.0	27.0	8.2 m/27.0	8.7 m/27.0						8.0
9.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	9.2 m/27.0	9.8 m/27.0				9.0
10.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	10.3 m/27.0	10.8 m/27.0		10.0
12.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	11.4 m/27.0	12.0
14.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	14.0
16.0	14.8 m/27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	16.0
18.0		17.5 m/23.3	25.1	24.9	24.7	24.6	24.5	24.3	24.2	24.1	23.9	23.8	18.0
20.0			20.2	21.5	21.3	21.2	21.1	20.9	20.8	20.7	20.5	20.4	20.0
22.0			20.1 m/19.8	18.4	18.6	18.5	18.4	18.2	18.1	18.0	17.8	17.7	22.0
24.0				22.8 m/17.0	16.5	16.4	16.2	16.0	15.9	15.8	15.6	15.5	24.0
26.0					25.4 m/14.5	14.6	14.5	14.2	14.1	14.0	13.8	13.7	26.0
28.0						12.7	13.0	12.7	12.6	12.4	12.3	12.1	28.0
30.0						28.1 m/12.6	11.7	11.4	11.3	11.2	11.0	10.8	30.0
32.0							30.7 m/11.0	10.3	10.2	10.0	9.9	9.7	32.0
34.0								33.3 m/9.4	9.3	9.1	8.9	8.8	34.0
36.0									8.2	8.3	8.1	7.9	36.0
38.0										7.4	7.3	7.2	38.0
40.0										38.6 m/7.1	6.6	6.5	40.0
42.0											41.2 m/6.0	5.9	42.0
44.0												43.9 m/5.0	44.0
Reeves	2	2	2	2	2	2	2	2	2	2	2	2	Reeves

Working radius (m) \ Boom length (m)	51.8	54.9	57.9	61.0	64.0	67.1	70.1	73.2	Boom length (m) \ Working radius (m)
12.0	11.9 m/27.0	12.4 m/27.0	12.9 m/27.0	13.5 m/27.0					12.0
14.0	27.0	27.0	27.0	27.0	27.0	14.5 m/25.2	15.1 m/25.2	15.6 m/22.9	14.0
16.0	27.0	27.0	26.6	25.9	25.2	24.8	24.2	21.2	16.0
18.0	23.7	23.6	23.1	22.5	21.9	21.5	21.0	19.1	18.0
20.0	20.2	20.1	20.0	19.7	19.2	18.9	18.4	17.3	20.0
22.0	17.5	17.4	17.3	17.1	16.9	16.6	16.2	15.6	22.0
24.0	15.3	15.2	15.1	14.9	14.7	14.7	14.3	13.9	24.0
26.0	13.5	13.4	13.2	13.1	12.9	12.9	12.7	12.3	26.0
28.0	12.0	11.9	11.7	11.6	11.4	11.3	11.2	10.9	28.0
30.0	10.7	10.6	10.4	10.2	10.1	10.0	9.9	9.7	30.0
32.0	9.6	9.4	9.3	9.1	8.9	8.9	8.7	8.5	32.0
34.0	8.6	8.5	8.3	8.1	7.9	7.9	7.7	7.6	34.0
36.0	7.7	7.6	7.4	7.3	7.1	7.0	6.9	6.7	36.0
38.0	7.0	6.9	6.7	6.5	6.3	6.3	6.1	5.9	38.0
40.0	6.3	6.2	6.0	5.8	5.6	5.6	5.4	5.2	40.0
42.0	5.7	5.6	5.4	5.2	5.0	5.0	4.8	4.6	42.0
44.0	5.2	5.0	4.9	4.7	4.5	4.4	4.2	4.0	44.0
46.0	4.4	4.5	4.4	4.2	3.9	3.8	3.7	3.4	46.0
48.0	46.5 m/4.2	3.8	3.9	3.7	3.4	3.4	3.2	2.9	48.0
50.0		49.2 m/3.3	3.2	3.2	3.0	2.9	2.7	2.5	50.0
52.0			51.8 m/2.6	2.7	2.6	2.5	2.3	2.1	52.0
54.0				2.1	2.1	2.0			54.0
Reeves	2	2	2	2	2	2	2	2	Reeves

Note:
Ratings according to EN13000.
Ratings shown in [ ] are determined by the strength of the boom or other structural components.
Refer to notes P12.

