Telescopic Boom Crawler Crane

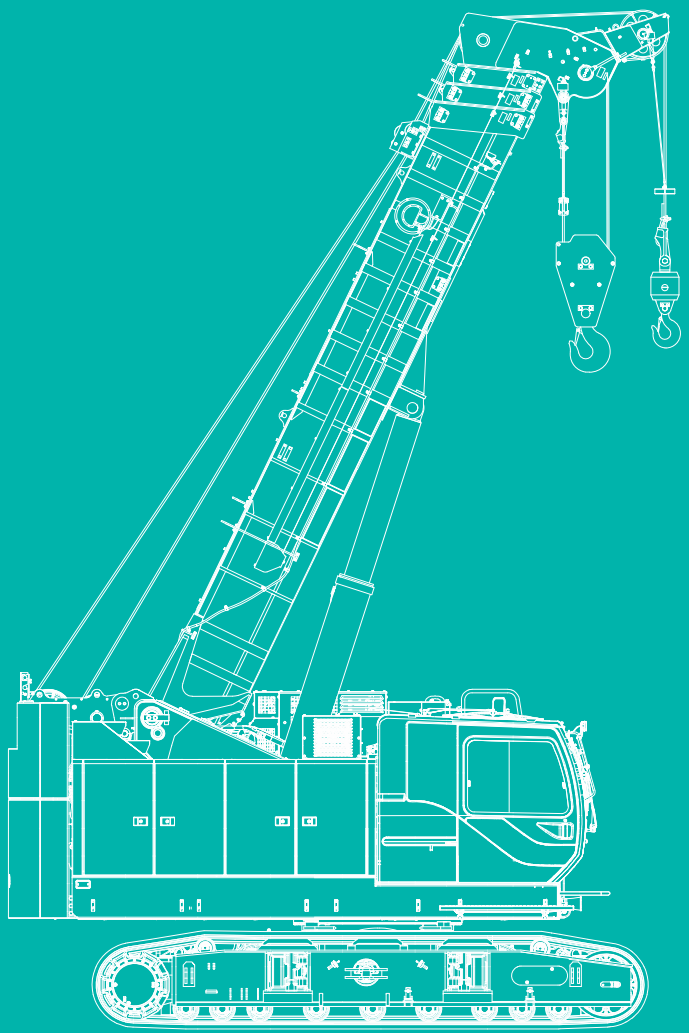
TK550GSB

Model : TK550G-2

Max. Lifting Capacity : **55 t x 3.0 m**

Telescopic Boom Length : **7.7 m to 20.9 m**

Comply with Japanese Construction Codes for Mobile Cranes



KOBELCO

TK550GSB
CONTENTS

SPECIFICATIONS

Power Plant

Model: Mercedes-Benz E9H01 (Daimler OM936LA)
Type: Water cooled 4 cycle, 6 cylinder, direct injection diesel with turbocharger, intercooler
Complies with NRMM (Europe) Stage V
Displacement: 7.697 L
Rated power: 207 kW/2,000 min^{-1}
Max. torque: 1,150 N·m/1,200 to 1,600 min^{-1}
Cooling system: Water-cooled
Starter: 24 V-3.9 kW
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 12 V x 136 Ah/5 HR capacity batteries, series connected
Fuel tank capacity: 400 L
AdBlue® tank usable volume: 40 L

Hydraulic System

Main pumps: 4-pumps (2 variable plunger pumps + 2 gear pumps) + 4-pumps (2 variable plunger pumps + 2 gear 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 and propel system:** 31.9 MPa
- **Swing system (free):** 20.6 MPa
- **Swing system (brake):** 20.6 MPa
- **Control system:** 6.6 MPa

2nd/3rd boom telescope (extend): 20.6 MPa
2nd/3rd boom telescope (retract): 20.6 MPa
Top boom telescope (extend): 17.6 MPa
Top boom telescope (retract): 20.6 MPa
Boom hoist (lower): 11.8 MPa
Boom hoist (raise): 27.4 MPa
Oil Quantity (at the reference level): 680 L

Load Hoisting System

Hydraulic motor drive with spur gear reduction with auto-brake, independent 2 winches, with third winch (option)
Negative brake: A spring-set, hydraulically released multiple-disk brake is mounted on the hoist motor and operated through a counter-balance valve. (Positive free fall brake is standard)
Drum lock: External ratchet for locking drum
Drums:
- **Main drum:** 426 mm P.C.D x 431 mm wide drum, grooved for 20 mm wire rope. Rope capacity is 120 m working length and 193 m storage length.
- **Aux. drum:** 426 mm P.C.D x 431 mm wide drum, grooved for 20 mm wire rope. Rope capacity is 60 m working length and 193 m storage length.
- **Third drum with free fall (option):** 424 mm P.C.D x 446 mm wide drum, grooved for 18 mm wire rope. Rope capacity is 120 m working length and 261 m storage length.
- **Third drum without free fall (option):** 360 mm P.C.D x 419 mm wide drum, grooved for 18 mm wire rope. Rope capacity is 120 m working length and 205 m storage length.

Diameter of wire rope
- **Main winch:** 20 mm x 120 m
- **Aux. winch:** 20 mm x 60 m
- **Third winch with free fall:** 18 mm x 120 m
- **Third winch without free fall:** 18 mm x 120 m

Line speed*
- **Main winch:** 110 m/min
- **Aux. winch:** 110 m/min
- **Third winch with free fall:** 110 m/min
- **Third winch without free fall:** 87 m/min

Max. line pull (Referential performance)**
- **Main winch:** 109.8 kN {11.2 tf}
- **Aux. winch:** 109.8 kN {11.2 tf}
- **Third winch with free fall:** 110.3 kN {11.2 tf}
- **Third winch without free fall:** 107.0 kN {10.9 tf}

Rated line pull:
- **Main winch:** 58.8 kN {6.0 tf}
- **Aux. winch:** 58.8 kN {6.0 tf}
- **Third winch with free fall:** 49.0 kN {5.0 tf}
- **Third winch without free fall:** 49.0 kN {5.0 tf}

*Single line on first drum layer
**Max. line pull is not based on wire rope strength

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-disk brake is mounted on swing motor.
Swing circle: Single-row ball bearing with an integral internally cut swing gear.
Swing lock: Manually, four position lock for transportation
Swing speed: 2.3 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: 13.2 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 retracted for transportation. 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.

Shoe (flat): 760 mm wide each crawler

Max. gradeability: 30%

Weight

Including upper and lower machine, 17.2 ton counterweight, boom, hook, and other accessories.

