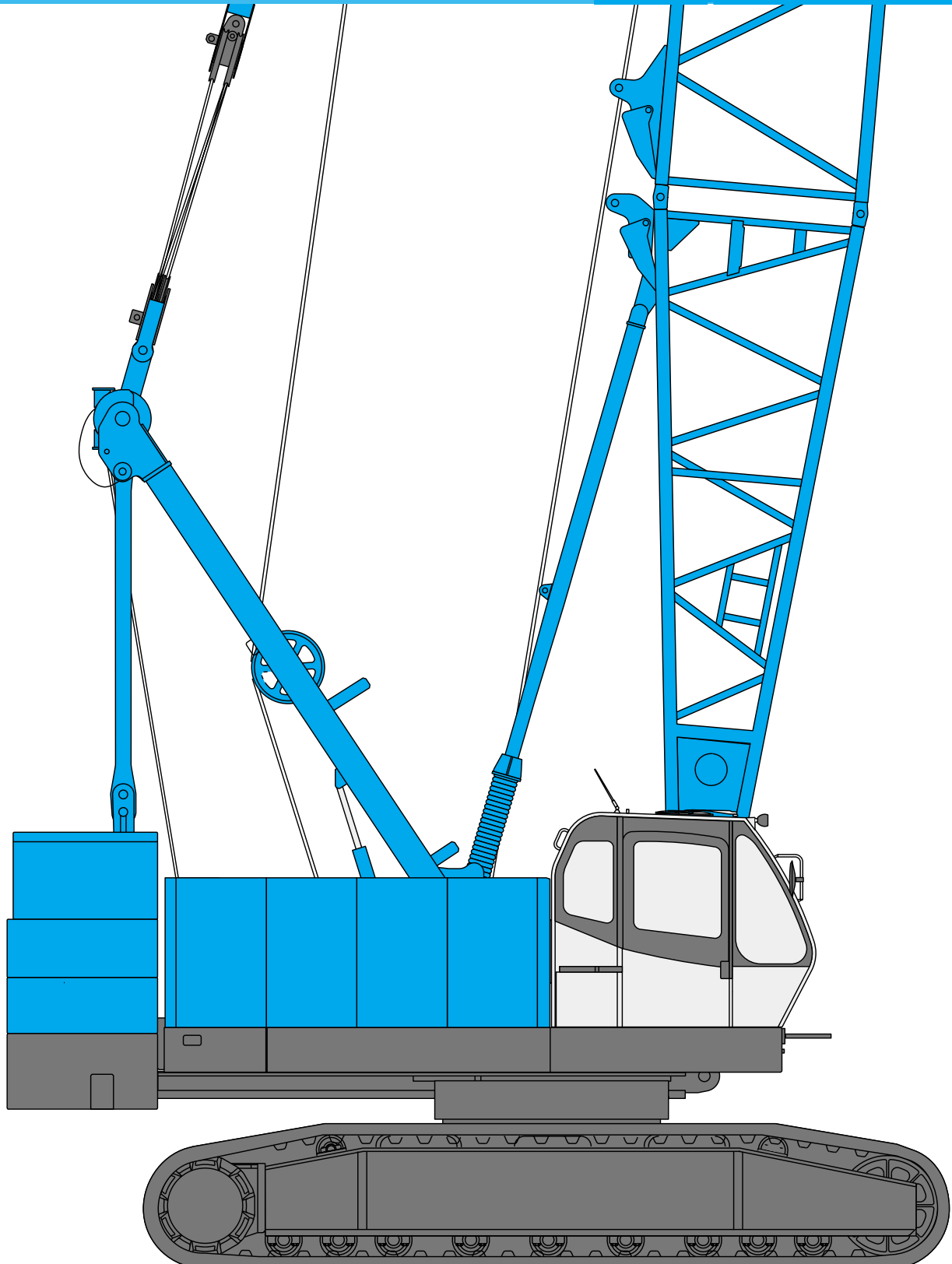


KOBELCO

HYDRAULIC CRAWLER CRANE **7090**

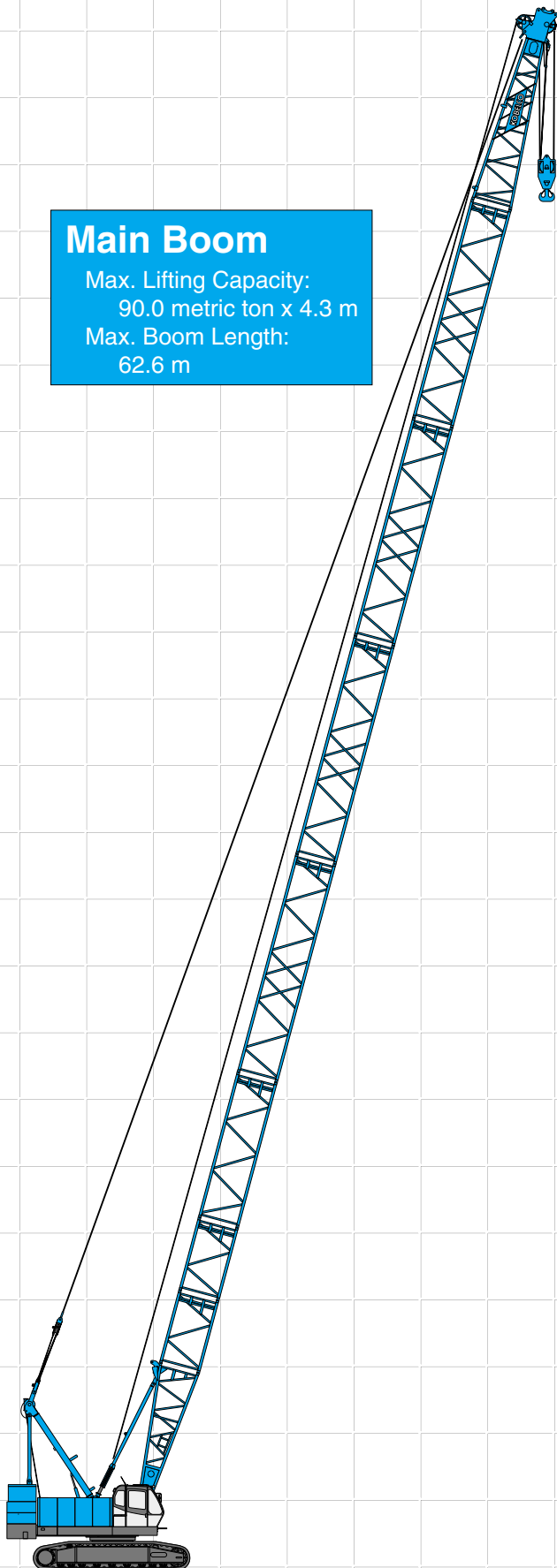


Max. Lifting Capacity: 90 t x 4.3 m
Max. Boom Length: 62.6 m
Max. Jib Combination: 53.4 + 21.3 m
Max. Luffing Tower Combination: 44.3 + 37.1 m

CONFIGURATION

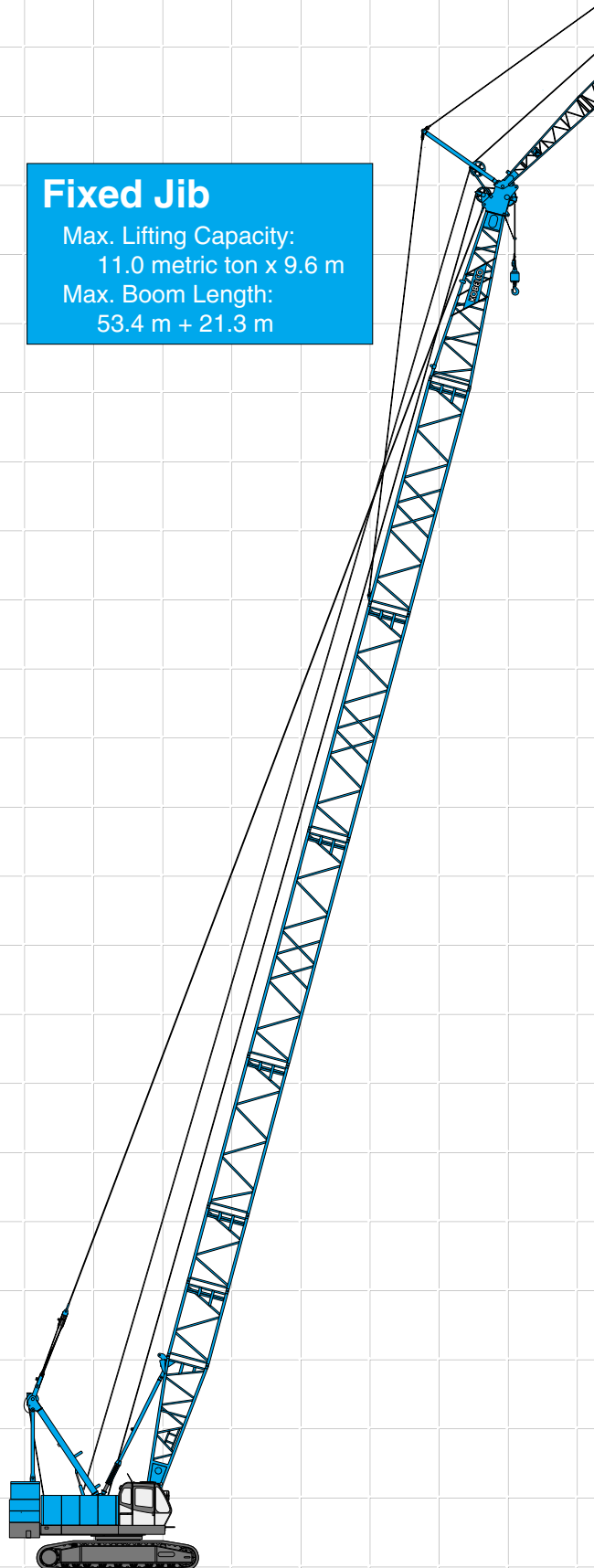
Main Boom

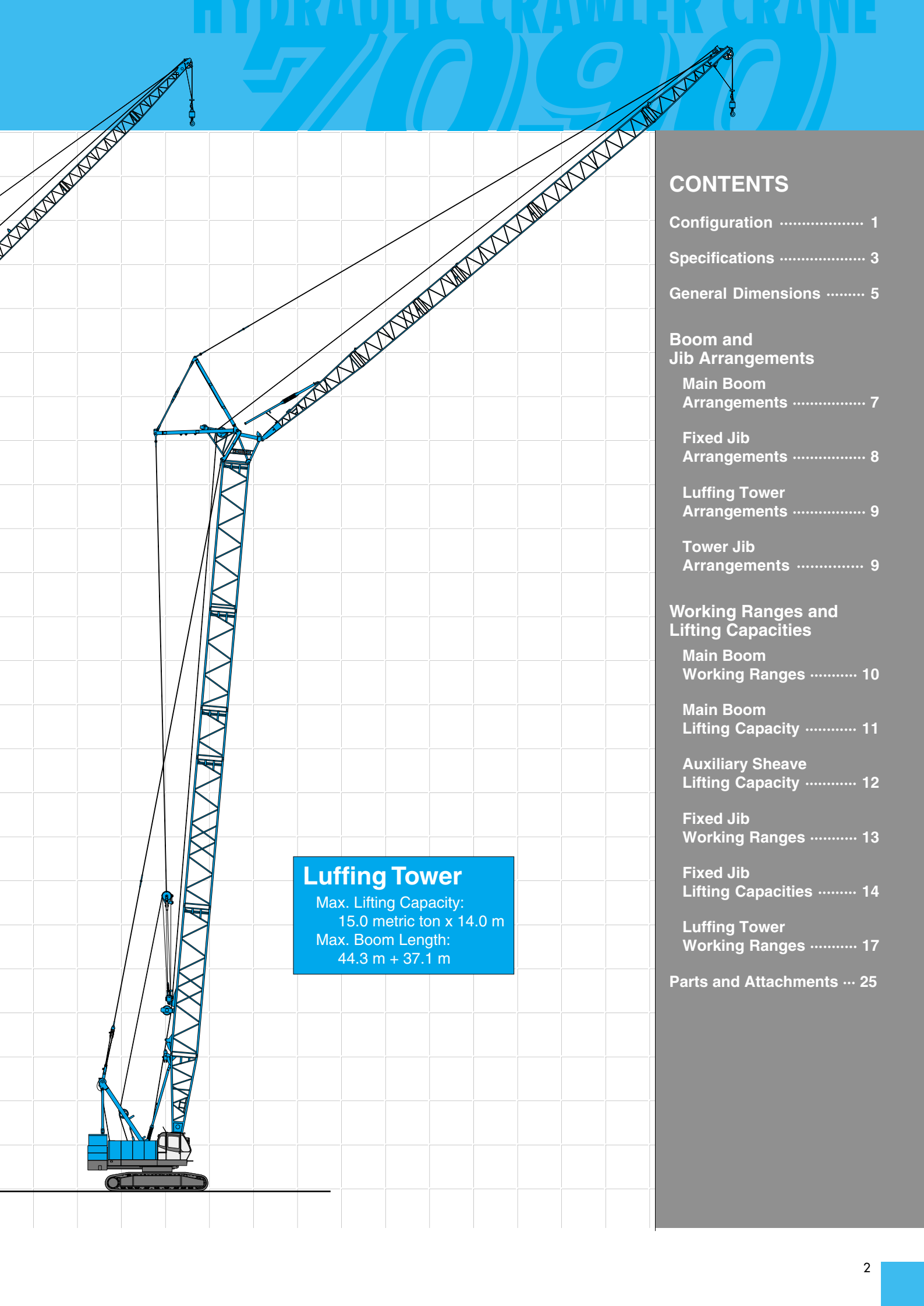
Max. Lifting Capacity:
90.0 metric ton x 4.3 m
Max. Boom Length:
62.6 m



Fixed Jib

Max. Lifting Capacity:
11.0 metric ton x 9.6 m
Max. Boom Length:
53.4 m + 21.3 m





Luffing Tower

Max. Lifting Capacity:
15.0 metric ton x 14.0 m
Max. Boom Length:
44.3 m + 37.1 m

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SPECIFICATIONS



Power Plant

Model: Mitsubishi diesel engine 6D24-TLE2A
Type: Water-cooled, direct fuel injection, with turbocharger
Complies with NRMM (Europe) Tier II and US EPA Tier II.
Displacement: 11.945 liters
Rated Power: 235 kW at 2,000 min⁻¹ {rpm} (JIS D0006)
Max. torque: 1,245 N·m/1,400 min⁻¹
Cooling system: Liquid, recirculating bypass
Starter: 24 V/7.0 kW
Radiator: Corrugated type core, thermostatically controlled
Air cleaner: Dry type with replaceable paper element
Throttle: Electric throttle control, twist grip type
Fuel filter: Heavy duty with spin off type cartridge
Batteries: Two 12V, 136 Ah capacity batteries, series connected.
Fuel tank capacity: 400 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, third hoist circuit and 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 paper 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/cm²}

Swing system: 27.5 MPa {280 kgf/cm²}

Control system: 7.0 MPa {71 kgf/cm²}

Reservoir capacity: 460 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: 34 mm

Boom hoist reeving: 10 parts of 20 mm dia. high strength wire rope

Boom backstops: 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 wide drum, grooved for 26 mm wire rope. Rope capacity is 284 m working length and 351 m storage length.