Fixed Jib Working Ranges

Jib Offset Angle: 10°, 30°



NOTES:

1. Ratings according to EN13000.
2. Ratings in metric tons for 360° working area.
3. Operating radius is the horizontal distance from center of rotation to a vertical line through the center of gravity of the load.
4. Weight of hook block(s), slings and other load handling accessories is included in rated load. Their total weight must be subtracted from rated load to obtain weight that can be lifted.
5. 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. Operator, therefore, has the responsibility to judge the existing conditions and reduce lifted loads and operating speeds accordingly.
6. Ratings are for operation on a firm and level surface, up to 1 % gradient.
7. At radii and boom lengths where no ratings are shown on chart, operation is not intended nor approved.
8. Boom/jib inserts and guy lines must be arranged as shown in the “Operator's Manual”.
9. Gantry must be in raised position for all conditions.
10. The boom should be erected over the front of crawlers, not laterally.
11. Boom backstops are required for all boom lengths.
12. Ratings shown in ☐ are determined by the strength of the boom or other structural component.
13. When erecting or lowering the boom length 73.2 m or over, the pillow plate must placed at the end of crawlers.
14. Instruction in the “Operator's Manual” must be strictly observed when operating the machine.
15. Fixed jib ratings: Deduct weight of jib hook block, slings, and all other load handling accessories from fixed jib ratings shown.
16. Crane boom lengths for fixed jib mounting are 24.4 m to 61.0 m.
17. One part of line on hook is not allowed to use for 12.2 m jib length with offset angle 10 degrees.

Fixed Jib Lifting Capacities (Without Main Hook)

Jib Offset Angle: 10°

Unit: metric ton

Counterweight: 53.0 t, Carbody weight: 10.0 t

Boom length (m)	24.4				33.5				42.7				51.8				Boom length (m)
Jib length (m)	12.2	18.3	24.4	30.5	12.2	18.3	24.4	30.5	12.2	18.3	24.4	30.5	12.2	18.3	24.4	30.5	Jib length (m)
9.0	9.9 m/26.8																9.0
10.0	26.8				11.5 m/26.8												10.0
12.0	26.7	19.2			26.8	13.5 m/19.2			13.0 m/26.8								12.0
14.0	25.8	18.9	14.3 m/9.9		26.8	19.1	15.9 m/9.9		26.8	15.1 m/19.2			14.6 m/26.8				14.0
16.0	24.9	18.3	9.7	16.4 m/5.9	26.0	18.8	9.9		26.8	19.1	17.5 m/9.9		26.8	16.7 m/19.1			16.0
18.0	24.1	17.7	9.5	5.8	25.3	18.4	9.7	5.9	26.0	18.8	9.8	19.6 m/5.9	25.6	19.0	19.1 m/9.9		18.0
20.0	22.9	16.8	9.2	5.6	23.0	17.9	9.5	5.7	22.5	18.4	9.7	5.9	22.1	18.8	9.8	21.2 m/5.9	20.0
22.0	20.8	15.2	8.8	5.3	20.3	17.4	9.3	5.6	19.8	18.0	9.5	5.7	19.3	18.4	9.6	5.8	22.0
24.0	18.6	13.9	8.4	5.0	18.1	16.4	9.0	5.4	17.6	17.6	9.4	5.6	17.1	17.4	9.5	5.7	24.0
26.0	16.8	12.8	8.0	4.8	16.2	15.1	8.6	5.1	15.7	16.0	9.1	5.5	15.2	15.5	9.4	5.6	26.0
28.0	15.2	11.9	7.7	4.5	14.7	14.0	8.3	4.9	14.2	14.4	8.8	5.2	13.7	13.9	9.2	5.5	28.0
30.0	13.9	11.1	7.4	4.3	13.4	13.1	8.0	4.7	12.9	13.1	8.5	5.0	12.4	12.6	8.9	5.3	30.0
34.0	11.2	9.7	6.9	4.0	11.3	11.5	7.5	4.3	10.7	10.9	8.0	4.7	10.2	10.4	8.4	4.9	34.0
38.0		8.7	6.5	3.7	9.7	9.8	7.1	4.0	9.1	9.3	7.6	4.3	8.6	8.8	8.0	4.6	38.0
42.0		40.0 m/8.3	6.2	3.4	7.8	8.5	6.7	3.8	7.8	8.0	7.2	4.1	7.3	7.5	7.6	4.3	42.0
46.0			6.0	3.2		7.3	6.4	3.5	6.7	6.9	6.8	3.8	6.2	6.4	6.7	4.1	46.0
50.0				3.1		48.0 m/6.4	6.1	3.3	5.2	6.0	6.3	3.6	5.2	5.5	5.8	3.9	50.0
54.0							5.4	3.2		4.9	5.5	3.4	4.1	4.6	5.0	3.7	54.0
58.0								3.0		56.0 m/4.3	4.6	3.3	3.1	3.7	4.3	3.5	58.0
62.0								60.0 m/2.9			60.0 m/4.1	3.1		2.9	3.5	3.3	62.0
66.0												3.0		64.0 m/2.4	2.8	3.1	66.0
70.0															68.0 m/2.4	2.4	70.0
Reeves	2	2	1	1	2	2	1	1	2	2	1	1	2	2	1	1	Reeves