Weight: 54.7 ton

Ground pressure: 74.7 kPa

Attachment

Boom:

Four section, box construction, 2nd and 3rd simultaneously telescoping, 4th independently telescoping.

Boom length

	Min. Length	Max. Length
Telescopic Boom	7.7 m	20.9 m

Main Specifications (Model: TK550G-2)

Crane Performance		
Max. Rated Load	7.7 m boom	55.0 t x 3.0 m (10-lines)
	12.1 m boom	28.0 t x 5.0 m (5-lines)
	16.5 m boom	22.0 t x 6.0 m (4-lines)
	20.9 m boom	14.0 t x 6.5 m (4-lines)
	Aux. sheave (Max.)	6.0 t (1-line)
Main Boom Length		7.7 m to 20.9 m
Main Hook Max. Hoist Height		20.7 m
Main Hook Max. Operating Radius		18.6 m
Winch (Main / Aux.)		
Line Speed (1st layer)		110 m/min
Rated Line Pull (Single line)		58.8 kN {6.0 tf}
Max. Line Pull (Referential performance)*2		109.8 kN {11.2 tf}
Wire Rope Diameter		20 mm
Wire Rope Length		120 m (Main), 60 m (Aux.)
Brake Type (Free fall)		Wet-type multiple disc brake
Winch (Third [with free fall]*1)		
Line Speed (1st layer)		110 m/min
Rated Line Pull (Single line)		49.0 kN {5.0 tf}
Max. Line Pull (Referential performance)*2		110.3 kN {11.2 tf}
Wire Rope Diameter		18 mm
Wire Rope Length		120 m
Winch (Third [without free fall]*1)		
Line Speed (1st layer)		87 m/min
Rated Line Pull (Single line)		49.0 kN {5.0 tf}
Max. Line Pull (Referential performance)*2		107.0 kN {10.9 tf}
Wire Rope Diameter		18 mm
Wire Rope Length		120 m

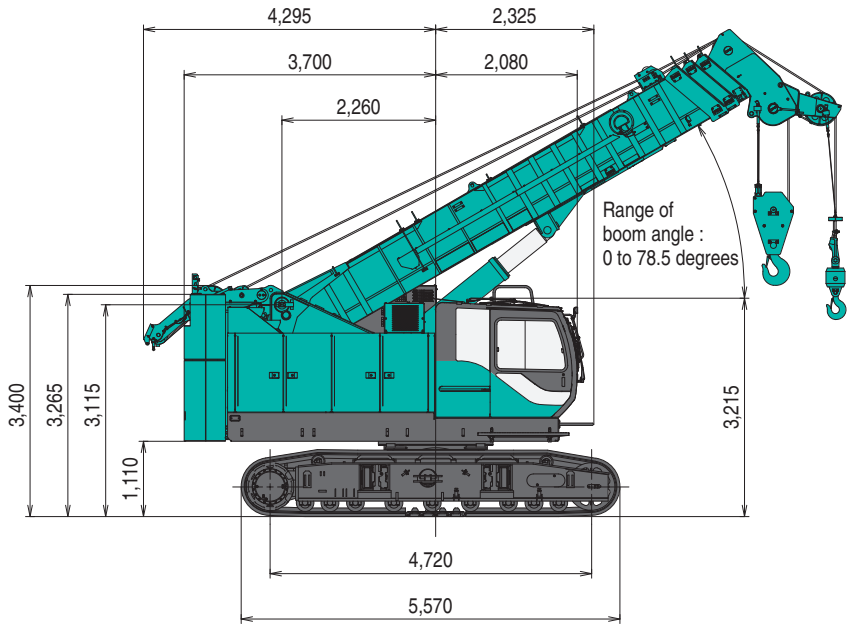
Working Speed	
Swing Speed	2.3 min^{-1}{rpm}
Travel Speed	2.1 / 1.4 (high / low select) km/h
Boom Telescoping Speed	79 / 13.2 sec/m
Boom Raising Speed	62 sec / 0 to 78.5 degrees
Power Plant	
Model	Mercedes-Benz E9H01 (Daimler OM936LA)
Engine Output	207 kW / 2,000 min^{-1}
Fuel Tank	400 L
AdBlue® Tank Usable Volume	40 L
Hydraulic System	
Main Pumps	4 pumps (2 variable plunger pumps + 2 gear pumps) + 4 pumps (2 variable plunger pumps + 2 gear pumps)
Max. Pressure	31.9 MPa {325 kgf/cm^2}
Oil Quantity (at the reference level)	680 L
Self-Removal Device (Option)	
	Counterweight
Weight	
Operating Weight	54.7 t
Ground Pressure	74.7 kPa {0.76 kgf/cm^2}
Counterweight	13,200 kg
Transport Weight	29,500 kg (31,300 kg *3)

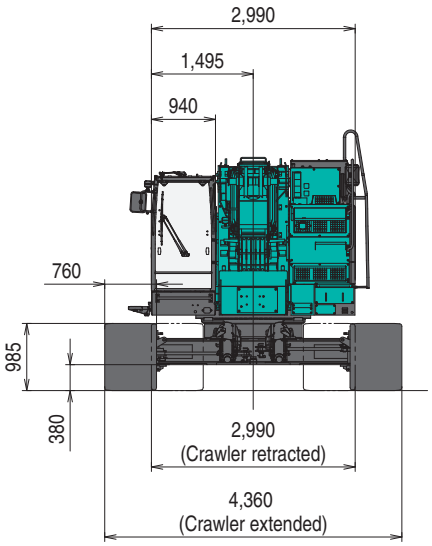
Units are SI units. { } indicates conventional units.
Line speeds in table are for light loads. Line speed varies with load.
*1 Third winch is optional
*2 Max. line pull is not based on wire rope strength.
*3 With third winch and other optional parts / attachments.