Rear drum:

666 mm P.C.D. x 672 mm wide drum, grooved for 26 mm wire rope. Rope capacity is 284 m working length and 351 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 (Single-line):

Rated line pull: 108 kN {11.0 tf}



Swing System

Swing unit is powered by hydraulic motor driving spur gears through planetary reducer, the swing system provides 360° rotation.

Swing 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: 3.1 min⁻¹ {rpm}



Upper Structure

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

Counterweight: 32.8 t (crawler crane)

34.3 t (Luffing tower)



Cab & Control

Totally enclosed, full vision cab with safety glass, fully adjustable, high backed seat with a head-rest and armrests, and intermittent wiper and window washer (skylight, 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 hand levers for front and rear drum, swing and boom drum controls



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.

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): 59 shoes, 900 mm wide each crawler

Max. travel speed: 1.4/1.0 km/h

Max. gradeability: 30%



Weight

Including upper and lower machine, 32.8 ton counterweight (34.3 t counterweight for luffing tower), basic boom (or basic tower + basic jib), hook, and other accessories.

Specification	Weight	Ground pressure
Main boom	Approx. 91 ton,	93 kPa {0.95 kgf/cm ² }
Fixed jib	Approx. 93 ton,	95 kPa {0.96 kgf/cm ² }
Luffing Tower	Approx. 99 ton,	101 kPa {1.03 kgf/cm ² }



Attachment

Boom and Jib:

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

Boom Length

	Main Boom	Luffing Tower
Basic Boom	13.8 m	26.0 m
Max. Boom	62.6 m	44.3 m

Jib Length

	Fixed Jib	Luffing Jib
Basic Jib	9.1 m	18.8 m
Max. Jib	21.3 m	37.1 m

Max. Combination (Boom + Jib)

Main Boom	62.6 m (boom only)
Fixed Jib	53.4 m + 21.3 m
Luffing Tower	44.3 m + 37.1 m

Main Specifications (Model:7090)

Main Boom	
Max. Lifting Capacity	90 t/4.3 m
Max. Length	62.6 m
Fixed Jib	
Max. Lifting Capacity	11.0 t/9.6 m
Max. Combination	53.4 m + 21.3 m
Luffing Tower	
Max. Lifting Capacity	15.0 t/14.0 m
Max. Combination	44.3 m + 37.1 m
Luffing Angle	60° ~ 90°
Main & Aux. Winch	
Max. Line Speed	120 m/min (1st layer)
Rated Line Pull	108 kN {11.0 tf}
Wire Rope	26 mm
Wire Rope Length	200 m (Main) 155 m (Aux.)
Brake Type	Spring set hydraulically released Wet-type multiple disc brake(Negative)
Free-Fall	Option

Working Speed	
Swing Speed	3.1 min ⁻¹ {rpm}
Travel Speed	1.4/1.0 km/h
Power Plant	
Model	Mitsubishi 6D24-TLE2A
Engine Output	235 kW/2,000 min ⁻¹ {rpm}
Fuel Tank Capacity	400 liters
Hydraulic System	
Main Pumps	4 variable displacement
Max. Pressure	31.9 MPa {325 kgf/cm ² }
Hydraulic Tank Capacity	460 liters
Weight	
Operating Weight*	Approx. 91 t
Ground Pressure*	93 kPa {0.95 kgf/cm ² }
Counterweight	32.8 t
Transport Weight**	32.7 t (Main machine)

* Including upper and lower machine, 32.8 ton counterweight, basic boom, hook, and other accessories.

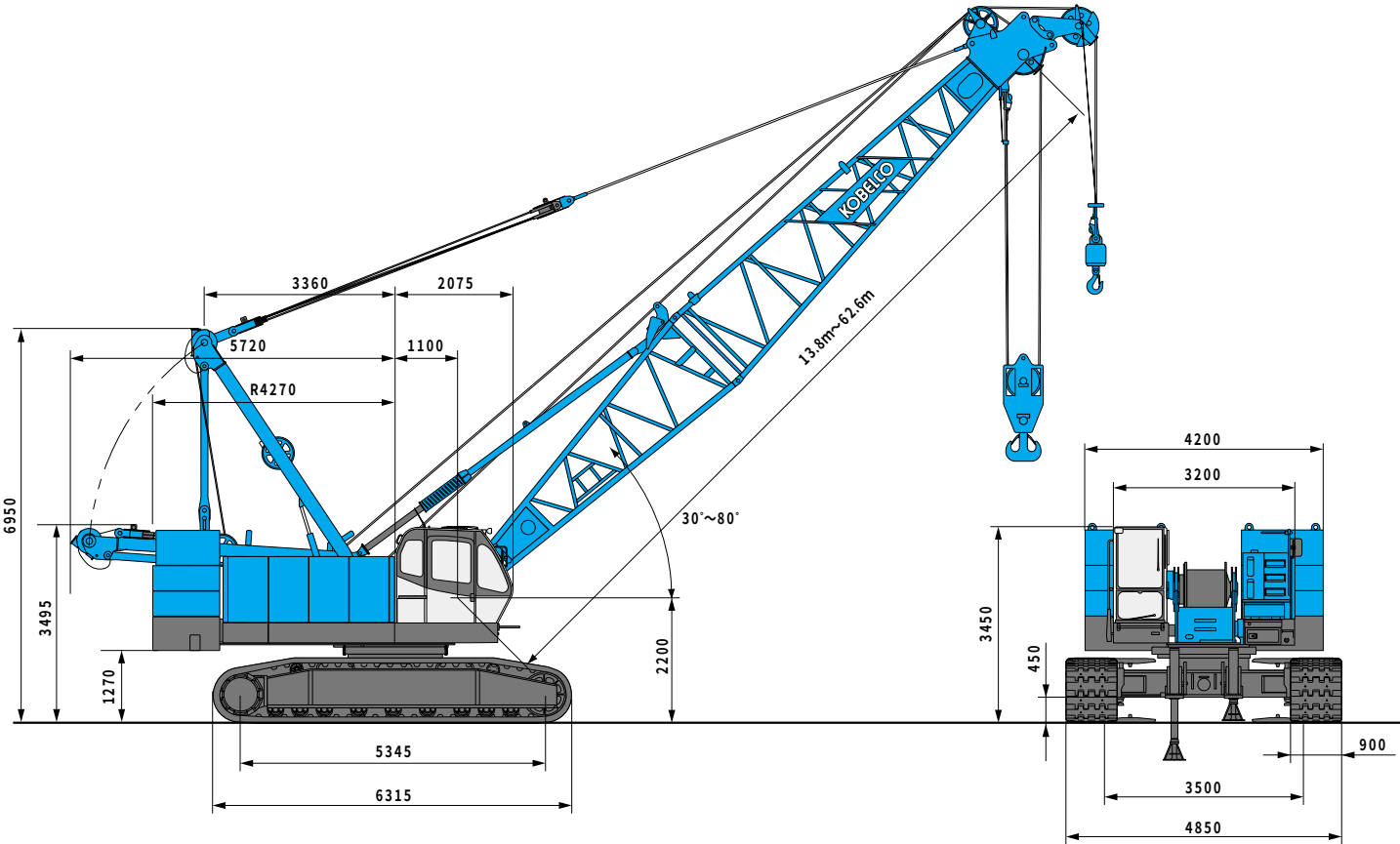
** Including car body, gantry, translifter, and lower boom.

Units are SI units. { } indicates conventional units.

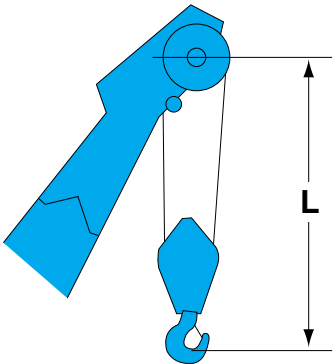
GENERAL DIMENSIONS

Main Boom

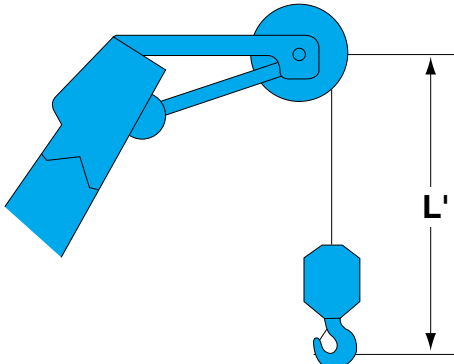
(Unit: mm)



Limit of Hook Lifting



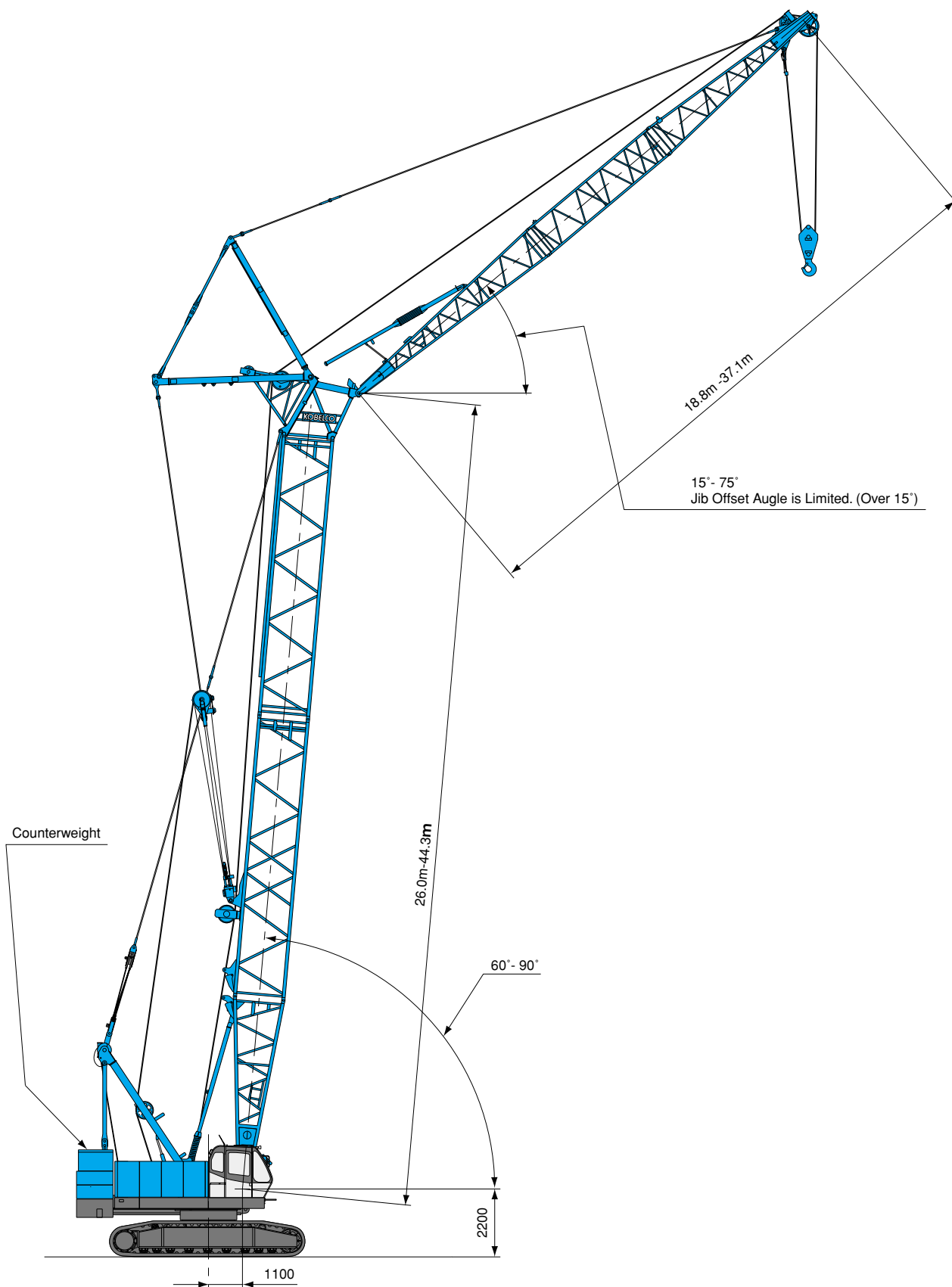
Hook	L
90 t hook	5.0 m
50 t hook	5.0 m
35 t hook	5.0 m



Hook	L'
11 t Ball hook	4.2 m

Luffing Tower

(Unit: mm)



BOOM AND JIB ARRANGEMENTS

Main Boom Arrangements

Boom length m (ft)	Boom arrangement
13.8 (45)	
16.9 (55)	
19.9 (65)	
23.0 (75)	
26.0 (85)	
29.1 (95)	
32.1 (105)	
35.2 (115)	
38.2 (125)	

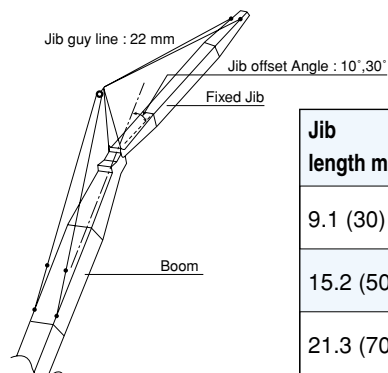
Boom length m (ft)	Boom arrangement
41.2 (135)	
44.3 (145)	
47.3 (155)	
50.4 (165)	
53.4 (175)	
56.5 (185)	
59.5 (195)	
62.6 (205)	

Symbol	Boom Length	Remarks
	6.2 m	Boom Base
	7.6 m	Boom Top
	3.0 m	Insert Boom
	6.1 m	Insert Boom
	9.1 m	Insert Boom
	9.1 m	Insert Boom with lug
	9.1 m	Special Insert Boom for Tower

Note

1. ↗ mark shows the guy line installing position when the fixed jib is used.
2. ※ mark shows the standard boom arrangement which enables each boom length of less than that boom length to be configured.
3. 9.1A may also be used as insert boom for luffing tower.
4. Use of jib requires 9.1 m insert boom with lug (9.1A).
5. 9.1B is designed for tower use, but may also be used with a crane.

