Hydraulic Crawler Crane

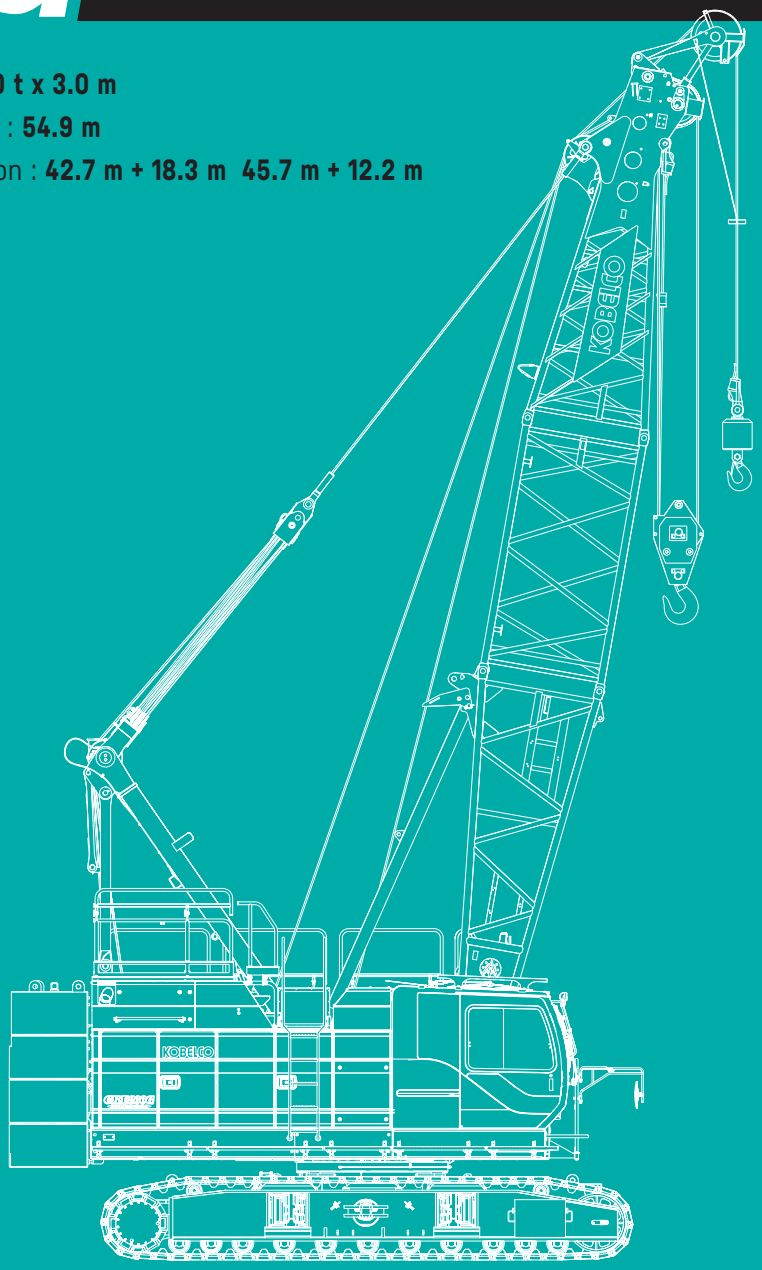
CKE

EU Stage V Engine

800G

Model : CKE800G-3

Max. Lifting Capacity : **80 t x 3.0 m**
Max. Crane Boom Length : **54.9 m**
Max. Fixed Jib Combination : **42.7 m + 18.3 m 45.7 m + 12.2 m**



KOBELCO

CONFIGURATION

Fixed Jib

Max. Lifting Capacity:
7.0 metric ton x 20.0 m
Max. Combination:
42.7 m + 18.3 m 45.7 m + 12.2 m

Crane Boom

Max. Lifting Capacity:
80 metric ton x 3.0 m
Max. Boom Length:
54.9 m

CKE800G-3
CONTENTS

SPECIFICATIONS

Power Plant

Model: HINO J08E-YD
Type: 4 cycle, water-cooled, vertical in-line 6, direct injection, turbo-charger, intercooled
Complies with NRMM (Europe) Stage V
Displacement: 7.684 L
Rated power: 213 kW/2,100 min^{-1}
Max. Torque: 1,017 N·m/1,600 min^{-1}
Cooling System: Water-cooled
Starter: 24V-5kW
Radiator: Corrugated type core, thermostatically controlled
Air cleaner: Dry type with replaceable paper element
Throttle: Twist grip type hand throttle, electrically actuated
Fuel filter: Replaceable paper element
Batteries: Two 12V x 136 Ah/5HR capacity batteries, series connected
Fuel tank capacity: 400 L
AdBlue® tank capacity: 30 L

Hydraulic System

Main pumps: 3 variable displacement piston pumps
Control: Full-flow hydraulic control system for infinitely variable pressure to all winches, propel and swing. 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
Max. relief valve pressure:
Load hoist, boom hoist and propel system: 31.9 MPa
Swing system: 27.5 MPa
Control system: 5.4 MPa
Oil Quantity (at the reference level): 375 L

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 16mm dia. wire rope
Line Speed: Single line on first drum layer
Hoisting/Lowering: 70 to 2 m/min
Boom hoisting/lowering: 16 mm x 150 m (5/8 in. x 492 ft)
Boom guy line: 30 mm (1-3/16 in.)
Boom backstops: Required for all boom length

Load Hoisting System

Front and rear drums for load hoist powered by 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)
Drum Lock: External ratchet for locking drum
Drums:
Front Drum:
550 mm P.C.D x 545 mm wide drum, grooved for 22 mm wire rope. Rope capacity is 220 m working length and 335 m storage length.
Rear Drum: 550 mm P.C.D x 545 mm wide drum, grooved for 22 mm wire rope. Rope capacity is 130 m working length and 335m storage length.
Diameter of wire rope
Main winch: 22 mm x 220 m
Aux. winch: 22 mm x 130 m
Third winch: 22 mm x 145 m
Line Speed*:
Hoisting/lowering: 120 to 3 m/min
Line Pull:
Max. Line Pull*: 153 kN {15.5 tf}
(Referential performance)
Rated Line Pull: 78 kN {8.0 tf}
*Single line on first drum layer

Swing System

Swing unit is powered by hydraulic motor driving spur gears 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: 4.0 min^{-1}

Upper Structure

Torsion-free precision machined upper frame. All components are located clearly and service friendly. Engine will with low noise level.
Counterweight: 27.2 ton

Cab & Control

Totally enclosed, full vision cab with safety glass, fully adjustable, high backed seat with a headrest and armrests, and intermittent wiper and window washer (skylight and front window).
Cab fittings:
Air conditioner, convenient compartment (for tool), cup holder, cigarette lighter, sun visor, roof blind, tinted glass, floor mat, footrest, and shoe tray

Lower Structure

Steel-welded carbody with axles. Crawler assemblies can be hydraulically extended for wide-track operation or retractedfor transportation. Crawler belt tension is maintained by hydraulic jack force on the track-adjusting bearing block.

Carbody weight: 6.5 ton

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.

Shoe (flat): 800 mm wide each crawler

Max. gradeability: 40%

Weight

Including upper and lower machine, 27.2 ton counterweight and 6.5 ton carbody weight, basic boom (or basic boom + basic jib), hook, and other accessories.

Weight: 75.7 ton

Ground pressure: 84.8 kPa

Attachment

Boom & Jib:

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

Boom and Jib length

	Min. Length (Min. combination)	Max. Length (Max. combination)
Crane Boom	9.1 m	54.9 m
Fixed Jib	30.5 m + 6.1 m	42.7 m + 18.3 m, 45.7 m + 12.2 m

Main Specifications (Model: CKE800G-3)

Crane Boom	
Max. Lifting Capacity	80 t x 3.0 m
Max. Length	54.9 m
Fixed Jib	
Max. Lifting Capacity	7.0 t x 20.0 m
Max. Combination	42.7 m + 18.3, 45.7 m +12.2 m
Main & Aux. Winch	
Max. Line Speed (1st layer)	120 m/min
Rated Line Pull (Single line)	78 kN {8.0 tf}
Wire Rope Diameter	22 mm
Wire Rope Length	220 m (Main), 130 m (Aux.)
Brake Type (Free fall)	Wet-type multiple disc brake (Optional)
Working Speed	
Swing Speed	4.0 min^{-1} {rpm}
Travel Speed	1.7/1.1 km/h
Power Plant	
Model	HINO J08E-YD
Engine Output	213 kW/2,100 min^{-1}
Fuel Tank	400 L
AdBlue® Tank	30 L

Hydraulic System	
Main Pumps	3 variable displacement
Max. Pressure	31.9 Mpa {325 kg/cm^2}
Oil Quantity (at the reference level)	375 L
Self-Removal Device	
	Counterweight/self-removal device (option)
Weight	
Operating Weight	75.7 t *1
Ground Pressure	84.8 kPa
Counterweight	27,200 kg
Transport Weight	39,780 kg *2

Units are SI units. { } indicates conventional units.