GENERAL DIMENSIONS

Counterweight Self-Removal Device Retracted

(Unit: mm)

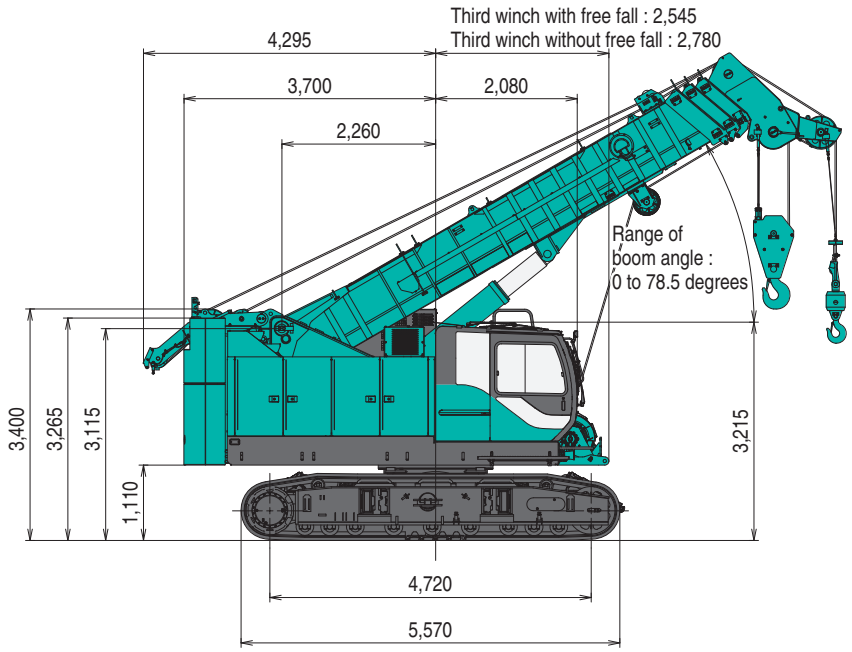


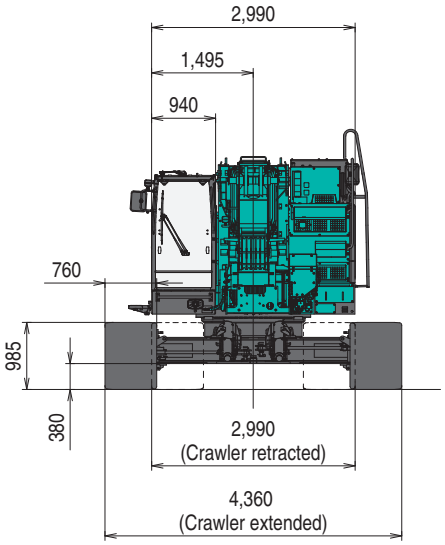


With Third Drum (Option)

Counterweight Self-Removal Device Retracted

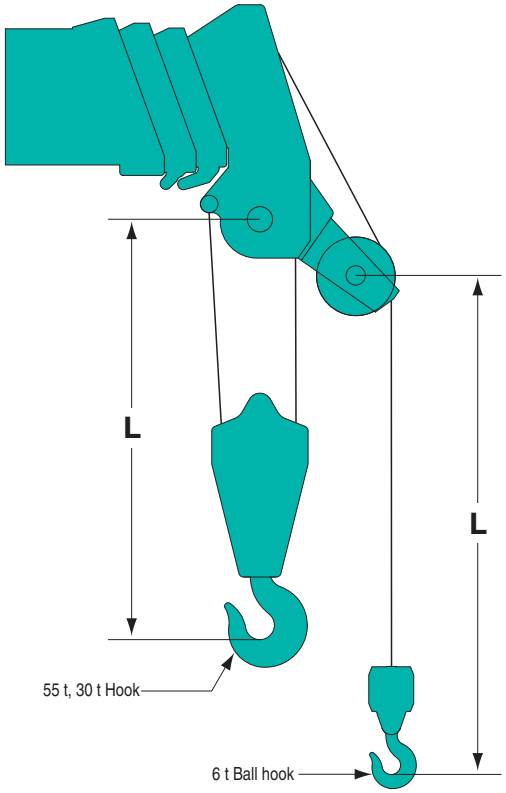
(Unit: mm)



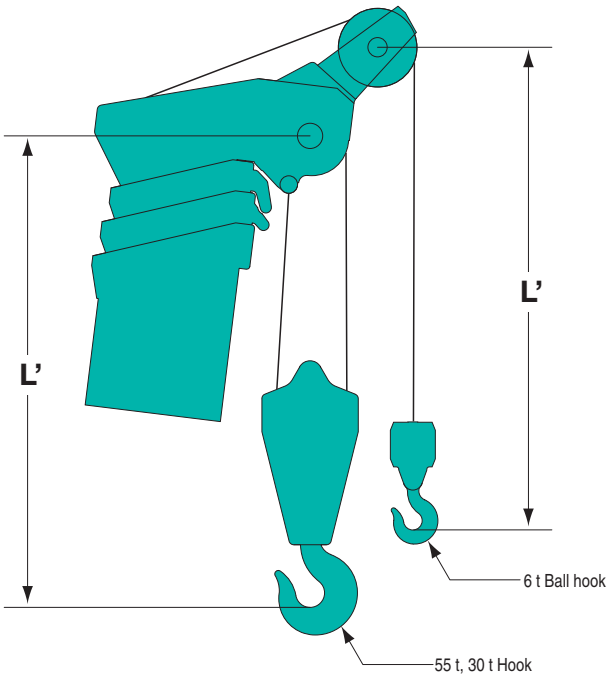


Limit of Hook Lifting

Boom Horizontal



Boom at Maximum Angle



Auxiliary Sheave (Single Sheave)

Hook	L	L'
55 t	2,350 mm	2,645 mm
30 t (4-lines)	2,280 mm	2,570 mm
30 t (5-lines)	2,920 mm	3,215 mm
30 t (Third 5-lines)	3,020 mm	3,315 mm
6 t Ball hook	2,980 mm	2,880 mm