Fixed Jib Arrangements



Jib length m (ft)	Jib arrangement
9.1 (30)	
15.2 (50)	
21.3 (70)	

Symbol	Jib Length	Remarks
	4.6 m	Jib Base
	4.6 m	Jib Top
	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 (tons)							
			1	2	3	4	5	6	7	8
90-ton	1,300	4	—	22.0	33.0	44.0	55.0	66.0	77.0	90.0
50-ton	850	3	—	22.0	33.0	44.0	50.0			
35-ton	700	1	—	22.0	33.0					
11.0-ton ball hook	300	0	11.0							

Luffing Tower Arrangements

Tower length m (ft)	Boom arrangement
26.0 (85)	
29.1 (95)	※
32.1 (105)	※
35.2 (115)	※
38.2 (125)	※
41.2 (135)	※
44.3 (145)	※

Symbol	Luffing Tower Length	Remarks
	6.2 m	Boom Base
	1.5 m	Tower Cap
	3.0 m	Insert Boom
	6.1 m	Insert Boom
	9.1 m	Insert Boom
	9.1 m	Insert Boom with lug
	9.1 m	special Insert Boom for Tower

※ mark shows the standard luffing tower arrangement which enables each luffing tower length of less than that tower length to be configured.

- 9.1B may also be used as insert boom for crawler crane.
- For 9.1 m insert boom shown above, 9.1 m insert boom with lug (9.1A) may be used.

Tower Jib Arrangements

Jib length m (ft)	Jib arrangement
18.8 (62)	
21.8 (72)	※
24.9 (82)	※
27.9 (92)	※
31.0 (102)	※
34.0 (112)	※
37.1 (122)	※

Symbol	Tower Jib Length	Remarks
	7.6 m	Lower Tower Jib
	6.1 m	Upper Tower Jib
	3.0 m	Insert Tower Jib
	5.1 m	Tapered Tower Jib
	6.1 m	Insert Tower Jib
	9.1 m	Insert Tower Jib

※ mark shows the standard luffing jib arrangement which enables each luffing jib length of less than that jib length to be configured.

○ : indicates position where cable rollers attached

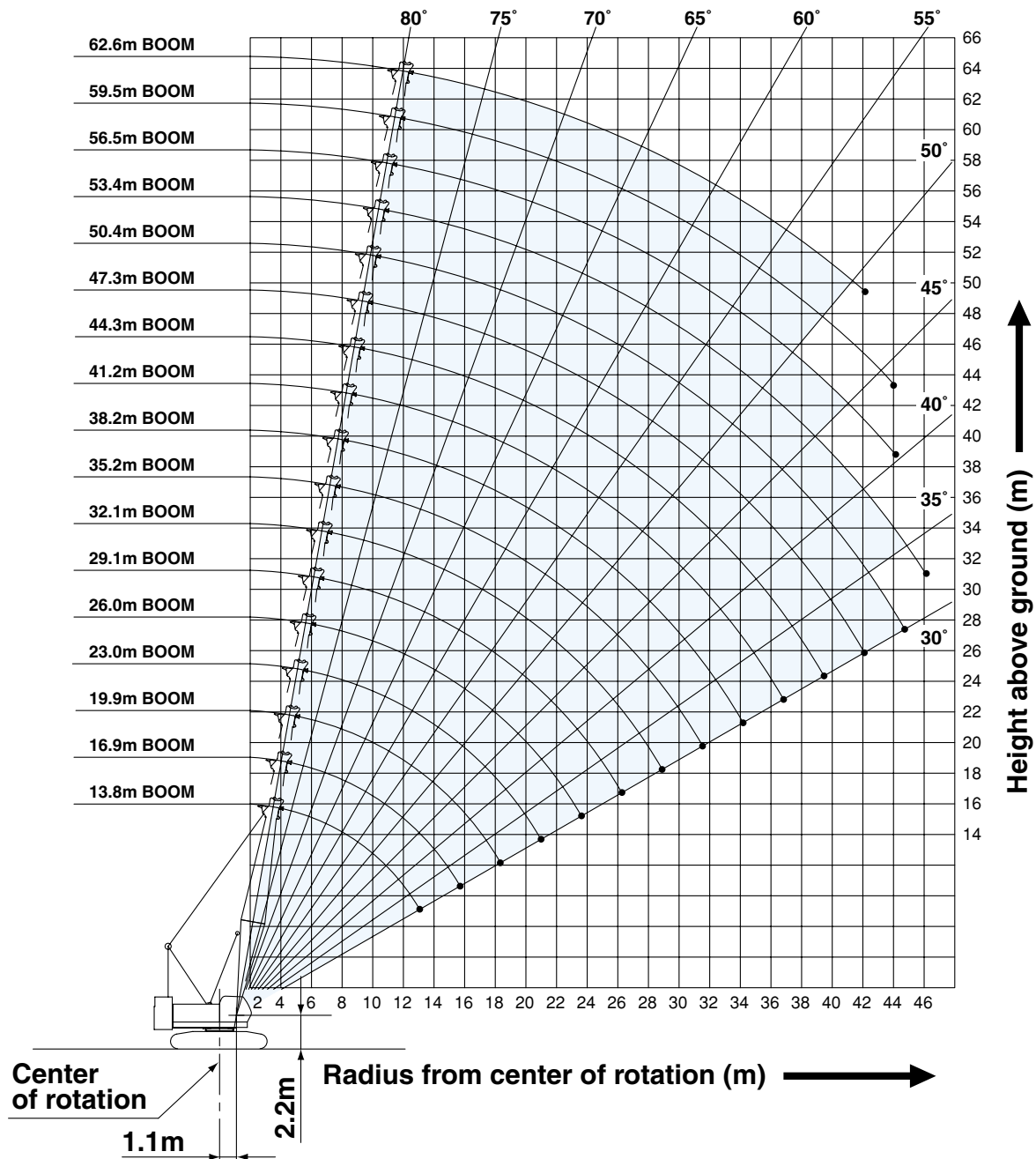
Tower and Jib Combinations and Allowable Tower Angle

Jib Length (m) \ Tower Length (m)	18.8	21.8	24.9	27.9	31.0	34.0	37.1	Pilto plate
26.0	90°-60°	90°-60°	—	—	—	—	—	—
29.1	90°-60°	90°-60°	90°-60°	—	—	—	—	—
32.1	90°-60°	90°-60°	90°-60°	90°-60°	—	—	—	—
35.2	90°-60°	90°-60°	90°-60°	90°-60°	90°-60°	—	—	—
38.2	90°-60°	90°-60°	90°-60°	90°-60°	90°-70°	90°-70°	—	—
41.2	90°-60°	90°-60°	90°-70°	90°-70°	90°-70°	90°-70°	90°-70°	Need
44.3	90°-70°	90°-70°	90°-70°	90°-70°	90°-70°	90°-70°	90°-70°	Need
35-ton hook	○	○	○	○	○	○	×	—
Ball hook	×	○	○	○	○	○	○	—

○ : Available
 × : Not available

WORKING RANGES AND LIFTING CAPACITIES

Main Boom Working Ranges



NOTES:

- Ratings according to Japanese Construction Codes for Mobile Cranes and Japanese Safety Ordinance on Cranes, etc.
- Ratings in metric tons for 360° working area.
- Operating radius is the horizontal distance from center of rotation to a vertical line through the center of gravity of the load.
- Deduct weight of main hook block, slings and all other load handling accessories from main boom or auxiliary sheave ratings shown.
- 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.
- Ratings are for operation on a firm and level surface.
- 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 10 part line.
- Gantry must be in raised position for all conditions.
- Boom backstops are required for all boom lengths.
- Crawler frames must be fully extended for all crane operations.
- Ratings shown in are determined by the strength of the boom or other structural component.
- Instruction in the "Operator's Manual" must be strictly observed when operating the machine.
- Main boom ratings: Deduct weight of main hook block, slings, and all other load handling accessories from main boom ratings shown.
- Auxiliary sheave ratings: Deduct weight of ball hook, slings, and all other load handling accessories from auxiliary sheave ratings shown. Boom lengths for auxiliary sheave mounting are 13.8 m to 59.5 m.
- Main boom ratings with auxiliary sheave: Deduct 0.8 ton from main boom ratings shown. Minimum rated loads must exceed 1.5 tons.

Main Boom Lifting Capacity

Unit: metric ton

Counterweight: 32.8 t

Working radius (m) \ Boom Length (m)	13.8	16.9	19.9	23.0	26.0	29.1	32.1	35.2	38.2	41.2	44.3	47.3	50.4	Working radius (m) \ Boom Length (m)
4.3	90.0/4.3m	87.5/4.3m	74.1/4.8m											4.3
5.0	70.9	70.8	70.7	64.9/5.4m	56.4/5.9m									5.0
6.0	55.1	55.0	55.0	54.9	54.8	50.2/6.4m								6.0
7.0	44.4	44.3	44.1	44.1	44.0	44.0	43.9	39.6/7.5m						7.0
8.0	36.6	36.5	36.3	36.2	36.1	36.1	36.0	35.9	35.7	32.5/8.5m				8.0
9.0	31.0	30.9	30.7	30.7	30.5	30.5	30.4	30.3	30.2	30.2	29.7/9.1m	27.2/9.6m		9.0
10.0	26.9	26.7	26.6	26.5	26.4	26.3	26.3	26.1	26.0	26.0	25.8	25.7	22.0/10.1m	10.0
12.0	21.1	21.0	20.8	20.7	20.6	20.5	20.4	20.3	20.2	20.1	20.0	19.8	19.8	12.0
14.0	18.7/13.2m	17.1	16.9	16.9	16.7	16.6	16.6	16.4	16.3	16.2	16.1	16.0	15.9	14.0
16.0		14.6/15.8m	14.2	14.1	14.0	13.9	13.8	13.7	13.5	13.5	13.3	13.2	13.2	16.0
18.0			12.2	12.1	11.9	11.9	11.8	11.6	11.5	11.4	11.2	11.1	11.1	18.0
20.0			11.8/18.5m	10.5	10.4	10.3	10.2	10.0	9.9	9.8	9.6	9.5	9.5	20.0
22.0				9.8/21.1m	9.1	9.0	8.9	8.7	8.6	8.5	8.4	8.2	8.2	22.0
24.0					8.2/23.8m	8.0	7.9	7.7	7.6	7.5	7.3	7.2	7.1	24.0
26.0						7.2	7.0	6.8	6.7	6.6	6.5	6.3	6.3	26.0
28.0						7.0/26.4m	6.3	6.1	6.0	5.9	5.7	5.6	5.5	28.0
30.0							6.0/29.0m	5.5	5.4	5.3	5.1	5.0	4.9	30.0
32.0								5.1/31.7m	4.8	4.8	4.6	4.4	4.4	32.0
34.0									4.4	4.3	4.1	4.0	3.9	34.0
36.0									4.3/34.3m	3.9	3.7	3.5	3.5	36.0
38.0										3.7/37.0m	3.3	3.2	3.1	38.0
40.0											3.1/39.6m	2.9	2.8	40.0
42.0												2.5	2.4	42.0
44.0												2.5/42.2m	2.1	44.0
46.0													2.0/44.9m	46.0
Reeves	8	8	7	6	6	5	4	4	4	3	3	3	2	Reeves

Working radius (m) \ Boom Length (m)	53.4	56.5	59.5	62.6	Working radius (m) \ Boom Length (m)
4.3					4.3
5.0					5.0
6.0					6.0
7.0					7.0
8.0					8.0
9.0					9.0
10.0	22.0/10.7m	21.6/11.2m	20.1/11.7m		10.0
12.0	19.7	19.5	19.4	18.0/12.2m	12.0
14.0	15.8	15.6	15.5	15.4	14.0
16.0	13.0	12.9	12.7	12.6	16.0
18.0	10.9	10.8	10.7	10.5	18.0
20.0	9.3	9.2	9.1	8.9	20.0
22.0	8.0	7.9	7.8	7.6	22.0
24.0	7.0	6.9	6.7	6.6	24.0
26.0	6.1	6.0	5.8	5.7	26.0
28.0	5.4	5.2	5.1	4.9	28.0
30.0	4.7	4.6	4.5	4.3	30.0
32.0	4.2	4.1	3.9	3.8	32.0
34.0	3.7	3.6	3.4	3.2	34.0
36.0	3.3	3.2	3.0	2.7	36.0
38.0	2.9	2.7	2.5	2.3	38.0
40.0	2.5	2.3	2.1	1.9	40.0
42.0	2.2	2.0	1.8	1.5	42.0
44.0	1.8	1.7	1.5		44.0
46.0	1.6				46.0
Reeves	2	2	2	2	Reeves

Note:

Ratings according to Japanese Construction Codes for Mobile Cranes and Japanese Safety Ordinance on Cranes, etc.