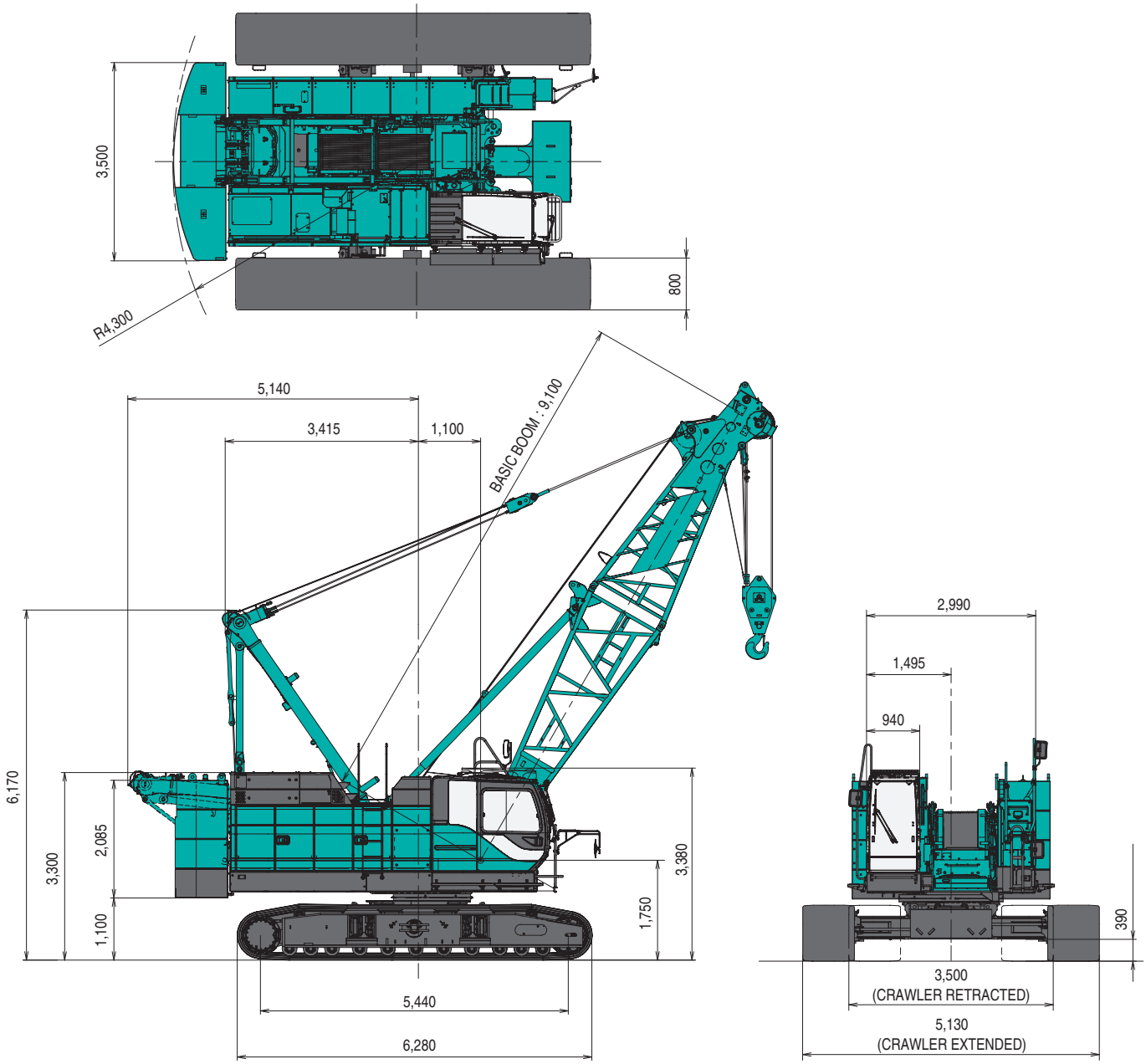
Line speeds in table are for light loads. Line speed varies with load.

*1 Including upper and lower machine, 27.2 ton counterweight, 6.5 ton carbody weight, basic boom, hook, and other accessories.

*2 Base machine with boom base, gantry, crawlers, and wire ropes (front/rear/boom hoist)

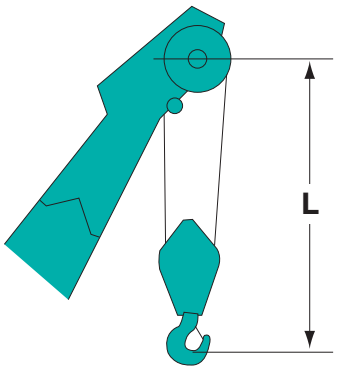
GENERAL DIMENSIONS

(Unit: mm)

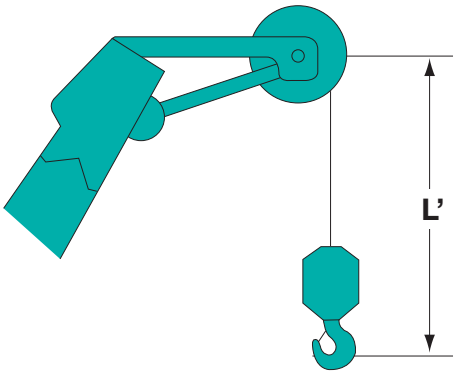


This catalog may contain photographs of machines with specifications, attachments and optional equipment.

Limit of Hook Lifting



Hook	L
80 t hook	4.5 m
50 t hook	4.3 m
32 t hook	4.2 m
19 t hook	4.1 m



Hook	L'
Ball hook	3.1 m

Crane Boom Arrangements

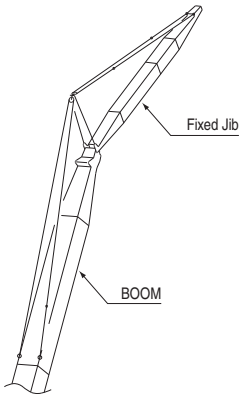
Boom length m (ft)	Boom arrangement
9.1 (30)	※ B T
12.2 (40)	※ B 10 T
15.2 (50)	B 20 T ※ B 10 10 T
18.3 (60)	※ B 10 20 T B 30 T
21.3 (70)	B 20 20 T B 10 30 T ※ B 10 10 20 T
24.4 (80)	※ B 10 20 20 T B 20 30 T B 10 10 30 T
27.4 (90)	※ B 10 20 30 T B 30 30 T B 10 10 20 20 T
30.5 (100)	B 20 20 30 T B 10 30 30 T ※ B 10 10 20 30 T
33.5 (110)	B 20 30 30 T B 10 10 30 30 T B 10 10 20 20 20 T ※ B 10 20 20 30 T
36.6 (120)	※ B 10 20 30 30 T B 30 30 30 T B 10 10 20 20 30 T

Boom length m (ft)	Boom arrangement
39.6 (130)	B 20 20 30 30 T B 10 10 20 30 30 T ※ B 10 20 20 20 30 T B 10 30 30 30 T
42.7 (140)	B 20 30 30 30 T B 10 10 30 30 30 T ※ B 10 20 20 30 30 T B 10 10 20 20 20 30 T
45.7 (150)	※ B 10 20 30 30 30 T B 10 10 20 20 30 30 T
48.8 (160)	B 20 20 30 30 30 T ※ B 10 10 20 30 30 30 T
51.8 (170)	※ B 10 20 20 30 30 30 T B 10 10 20 20 20 30 30 T
54.9 (180)	※ B 10 20 20 30 30 10 30 T B 10 10 20 20 30 30 30 T

Symbol	Boom Length	Remarks
B	5.2 m	Boom Base
T	3.9 m	Boom Tip
10	3.0 m	Insert Boom
20	6.1 m	Insert Boom
20	6.1 m	Insert Boom with lug
30	9.1 m	Insert Boom
30	9.1 m	Insert Boom with lug

↗ mark shows the guy line installing position when the fixed jib is used.
※ indicates the most flexible combination of insert luffing booms, which can be modified to form all shorter luffing boom arrangements.