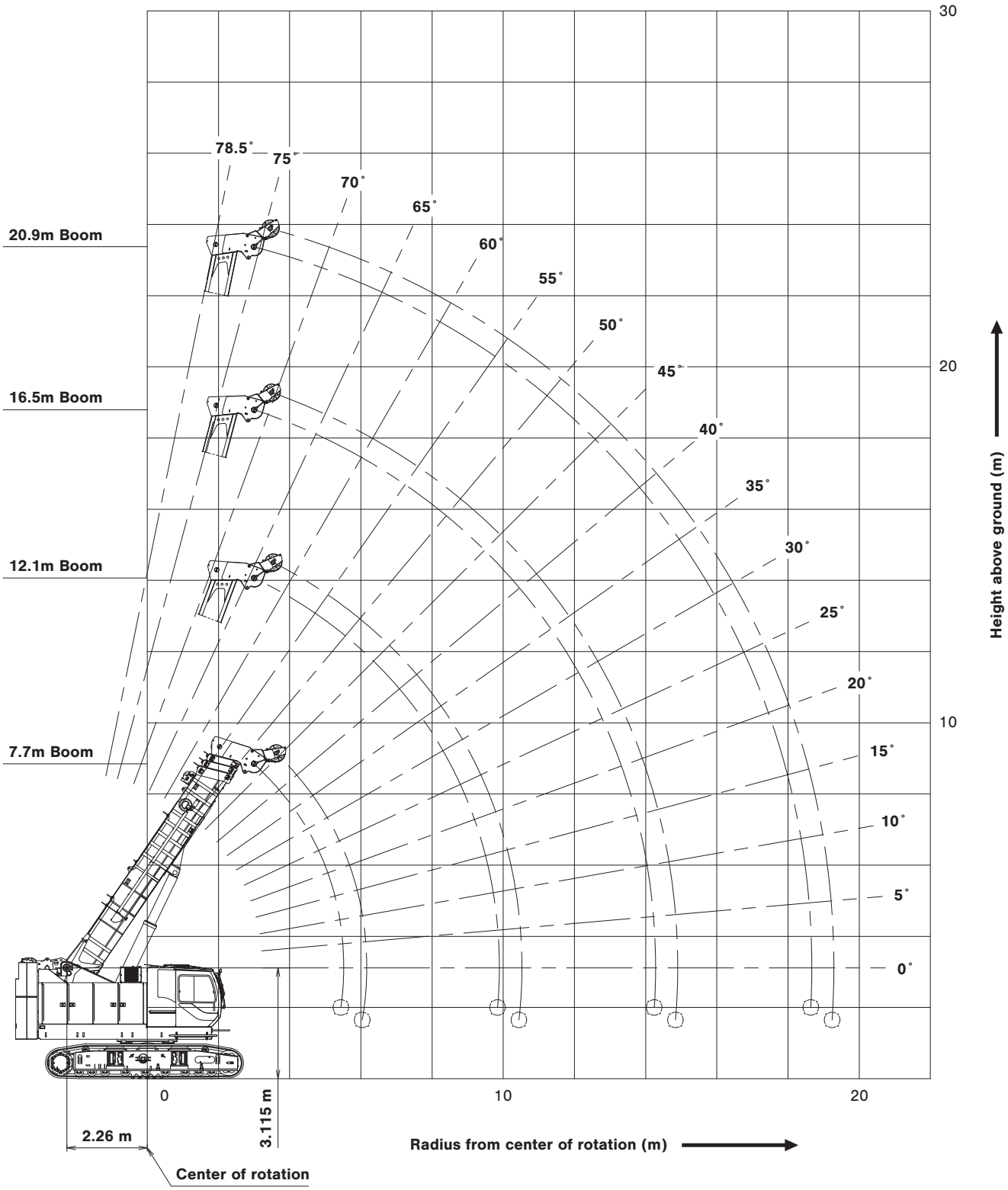
Auxiliary Sheave (Double Sheave) (Option)

Hook	L	L'
55 t	2,350 mm	2,645 mm
30 t (4-lines)	2,280 mm	2,570 mm
30 t (5-lines)	2,920 mm	3,215 mm
30 t (Third 5-lines)	3,020 mm	3,315 mm
6 t Ball hook	3,010 mm	2,910 mm

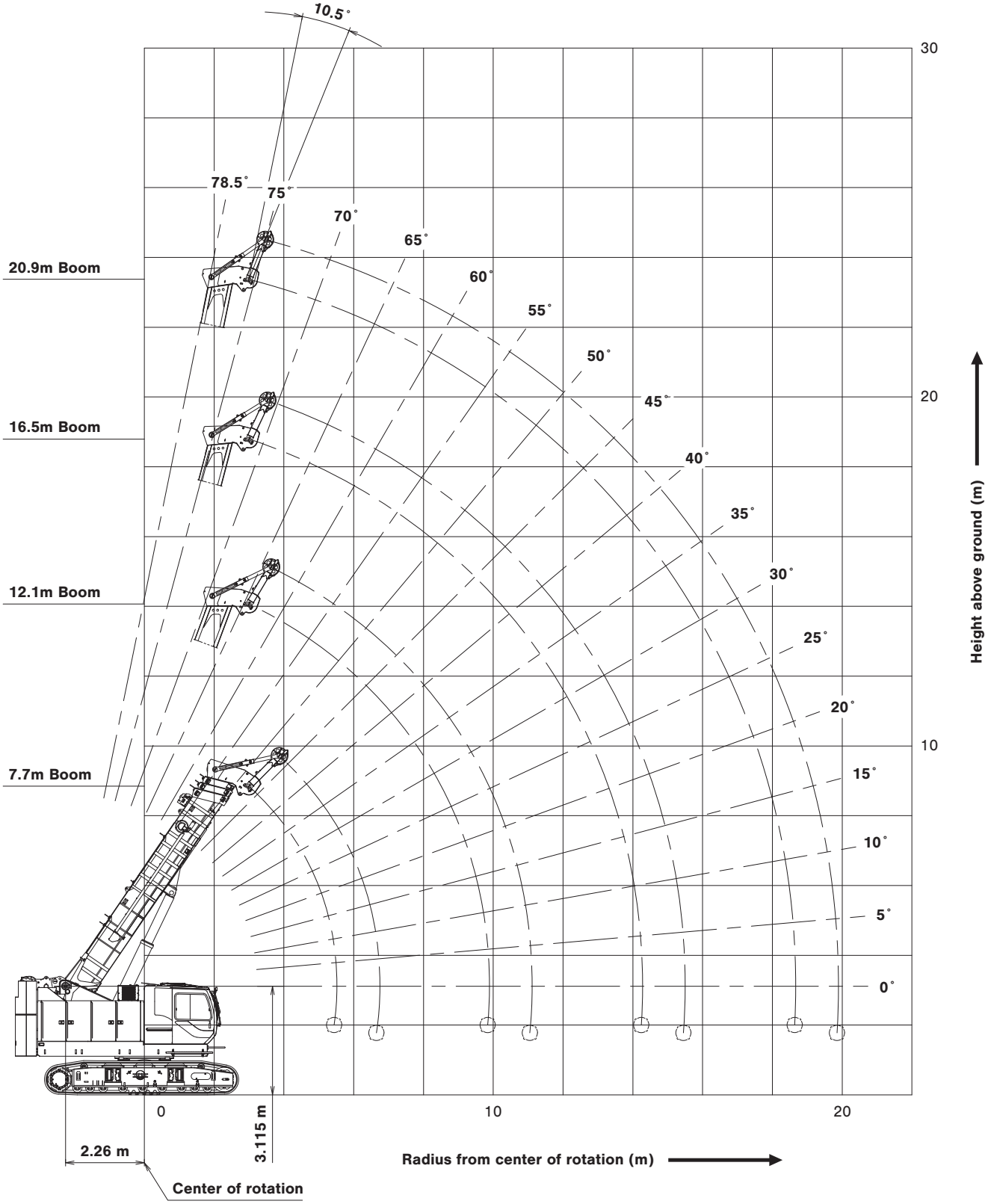
Auxiliary Sheave (Tilt Double Sheave) (Option)