Ratings shown in are determined by the strength of the boom or other structural components.

Refer to notes P10.

Auxiliary Sheave Lifting Capacity (Without Main Hook)

Unit: metric ton

Counterweight: 32.8 t

Boom Length (m) Working radius (m)	13.8	16.9	19.9	23.0	26.0	29.1	32.1	35.2	38.2	41.2	44.3	47.3	50.4	Boom Length (m) Working radius (m)
5.0	11.0/5.2m	11.0/5.2m	11.0/5.7m											5.0
6.0	11.0	11.0	11.0	11.0/6.3m	11.0/6.8m									6.0
7.0	11.0	11.0	11.0	11.0	11.0	11.0/7.3m	11.0/7.9m							7.0
8.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0/8.4m	11.0/8.9m					8.0
9.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0/9.4m				9.0
10.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0/10.0m	11.0/10.5m	11.0/11.0m	10.0
12.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	12.0
14.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	14.0
16.0	11.0/14.6m	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	16.0
18.0		10.5/17.2m	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	10.8	10.7	10.7	18.0
20.0			9.9/19.9m	10.1	10.0	9.9	9.8	9.6	9.5	9.4	9.2	9.1	9.1	20.0
22.0				8.5	8.7	8.6	8.5	8.3	8.2	8.1	8.0	7.8	7.8	22.0
24.0				8.1/22.5m	7.4	7.6	7.5	7.3	7.2	7.1	6.9	6.8	6.7	24.0
26.0					6.6/25.2m	6.8	6.6	6.4	6.3	6.2	6.1	5.9	5.9	26.0
28.0						6.1/27.8m	5.9	5.7	5.6	5.5	5.3	5.2	5.1	28.0
30.0							5.2	5.1	5.0	4.9	4.7	4.6	4.5	30.0
32.0							5.1/30.4m	4.5	4.4	4.4	4.2	4.0	4.0	32.0
34.0								4.2/33.1m	4.0	3.9	3.7	3.6	3.5	34.0
36.0									3.7/35.7m	3.5	3.3	3.1	3.1	36.0
38.0										3.1	2.9	2.8	2.7	38.0
40.0										3.0/38.4m	2.5	2.5	2.4	40.0
42.0											2.3/41.0m	2.1	2.0	42.0
44.0												1.8/43.6m	1.7	44.0
46.0													1.6	46.0
Reeves	1	1	1	1	1	1	1	1	1	1	1	1	1	Reeves

Boom Length (m) Working radius (m)	53.4	56.5	59.5	Boom Length (m) Working radius (m)
5.0				5.0
6.0				6.0
7.0				7.0
8.0				8.0
9.0				9.0
10.0	11.0/11.5m			10.0
12.0	11.0	11.0/12.1m	11.0/12.6m	12.0
14.0	11.0	11.0	11.0	14.0
16.0	11.0	11.0	11.0	16.0
18.0	10.5	10.4	10.3	18.0
20.0	8.9	8.8	8.7	20.0
22.0	7.6	7.5	7.4	22.0
24.0	6.6	6.5	6.3	24.0
26.0	5.7	5.6	5.4	26.0
28.0	5.0	4.8	4.7	28.0
30.0	4.3	4.2	4.1	30.0
32.0	3.8	3.7	3.5	32.0
34.0	3.3	3.2	3.0	34.0
36.0	2.9	2.8	2.6	36.0
38.0	2.5	2.3	2.1	38.0
40.0	2.1	1.9	1.7	40.0
42.0	1.8	1.6		42.0
44.0				44.0
46.0				46.0
Reeves	1	1	1	Reeves

Note:

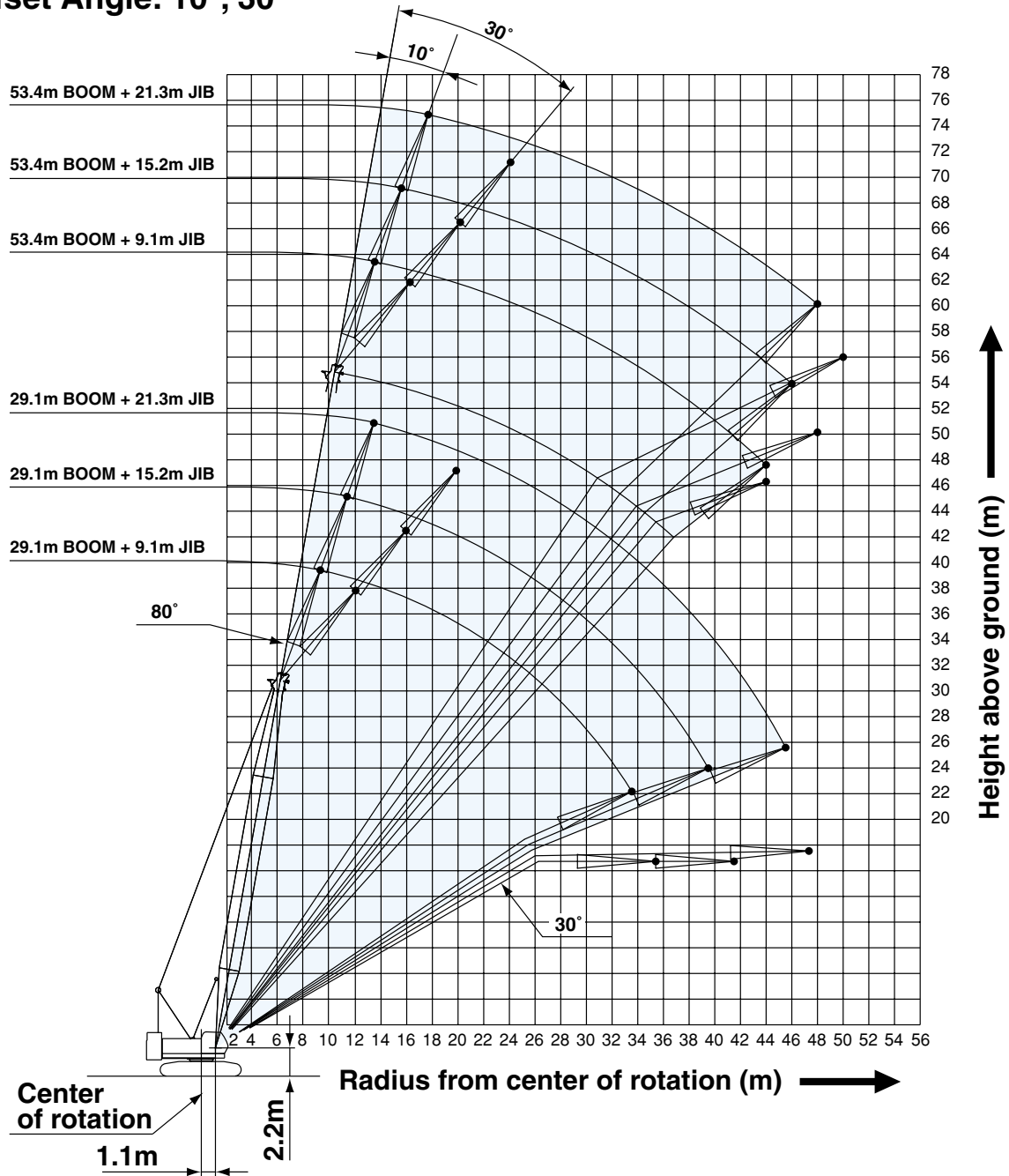
Ratings according to Japanese Construction Codes for Mobile Cranes and Japanese Safety Ordinance on Cranes, etc.

Ratings shown in are determined by the strength of the boom or other structural components.

Refer to notes P10.

Fixed Jib Working Ranges

Jib Offset Angle: 10°, 30°



NOTES:

1. Ratings according to Japanese Construction Codes for Mobile Cranes and Japanese Safety Ordinance on Cranes, etc.
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. Deduct weight of main hook block, slings and all other load handling accessories from fixed jib ratings shown.
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.
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 10 part line.
10. Gantry must be in raised position for all conditions.
11. Boom backstops are required for all boom lengths.
12. Crawler frames must be fully extended for all crane operations.
13. Ratings shown in are determined by the strength of the boom or other structural component.
14. Instruction in the "Operator's Manual" must be strictly observed when operating the machine.
15. Fixed jib ratings: Deduct weight of main hook block, slings, and all other load handling accessories from fixed jib ratings shown.
16. Boom lengths for jib mounting are 29.1 m to 53.4 m.

Fixed Jib Lifting Capacity (Without Main Hook)

Unit: metric ton

Jib Offset Angle: 10°

Counterweight: 32.8 t

Boom length (m)		29.1			32.1			35.2			38.2			41.2			Boom length (m)
Jib length (m)		9.1 m	15.2 m	21.3 m	9.1 m	15.2 m	21.3 m	9.1 m	15.2 m	21.3 m	9.1 m	15.2 m	21.3 m	9.1 m	15.2 m	21.3 m	Jib length (m)
Working radius (m)	9.0 m	11.0/9.6m															9.0 m
	10.0 m	11.0	9.1/11.7m		11.0/10.2m			11.0/10.7m			11.0/11.2m			11.0/11.7m			10.0 m
	12.0 m	11.0	9.1	7.2/13.8m	11.0	9.1/12.2m		11.0	9.1/12.8m		11.0	9.1/13.3m		11.0	9.1/13.8m		12.0 m
	14.0 m	11.0	9.1	7.0	11.0	9.1	7.1/14.3m	11.0	9.1	7.1/14.9m	11.0	9.1	7.2/15.4m	11.0	9.1	7.2/15.9m	14.0 m
	16.0 m	11.0	9.1	6.9	11.0	9.1	6.9	11.0	9.1	7.0	11.0	9.1	7.0	11.0	9.1	7.0	16.0 m
	18.0 m	11.0	9.1	6.7	11.0	9.1	6.7	11.0	9.1	6.8	11.0	9.1	6.8	11.0	9.1	6.9	18.0 m
	20.0 m	10.5	9.1	6.5	10.3	9.1	6.6	10.2	9.1	6.6	10.0	9.1	6.7	9.9	9.1	6.7	20.0 m
	22.0 m	9.2	8.9	6.3	9.0	9.1	6.4	8.9	9.1	6.5	8.7	8.9	6.5	8.6	8.8	6.6	22.0 m
	24.0 m	8.1	8.2	6.1	8.0	8.2	6.2	7.8	8.0	6.3	7.7	7.9	6.4	7.5	7.7	6.5	24.0 m
	26.0 m	7.2	7.4	5.8	7.1	7.3	6.0	6.9	7.1	6.1	6.8	7.0	6.2	6.6	6.8	6.3	26.0 m
	28.0 m	6.5	6.7	5.4	6.3	6.5	5.7	6.2	6.4	5.9	6.0	6.2	6.0	5.9	6.1	6.1	28.0 m
	30.0 m	5.9	6.0	5.0	5.7	5.9	5.3	5.5	5.7	5.5	5.4	5.6	5.8	5.3	5.4	5.7	30.0 m
	32.0 m	5.3	5.5	4.7	5.2	5.3	4.9	5.0	5.2	5.2	4.8	5.0	5.2	4.7	4.9	5.1	32.0 m
	34.0 m	4.8	5.0	4.4	4.7	4.8	4.6	4.5	4.7	4.9	4.4	4.5	4.8	4.2	4.4	4.6	34.0 m
	36.0 m		4.6	4.2	4.3	4.4	4.4	4.1	4.2	4.4	3.9	4.1	4.3	3.8	4.0	4.2	36.0 m
	38.0 m		4.2	3.9		4.0	4.1	3.7	3.9	4.1	3.6	3.7	3.9	3.4	3.6	3.8	38.0 m
	40.0 m		3.8	3.7		3.7	3.9	3.4	3.5	3.7	3.2	3.4	3.6	3.1	3.2	3.4	40.0 m
	42.0 m			3.5		3.4	3.6		3.2	3.4	2.9	3.1	3.3	2.8	2.9	3.1	42.0 m
	44.0 m			3.3			3.3		2.9	3.1		2.8	3.0	2.5	2.7	2.9	44.0 m
	46.0 m			3.1			3.0		2.7	2.9		2.6	2.7		2.4	2.6	46.0 m
	48.0 m						2.8			2.6		2.3	2.5		2.1	2.4	48.0 m
	50.0 m									2.4			2.3		1.9	2.1	50.0 m
	52.0 m												2.1			1.9	52.0 m
	54.0 m												1.9			1.7	54.0 m
Reeves		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Reeves