Working radius (m)

Boom length (m)	57.9				61.0				Boom length (m)
Jib length (m)	12.2	18.3	24.4	30.5	12.2	18.3	24.4	30.5	Jib length (m)
14.0	15.7 m/24.0								14.0
16.0	24.0	17.8 m/19.1			16.2 m/21.2				16.0
18.0	23.5	19.1			20.7	18.3 m/19.1			18.0
20.0	21.7	18.9	20.1 m/9.9		20.3	18.9	20.7 m/9.9		20.0
22.0	19.0	18.7	9.7	22.2 m/5.9	18.7	18.7	9.8	22.8 m/5.9	22.0
24.0	16.7	17.0	9.6	5.8	16.6	16.7	9.6	5.8	24.0
26.0	14.9	15.2	9.5	5.7	14.8	14.9	9.5	5.7	26.0
28.0	13.3	13.6	9.3	5.6	13.2	13.4	9.4	5.6	28.0
30.0	12.0	12.2	9.2	5.5	11.9	12.1	9.3	5.5	30.0
34.0	9.8	10.1	8.7	5.1	9.7	10.0	8.8	5.2	34.0
38.0	8.2	8.4	8.2	4.8	8.1	8.3	8.4	4.9	38.0
42.0	6.9	7.1	7.4	4.5	6.7	7.0	7.3	4.6	42.0
46.0	5.8	6.0	6.3	4.2	5.6	5.9	6.2	4.3	46.0
50.0	4.8	5.1	5.4	4.0	4.6	4.9	5.3	4.1	50.0
54.0	3.8	4.2	4.7	3.8	3.7	4.0	4.5	3.9	54.0
58.0	2.9	3.4	3.9	3.6	2.8	3.2	3.7	3.7	58.0
62.0	2.1	2.6	3.2	3.3	2.1	2.5	3.0	3.1	62.0
66.0		64.0 m/2.3	2.5	2.7		64.0 m/2.1	2.3	2.5	66.0
70.0			68.0 m/2.2	2.1			68.0 m/2.0	68.0 m/2.2	70.0
Reeves	2	2	1	1	2	2	1	1	Reeves

Working radius (m)

Note:
Ratings according to EN13000.
Ratings shown in [ ] are determined by the strength of the boom or other structural components.
Refer to notes P18.
※ One part of line on hook is not allowed to use for 12.2 m jib length with offset angle 10 degrees.