Hook	L	L'
55 t	2,350 mm	2,645 mm
30 t (4-lines)	2,280 mm	2,570 mm
30 t (5-lines)	2,920 mm	3,215 mm
30 t (Third 5-lines)	3,020 mm	3,315 mm
6 t Ball hook (Offset Angle : 10.5°)	3,105 mm	2,910 mm
6 t Ball hook (Offset Angle : -32.8°)	3,010 mm	2,910 mm

Main boom

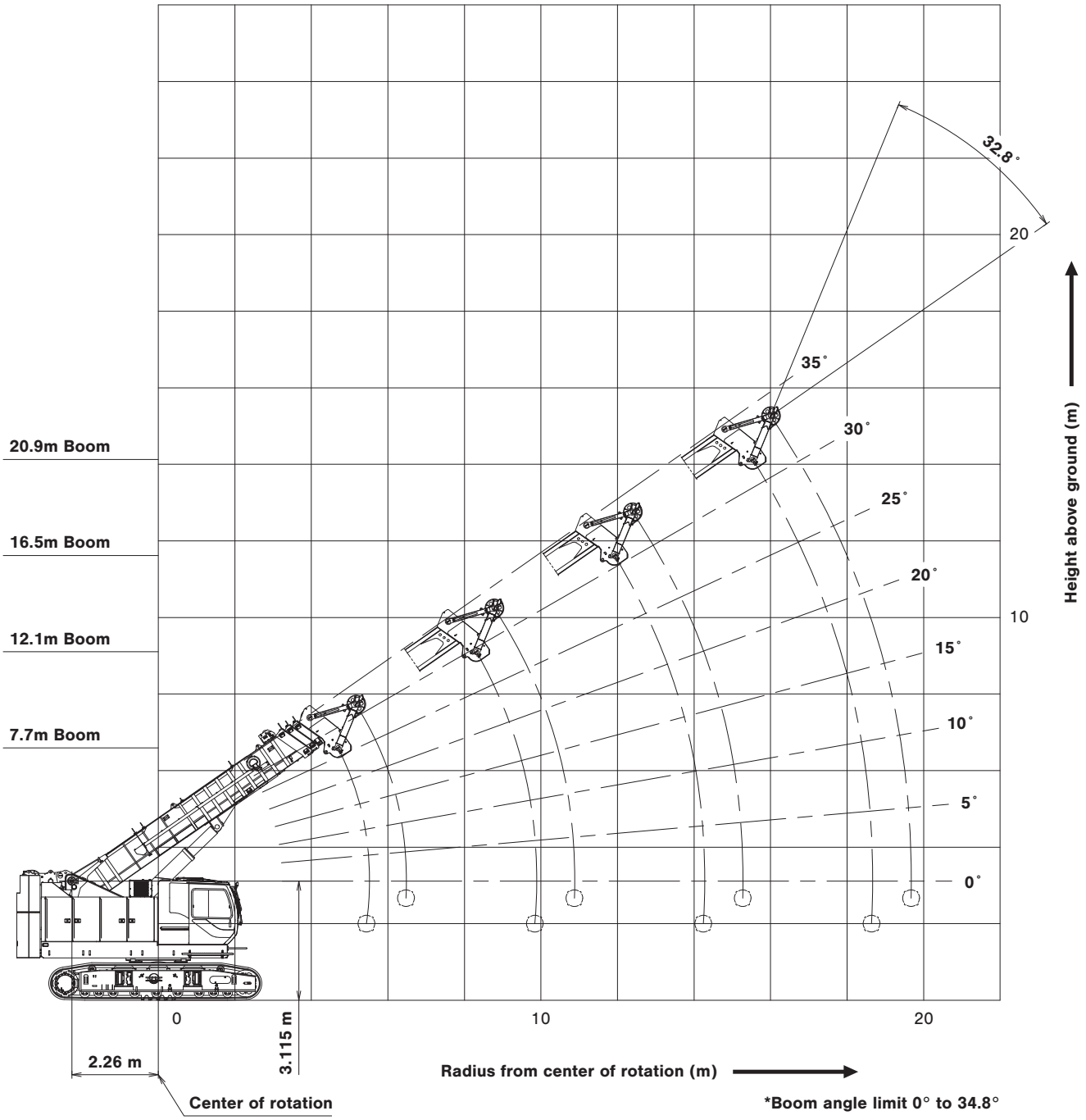

78.5˚
75˚
70˚
65˚
60˚
55˚
50˚
45˚
40˚
35˚
30˚
25˚
20˚
15˚
10˚
5˚
0˚
20.9m Boom
16.5m Boom
12.1m Boom
7.7m Boom
30
20
10
0
10
20
Height above ground (m)
Radius from center of rotation (m)
3.115 m
2.26 m
Center of rotation

Tilt double sheave auxiliary sheave
(Offset angle 10.5 degrees)



WORKING RANGES

Tilt double sheave auxiliary sheave
(Offset angle -32.8 degrees)



1. Ratings according to Japanese construction codes for mobile cranes.
   The crane rated loads are including the weight of hooks and other lifting gears.
   Values marked with ▭ are decided according to strength of the machine.
   Other values are decided according to stability of the machine.
   Rated loads are applicable to any directions, all around 360 degrees.

Type of hook	55 t	30 t	6 t	6 t Lightweight type
Weight	550 kg	350 kg	160 kg	60 kg

⚠ CAUTION

When uses of the lightweight hook, it may not be lowered depending on the boom length, boom angle and/or the hook height.
In case of the hook is not lowered, add the suitable weights adjusted up to the weight of the ball hook.

2. Even when it is intended to lift a crane rated load, the operator shall be responsible for ensuring safety depending on the actual condition such as reducing of the load and reduction of a working speed, if applicable conditions such as the influence of wind, ground condition, working speed and others are likely to cause safety problems.

3. A working radius shall mean a horizontal distance from the center line of center of rotation of the crane to the center of gravity of the load to be lifted.
   The working radius is based on an actual value with the factor of defection of the boom taken into considerations.
   Thus, be sure to conduct the crane work while referencing the working radius.

4. Be sure to keep the crawler frame extended up to the specified position during execution of the crane work.

5. The rated capacity of the auxiliary sheave shall be equal to the rated capacity of the boom minus the weight of the hook used for the main lift, and shall be limited to 6,000 kg.

6. As to the crane rated loads of third drum, the crane rated loads of the boom applies, but the limit shall be (a single part of line) 5,000 kg.

7. When the boom length is in excess of the specified value, conduct the crane work under a rated crane load of the boom of the specified length or a boom of one stage above, whichever is smaller.