Boom length (m)		44.3			47.3			50.4			53.4			Boom length (m)
Jib length (m)		9.1 m	15.2 m	21.3 m	9.1 m	15.2 m	21.3 m	9.1 m	15.2 m	21.3 m	9.1 m	15.2 m	21.3 m	Jib length (m)
Working radius (m)	9.0 m													9.0 m
	10.0 m													10.0 m
	12.0 m	11.0/12.3m			11.0/12.8m			11.0/13.3m			11.0/13.9m			12.0 m
	14.0 m	11.0	9.1/14.4m		11.0	9.1/14.9m		11.0	9.1/15.4m		11.0	9.1/15.9m		14.0 m
	16.0 m	11.0	9.1	7.1/16.4m	11.0	9.1	7.1/17.0m	11.0	9.1	7.1/17.5m	11.0	9.1		16.0 m
	18.0 m	11.0	9.1	6.9	11.0	9.1	7.0	11.0	9.1	7.0	11.0	9.1	7.0	18.0 m
	20.0 m	9.7	9.1	6.8	9.6	9.1	6.8	9.5	9.1	6.9	9.3	9.1	6.9	20.0 m
	22.0 m	8.4	8.7	6.6	8.3	8.5	6.7	8.2	8.4	6.7	8.0	8.3	6.8	22.0 m
	24.0 m	7.4	7.6	6.5	7.2	7.5	6.6	7.1	7.3	6.6	6.9	7.2	6.6	24.0 m
	26.0 m	6.5	6.7	6.4	6.3	6.6	6.4	6.2	6.4	6.5	6.0	6.3	6.5	26.0 m
	28.0 m	5.7	5.9	6.2	5.6	5.8	6.1	5.4	5.7	6.0	5.3	5.5	5.8	28.0 m
	30.0 m	5.1	5.3	5.5	4.9	5.1	5.4	4.8	5.0	5.3	4.6	4.8	5.2	30.0 m
	32.0 m	4.5	4.7	5.0	4.4	4.6	4.9	4.2	4.4	4.7	4.1	4.3	4.6	32.0 m
	34.0 m	4.0	4.2	4.5	3.9	4.1	4.4	3.8	3.9	4.2	3.6	3.8	4.1	34.0 m
	36.0 m	3.6	3.8	4.0	3.5	3.7	3.9	3.3	3.5	3.8	3.2	3.3	3.6	36.0 m
	38.0 m	3.2	3.4	3.6	3.1	3.3	3.5	2.9	3.1	3.4	2.7	2.9	3.2	38.0 m
	40.0 m	2.9	3.1	3.3	2.7	2.9	3.2	2.5	2.8	3.0	2.3	2.5	2.9	40.0 m
	42.0 m	2.6	2.8	3.0	2.4	2.6	2.9	2.2	2.4	2.7	1.9	2.2	2.5	42.0 m
	44.0 m	2.3	2.5	2.7	2.1	2.3	2.6	1.8	2.1	2.4	1.6	1.8	2.2	44.0 m
	46.0 m	2.0	2.2	2.4	1.8	2.0	2.3	1.6	1.8	2.1		1.5	1.9	46.0 m
	48.0 m	1.7	1.9	2.2	1.5	1.7	2.0		1.5	1.8			1.6	48.0 m
	50.0 m		1.6	1.9			1.7			1.5				50.0 m
	52.0 m			1.7			1.5							52.0 m
	54.0 m													54.0 m
Reeves		1	1	1	1	1	1	1	1	1	1	1	1	Reeves

Note:

Ratings according to Japanese Construction Codes for Mobile Cranes and Japanese Safety Ordinance on Cranes, etc.

Ratings shown in are determined by the strength of the boom or other structural components.

Refer to notes P13.

Fixed Jib Lifting Capacities (Without Main Hook)

Unit: metric ton

Jib Offset Angle: 30°

Counterweight: 32.8 t

Boom length (m)	29.1			32.1			35.2			38.2			41.2			Boom length (m)
Jib length (m)	9.1 m	15.2 m	21.3 m	9.1 m	15.2 m	21.3 m	9.1 m	15.2 m	21.3 m	9.1 m	15.2 m	21.3 m	9.1 m	15.2 m	21.3 m	Jib length (m)
12.0 m	9.5/12.4m			9.5/12.9m			9.5/13.4m									12.0 m
14.0 m	9.5			9.5			9.5			9.5			9.5/14.5m			14.0 m
16.0 m	9.5	5.2/16.3m		9.5	5.2/16.8m		9.5	5.2/17.4m		9.5	5.2/17.9m		9.5			16.0 m
18.0 m	9.5	5.2		9.5	5.2		9.5	5.2		9.5	5.2		9.5	5.2/18.4m		18.0 m
20.0 m	9.5	5.2	3.7/20.2m	9.5	5.2	3.7/20.7m	9.5	5.2	3.7/21.3m	9.5	5.2	3.7/21.8m	9.5	5.2		20.0 m
22.0 m	9.3	5.2	3.7	9.3	5.2	3.7	9.1	5.2	3.7	9.0	5.2	3.7	8.9	5.2	3.7/22.3m	22.0 m
24.0 m	8.3	5.2	3.7	8.2	5.2	3.7	8.0	5.2	3.7	7.9	5.2	3.7	7.8	5.2	3.7	24.0 m
26.0 m	7.4	5.2	3.7	7.3	5.2	3.7	7.1	5.2	3.7	7.0	5.2	3.7	6.9	5.2	3.7	26.0 m
28.0 m	6.6	5.1	3.7	6.5	5.2	3.7	6.3	5.2	3.7	6.2	5.2	3.7	6.1	5.2	3.7	28.0 m
30.0 m	6.0	4.9	3.6	5.8	5.1	3.7	5.7	5.2	3.7	5.6	5.2	3.7	5.4	5.2	3.7	30.0 m
32.0 m	5.4	4.7	3.4	5.3	4.9	3.5	5.1	5.0	3.6	5.0	5.1	3.7	4.9	5.2	3.7	32.0 m
34.0 m	4.9	4.6	3.3	4.8	4.7	3.4	4.6	4.8	3.5	4.5	4.9	3.6	4.4	4.7	3.6	34.0 m
36.0 m	4.4	4.4	3.2	4.3	4.6	3.3	4.2	4.5	3.4	4.0	4.4	3.4	3.9	4.3	3.5	36.0 m
38.0 m		4.3	3.1	3.9	4.2	3.2	3.8	4.1	3.2	3.7	4.0	3.3	3.5	3.9	3.4	38.0 m
40.0 m		4.0	3.0		3.9	3.1	3.4	3.7	3.1	3.3	3.6	3.2	3.2	3.5	3.3	40.0 m
42.0 m		3.6	2.9		3.5	3.0		3.4	3.0	3.0	3.3	3.1	2.9	3.2	3.2	42.0 m
44.0 m			2.8		3.2	2.9		3.1	2.9	2.7	3.0	3.0	2.6	2.9	3.1	44.0 m
46.0 m			2.7			2.8		2.8	2.8		2.7	2.9	2.3	2.6	2.8	46.0 m
48.0 m			2.6			2.7			2.7		2.5	2.7		2.3	2.5	48.0 m
50.0 m						2.6			2.5		2.2	2.4		2.1	2.3	50.0 m
52.0 m									2.3			2.2		1.8	2.1	52.0 m
54.0 m												2.0			1.8	54.0 m
56.0 m												1.7			1.6	56.0 m
Reeves	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Reeves

Boom length (m)	44.3			47.3			50.4			53.4			Boom length (m)
Jib length (m)	9.1 m	15.2 m	21.3 m	9.1 m	15.2 m	21.3 m	9.1 m	15.2 m	21.3 m	9.1 m	15.2 m	21.3 m	Jib length (m)
12.0 m													12.0 m
14.0 m	9.5/15.0m			9.5/15.5m									14.0 m
16.0 m	9.5			9.5			9.5/16.1m			9.5/16.6m			16.0 m
18.0 m	9.5	5.2/18.9m		9.5	5.2/19.5m		9.5			9.5			18.0 m
20.0 m	9.5	5.2		9.5	5.2		9.5	5.2		9.5	5.2/20.5m		20.0 m
22.0 m	8.8	5.2	3.7/22.9m	8.7	5.2	3.7/23.4m	8.6	5.2	3.7/23.9m	8.4	5.2		22.0 m
24.0 m	7.7	5.2	3.7	7.6	5.2	3.7	7.4	5.2	3.7	7.3	5.2	3.7/24.4m	24.0 m
26.0 m	6.7	5.2	3.7	6.6	5.2	3.7	6.5	5.2	3.7	6.4	5.2	3.7	26.0 m
28.0 m	6.0	5.2	3.7	5.8	5.2	3.7	5.7	5.2	3.7	5.6	5.2	3.7	28.0 m
30.0 m	5.3	5.2	3.7	5.2	5.2	3.7	5.0	5.2	3.7	4.9	5.2	3.7	30.0 m
32.0 m	4.7	5.1	3.7	4.6	5.0	3.7	4.5	4.9	3.7	4.3	4.8	3.7	32.0 m
34.0 m	4.2	4.6	3.7	4.1	4.5	3.7	4.0	4.4	3.7	3.8	4.3	3.7	34.0 m
36.0 m	3.8	4.2	3.6	3.6	4.0	3.6	3.5	3.9	3.7	3.4	3.8	3.7	36.0 m
38.0 m	3.4	3.7	3.5	3.2	3.6	3.5	3.1	3.5	3.6	2.9	3.4	3.6	38.0 m
40.0 m	3.0	3.4	3.3	2.9	3.3	3.4	2.7	3.1	3.4	2.5	3.0	3.3	40.0 m
42.0 m	2.7	3.0	3.2	2.5	2.9	3.2	2.3	2.8	3.1	2.1	2.7	2.9	42.0 m
44.0 m	2.3	2.7	3.0	2.2	2.6	2.9	2.0	2.5	2.8	1.8	2.3	2.6	44.0 m
46.0 m	2.0	2.5	2.7	1.9	2.3	2.6	1.7	2.1	2.5		2.0	2.3	46.0 m
48.0 m	1.8	2.2	2.4	1.6	2.0	2.3		1.8	2.2		1.6	2.0	48.0 m
50.0 m		1.9	2.2		1.7	2.0		1.6	1.9			1.7	50.0 m
52.0 m		1.6	1.9		1.5	1.7			1.6				52.0 m
54.0 m			1.6			1.5							54.0 m
56.0 m													56.0 m
Reeves	1	1	1	1	1	1	1	1	1	1	1	1	Reeves

Note:

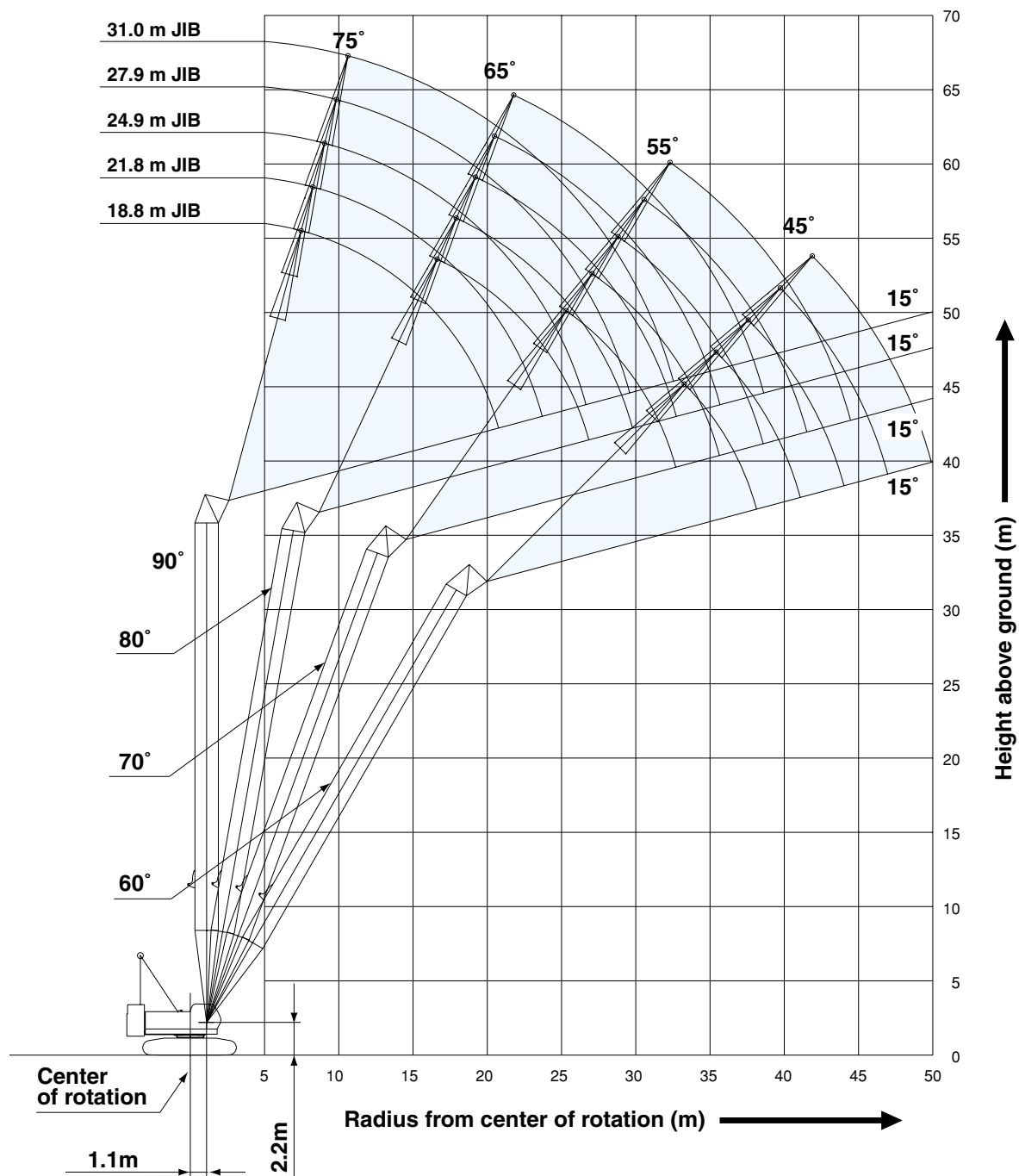
Ratings according to Japanese Construction Codes for Mobile Cranes and Japanese Safety Ordinance on Cranes, etc.