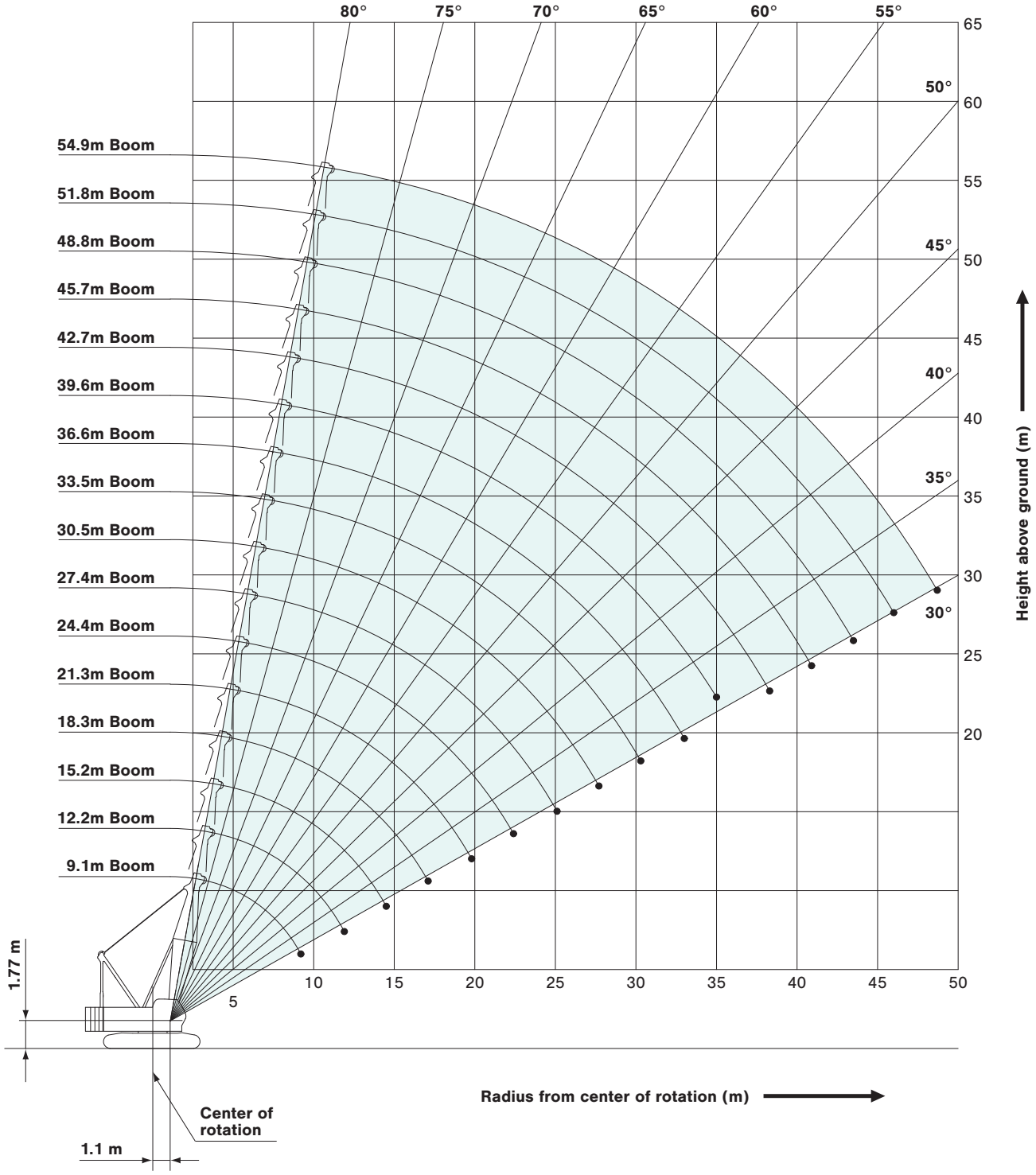
Fixed Jib Arrangements



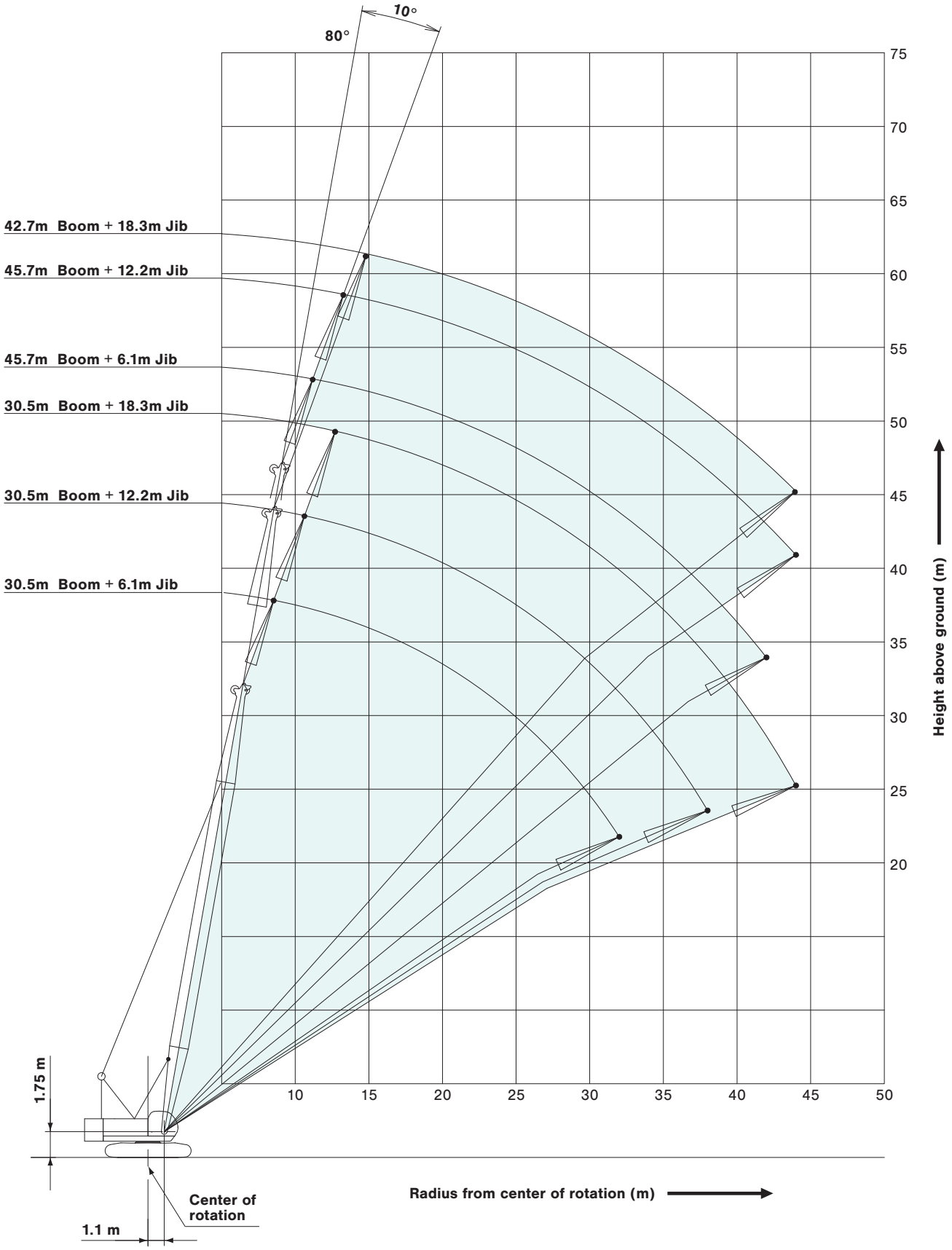
Crane boom length	Jib length m (ft)	Jib arrangement
30.5 m to 45.7 m	6.1 (20)	B T 3.0 3.0
	12.2 (40)	B 20 T
30.5 m to 42.7 m	18.3 (60)	B 20 20 T