8. Where no value is given in the columns of the crane rated loads chart, no execution of work is allowed.
   (If the boom should be inclined to an angle smaller than the minimum boom angle, be fully careful, since the basic machine may overturn with no load.)

9. The minimum number of parts line of the main hook in the main winch lifting is decided within a range not to exceed the value of 6,000 kg per single wire rope.
   The standard numbers of parts line by boom length are as shown below.

Boom length : m	7.7	12.1	16.5	20.9
Hook : t	55	30		
Number of parts line	10	5	4	4

10. The minimum number of part lines of the main hook in the third drum winch lifting is decided within a range not to exceed the value of 5,000 kg per single wire rope.
    The standard numbers of parts line by boom length are as shown below.

Boom length : m	7.7	12.1	16.5	20.9
Hook : t	55		30	
Number of parts line	10	6	5	4

11. To prevent a load being lifted and carried from falling due to wrong operation or others, do not perform a free fall work in the crane work.

LIFTING CAPACITIES

Crane Rated Load Chart

Counterweight: 13.2 t

(Unit: metric ton)

Working radius (m) \ Boom length (m)	7.7	12.1	16.5	20.9	Boom length (m) \ Working radius (m)
3.0	55.0	28.0	22.0	14.0	3.0
3.5	50.0	28.0	22.0	14.0	3.5
4.0	42.5	28.0	22.0	14.0	4.0
4.5	36.5	28.0	22.0	14.0	4.5
5.0	31.6	28.0	22.0	14.0	5.0
5.5	16.9	26.6	22.0	14.0	5.5
6.0		23.1	22.0	14.0	6.0
6.5		20.3	20.1	14.0	6.5
7.0		18.0	17.8	13.5	7.0
7.5		16.1	16.0	13.0	7.5
8.0		14.6	14.4	12.5	8.0
8.5		13.3	13.1	12.0	8.5
9.0		12.3	12.0	11.5	9.0
9.5		11.2	11.0	11.0	9.5
10.0		9.8m/9.5	10.1	10.7	10.0
11.0			8.7	9.2	11.0
12.0			7.5	8.0	12.0
13.0			6.6	7.1	13.0
14.0			5.8	6.2	14.0
15.0			14.2m/5.6	5.6	15.0
16.0				5.0	16.0
17.0				4.5	17.0
18.0				4.0	18.0
19.0				18.6m/3.8	19.0
Max. boom angle	56°	70°	75°	79°	Max. boom angle
Min. boom angle	0°	0°	0°	0°	Min. boom angle

Note:
Ratings shown in [ ] are determined by the strength of the boom or other structural components.
Lifting capacities may vary depending on hook used.
Please refer rated chart in operator's cabin.

Crane Rated Load Chart

Counterweight: 8.0 t (Option)
Special type boom rated load

(Unit: metric ton)

Working radius (m) \ Boom length (m)	7.7	12.1	16.5	20.9	Boom length (m) \ Working radius (m)
3.0	55.0	28.0	22.0	14.0	3.0
3.5	50.0	28.0	22.0	14.0	3.5
4.0	40.4	28.0	22.0	14.0	4.0
4.5	32.2	28.0	22.0	14.0	4.5
5.0	26.7	26.4	22.0	14.0	5.0
5.5	16.9	22.4	22.0	14.0	5.5
6.0		19.3	19.1	14.0	6.0
6.5		16.9	16.7	14.0	6.5
7.0		15.0	14.8	13.5	7.0
7.5		13.3	13.2	13.0	7.5
8.0		12.0	11.9	12.5	8.0
8.5		10.9	10.8	11.3	8.5
9.0		9.9	9.8	10.4	9.0
9.5		9.1	8.9	9.5	9.5
10.0		9.8m/8.6	8.2	8.7	10.0
11.0			7.0	7.5	11.0
12.0			6.0	6.5	12.0
13.0			5.2	5.7	13.0
14.0			4.5	5.0	14.0
15.0			14.2m/4.3	4.4	15.0
16.0				3.9	16.0
17.0				3.4	17.0
18.0				3.1	18.0
19.0				18.6m/2.8	19.0
Max. boom angle	56°	70°	75°	79°	Max. boom angle
Min. boom angle	0°	0°	0°	0°	Min. boom angle

Note:
Ratings shown in [ ] are determined by the strength of the boom or other structural components.
Lifting capacities may vary depending on hook used.
Please refer rated chart in operator's cabin.

Crane Rated Load Chart

Without Counterweight (Option)
Special type boom rated load

(Unit: metric ton)

Working radius (m) \ Boom length (m)	7.7	12.1	16.5	Boom length (m) \ Working radius (m)
3.0	18.0	18.0	14.0	3.0
3.5	18.0	18.0	14.0	3.5
4.0	18.0	18.0	14.0	4.0
4.5	18.0	18.0	14.0	4.5
5.0	16.3	16.1	14.0	5.0
5.5	13.7	13.5	13.4	5.5
6.0		11.5	11.4	6.0
6.5		9.9	9.9	6.5
7.0		8.7	8.7	7.0
7.5		7.6	7.7	7.5
8.0		6.8	6.9	8.0
8.5		6.0	6.1	8.5
9.0		5.4	5.5	9.0
9.5		4.8	4.9	9.5
10.0		9.8m/4.5	4.5	10.0
11.0			3.7	11.0
12.0			3.1	12.0
13.0			2.6	13.0
14.0			2.1	14.0
15.0			14.2m/2.0	15.0
Max. boom angle	56°	70°	75°	Max. boom angle
Min. boom angle	0°	0°	0°	Min. boom angle

Lifting capacities may vary depending on hook used.
Please refer rated chart in operator's cabin.

Aux. Sheave Rated Loads (Tilt Double Sheave) (With 55t Main Hook Block)

Counterweight: 13.2 t
(Offset Angle: 10.5°)
Special type boom rated load

(Unit: metric ton)

Working radius (m) \ Boom length (m)	7.7	12.1	16.5	20.9	Boom length (m) \ Working radius (m)
3.0		3.9m/6.0	3.8m/6.0	3.7m/6.0	3.0
4.0	4.1m/6.0	6.0	6.0	6.0	4.0
5.0	6.0	6.0	6.0	6.0	5.0
6.0	6.0	6.0	6.0	6.0	6.0
7.0	6.9m/6.0	6.0	6.0	6.0	7.0
8.0		6.0	6.0	6.0	8.0
9.0		6.0	6.0	6.0	9.0
10.0		6.0	6.0	6.0	10.0
11.0		6.0	6.0	6.0	11.0
12.0		11.3m/6.0	6.0	6.0	12.0
13.0			6.0	6.0	13.0
14.0			5.2	5.7	14.0
15.0			4.5	5.0	15.0
16.0			15.7m/4.1	4.4	16.0
17.0				3.9	17.0
18.0				3.5	18.0
19.0				3.1	19.0
20.0				2.7	20.0
21.0				20.1m/2.7	21.0
Max. boom angle	56°	70°	75°	79°	Max. boom angle
Min. boom angle	0°	0°	0°	0°	Min. boom angle

Note:
Ratings shown in [ ] are determined by the strength of the boom or other structural components.