Unit: metric ton

Jib Offset Angle: 30°

Counterweight: 53.0 t, Carbody weight: 10.0 t

Boom length (m)	24.4				33.5				42.7				51.8				Boom length (m)
Jib length (m)	12.2	18.3	24.4	30.5	12.2	18.3	24.4	30.5	12.2	18.3	24.4	30.5	12.2	18.3	24.4	30.5	Jib length (m)
12.0	13.5 m/18.2																12.0
14.0	17.8				15.1 m/18.2												14.0
16.0	16.4	17.5 m/12.4			17.7				16.7 m/18.2								16.0
18.0	15.2	12.1			16.5	19.0 m/12.5			17.5				18.3 m/18.2				18.0
20.0	14.3	11.2	21.4 m/7.4		15.6	12.1			16.6	20.6 m/12.5			17.4				20.0
22.0	13.4	10.5	7.4		14.7	11.3	23.0 m/7.5		15.8	12.0			16.7	22.2 m/12.5			22.0
24.0	12.7	9.8	7.2	25.3 m/4.1	14.0	10.7	7.4		15.1	11.4	24.5 m/7.5		15.9	11.9			24.0
26.0	12.1	9.2	7.0	4.0	13.4	10.1	7.2	26.9 m/4.1	14.4	10.8	7.4		15.3	11.4	26.1 m/7.5		26.0
28.0	11.6	8.8	6.8	3.8	12.8	9.6	7.0	4.0	13.8	10.3	7.2	28.5 m/4.0	14.2	10.9	7.3		28.0
30.0	11.1	8.3	6.5	3.7	12.3	9.2	6.8	3.8	13.2	9.9	7.0	3.9	12.8	10.5	7.2	30.1 m/4.0	30.0
34.0	10.5	7.6	5.9	3.5	11.5	8.4	6.4	3.6	11.0	9.1	6.8	3.7	10.6	9.7	6.9	3.8	34.0
38.0		7.1	5.4	3.3	9.8	7.8	5.9	3.4	9.3	8.5	6.3	3.6	8.9	9.1	6.7	3.7	38.0
42.0		40.0 m/7.0	5.0	3.1	8.2	7.4	5.5	3.3	8.0	8.0	5.9	3.4	7.5	8.0	6.3	3.5	42.0
46.0			4.8	3.0		7.0	5.2	3.1	6.9	7.2	5.6	3.3	6.4	6.8	5.9	3.4	46.0
50.0				2.9		48.0 m/6.9	4.9	3.0	5.4	6.3	5.3	3.1	5.5	5.9	5.6	3.2	50.0
54.0				52.0 m/2.9			4.7	2.9		5.4	5.0	3.0	4.4	5.1	5.3	3.1	54.0
58.0								2.9		56.0 m/4.7	4.8	3.0	3.3	4.2	4.6	3.1	58.0
62.0								60.0 m/2.9			4.0	2.9		3.3	3.9	3.0	62.0
66.0												2.9		64.0 m/2.8	3.1	2.9	66.0
70.0												68.0 m/2.9			2.3	2.9	70.0
74.0																2.2	74.0
Reeves	2	1	1	1	2	1	1	1	2	1	1	1	2	1	1	1	Reeves

Working radius (m)