Symbol	Jib Length	Remarks
B	3.0 m	Jib Base
T	3.0 m	Jib Tip
20	6.1 m	Insert Jib

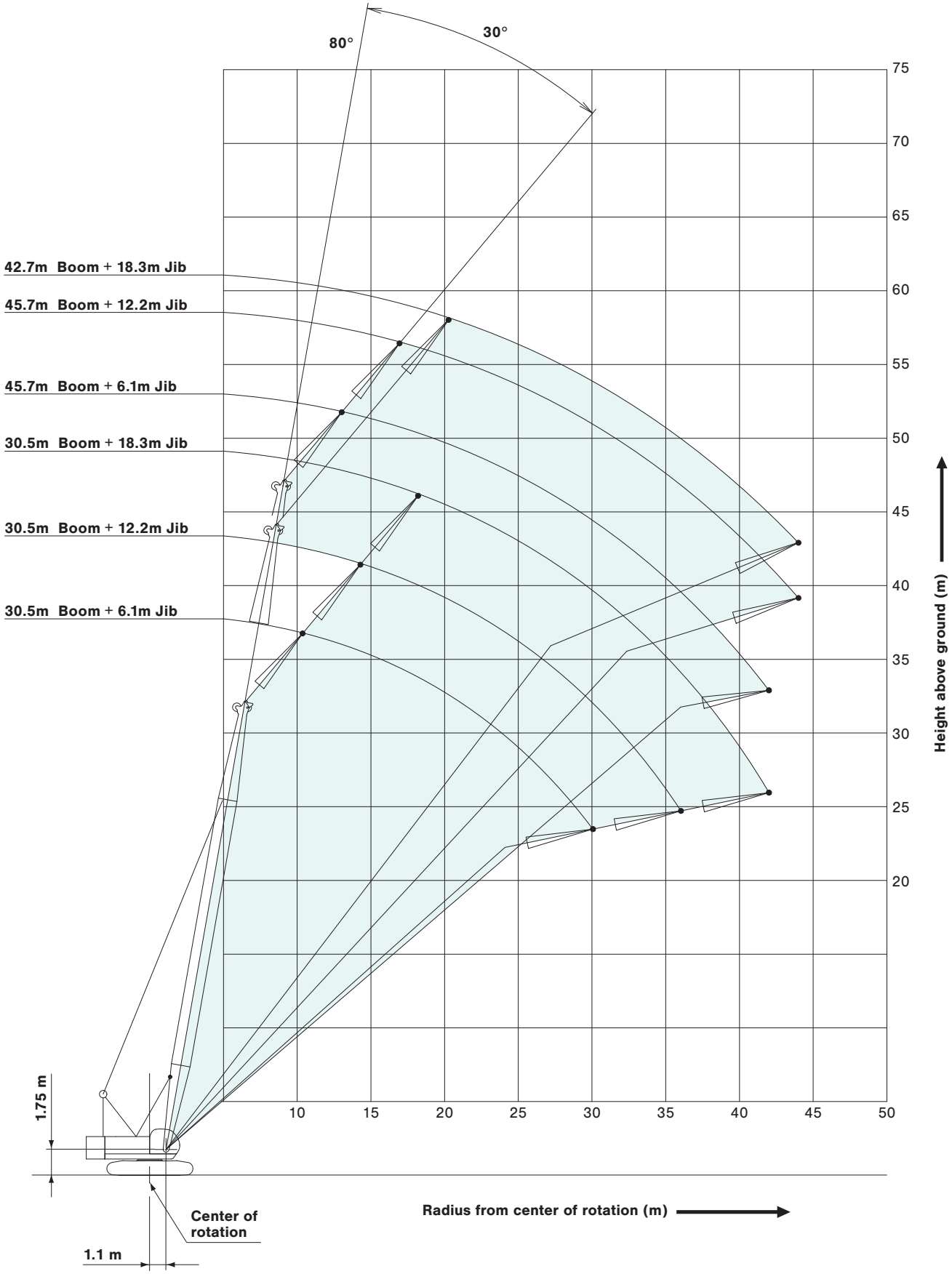
Crane Boom


80°
75°
70°
65°
60°
55°
50°
45°
40°
35°
30°
54.9m Boom
51.8m Boom
48.8m Boom
45.7m Boom
42.7m Boom
39.6m Boom
36.6m Boom
33.5m Boom
30.5m Boom
27.4m Boom
24.4m Boom
21.3m Boom
18.3m Boom
15.2m Boom
12.2m Boom
9.1m Boom
65
60
55
50
45
40
35
30
25
20
5
10
15
20
25
30
35
40
45
50
Height above ground (m)
Radius from center of rotation (m)
1.77 m
1.1 m
Center of rotation

Fixed Jib 10°


10°
80°
42.7m Boom + 18.3m Jib
45.7m Boom + 12.2m Jib
45.7m Boom + 6.1m Jib
30.5m Boom + 18.3m Jib
30.5m Boom + 12.2m Jib
30.5m Boom + 6.1m Jib
75
70
65
60
55
50
45
40
35
30
25
20
Height above ground (m)
10
15
20
25
30
35
40
45
50
Radius from center of rotation (m)
1.75 m
1.1 m
Center of rotation

Fixed Jib 30°


80°
30°
42.7m Boom + 18.3m Jib
45.7m Boom + 12.2m Jib
45.7m Boom + 6.1m Jib
30.5m Boom + 18.3m Jib
30.5m Boom + 12.2m Jib
30.5m Boom + 6.1m Jib
75
70
65
60
55
50
45
40
35
30
25
20
Height above ground (m)
10
15
20
25
30
35
40
45
50
Radius from center of rotation (m)
1.75 m
Center of rotation
1.1 m

- Ratings are calculated to comply with EN13000, ISO 4305 and include factors based on a 4 degree tipping angle.
- Operating radius is the horizontal distance from centerline of rotation to a vertical line through the center of gravity of the load.
- The weight of hook block, slings, and all other load handling accessories shall be considered part of the lifted load.
- 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.
- Ratings are for the operation on a firm and level surface, up to 1 % gradient.
- At radii and boom lengths where no ratings are shown on chart, operation is not intended nor approved.
- Boom inserts and guy lines must be arranged as shown in the "operator's manual".
- Boom hoist reeving is 12 parts of line.
- Gantry must be in raised position for all conditions.
- Boom backstops are required for all boom lengths.
- The boom should be erected over the front of the crawlers, not laterally.
- Ratings inside of boxes ☐ are based on structural competence.
- The minimum rated load is 1.1 t.
- Crawlers must be fully extended for all crane operations.
- Ratings shown are based on allowable wind speed of 9.8 m/s or less.
  The wind speed mentioned here means the instantaneous wind speed.
- Ratings shown are based on allowable travel speed of 0.1 m/s or less.

(Crane boom lifting)

- The total load that can be lifted is the value of the weight of main hook block, slings, and all other load handling accessories deducted from crane boom ratings shown.

(Fixed jib lifting)

- The total load that can be lifted is the value of the weight of jib hook block, slings, and all other load handling accessories deducted from fixed jib ratings shown.
- The availability of fixed jib mounting
  - On crane boom : Range 30.5 m to 45.7 m.
  But 18.3 m jib is not allowed to install on 45.7 m main boom.

<Reference Information>

Main hoist loads

No. of Parts of Line	1	2	3	4	5
Maximum Loads (kN)	78	157	235	314	392
Maximum Loads (t)	8.0	16.0	24.0	32.0	40.0

No. of Parts of Line	6	7	8	9	10
Maximum Loads (kN)	471	549	628	706	785
Maximum Loads (t)	48.0	56.0	64.0	72.0	80.0

Auxiliary hoist loads

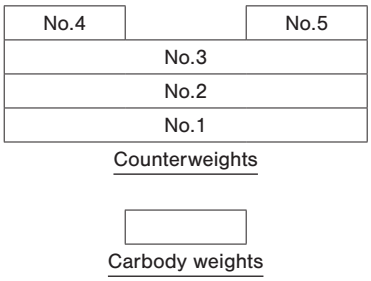
No. of Parts of Line	1
Maximum Loads (kN)	69
Maximum Loads (t)	7.0

Weight of hook block					
Hook Block	80 t	50 t	32 t	19 t	Ball Hook
Weight (t)	0.8	0.7	0.5	0.4	0.16

Operation of this equipment in excess of rated loads
or disregard of instruction voids the warranty.

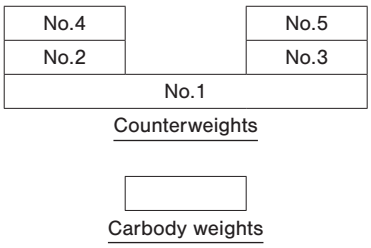
Assembling the counterweight (standard type)

27.2 ton counterweight
6.5 ton carbody weight



Assembling the counterweight (optional type)
(Equipped with self removal device)

26.1 ton counterweight
6.5 ton carbody weight



- Although the total weight of the counterweight is different between machine equipped with self-removal device and machine not equipped with self-removal device, the lifting capacity is the same.