Aux. Sheave Rated Loads (Tilt Double Sheave) (With 30t Main Hook Block)

Counterweight: 13.2 t
(Offset Angle: 10.5°)
Special type boom rated load
(Unit: metric ton)

Working radius (m) \ Boom length (m)	7.7	12.1	16.5	20.9	Boom length (m) \ Working radius (m)
3.0		3.9m/6.0	3.8m/6.0	3.7m/6.0	3.0
4.0	4.1m/6.0	6.0	6.0	6.0	4.0
5.0	6.0	6.0	6.0	6.0	5.0
6.0	6.0	6.0	6.0	6.0	6.0
7.0	6.9m/6.0	6.0	6.0	6.0	7.0
8.0		6.0	6.0	6.0	8.0
9.0		6.0	6.0	6.0	9.0
10.0		6.0	6.0	6.0	10.0
11.0		6.0	6.0	6.0	11.0
12.0		11.3m/6.0	6.0	6.0	12.0
13.0			6.0	6.0	13.0
14.0			5.4	5.9	14.0
15.0			4.7	5.2	15.0
16.0			15.7m/4.3	4.6	16.0
17.0				4.1	17.0
18.0				3.7	18.0
19.0				3.3	19.0
20.0				2.9	20.0
21.0				20.1m/2.9	21.0
Max. boom angle	56°	70°	75°	79°	Max. boom angle
Min. boom angle	0°	0°	0°	0°	Min. boom angle

Note:
Ratings shown in [ ] are determined by the strength of the boom or other structural components.

Aux. Sheave Rated Loads (Tilt Double Sheave) (Without Main Hook Block)

Counterweight: 13.2 t
(Offset Angle: 10.5°)
Special type boom rated load
(Unit: metric ton)

Working radius (m) \ Boom length (m)	7.7	12.1	16.5	20.9	Boom length (m) \ Working radius (m)
3.0		3.9m/6.0	3.8m/6.0	3.7m/6.0	3.0
4.0	4.1m/6.0	6.0	6.0	6.0	4.0
5.0	6.0	6.0	6.0	6.0	5.0
6.0	6.0	6.0	6.0	6.0	6.0
7.0	6.9m/6.0	6.0	6.0	6.0	7.0
8.0		6.0	6.0	6.0	8.0
9.0		6.0	6.0	6.0	9.0
10.0		6.0	6.0	6.0	10.0
11.0		6.0	6.0	6.0	11.0
12.0		11.3m/6.0	6.0	6.0	12.0
13.0			6.0	6.0	13.0
14.0			5.8	6.0	14.0
15.0			5.1	5.6	15.0
16.0			15.7m/4.7	5.0	16.0
17.0				4.5	17.0
18.0				4.0	18.0
19.0				3.6	19.0
20.0				3.3	20.0
21.0				20.1m/3.2	21.0
Max. boom angle	56°	70°	75°	79°	Max. boom angle
Min. boom angle	0°	0°	0°	0°	Min. boom angle

Note:
Ratings shown in [ ] are determined by the strength of the boom or other structural components.

Aux. Sheave Rated Loads (Tilt Double Sheave) (With 55t Main Hook Block)

Counterweight: 8.0 t
(Offset Angle: 10.5°)
Special type boom rated load
(Unit: metric ton)

Working radius (m) \ Boom length (m)	7.7	12.1	16.5	20.9	Boom length (m) \ Working radius (m)
3.0		3.9m/6.0	3.8m/6.0	3.7m/6.0	3.0
4.0	4.1m/6.0	6.0	6.0	6.0	4.0
5.0	6.0	6.0	6.0	6.0	5.0
6.0	6.0	6.0	6.0	6.0	6.0
7.0	6.9m/6.0	6.0	6.0	6.0	7.0
8.0		6.0	6.0	6.0	8.0
9.0		6.0	6.0	6.0	9.0
10.0		6.0	6.0	6.0	10.0
11.0		6.0	6.0	6.0	11.0
12.0		11.3m/6.0	5.4	5.9	12.0
13.0			4.6	5.1	13.0
14.0			3.9	4.4	14.0
15.0			3.4	3.8	15.0
16.0			15.7m/3.0	3.3	16.0
17.0				2.9	17.0
18.0				2.5	18.0
19.0				2.2	19.0
20.0				1.9	20.0
21.0				20.1m/1.8	21.0
Max. boom angle	56°	70°	75°	79°	Max. boom angle
Min. boom angle	0°	0°	0°	0°	Min. boom angle

Note:
Ratings shown in [ ] are determined by the strength of the boom or other structural components.

Aux. Sheave Rated Loads (Tilt Double Sheave) (With 30t Main Hook Block)

Counterweight: 8.0 t
(Offset Angle: 10.5°)
Special type boom rated load
(Unit: metric ton)

Working radius (m) \ Boom length (m)	7.7	12.1	16.5	20.9	Boom length (m) \ Working radius (m)
3.0		3.9m/6.0	3.8m/6.0	3.7m/6.0	3.0
4.0	4.1m/6.0	6.0	6.0	6.0	4.0
5.0	6.0	6.0	6.0	6.0	5.0
6.0	6.0	6.0	6.0	6.0	6.0
7.0	6.9m/6.0	6.0	6.0	6.0	7.0
8.0		6.0	6.0	6.0	8.0
9.0		6.0	6.0	6.0	9.0
10.0		6.0	6.0	6.0	10.0
11.0		6.0	6.0	6.0	11.0
12.0		11.3m/6.0	5.6	6.0	12.0
13.0			4.8	5.3	13.0
14.0			4.1	4.6	14.0
15.0			3.6	4.0	15.0
16.0			15.7m/3.2	3.5	16.0
17.0				3.1	17.0
18.0				2.7	18.0
19.0				2.4	19.0
20.0				2.1	20.0
21.0				20.1m/2.0	21.0
Max. boom angle	56°	70°	75°	79°	Max. boom angle
Min. boom angle	0°	0°	0°	0°	Min. boom angle

Note:
Ratings shown in [ ] are determined by the strength of the boom or other structural components.