Boom length (m)	57.9				61.0				Boom length (m)
Jib length (m)	12.2	18.3	24.4	30.5	12.2	18.3	24.4	30.5	Jib length (m)
18.0	19.4 m/18.1				19.9 m/18.1				18.0
20.0	17.9				18.1				20.0
22.0	17.1	23.3 m/12.5			17.3	23.8 m/12.4			22.0
24.0	16.4	12.3			16.7	12.4			24.0
26.0	15.5	11.7	27.2 m/7.5		15.3	11.9	27.7 m/7.5		26.0
28.0	13.9	11.3	7.4		13.8	11.4	7.5		28.0
30.0	12.5	10.8	7.3	31.1 m/4.0	12.4	11.0	7.3	31.6 m/4.0	30.0
34.0	10.2	10.1	7.0	3.9	10.1	10.2	7.1	3.9	34.0
38.0	8.5	9.1	6.8	3.7	8.4	9.0	6.8	3.7	38.0
42.0	7.1	7.7	6.5	3.6	7.0	7.6	6.6	3.6	42.0
46.0	6.0	6.5	6.1	3.4	5.9	6.4	6.2	3.5	46.0
50.0	5.1	5.6	5.8	3.3	4.9	5.4	5.8	3.3	50.0
54.0	4.1	4.7	5.0	3.2	3.9	4.6	4.9	3.2	54.0
58.0	3.2	3.9	4.3	3.1	3.1	3.8	4.2	3.1	58.0
62.0	2.3	3.1	3.6	3.0	2.2	3.0	3.4	3.1	62.0
66.0		2.3	2.9	3.0		2.3	2.7	3.0	66.0
70.0			2.2	2.6			2.1	2.4	70.0
74.0				72.0 m/2.3				72.0 m/2.2	74.0
Reeves	2	1	1	2	1	1	1	1	Reeves

Working radius (m)

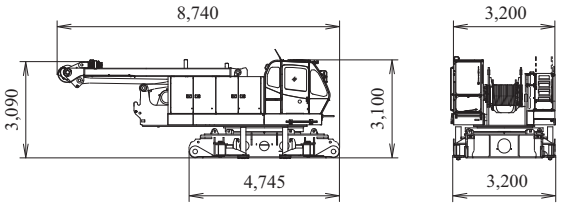
Note:
Ratings according to EN13000.
Ratings shown in [ ] are determined by the strength of the boom or other structural components.
Refer to notes P18.

PARTS AND ATTACHMENTS

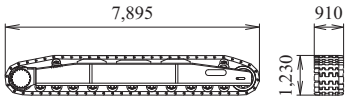
Dimensions: mm Weight: kg

Base Machine
With trans-lifter, main and aux. and third winches (non-free fall) including wire rope
Weight: 35,900 kg*1 Width: 3,200 mm

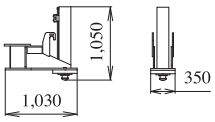
*1: With free-fall main and auxiliary winches, total weight increases by 790 kg.



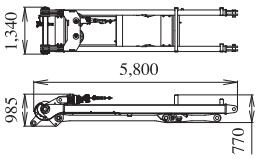
Crawler
Weight: 14,500 kg



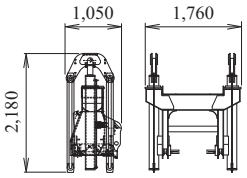
Translifter
Weight: 370 kg / 1 piece



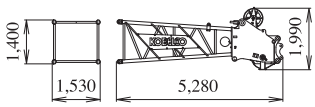
Gantry (with Lower Spreader)
Weight: 2,220 kg