Crane Boom Lifting Capacities

Counterweight: 27.2 t
Carbody Weight: 6.5 t

Unit: metric ton

Working radius (m) \ Boom length (m)	9.1	12.2	15.2	18.3	21.3	24.4	27.4	30.5	33.5	36.6	39.6	42.7	45.7	48.8	51.8	54.9	Boom length (m) / Working radius (m)
3.0	80.0	3.6m/76.2															**3.0**
4.0	69.0	72.6	4.2m/69.6	4.7m/59.3													**4.0**
5.0	57.9	57.7	57.5	55.1	5.2m/50.0	5.7m/42.9											**5.0**
6.0	47.5	47.3	46.7	44.6	42.6	40.8	6.3m/37.2	6.8m/33.0									**6.0**
7.0	39.8	39.6	38.9	37.3	35.8	34.5	33.3	32.0	7.3m/29.5	7.9m/26.4							**7.0**
8.0	32.9	32.7	32.5	32.0	30.9	29.8	28.8	27.8	26.9	26.0	8.4m/24.0						**8.0**
9.0	26.0	27.8	27.6	27.5	27.0	26.2	25.4	24.5	23.8	23.1	22.4	21.7	9.4m/20.1				**9.0**
10.0	9.2m/24.5	24.1	23.9	23.8	23.7	23.3	22.6	21.9	21.3	20.6	20.0	19.4	19.0	18.4	10.5m/17.1	11.0m/15.7	**10.0**
12.0		11.9m/19.3	18.8	18.7	18.6	18.5	18.4	17.9	17.4	16.9	16.5	16.0	15.6	15.1	14.8	14.4	**12.0**
14.0			15.4	15.3	15.1	15.0	14.9	14.8	14.7	14.2	13.9	13.5	13.2	12.8	12.5	12.1	**14.0**
16.0			14.5m/14.7	12.9	12.7	12.6	12.5	12.3	12.2	12.1	11.9	11.5	11.3	10.9	10.7	10.4	**16.0**
18.0				17.1m/11.8	10.9	10.8	10.7	10.5	10.4	10.3	10.2	10.0	9.8	9.4	9.3	9.0	**18.0**
20.0					19.8m/9.6	9.3	9.2	9.1	9.0	8.8	8.7	8.6	8.5	8.3	8.1	7.8	**20.0**
22.0						8.2	8.1	7.9	7.8	7.7	7.6	7.5	7.4	7.2	7.1	6.9	**22.0**
24.0						22.4m/8.0	7.2	7.0	6.9	6.8	6.6	6.5	6.4	6.3	6.2	6.1	**24.0**
26.0							25.1m/6.8	6.2	6.1	6.0	5.9	5.7	5.6	5.5	5.4	5.3	**26.0**
28.0								27.7m/5.7	5.5	5.4	5.2	5.1	5.0	4.9	4.8	4.7	**28.0**
30.0									4.9	4.8	4.7	4.5	4.4	4.3	4.2	4.1	**30.0**
32.0									30.3m/4.9	4.3	4.2	4.0	3.9	3.8	3.7	3.6	**32.0**
34.0										33.0m/4.1	3.8	3.6	3.5	3.4	3.3	3.2	**34.0**
36.0											35.0m/3.5	3.3	3.2	3.0	2.9	2.8	**36.0**
38.0												2.9	2.8	2.7	2.6	2.5	**38.0**
40.0												38.3m/2.9	2.6	2.4	2.3	2.2	**40.0**
42.0													40.9m/2.4	2.1	2.0	1.9	**42.0**
44.0														43.5m/2.0	1.8	1.7	**44.0**
46.0															1.6	1.5	**46.0**
48.0																1.3	**48.0**
50.0																48.7m/1.2	**50.0**
Reeves	10	10	9	8	7	6	5	5	4	4	3	3	3	3	3	2	**Reeves**

Note:
Ratings according to EN13000.
Ratings shown in [ ] are determined by the strength of the boom or other structural components.
Lifting capacities may vary depending on hook used or with/without auxiliary sheave.
Please refer rated chart in operator's cabin.

Fixed Jib Lifting Capacities (Jib Offset Angle : 10°)

Counterweight: 27.2 t
Carbody Weight: 6.5 t

Unit: metric ton

Boom length (m)	30.5			33.5			36.6			Boom length (m)
Jib length (m)	6.1	12.2	18.3	6.1	12.2	18.3	6.1	12.2	18.3	Jib length (m)
Working radius (m)										Working radius (m)
9.0	7.0			7.0						9.0
10.0	7.0			7.0			7.0			10.0
12.0	7.0	7.0	4.5	7.0	7.0		7.0	7.0		12.0
14.0	7.0	7.0	4.5	7.0	7.0	4.5	7.0	7.0	4.5	14.0
16.0	7.0	7.0	4.5	7.0	7.0	4.5	7.0	7.0	4.5	16.0
18.0	7.0	7.0	4.5	7.0	7.0	4.5	7.0	7.0	4.5	18.0
20.0	6.8	7.0	4.5	6.8	6.9	4.5	6.7	6.9	4.5	20.0
22.0	6.1	6.4	4.5	6.0	6.2	4.5	5.9	6.2	4.5	22.0
24.0	5.4	5.6	4.5	5.2	5.5	4.5	5.1	5.4	4.5	24.0
26.0	4.7	5.0	4.5	4.6	4.8	4.5	4.5	4.8	4.5	26.0
28.0	4.2	4.4	4.5	4.1	4.3	4.4	4.0	4.2	4.3	28.0
30.0	3.8	4.0	4.1	3.6	3.8	3.9	3.5	3.7	3.9	30.0
32.0	3.4	3.6	3.7	3.2	3.4	3.5	3.1	3.3	3.5	32.0
34.0		3.2	3.3	2.9	3.1	3.2	2.8	3.0	3.1	34.0
36.0		2.9	3.0	2.6	2.8	2.9	2.5	2.7	2.8	36.0
38.0		2.6	2.8		2.5	2.6	2.2	2.4	2.5	38.0
40.0			2.5		2.3	2.4		2.1	2.3	40.0
42.0			2.3		2.0	2.1		1.9	2.0	42.0
44.0			2.1			1.9		1.6	1.8	44.0
Reeves	1	1	1	1	1	1	1	1	1	Reeves

Boom length (m)	39.6			42.7			45.7			Boom length (m)
Jib length (m)	6.1	12.2	18.3	6.1	12.2	18.3	6.1	12.2		Jib length (m)
Working radius (m)										Working radius (m)
10.0	7.0									10.0
12.0	7.0			7.0			7.0			12.0
14.0	7.0	7.0	4.5	7.0	7.0	4.5	7.0	7.0		14.0
16.0	7.0	7.0	4.5	7.0	7.0	4.5	7.0	7.0		16.0
18.0	7.0	7.0	4.5	7.0	7.0	4.5	7.0	7.0		18.0
20.0	6.6	6.7	4.5	6.6	6.7	4.5	6.5	6.6		20.0
22.0	5.8	6.0	4.5	5.7	6.0	4.5	5.6	5.8		22.0
24.0	5.0	5.3	4.5	4.9	5.2	4.5	4.8	5.1		24.0
26.0	4.4	4.6	4.5	4.3	4.5	4.5	4.2	4.4		26.0
28.0	3.9	4.1	4.2	3.8	4.0	4.1	3.6	3.9		28.0
30.0	3.4	3.6	3.7	3.3	3.5	3.6	3.2	3.4		30.0
32.0	3.0	3.2	3.3	2.9	3.1	3.2	2.7	3.0		32.0
34.0	2.6	2.9	3.0	2.5	2.8	2.9	2.3	2.6		34.0
36.0	2.3	2.5	2.7	2.2	2.4	2.6	2.0	2.2		36.0
38.0	2.0	2.2	2.4	1.8	2.1	2.2	1.6	1.9		38.0
40.0	1.7	1.9	2.1	1.6	1.8	2.0	1.4	1.6		40.0
42.0		1.7	1.8	1.3	1.6	1.7	1.1	1.4		42.0
44.0		1.4	1.6	1.1	1.3	1.5		1.1		44.0
Reeves	1	1	1	1	1	1	1	1		Reeves

Note:
Ratings according to EN13000.
Ratings shown in [ ] are determined by the strength of the boom or other structural components.
Lifting capacities may vary depending on hook used or with/without auxiliary sheave.
Please refer rated chart in operator's cabin.

Fixed Jib Lifting Capacities (Jib Offset Angle : 30°)

Counterweight: 27.2 t
Carbody Weight: 6.5 t

Unit: metric ton

Boom length (m)	30.5			33.5			36.6			Boom length (m)
Jib length (m)	6.1	12.2	18.3	6.1	12.2	18.3	6.1	12.2	18.3	Jib length (m)
Working radius (m)										Working radius (m)
12.0	7.0			7.0			7.0			12.0
14.0	7.0			7.0			7.0			14.0
16.0	7.0	5.0		7.0	5.0		7.0	5.0		16.0
18.0	7.0	5.0	3.2	7.0	5.0	3.2	7.0	5.0		18.0
20.0	6.9	5.0	3.2	6.8	5.0	3.2	6.8	5.0	3.2	20.0
22.0	6.2	5.0	3.2	6.1	5.0	3.2	6.1	5.0	3.2	22.0
24.0	5.5	5.0	3.2	5.4	5.0	3.2	5.3	5.0	3.2	24.0
26.0	4.8	4.9	3.2	4.7	5.0	3.2	4.6	5.0	3.2	26.0
28.0	4.3	4.6	3.2	4.2	4.5	3.2	4.1	4.4	3.2	28.0
30.0	3.8	4.1	3.1	3.7	4.0	3.2	3.6	3.9	3.2	30.0
32.0		3.7	3.0	3.3	3.6	3.0	3.2	3.5	3.1	32.0
34.0		3.3	2.8		3.2	2.9	2.9	3.1	3.0	34.0
36.0		3.0	2.7		2.9	2.8		2.8	2.9	36.0
38.0			2.6		2.6	2.7		2.5	2.7	38.0
40.0			2.5			2.5		2.2	2.5	40.0
42.0			2.4			2.3			2.2	42.0
44.0						2.1			2.0	44.0
Reeves	1	1	1	1	1	1	1	1	1	Reeves