Ratings shown in are determined by the strength of the boom or other structural components.

Refer to notes P13.

Luffing Tower Working Ranges

Tower Length: 35.2 m



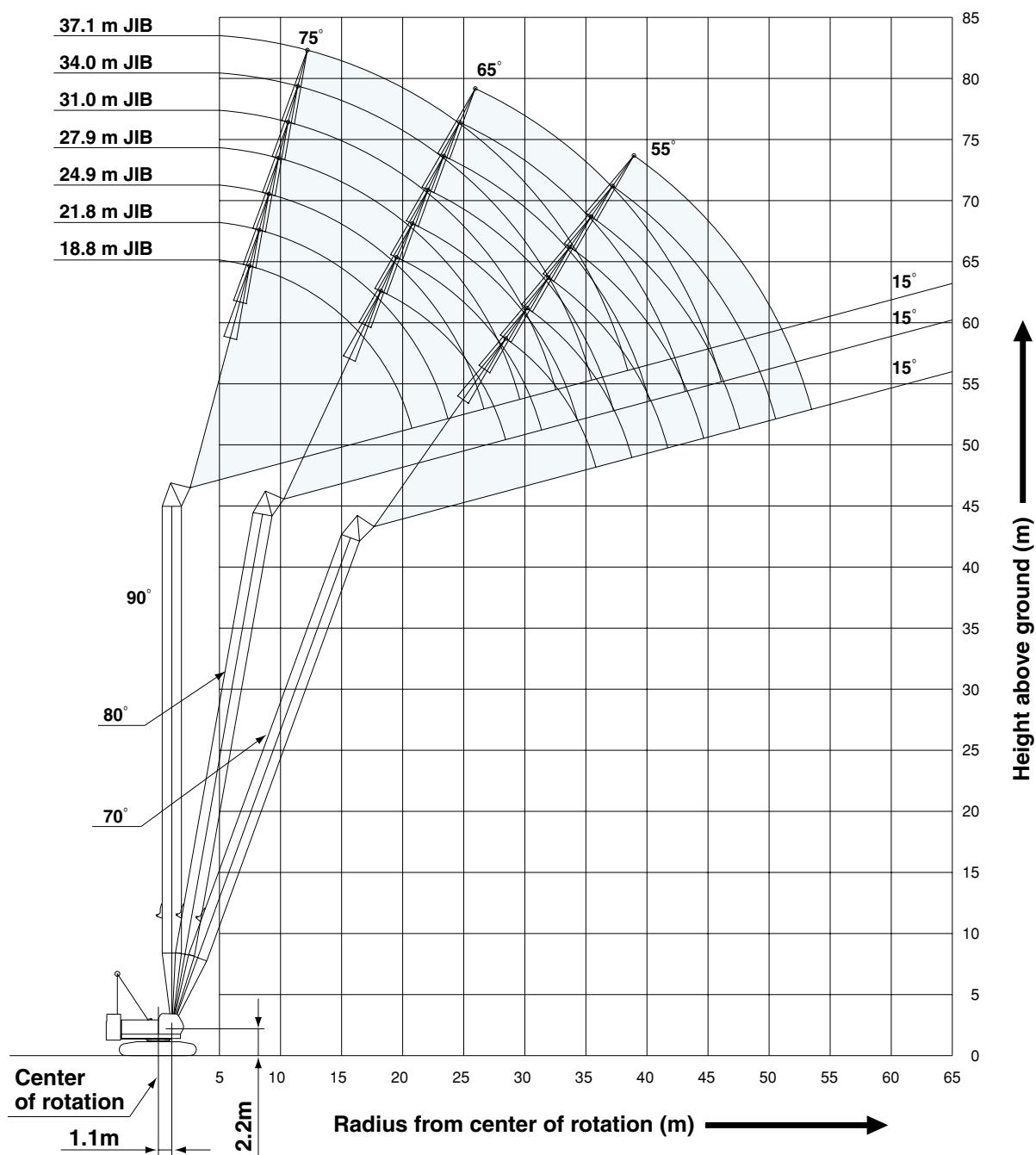
NOTES:

1. Ratings according to Japanese Construction Codes for Mobile Cranes and Japanese Safety Ordinance on Cranes, etc.
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. Deduct weight of hook block(s), slings and all other load handling accessories from luffing ratings shown.
5. Ratings shown are based on freely suspended loads and make no allowance for such factors as wind effect on lifted load, ground condi-

tions 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.
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. Tower jib hoist reeving is 8 part line.

Tower Length: 44.3 m



10. Gantry must be in raised position for all conditions.
11. Boom and jib backstops are required for all boom and jib combinations.
12. Crawler frames must be fully extended for all crane operations.
13. Ratings shown in are determined by the strength of the boom or other structural component.
14. When erecting and lowering the Tower length of 41.2 m (135 ft) or over, the blocks 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. Luffing jib ratings: Deduct weight of hook block(s), slings, and all other load handling accessories from luffing jib ratings shown.
17. Luffing tower jobs require additional 1.6 t tower-use counterweight.

Luffing Tower Lifting Capacities

Unit: metric ton

Counterweight: 34.3 t

26.0 m Tower Length	Tower Length		26.0 m								Tower Length	
	Jib length		18.8 m				21.8 m				Jib length	
	Tower angle		90°	80°	70°	60°	90°	80°	70°	60°	Tower angle	
Working radius (m)	7.7 m	15.0									7.7 m	
	8.0 m	15.0					15.0/8.5m				8.0 m	
	9.0 m	15.0					15.0				9.0 m	
	10.0 m	15.0					15.0				10.0 m	
	12.0 m	15.0					15.0				12.0 m	
	14.0 m	15.0	15.0/15.2m				15.0				14.0 m	
	16.0 m	13.7	14.9				13.7	14.2/16.5m			16.0 m	
	18.0 m	11.9	12.9				11.8	12.8			18.0 m	
	20.0 m	10.6	11.4				10.4	11.2			20.0 m	
	22.0 m	9.3/20.5m	10.1	8.8/22.3m			9.2	10.0			22.0 m	
	24.0 m		9.1	8.0			7.8/23.4m	9.0	7.9		24.0 m	
	26.0 m		8.5/24.9m	7.4				8.1	7.2		26.0 m	
	28.0 m			6.7	5.6/28.7m			7.4/27.9m	6.6		28.0 m	
	30.0 m			6.2/29.3m	5.4				6.1	5.0/30.8m	30.0 m	
	32.0 m				5.0				5.6	4.8	32.0 m	
	34.0 m				4.7/33.3m				5.5/32.2m	4.5	34.0 m	
	36.0 m									4.2	36.0 m	
	38.0 m							2		4.1/36.2m	38.0 m	
	Reeves	2	2	2	2	2		2	2		Reeves	

29.1 m Tower Length	Tower Length		29.1												Tower Length	
	Jib length		18.8 m				21.8 m				24.9 m				Jib length	
	Tower angle		90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°	Tower angle	
Working radius (m)	7.7 m	15.0													7.7 m	
	8.0 m	15.0					15.0/8.5m								8.0 m	
	9.0 m	15.0					15.0				15.0/9.3m				9.0 m	
	10.0 m	15.0					15.0				15.0				10.0 m	
	12.0 m	15.0					15.0				15.0				12.0 m	
	14.0 m	15.0	14.9/15.7m				15.0				15.0				14.0 m	
	16.0 m	13.7	14.7				13.7	13.4/17.0m			13.6				16.0 m	
	18.0 m	11.9	12.7				11.8	12.6			11.8	12.1/18.3m			18.0 m	
	20.0 m	10.4	11.2				10.4	11.0			10.3	10.9			20.0 m	
	22.0 m	9.4/20.5m	9.9	7.9/23.3m			9.2	9.8			9.2	9.8			22.0 m	
	24.0 m		8.9	7.7			8.0/23.4m	8.8	7.1/25.0m		8.3	8.8			24.0 m	
	26.0 m		8.1/25.5m	7.1				8.0	6.8		7.5	8.0	6.4/26.8m		26.0 m	
	28.0 m			6.4				7.3	6.3		6.9/26.3m	7.3	6.1		28.0 m	
	30.0 m			5.9	4.9/30.2m			7.0/28.4m	5.8			6.7	5.7		30.0 m	
	32.0 m			5.7/30.3m	4.6				5.3	4.3/32.3m		6.1/31.4m	5.3		32.0 m	
	34.0 m				4.3				5.0/33.2m	4.1			4.9	3.9/34.5m	34.0 m	
	36.0 m				4.1/34.8m					3.9			4.5	3.7	36.0 m	
	38.0 m									3.6/37.7m			4.4/36.2m	3.5	38.0 m	
	40.0 m													3.3	40.0 m	
	42.0 m													3.2/40.7m	42.0 m	
	Reeves	2	2	2	2	2	2	2	2	2	2	2	2	2	Reeves	

Note:

Ratings according to Japanese Construction Codes for Mobile Cranes and Japanese Safety Ordinance on Cranes, etc.

Ratings shown in are determined by the strength of the boom or other structural components.

Refer to notes P17 and P18.

HYDRAULIC CRAWLER CRANE

7090

Unit: metric ton

Counterweight: 34.3 t

32.1 m Tower Length	Tower Length		32.1 m																Tower Length
	Jib length	18.8 m				21.8 m				24.9 m				27.9 m				Jib length	
	Tower angle	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°	Tower angle	
	Working radius (m)	7.7 m	15.0																7.7 m
8.0 m		15.0				15.0/8.5m												8.0 m	
9.0 m		15.0				15.0				15.0/9.3m								9.0 m	
10.0 m		15.0				15.0				15.0				15.0/10.1m				10.0 m	
12.0 m		15.0				15.0				15.0				15.0				12.0 m	
14.0 m		15.0				15.0				15.0				15.0				14.0 m	
16.0 m		13.8	14.0/16.3m			13.7	12.6/17.6m			13.7					13.6			16.0 m	
18.0 m		11.9	12.4			11.9	12.3			11.8	11.5/18.9m			11.7				18.0 m	
20.0 m		10.4	10.9			10.4	10.8			10.4	10.7			10.3	10.5/20.1m			20.0 m	
22.0 m		9.6/20.5m	9.7			9.2	9.6			9.2	9.6			9.1	9.4			22.0 m	
24.0 m			8.7	7.1/24.3m		8.1/23.4m	8.6			8.3	8.7			8.2	8.6			24.0 m	
26.0 m			7.9	6.6			7.8	6.4/26.1m		7.5	7.8	5.8/27.8m		7.4	7.7			26.0 m	
28.0 m				6.1			7.1	5.9		7.0/26.3m	7.2	5.8		6.8	7.1	5.3/29.6m		28.0 m	
30.0 m				5.6	4.3/31.7m		6.7/29.0m	5.5			6.6	5.4		6.0/29.3m	6.5	5.2		30.0 m	
32.0 m				5.2/31.3m	4.3			5.1	3.7/33.9m		6.0/31.9m	5.0			6.0	4.9		32.0 m	
34.0 m					3.9			4.7	3.7			4.6			5.5	4.5		34.0 m	
36.0 m					3.6			4.6/34.3m	3.5			4.3	3.4		5.3/34.8m	4.2		36.0 m	
38.0 m					3.5/36.3m				3.3			4.0/37.2m	3.2			3.9	3.0/38.2m	38.0 m	
40.0 m									3.1/39.3m					3.0		3.6	2.9	40.0 m	
42.0 m														2.8		3.5/40.2m	2.7	42.0 m	
44.0 m														2.6/42.2m			2.5	44.0 m	
46.0 m																	2.2/45.1m	46.0 m	
Reeves		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	Reeves	

35.2 m Tower Length	Tower Length		35.2 m																Tower Length				
	Jib length	18.8 m				21.8 m				24.9 m				27.9m				31.0 m				Jib length	
	Tower angle	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°	Tower angle					
	Working radius (m)	7.7 m	15.0																7.7 m				
8.0 m		15.0				15.0/8.5m												8.0 m					
9.0 m		15.0				15.0				15.0/9.3m								9.0 m					
10.0 m		15.0				15.0				15.0				15.0/10.1m			13.5/10.9m	10.0 m					
12.0 m		15.0				15.0				15.0				15.0			13.5	12.0 m					
14.0 m		15.0				15.0				15.0				15.0			13.5	14.0 m					
16.0 m		13.8	13.2/16.8m			13.7				13.7				13.6			13.5	16.0 m					
18.0 m		11.9	12.2			11.9	12.0/18.1m			11.8	10.9/19.4m			11.7			11.7	18.0 m					
20.0 m		10.4	10.7			10.4	10.6			10.4	10.5			10.3	9.9/20.7m		10.2	20.0 m					
22.0 m		9.6/20.5m	9.6			9.3	9.6			9.2	9.5			9.2	9.2		9.1	9.1	22.0 m				
24.0 m			8.6	6.5/25.4m		8.2/23.4m	8.6			8.3	8.5			8.2	8.4		8.2	8.2	24.0 m				
26.0 m			7.8	6.3			7.8	5.8/27.1m		7.5	7.7			7.4	7.6		7.4	7.5	26.0 m				
28.0 m			7.4/26.5m	5.9			7.1	5.6		7.0/26.3m	7.0	5.3/28.9m		6.8	6.9		6.7	6.9	28.0 m				
30.0 m				5.4			6.4/29.5m	5.3			6.4	5.1		6.0/29.3m	6.3	4.8/30.6m	6.2	6.3	30.0 m				
32.0 m				4.9	3.6/33.2m			4.8			5.9	4.8			5.8	4.5		5.7	5.8	32.0 m			
34.0 m				4.8/32.4m	3.6			4.5	3.2/35.4m		5.7/32.4m	4.4			5.4	4.3		5.3/32.2m	5.3	4.1	34.0 m		
36.0 m					3.4			4.2/35.3m	3.2			4.1	2.9/37.5m		5.0/35.4m	4.0		5.0	3.9	36.0 m			
38.0 m					3.1/37.8m				3.0			3.8	2.9			3.7	2.5/39.7m		4.6	3.6	38.0 m		
40.0 m									2.8			3.7/38.3m	2.7			3.4	2.5		4.5/38.3m	3.4	2.1/41.9m	40.0 m	
42.0 m									2.6/40.8m					2.5		3.2/41.2m	2.3			3.1	2.1	42.0 m	
44.0 m												2.3/43.7m						2.1			2.9	1.9	44.0 m
46.0 m																		1.9			2.9/44.2m	1.8	46.0 m
48.0 m																		1.8/46.7m				1.7	48.0 m
Reeves	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	Reeves		

Note:

Ratings according to Japanese Construction Codes for Mobile Cranes and Japanese Safety Ordinance on Cranes, etc.