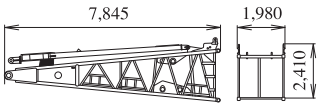
Self Removal Cylinder
Weight: 1,680 kg



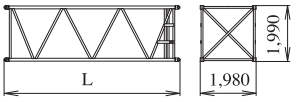
Boom Top
Weight: 1,670 kg



Boom Base (with Boom Backstop)
Weight: 3,680 kg

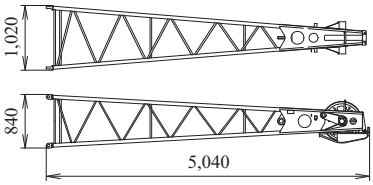


Insert Boom

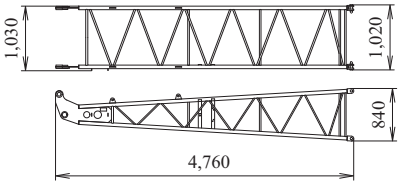


	L (mm)	Weight (kg)
3.0 m	3,180	530
6.1 m	6,230	850
9.1 m	9,270	1,160

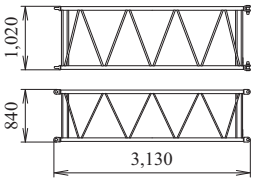
Jib Tip (Fixed Jib)
Weight: 315 kg



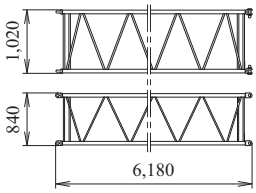
Jib Base (Fixed Jib)
Weight: 210 kg



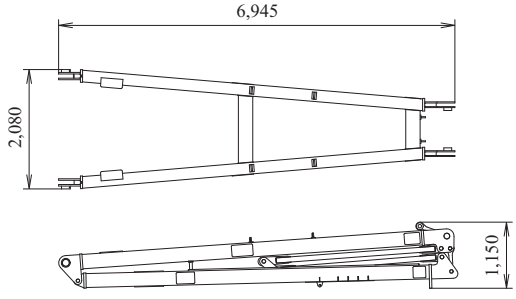
3.0m Insert Jib
Weight: 110 kg



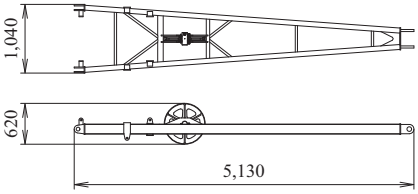
6.1m Insert Jib
Weight: 190 kg



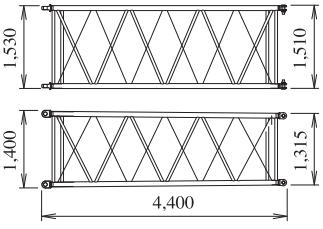
Jib Strut
Weight: 2,010 kg



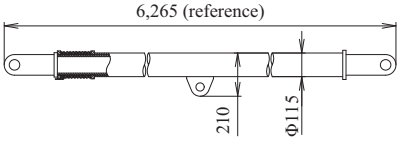
Crane Jib Strut
Weight: 300 kg



Relay Jib (Tapered Jib)
Weight: 410 kg

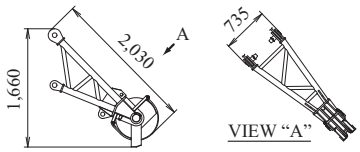


Crane Backstop
Weight: 210 kg / 1 piece

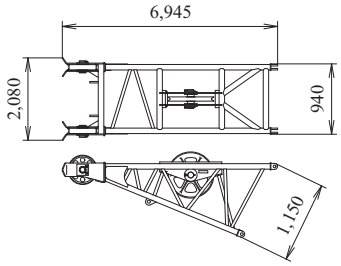


Dimensions: mm Weight: kg

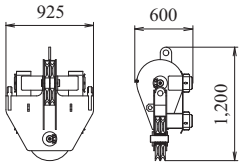
Auxiliary Sheave (for Crane)
Weight: 295 kg



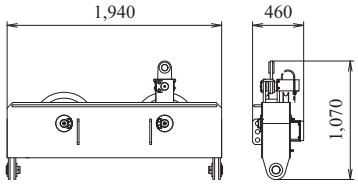
Rear Guide Roller
Weight: 380 kg



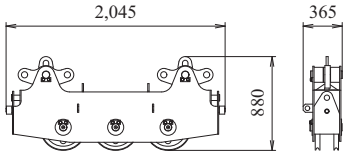
Jib Upper Spreader
Weight: 260 kg



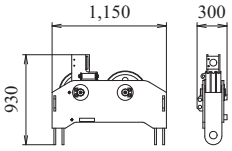
Jib Lower Spreader
Weight: 405 kg



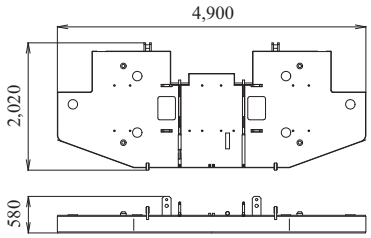
Upper Spreader (for Crane)
Weight: 485 kg