Boom length (m)	39.6			42.7			45.7			Boom length (m)
Jib length (m)	6.1	12.2	18.3	6.1	12.2	18.3	6.1	12.2		Jib length (m)
Working radius (m)										Working radius (m)
12.0	7.0									12.0
14.0	7.0			7.0			7.0			14.0
16.0	7.0	5.0		7.0			7.0			16.0
18.0	7.0	5.0		7.0	5.0		7.0	5.0		18.0
20.0	6.6	5.0	3.2	6.6	5.0	3.2	6.6	5.0		20.0
22.0	5.9	5.0	3.2	5.9	5.0	3.2	5.8	5.0		22.0
24.0	5.2	5.0	3.2	5.1	5.0	3.2	5.0	5.0		24.0
26.0	4.5	4.9	3.2	4.4	4.8	3.2	4.3	4.7		26.0
28.0	4.0	4.3	3.2	3.9	4.3	3.2	3.8	4.2		28.0
30.0	3.5	3.8	3.2	3.4	3.8	3.2	3.3	3.7		30.0
32.0	3.1	3.4	3.2	3.0	3.3	3.2	2.9	3.2		32.0
34.0	2.7	3.0	3.1	2.6	3.0	3.2	2.4	2.9		34.0
36.0	2.3	2.7	2.9	2.2	2.6	2.8	2.1	2.5		36.0
38.0	2.0	2.4	2.6	1.9	2.3	2.5	1.7	2.1		38.0
40.0		2.1	2.3	1.6	2.0	2.3	1.4	1.8		40.0
42.0		1.8	2.1		1.7	2.0	1.2	1.5		42.0
44.0		1.5	1.8		1.4	1.7		1.3		44.0
Reeves	1	1	1	1	1	1	1	1		Reeves

Note:
Ratings according to EN13000.
Ratings shown in [ ] are determined by the strength of the boom or other structural components.
Lifting capacities may vary depending on hook used or with/without auxiliary sheave.
Please refer rated chart in operator's cabin.

SUPPLEMENTAL DATA FOR CLAMSHELL RATING CHART

- Operating radius is the horizontal distance from centerline of rotation to a vertical line through the center of gravity of the load.
- The weight of bucket, slings and all other load handling accessories shall be considered part of the lifted load.
- 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.
- Rated loads do not exceed 66% of minimum tipping loads.
- Ratings are for the operation on a firm and level surface, up to 1% gradient.
- At radii and boom lengths where no ratings are shown on chart, operation is not intended nor approved.
- Boom inserts and guy lines must be arranged as shown in the "operator's manual".
- Boom hoist reeving is 12 parts of line.
- Gantry must be in raised position for all conditions.
- Boom backstops are required for all boom lengths.
- The boom should be erected over the front of the crawlers, not laterally.
- Crawlers must be fully extended for all crane operations.

(Clamshell bucket lifting)

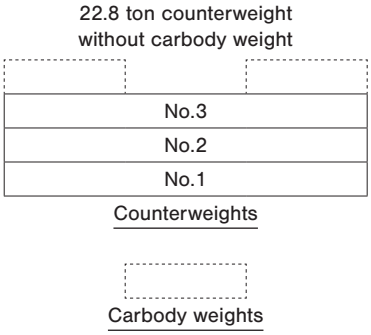
- The total load that can be lifted is the value of the weight of bucket, slings, and all other load handling accessories deducted from main boom ratings shown.
- The weight of bucket and materials must not exceed rated load.
- Optimum bucket should be required according to material. Bucket capacity (m^3) x specified gravity of material (ton/m^3) + bucket weight (ton) = rated load.
- Bucket weight must also be decreased according to operating cycle and bucket lowering height.
- Rated loads are determined by stability and boom strength. During simultaneous operations of boom and swing, rapid acceleration or deceleration must be avoided.
- Do not attempt to cast the bucket while swinging or diagonal draw-cutting.

<Reference Information>

Main hoist loads

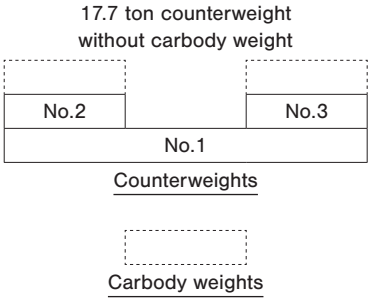
No. of Parts of Line	1
Maximum Loads (kN)	69
Maximum Loads (t)	7.0

Assembling the counterweight (standard type)



Assembling the counterweight (optional type)

(Equipped with self removal device)



- Although the total weight of the counterweight is different between machine equipped with self-removal device and machine not equipped with self-removal device, the lifting capacity is the same.

Operation of this equipment in excess of rated loads
or disregard of instruction voids the warranty.

Clamshell Rating Charts
Crane Boom Capacities

Counterweight: 22.8 t
Without Carbody Weight
Crawler Fully Extended

Unit: metric ton

Load radius (m) \ Boom length (m)	9.1	12.2	15.2	18.3	21.3				Boom length (m) \ Load radius (m)
5.0	7.0								**5.0**
5.5	7.0								**5.5**
6.0	7.0	7.0							**6.0**
7.0	7.0	7.0	7.0						**7.0**
8.0	7.0	7.0	7.0	7.0					**8.0**
9.0	7.0	7.0	7.0	7.0	7.0				**9.0**
10.0		7.0	7.0	7.0	7.0				**10.0**
12.0			7.0	7.0	7.0				**12.0**
14.0			7.0	7.0	7.0				**14.0**
16.0				7.0	7.0				**16.0**
18.0					7.0				**18.0**
20.0									**20.0**
22.0									**22.0**
24.0									**24.0**
26.0									**26.0**
28.0									**28.0**
30.0									**30.0**
32.0									**32.0**
34.0									**34.0**
36.0									**36.0**
38.0									**38.0**
40.0									**40.0**
42.0									**42.0**
44.0									**44.0**
Reeves	1	1	1	1	1				**Reeves**

Note:
Please refer rated chart in operator's cabin.

SUPPLEMENTAL DATA FOR REDUCED WEIGHTS RATING CHART

- Ratings are calculated to comply with EN13000, ISO 4305 and include factors based on a 4 degree tipping angle.
- Operating radius is the horizontal distance from centerline of rotation to a vertical line through the center of gravity of the load.
- The weight of hook block, slings, and all other load handling accessories shall be considered part of the lifted load.
- 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.
- Ratings are for the operation on a firm and level surface, up to 1 % gradient.
- At radii and boom lengths where no ratings are shown on chart, operation is not intended nor approved.
- Boom inserts and guy lines must be arranged as shown in the "operator's manual".
- Boom hoist reeving is 12 parts of line.
- Gantry must be in raised position for all conditions.
- Boom backstops are required for all boom lengths.
- The boom should be erected over the front of the crawlers, not laterally.
- Ratings inside of boxes ☐ are based on structural competence.
- The minimum rated load is 1.1 t.
- Crawlers must be fully extended for all crane operations.
- Ratings shown are based on allowable wind speed of 9.8 m/s or less.
  The wind speed mentioned here means the instantaneous wind speed.
- Ratings shown are based on allowable travel speed of 0.1 m/s or less.

(Crane boom lifting)

- The total load that can be lifted is the value of the weight of hook block, slings, and all other load handling accessories deducted from main boom ratings shown.

Main hoist loads

No. of Parts of Line	1	2	3	4	5
Maximum Loads (kN)	78	157	235	314	392
Maximum Loads (t)	8.0	16.0	24.0	32.0	40.0

No. of Parts of Line	6	7	8	9	10
Maximum Loads (kN)	471	549	628	706	785
Maximum Loads (t)	48.0	56.0	64.0	72.0	80.0

Auxiliary hoist loads

No. of Parts of Line	1
Maximum Loads (kN)	69
Maximum Loads (t)	7.0

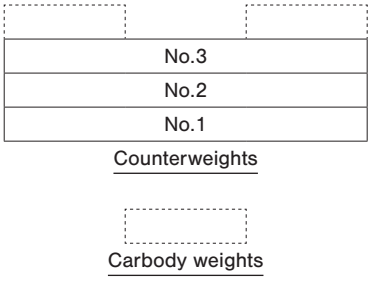
Weight of hook block					
Hook Block	80 t	50 t	32 t	19 t	7.0 t Ball Hook
Weight (t)	0.8	0.7	0.5	0.4	0.16

Operation of this equipment in excess of rated loads
or disregard of instruction voids the warranty.

<Reference Information>

Assembling the counterweight (standard type)

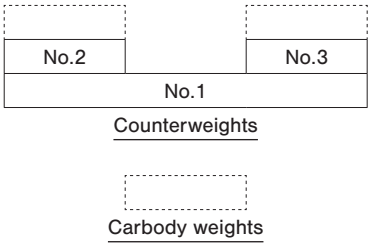
22.8 ton counterweight
without carbody weight



Assembling the counterweight (optional type)

(Equipped with self removal device)

17.7 ton counterweight
without carbody weight



- Although the total weight of the counterweight is different between machine equipped with self-removal device and machine not equipped with self-removal device, the lifting capacity is the same.