Ratings shown in are determined by the strength of the boom or other structural components.

Refer to notes P17 and P18.

Unit: metric ton

Counterweight: 34.3 t

38.2 m Boom Length	Tower Length		38.2 m																Tower Length	
	Jib length		18.8 m				21.8 m				24.9 m				27.9 m				Jib length	
	Tower angle		90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°	Tower angle	
	Working radius (m)	7.7 m	15.0																	7.7 m
8.0 m		15.0				15.0/8.5m													8.0 m	
9.0 m		15.0				15.0				15.0/9.3m									9.0 m	
10.0 m		15.0				15.0				15.0				15.0/10.1m					10.0 m	
12.0 m		15.0				15.0				15.0				15.0					12.0 m	
14.0 m		15.0				15.0				15.0				15.0					14.0 m	
16.0 m		13.8	12.5/17.3m			13.8				13.7				13.6					16.0 m	
18.0 m		11.9	12.0			11.9	11.3/18.6m			11.8	10.3/19.9m			11.8					18.0 m	
20.0 m		10.5	10.5			10.4	10.4			10.4	10.3			10.3	9.4/21.2m				20.0 m	
22.0 m		9.7/20.5m	9.3			9.3	9.3			9.2	9.2			9.2	9.0				22.0 m	
24.0 m			8.4			8.2/23.4m	8.4			8.3	8.3			8.2	8.2				24.0 m	
26.0 m			7.6	5.8/26.4m			7.6			7.5	7.5			7.4	7.4				26.0 m	
28.0 m			7.1/27.1m	5.4			6.9	5.2/28.2m		7.1/26.3m	6.9	4.8/29.9m		6.8	6.8				28.0 m	
30.0 m				5.1			6.3	4.8			6.3	4.8		6.1/29.3m	6.2	4.4/31.7m			30.0 m	
32.0 m				4.7				4.6			5.8	4.4			5.7	4.3			32.0 m	
34.0 m				4.3/33.4m	3.0/34.8m			4.2			5.5/33.0m	4.1			5.3	4.0			34.0 m	
36.0 m					2.9			3.9	2.5/36.9m			3.8			4.9/35.9m	3.7			36.0 m	
38.0 m					2.7			3.8/36.4m	2.5			3.5	2.2/39.1m			3.4			38.0 m	
40.0 m					2.4/39.4m				2.3			3.3/39.3m	2.2			3.2	1.8/41.2m		40.0 m	
42.0 m									2.1				2.0			3.0	1.8		42.0 m	
44.0 m									1.9/42.3m				1.8			2.9/42.3m	1.5		44.0 m	
46.0 m													1.5/45.2m						46.0 m	
48.0 m																			48.0 m	
50.0 m																			50.0 m	
	Reeves	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	Reeves		

38.2 m Boom Length	Tower Length		38.2 m						Tower Length	
	Jib length		31.0 m			34.0 m			Jib length	
	Tower angle		90°	80°	70°	90°	80°	70°	Tower angle	
	Working radius (m)	7.7 m							7.7 m	
8.0 m								8.0 m		
9.0 m								9.0 m		
10.0 m		13.5/10.9m			11.5/11.7m			10.0 m		
12.0 m		13.5			11.5			12.0 m		
14.0 m		13.5			11.5			14.0 m		
16.0 m		13.5			11.5			16.0 m		
18.0 m		11.7			11.5			18.0 m		
20.0 m		10.3			10.2			20.0 m		
22.0 m		9.1	8.6/22.5m		9.1	7.9/23.8m		22.0 m		
24.0 m		8.2	8.0		8.1	7.9		24.0 m		
26.0 m		7.4	7.3		7.3	7.2		26.0 m		
28.0 m		6.7	6.7		6.7	6.6		28.0 m		
30.0 m		6.2	6.1		6.1	6.0		30.0 m		
32.0 m		5.7	5.6	4.0/33.4m	5.6	5.6		32.0 m		
34.0 m		5.6/32.2m	5.2	3.9	5.2	5.1	3.6/35.2m	34.0 m		
36.0 m			4.8	3.6	4.6/35.2m	4.8	3.5	36.0 m		
38.0 m			4.5	3.4		4.4	3.3	38.0 m		
40.0 m			4.3/38.8m	3.1		4.1	3.0	40.0 m		
42.0 m				2.9		3.8/41.8m	2.8	42.0 m		
44.0 m				2.7			2.6	44.0 m		
46.0 m				2.5/45.2m			2.5	46.0 m		
48.0 m							2.3	48.0 m		
50.0 m							2.2/48.2m	50.0 m		
	Reeves	2	2	2	2	2	2	Reeves		

Note:

Ratings according to Japanese Construction Codes for Mobile Cranes and Japanese Safety Ordinance on Cranes, etc.

Ratings shown in are determined by the strength of the boom or other structural components.

Refer to notes P17 and P18.

HYDRAULIC CRAWLER CRANE

7090

Unit: metric ton

Counterweight: 34.3 t

41.2 m Tower Length	Tower Length		41.2m																	Tower Length	
	Jib length		18.8 m				21.8 m				24.9 m			27.9 m			31.0 m			Jib length	
	Tower angle		90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	90°	80°	70°	90°	80°	70°	Tower angle	
	Working radius (m)	7.7 m	15.0																		7.7 m
		8.0 m	15.0				15.0/8.5m														8.0 m
		9.0 m	15.0				15.0				15.0/9.3m										9.0 m
		10.0 m	15.0				15.0				15.0			15.0/10.1m			13.5/10.9m				10.0 m
		12.0 m	15.0				15.0				15.0			15.0			13.5				12.0 m
		14.0 m	15.0				15.0				15.0			15.0			13.5				14.0 m
		16.0 m	13.8	11.8/17.9m			13.8				13.7			13.6			13.5				16.0 m
		18.0 m	11.9	11.7			11.9	10.7/19.2m			11.8			11.8			11.7				18.0 m
		20.0 m	10.5	10.3			10.4	10.2			10.4	9.7/20.4m		10.3	8.9/21.7m		10.3				20.0 m
		22.0 m	9.8/20.5m	9.1			9.3	9.1			9.2	8.9		9.2	8.8		9.1	8.2/23.0m			22.0 m
		24.0 m		8.2			8.3/23.4m	8.2			8.3	8.1		8.2	8.0		8.2	7.8			24.0 m
		26.0 m		7.4	5.4/27.5m			7.4			7.5	7.4		7.4	7.3		7.4	7.2			26.0 m
		28.0 m		6.7/27.6m	5.2			6.8	4.9/29.2m		7.1/26.3m	6.7		6.8	6.6		6.7	6.5			28.0 m
		30.0 m			4.8			6.2	4.7			6.2	4.4/31.0m	6.1/29.3m	6.1		6.2	6.0			30.0 m
		32.0 m			4.4			6.0/30.5m	4.3			5.7	4.2		5.6	4.0/32.7m	5.7	5.5			32.0 m
		34.0 m			4.1				4.0			5.2/33.5m	3.9		5.1	3.8	5.6/32.2m	5.1	3.6/34.5m		34.0 m
		36.0 m			3.9/34.5m	2.4/36.3m			3.7				3.6		4.8	3.5		4.7	3.4		36.0 m
38.0 m					2.3			3.4/37.4m	2.0/38.4m			3.3		4.6/36.4m	3.2		4.4	3.1		38.0 m	
40.0 m					2.1				1.9			3.1			3.0		4.1/39.4m	2.9		40.0 m	
42.0 m					1.9/40.9m				1.7			3.0/40.4m			2.8				2.7	42.0 m	
44.0 m								1.6/43.8m						2.5/43.3m				2.5	44.0 m		
46.0 m																		2.3	46.0 m		
48.0 m																		2.2/46.2m	48.0 m		
50.0 m																			50.0 m		
52.0 m																			52.0 m		
	Reeves	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	Reeves	

Tower Length		41.2m					Tower Length		
Jib length		34.0 m			37.1 m		Jib length		
Tower angle		90°	80°	70°	90°	80°	70°	Tower angle	
Working radius (m)	7.7 m							7.7 m	
	8.0 m							8.0 m	
	9.0 m							9.0 m	
	10.0 m	11.5/11.7m						10.0 m	
	12.0 m	11.5			9.5/12.5m			12.0 m	
	14.0 m	11.5			9.5			14.0 m	
	16.0 m	11.5			9.5			16.0 m	
	18.0 m	11.5			9.4			18.0 m	
	20.0 m	10.2			9.1			20.0 m	
	22.0 m	9.1			8.7			22.0 m	
	24.0 m	8.1	7.5/24.3m		8.2	7.1/25.9m		24.0 m	
	26.0 m	7.3	6.9		7.4	7.0		26.0 m	
	28.0 m	6.7	6.4		6.7	6.3		28.0 m	
	30.0 m	6.1	5.9		6.2	5.8		30.0 m	
	32.0 m	5.6	5.4		5.7	5.3		32.0 m	
	34.0 m	5.2	5.0		5.2	4.9		34.0 m	
	36.0 m	4.6/35.2m	4.6	3.3/36.2m	4.9	4.5		36.0 m	
	38.0 m		4.3	3.0	4.5	4.2	2.9/38.4m	38.0 m	
	40.0 m		4.0	2.8	4.4/38.1m	3.9	2.7	40.0 m	
	42.0 m		3.7	2.6		3.7	2.4	42.0 m	
44.0 m		3.7/42.3m	2.4		3.4	2.2	44.0 m		
46.0 m			2.2		3.2/45.3m	2.1	46.0 m		
48.0 m			2.0			1.9	48.0 m		
50.0 m			1.9/49.2m			1.7	50.0 m		
52.0 m						1.6	52.0 m		
	Reeves	2	2	2	2	2	2	Reeves	

Note:

Ratings according to Japanese Construction Codes for Mobile Cranes and Japanese Safety Ordinance on Cranes, etc.

Ratings shown in are determined by the strength of the boom or other structural components.

Refer to notes P17 and P18.

Working radius (m)

Working radius (m)

Note:

Ratings according to Japanese Construction Codes for Mobile Cranes and Japanese Safety Ordinance on Cranes, etc.

Ratings shown in are determined by the strength of the boom or other structural components.

Refer to notes P17 and P18.

Unit: metric ton

Counterweight: 34.3 t

Tower Length		44.3 m															Tower Length		
Jib length		18.8 m			21.8 m			24.9 m			27.9 m			31.0 m			Jib length		
Tower angle		90°	80°	70°	90°	80°	70°	90°	80°	70°	90°	80°	70°	90°	80°	70°	Tower angle		
44.3 m Tower Length	Working radius (m)	7.7 m	15.0															7.7 m	
		8.0 m	15.0			15.0/8.5m												8.0 m	
		9.0 m	15.0			15.0			15.0/9.3m										9.0 m
		10.0 m	15.0			15.0			15.0			15.0/10.1m			13.5/10.9m				10.0 m
		12.0 m	15.0			15.0			15.0			15.0			13.5				12.0 m
		14.0 m	15.0			15.0			15.0			15.0			13.5				14.0 m
		16.0 m	13.8			13.8			13.7			13.6			13.5				16.0 m
		18.0 m	11.9	11.1/18.4m		11.9	10.1/19.7m		11.9			11.8			11.7				18.0 m
		20.0 m	10.5	10.1		10.4	9.9		10.4	9.2/21.0m		10.3			10.3				20.0 m
		22.0 m	9.8/20.5m	9.1		9.3	8.9		9.2	8.7		9.2	8.4/22.3m		9.1	7.8/23.5m			22.0 m
		24.0 m		8.1		8.3/23.4m	8.0		8.3	7.9		8.2	7.7		8.2	7.6			24.0 m
		26.0 m		7.4			7.3		7.5	7.2		7.5	7.1		7.4	7.0			26.0 m
		28.0 m		6.7	4.8/28.5m		6.6		7.1/26.3m	6.6		6.8	6.4		6.7	6.4			28.0 m
		30.0 m		6.6/28.1m	4.5		6.1	4.3/30.3m		6.0		6.1/29.3m	5.9		6.2	5.8			30.0 m
		32.0 m			4.2		5.7/31.1m	4.0		5.5	3.9		5.4	3.5/33.8m	5.7	5.4			32.0 m
		34.0 m			3.8			3.7		5.1	3.6		5.0	3.5	5.6/32.2m	5.0	3.2/35.5m		34.0 m
		36.0 m			3.5/35.5m			3.4			3.4		4.6	3.2		4.6	3.1		36.0 m
		38.0 m						3.2			3.1		4.4/37.0m	3.0		4.3	2.9		38.0 m
		40.0 m						3.1/38.5m			2.9			2.8		4.0/39.9m	2.7		40.0 m
		42.0 m									2.5/41.4m			2.6				2.4	42.0 m
		44.0 m												2.3				2.2	44.0 m
		46.0 m												2.1/44.3m				2.1	46.0 m
		48.0 m																1.8/47.3m	48.0 m
		50.0 m			2														50.0 m
		Reeves	2	2		2	2	2	2	2	2	2	2	2	2	2	2		Reeves