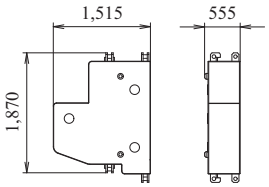
Lower Spreader (for Crane)
Weight: 315 kg



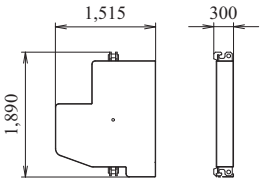
Counterweight (Base Weight)
Weight: 8,000 kg



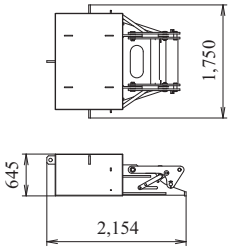
Counterweight (Weight A)
Weight: 5,000 kg



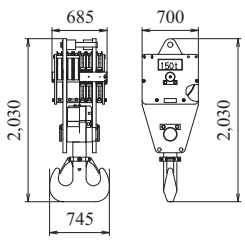
Counterweight (Add. Weight)
Weight: 2,500 kg



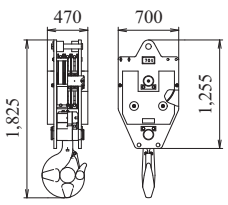
Carbodyweight
Weight: 5,000 kg



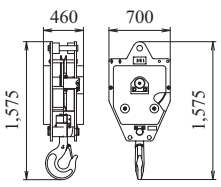
150 t Hook
Weight: 1,700 kg



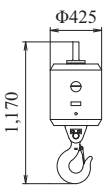
70 t Hook
Weight: 1,200 kg



35 t Hook
Weight: 900 kg



Ball Hook
Weight: 450 kg



Other Attachment

Attachment	Swivel Hook
Weight	100 kg
Dimension (L x W x H)	300 mm x 160 mm dia. x 950 mm

Note: Estimated weights may vary ± 2%.

HYDRAULIC CRAWLER CRANE

CKL1350i

Standard Equipment

Upper structure/Lower structure

Counterweight: 53.0 t (total weight)
Carbody weight: 10.0 t (total weight)
910 mm shoe crawlers
Batteries (150 Ah/20 HR)
Trans-lifter (jack system)
Gantry raising/lowering cylinder
Electric hand throttle grip
Variable boom hoist speed controller
Variable main/aux. hoist speed controller
Swing neutral-free/brake select switch
Side deck for cab
Steps (crawlers)
Two front working lights
Tools (for routine maintenance)
Two rear view mirrors
Electric fuel pump
Counterweight self removal
Crawler self removal
Cable roller (for boom)
Upper spreader storage guide
Tool box (front of left-side guard)

Cab/Control

Air conditioner
Cup holder
Ashtray
Cigar lighter
Intermittent wiper & window washer (skylight and front window)
Sun visor
Roof blind
Floor mat (cloth)
Foot rest
Shoe tray

Safety Device

Load Moment Indicator (with boom lowering slow stop function)
LMI release key (for hook over-hoist prevention device and boom over-hoist prevention device)
LCD multi display
Ultimate stop function for boom over-hoist
Function lock lever
Propel lever lock
Mechanical drum lock pawl (main, aux. and boom hoist)
Signal horn
Swing parking brake
Mechanical swing lock pin (four positions)
Swing flashers/warning buzzer
External lamp for over-load alarm

Note: Standard equipment may vary depending on your areas or countries.
Due to our policy of continual product improvements all designs and specifications are subject to change without advance notice.

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