Reduced Weights Rating Charts
Crane Boom Lifting Capacities

Counterweight: 22.8 t
Without Carbody Weight
Crawler Fully Extended

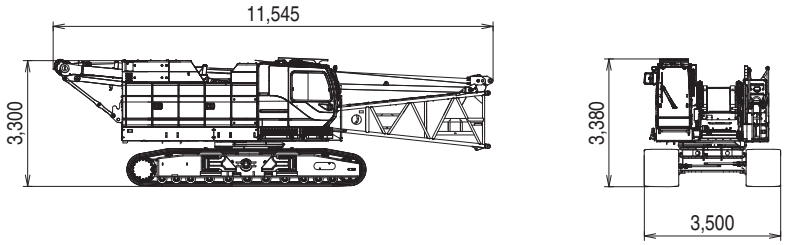
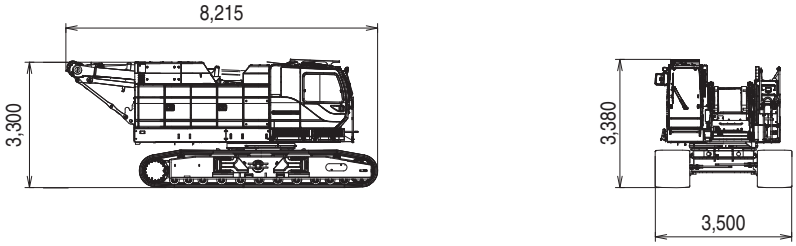
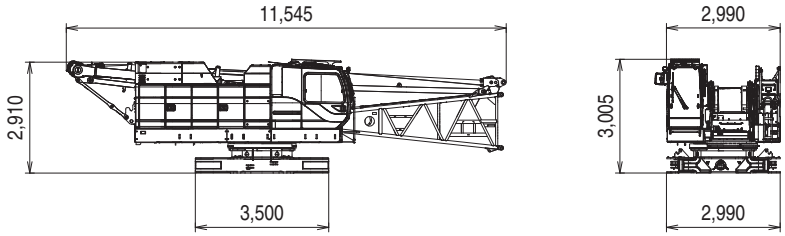
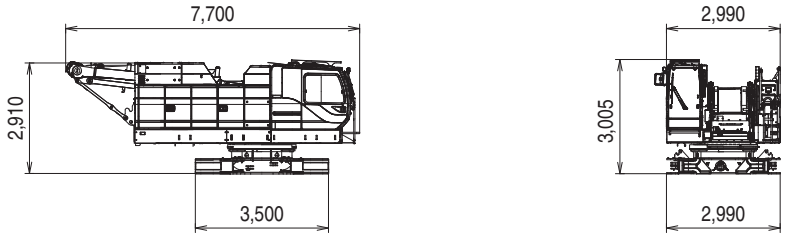
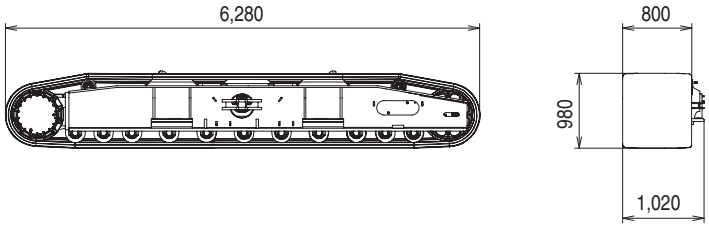
Unit: metric ton

Load radius (m) \ Boom length (m)	9.1	12.2	15.2	18.3	21.3	24.4	27.4	30.5	33.5	36.6	39.6	Boom length (m) / Load radius (m)
3.0	3.0m/73.8											**3.0**
3.5	68.7	3.6m/66.9										**3.5**
4.0	64.4	63.1	4.2m/58.4									**4.0**
4.5	55.4	55.4	53.3	4.7m/47.4								**4.5**
5.0	45.9	45.8	45.8	44.0	5.2m/38.9							**5.0**
5.5	39.2	39.1	39.0	39.0	37.2	5.7m/33.4						**5.5**
6.0	34.1	34.0	33.9	33.9	33.7	32.2	6.3m/29.2	6.8m/25.7				**6.0**
7.0	27.0	26.9	26.8	26.8	26.7	26.6	26.0	24.9	7.3m/22.7	7.9m/20.3		**7.0**
8.0	22.3	22.2	22.1	22.1	22.0	21.9	21.8	21.6	20.8	20.1	8.4m/18.4	**8.0**
9.0	19.0	18.9	18.7	18.7	18.6	18.5	18.4	18.3	18.3	17.7	17.1	**9.0**
10.0	9.2m/18.5	16.3	16.2	16.2	16.1	16.0	15.9	15.8	15.7	15.6	15.2	**10.0**
12.0		11.9m/12.9	12.7	12.6	12.5	12.4	12.3	12.2	12.2	12.0	12.0	**12.0**
14.0			10.3	10.3	10.2	10.1	10.0	9.8	9.8	9.7	9.6	**14.0**
16.0			14.5m/9.9	8.6	8.5	8.4	8.3	8.1	8.1	8.0	7.9	**16.0**
18.0				17.1m/7.9	7.2	7.1	7.0	6.9	6.8	6.7	6.6	**18.0**
20.0					19.8m/6.3	6.2	6.0	5.9	5.9	5.7	5.6	**20.0**
22.0						5.4	5.3	5.1	5.1	4.9	4.8	**22.0**
24.0						22.4m/5.3	4.6	4.5	4.4	4.3	4.2	**24.0**
26.0							25.1m/4.3	4.0	3.9	3.8	3.7	**26.0**
28.0								27.7m/3.5	3.5	3.3	3.2	**28.0**
30.0									3.1	2.9	2.8	**30.0**
32.0									30.3m/3.0	2.6	2.4	**32.0**
34.0										33.0m/2.3	2.1	**34.0**
36.0											35.0m/1.9	**36.0**
Reeves	10	9	8	6	5	5	4	4	3	3	3	**Reeves**

Load radius (m) \ Boom length (m)	42.7	45.7	48.8	51.8								Boom length (m) / Load radius (m)
9.0	9.0m/16.5	9.4m/15.0										**9.0**
10.0	14.7	14.2	10.0m/13.7	10.5m/12.6								**10.0**
12.0	11.8	11.5	11.1	10.8								**12.0**
14.0	9.4	9.4	9.2	8.9								**14.0**
16.0	7.7	7.7	7.6	7.5								**16.0**
18.0	6.5	6.4	6.3	6.2								**18.0**
20.0	5.5	5.4	5.3	5.2								**20.0**
22.0	4.7	4.7	4.5	4.4								**22.0**
24.0	4.1	4.0	3.9	3.8								**24.0**
26.0	3.5	3.5	3.3	3.2								**26.0**
28.0	3.1	3.0	2.9	2.7								**28.0**
30.0	2.6	2.6	2.4	2.3								**30.0**
32.0	2.3	2.2	2.1	1.9								**32.0**
34.0	2.0	1.9	1.7	1.6								**34.0**
36.0	1.7	1.6	1.4	1.3								**36.0**
38.0	1.4	1.3	1.2	1.1								**38.0**
40.0	38.3m/1.3	1.1										**40.0**
42.0												**42.0**
44.0												**44.0**
46.0												**46.0**
48.0												**48.0**
50.0												**50.0**
Reeves	3	2	2	2								**Reeves**

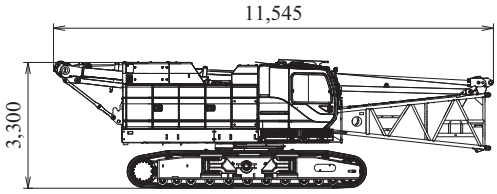
Note:
Ratings according to EN13000.
Ratings shown in [ ] are determined by the strength of the boom or other structural components.
Lifting capacities may vary depending on hook used or with/without auxiliary sheave.
Please refer rated chart in operator's cabin.