Tower Length		44.3 m					Tower Length		
Jib length		34.0 m			37.1 m		Jib length		
Tower angle		90°	80°	70°	90°	80°	70°	Tower angle	
44.3 m Tower Length	Working radius (m)	7.7 m						7.7 m	
		8.0 m						8.0 m	
		9.0 m						9.0 m	
		10.0 m	11.5/11.7m					10.0 m	
		12.0 m	11.5		9.5/12.5m			12.0 m	
		14.0 m	11.5		9.5			14.0 m	
		16.0 m	11.5		9.5			16.0 m	
		18.0 m	11.5		9.4			18.0 m	
		20.0 m	10.2		9.0			20.0 m	
		22.0 m	9.1		8.7			22.0 m	
		24.0 m	8.1	7.1/24.8m	8.2			24.0 m	
		26.0 m	7.3	6.7	7.4	6.7/26.5m		26.0 m	
		28.0 m	6.7	6.3	6.7	6.2		28.0 m	
		30.0 m	6.1	5.7	6.2	5.6		30.0 m	
		32.0 m	5.6	5.3	5.7	5.2		32.0 m	
		34.0 m	5.2	4.9	5.3	4.8		34.0 m	
		36.0 m	4.7/35.2m	4.5	2.8/37.3m	4.9	4.4		36.0 m
		38.0 m		4.2	2.7	4.5	4.1	2.4/39.4m	38.0 m
		40.0 m		3.9	2.5	4.4/38.1m	3.8	2.3	40.0 m
		42.0 m		3.6	2.3		3.6	2.1	42.0 m
		44.0 m		3.5/42.8m	2.1		3.3	2.0	44.0 m
		46.0 m			2.0		3.1/45.8m	1.8	46.0 m
		48.0 m			1.8			1.6	48.0 m
		50.0 m			1.6				50.0 m
		Reeves	2	2	2	2	2	2	Reeves

Note:

Ratings according to Japanese Construction Codes for Mobile Cranes and Japanese Safety Ordinance on Cranes, etc.

Ratings shown in are determined by the strength of the boom or other structural components.

Refer to notes P17 and P18.

Note:

Ratings according to Japanese Construction Codes for Mobile Cranes and Japanese Safety Ordinance on Cranes, etc.

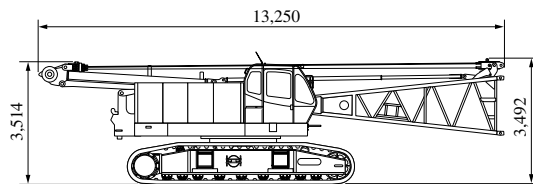
Ratings shown in are determined by the strength of the boom or other structural components.

Refer to notes P17 and P18.

PARTS AND ATTACHMENTS

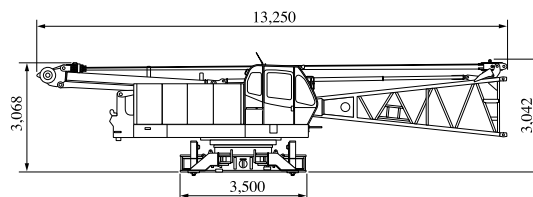
Base Machine

Weight: 55,210 kg Width: 3,500 mm



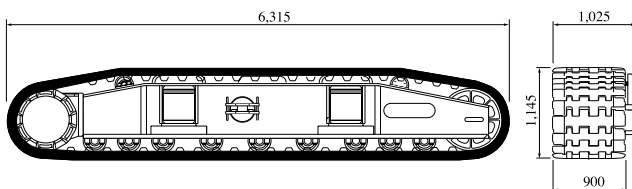
Base Machine

Without crawler
Weight: 34,790 kg Width: 3,200 mm



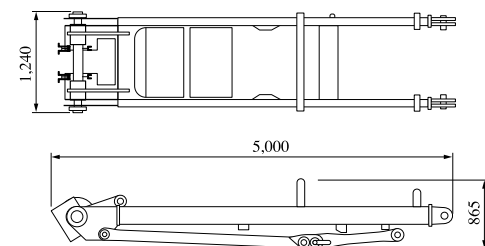
Crawler

Weight: 10,200 kg



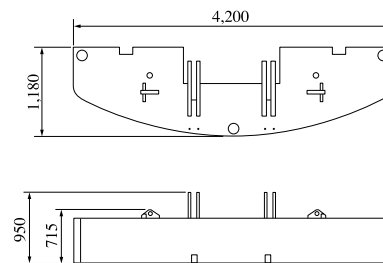
Gantry

Weight: 1,400 kg



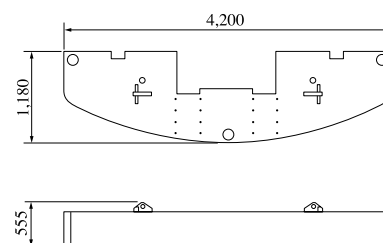
Counterweight A

Weight: 10,000 kg



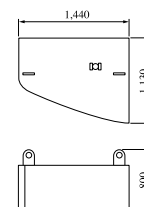
Counterweight B, C

Weight: Counterweight : 7,500 kg x 2 pieces



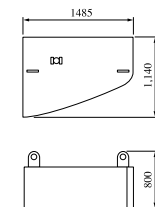
Counterweight D

Weight: 3,800 kg



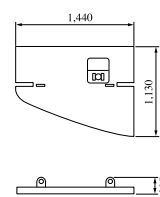
Counterweight E

Weight: 4,000 kg



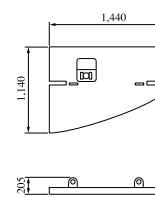
Counterweight F (for luffing tower)

Weight: 780 kg

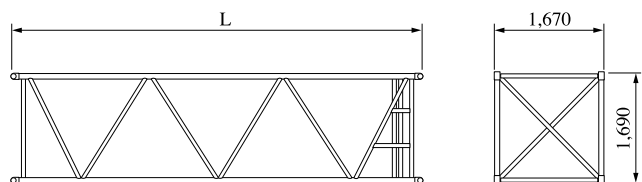


Counterweight G (for luffing tower)

Weight: 810 kg



Insert Boom

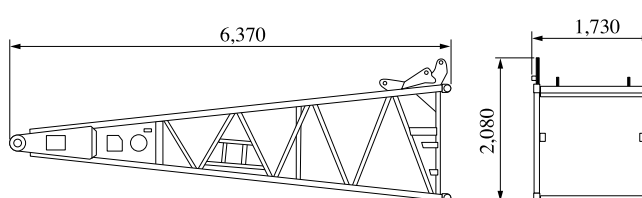


	L (mm)	Weight (kg)*
3.0m	3,170	400
6.1m	6,210	670
9.1m	9,260	940

*with guy cables

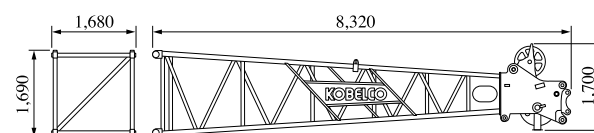
Boom Base

Weight: 1,580 kg



Boom Top

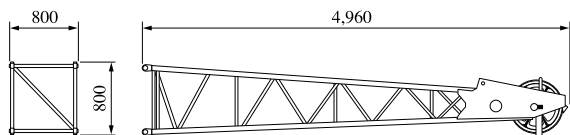
Weight: 1,720 kg (with guy cables)



Dimensions: mm Weight: kg

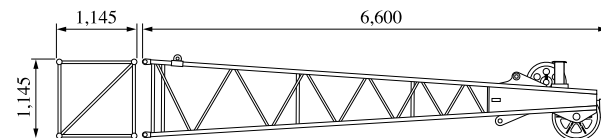
Jib Top (For Crane)

Weight: 280 kg



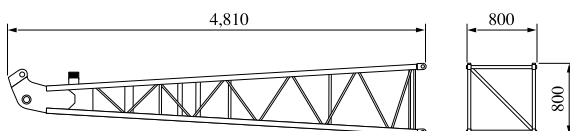
Jib Top (for Luffing Tower)

Weight: 560 kg



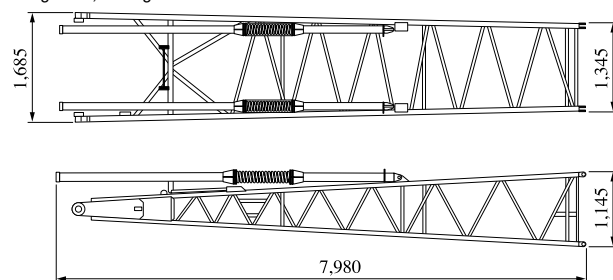
Jib Base

Weight: 200 kg



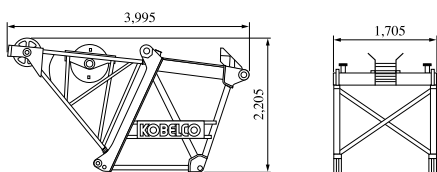
Jib Base (for Luffing Tower)

Weight: 1,060 kg



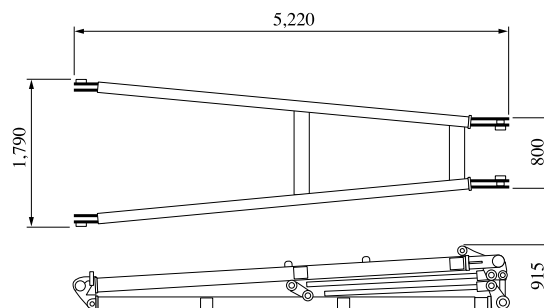
Luffing Tower Cap

Weight: 1,220 kg



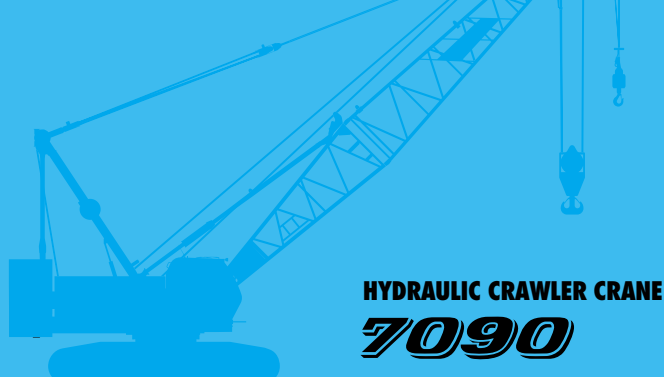
Luffing Jib Strut

Weight: 1,090 kg



Other Attachments

Attachments	weight	Dimensions (L x W x H)
9.1B special insert boom for tower	1,460 kg	9,260 mm x 1,680 mm x 2,505 mm
6.1 m insert fixed jib	180 kg	6,175 mm x 1,180 mm x 1,145 mm
3.0 m insert tower jib	180 kg	3,125 mm x 1,180 mm x 1,145 mm
6.1 m insert tower jib	320 kg	6,175 mm x 1,180 mm x 1,145 mm
9.1 m insert tower jib	460 kg	9,220 mm x 1,180 mm x 1,145 mm
Crane jib Strut	250 kg	3,620 mm x 835 mm x 615 mm
Crane backstop	130 kg (1 pc)	4,900 mm x 145 mm dia
Tower backstop	380 kg (1 pc)	5,000 mm x 140 mm dia
Upper spreader (for main boom)	300 kg	1,780 mm x 305 mm x 800 mm
Lower spreader (for main boom)	200 kg	905 mm x 255 mm x 710 mm
Upper spreader (for luffing tower)	300 kg	780 mm x 735 mm x 1,175 mm
Lower spreader (for luffing tower)	370 kg	1,665 mm x 465 mm x 1,060 mm
Ball hook	300 kg	1,050 mm x 360 mm dia
35-ton hook	700 kg	700 mm x 470 mm x 1,575 mm
50-ton hook	850 kg	700 mm x 430 mm x 1,680 mm
90-ton hook	1,300 kg	700 mm x 530 mm x 1,890 mm



HYDRAULIC CRAWLER CRANE

7090

Standard Equipment

Upper structure/Lower structure

Counterweight: 32.8 ton (total weight)
 900 mm shoe crawlers
 136AH / 5 HR battery
 Trans-Lifter
 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
 Step (equipped on left-side guard)
 Step (equipped on crawlers)
 Two front working lights
 Anti-slip sheet (mounted on the guard)
 Tools (for routine maintenance)
 Cab interior light
 Two back mirrors
 Mirror for monitoring drums

Cab/Control

Air conditioner
 Luggage box
 Cup holder
 Ashtray
 Cigar lighter
 Intermittent wiper & window washer (skylight, front window)
 Sun visor
 Ceiling blind
 Tinted glass
 Floor mat (cloth)
 Foot rest
 Shoe tray

Safety Device

Over-load prevention device (w/ boom lowering slow stop function)
 Release prevention key for hook over-hoist prevention device
 Release prevention key for boom over-hoist prevention device
 Multi LCD alarm and gauge display
 Second over-hoist prevention device (boom angle limit stop)
 Boom over-hoist auto-stop device (slow stop function)
 Hook over-hoist auto-stop device
 Boom backstops
 Safety lever lock (Function lock lever)
 Propel lever lock
 Manual drum safety pawl (main, aux. and boom hoist)
 Neutral negative brakes (main, aux., boom hoist and propel)
 Assembly/disassembly mode switch
 Lamp for swing neutral-free/brake select switch
 Swing neutral-free/brake select switch with lock function
 Hydraulically safety valve (main, aux., boom hoist and propel)
 Signal horn
 Swing brake
 Swing lock pin (four-position pin-hole lock)
 Swing flashers/warning buzzer

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