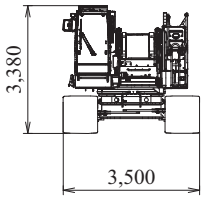
TRANSPORTATION PLAN

Name	Dimension	Weight (kg)
Base Machine • Boom base • Gantry • Crawler • Wire rope (Front / rear / boom hoist)		39,780
Base Machine • Gantry • Crawler • Wire rope (Front / rear / boom hoist)		37,800
Base Machine • Boom base • Gantry • Wire rope (Front / rear / boom hoist) • Without crawler • Without translifter		25,500
Base Machine • Gantry • Wire rope (Front / rear / boom hoist) • Without crawler • Without translifter		23,520
Crawler		7,130

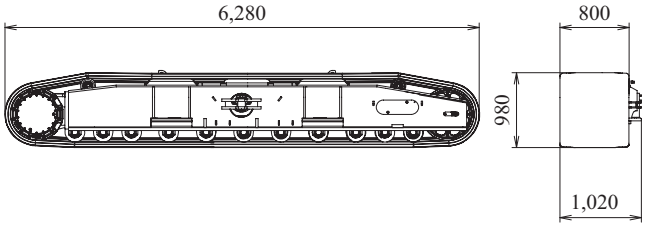
PARTS AND ATTACHMENTS

Base Machine
Boom base, Gantry, Crawler, Wire rope (Front/rear/boom hoist)
Weight: 39,780 kg Width: 3,500 mm

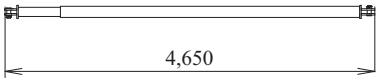




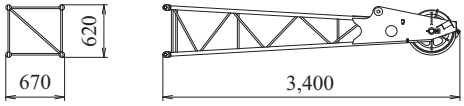
Crawler
Weight: 7,130 kg



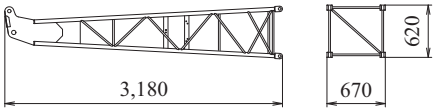
Backstop
Weight: 245 kg



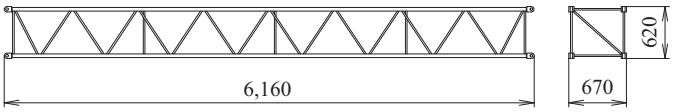
Jib Tip
Weight: 145 kg



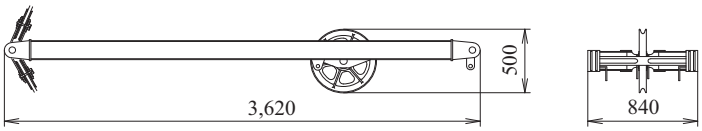
Jib Base
Weight: 125 kg



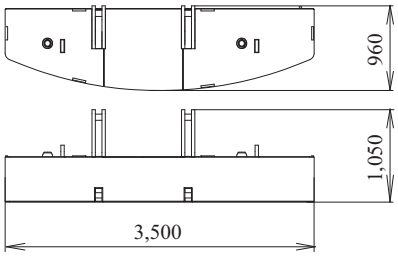
6.1 m
Jib Insert
Weight: 140 kg



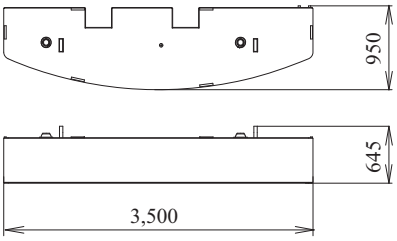
Jib Strut
Weight: 190 kg



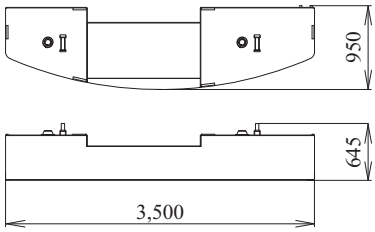
Counterweight No.1
Weight: 8,530 kg



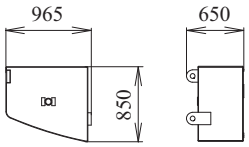
Counterweight No.2
Weight: 7,860 kg



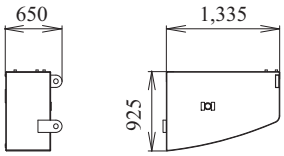
Counterweight No.3
Weight: 6,410 kg



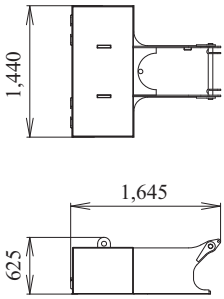
Counterweight No.4 (L)
Weight: 1,660 kg



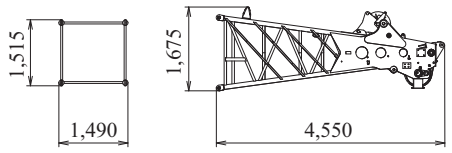
Counterweight No.4 (R)
Weight: 2,740 kg



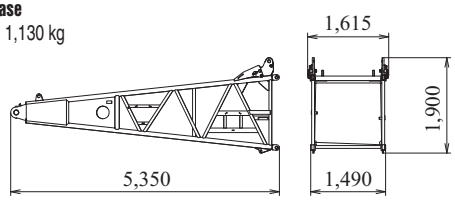
Carbody Weight
Weight: 3,250 kg / 1 piece



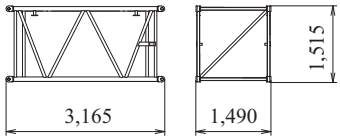
Boom Tip
Weight: 1,110 kg



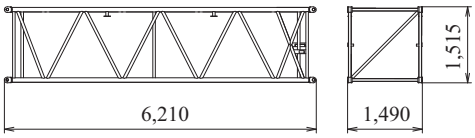
Boom Base
Weight: 1,130 kg



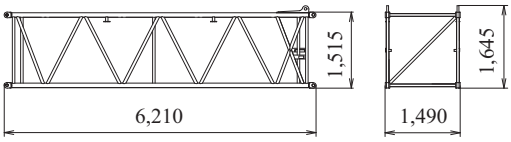
3.0 m
Boom Insert
Weight: 310 kg



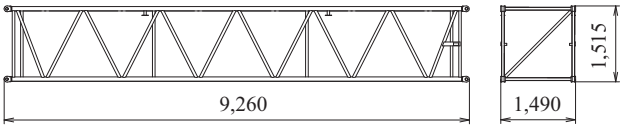
6.1 m
Boom Insert
Weight: 525 kg



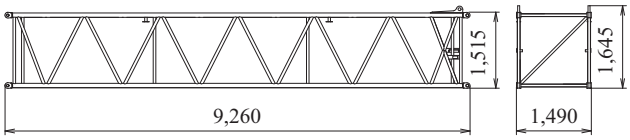
6.1 m
Boom Insert With Lug
Weight: 550 kg



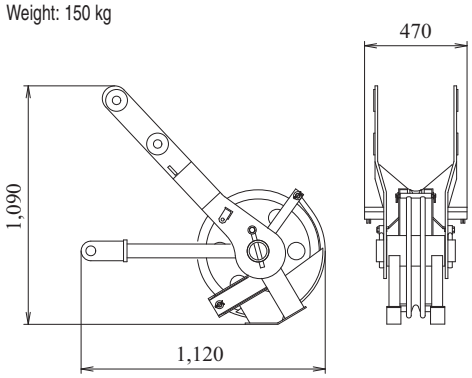
9.1 m
Boom Insert
Weight: 745 kg



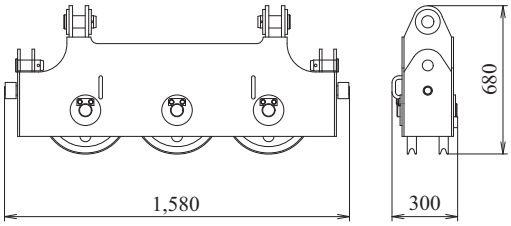
9.1 m
Boom Insert With Lug
Weight: 770 kg



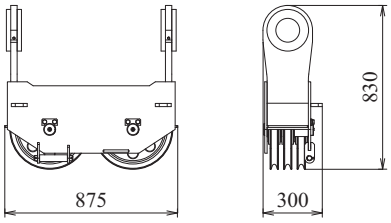
Auxiliary Sheave
Weight: 150 kg



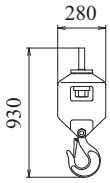
Upper Spreader
Weight: 280 kg



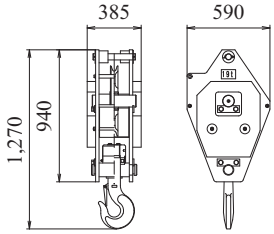
Lower Spreader
Weight: 215 kg



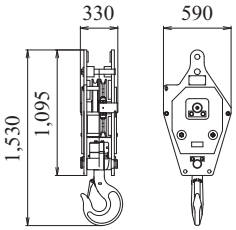
Ball Hook
Weight: 160 kg



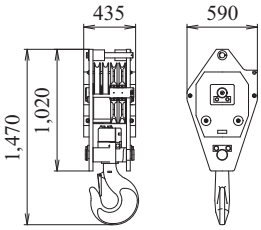
19 t Hook
Weight: 400 kg



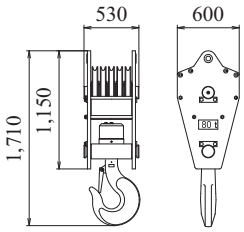
32 t Hook
Weight: 500 kg



50 t Hook
Weight: 650 kg



80 t Hook
Weight: 800 kg



Note: This catalog may contain photographs of machines with specifications, attachments and optional equipment not certified for operation in your country. Please consult KOBELCO for those items you may require. Due to our policy of continual product improvements all designs and specifications are subject to change without advance notice.

KOBELCO CONSTRUCTION MACHINERY CO., LTD.

Inquiries To:

5-15, Kitashinagawa 5-chome, Shinagawa-ku,Tokyo 141-8626 JAPAN
Tel: +81-3-5789-2121 Fax: +81-3-5789-3372
URL: https://www.kobelcocm-global.com

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