LIFTING CAPACITIES

Aux. Sheave Rated Loads (Tilt Double Sheave) (Without Main Hook Block)

Counterweight: 8.0 t
(Offset Angle: 10.5°)
Special type boom rated load
(Unit: metric ton)

Working radius (m) \ Boom length (m)	7.7	12.1	16.5	20.9	Boom length (m) \ Working radius (m)
3.0		3.9m/6.0	3.8m/6.0	3.7m/6.0	3.0
4.0	4.1m/6.0	6.0	6.0	6.0	4.0
5.0	6.0	6.0	6.0	6.0	5.0
6.0	6.0	6.0	6.0	6.0	6.0
7.0	6.9m/6.0	6.0	6.0	6.0	7.0
8.0		6.0	6.0	6.0	8.0
9.0		6.0	6.0	6.0	9.0
10.0		6.0	6.0	6.0	10.0
11.0		6.0	6.0	6.0	11.0
12.0		11.3m/6.0	6.0	6.0	12.0
13.0			5.2	5.7	13.0
14.0			4.5	5.0	14.0
15.0			3.9	4.4	15.0
16.0			15.7m/3.6	3.9	16.0
17.0				3.4	17.0
18.0				3.1	18.0
19.0				2.7	19.0
20.0				2.4	20.0
21.0				20.1m/2.4	21.0
Max. boom angle	56°	70°	75°	79°	Max. boom angle
Min. boom angle	0°	0°	0°	0°	Min. boom angle

Note:
Ratings shown in [ ] are determined by the strength of the boom or other structural components.

Aux. Sheave Rated Loads (Tilt Double Sheave) (With 55t Main Hook Block)

Without Counterweight (Option)
(Offset Angle: 10.5°)
Special type boom rated load
(Unit: metric ton)

Working radius (m) \ Boom length (m)	7.7	12.1	16.5	Boom length (m) \ Working radius (m)
3.0		3.9m/6.0	3.8m/6.0	3.0
4.0	4.1m/6.0	6.0	6.0	4.0
5.0	6.0	6.0	6.0	5.0
6.0	6.0	6.0	6.0	6.0
7.0	6.9m/6.0	6.0	6.0	7.0
8.0		6.0	6.0	8.0
9.0		4.8	4.9	9.0
10.0		3.8	3.9	10.0
11.0		3.0	3.2	11.0
12.0		11.3m/2.8	2.5	12.0
13.0			2.0	13.0
14.0			1.6	14.0
15.0			1.2	15.0
16.0			15.7m/1.0	16.0
Max. boom angle	56°	70°	75°	Max. boom angle
Min. boom angle	0°	0°	0°	Min. boom angle

Note:
Ratings shown in [ ] are determined by the strength of the boom or other structural components.

Aux. Sheave Rated Loads (Tilt Double Sheave) (With 30t Main Hook Block)

Without Counterweight (Option)
(Offset Angle: 10.5°)
Special type boom rated load
(Unit: metric ton)

Working radius (m) \ Boom length (m)	7.7	12.1	16.5	Boom length (m) \ Working radius (m)
3.0		3.9m/6.0	3.8m/6.0	3.0
4.0	4.1m/6.0	6.0	6.0	4.0
5.0	6.0	6.0	6.0	5.0
6.0	6.0	6.0	6.0	6.0
7.0	6.9m/6.0	6.0	6.0	7.0
8.0		6.0	6.0	8.0
9.0		5.0	5.1	9.0
10.0		4.0	4.1	10.0
11.0		3.2	3.4	11.0
12.0		11.3m/3.0	2.7	12.0
13.0			2.2	13.0
14.0			1.8	14.0
15.0			1.4	15.0
16.0			15.7m/1.2	16.0
Max. boom angle	56°	70°	75°	Max. boom angle
Min. boom angle	0°	0°	0°	Min. boom angle

Note:
Ratings shown in [ ] are determined by the strength of the boom or other structural components.

Aux. Sheave Rated Loads (Tilt Double Sheave) (Without Main Hook Block)

Without Counterweight (Option)
(Offset Angle: 10.5°)
Special type boom rated load
(Unit: metric ton)

Working radius (m) \ Boom length (m)	7.7	12.1	16.5	Boom length (m) \ Working radius (m)
3.0		3.9m/6.0	3.8m/6.0	3.0
4.0	4.1m/6.0	6.0	6.0	4.0
5.0	6.0	6.0	6.0	5.0
6.0	6.0	6.0	6.0	6.0
7.0	6.9m/6.0	6.0	6.0	7.0
8.0		6.0	6.0	8.0
9.0		5.4	5.5	9.0
10.0		4.4	4.5	10.0
11.0		3.6	3.7	11.0
12.0		11.3m/3.4	3.1	12.0
13.0			2.6	13.0
14.0			2.1	14.0
15.0			1.7	15.0
16.0			15.7m/1.5	16.0
Max. boom angle	56°	70°	75°	Max. boom angle
Min. boom angle	0°	0°	0°	Min. boom angle

Note:
Ratings shown in [ ] are determined by the strength of the boom or other structural components.

Aux. Sheave Rated Loads (Tilt Double Sheave) (With 55t Main Hook Block)

Counterweight: 13.2 t
(Offset Angle: -32.8°)
Special type boom rated load
(Unit: metric ton)

Working radius (m) \ Boom length (m)	7.7	12.1	16.5	20.9	Boom length (m) \ Working radius (m)
5.0	5.4m/6.0				5.0
6.0	6.0				6.0
7.0	6.7m/6.0				7.0
8.0					8.0
9.0		6.0			9.0
10.0		6.0			10.0
11.0		6.0			11.0
12.0		11.1m/6.0	12.7m/6.0		12.0
13.0			6.0		13.0
14.0			5.2		14.0
15.0			4.5		15.0
16.0			15.4m/4.3	16.3m/4.3	16.0
17.0				3.9	17.0
18.0				3.5	18.0
19.0				3.1	19.0
20.0				19.8m/2.8	20.0
Max. boom angle	35°	35°	35°	35°	Max. boom angle
Min. boom angle	0°	0°	0°	0°	Min. boom angle

Note:
Ratings shown in [ ] are determined by the strength of the boom or other structural components.

Aux. Sheave Rated Loads (Tilt Double Sheave) (With 30t Main Hook Block)

Counterweight: 13.2 t
(Offset Angle: -32.8°)
Special type boom rated load
(Unit: metric ton)

Working radius (m) \ Boom length (m)	7.7	12.1	16.5	20.9	Boom length (m) \ Working radius (m)
5.0	5.4m/6.0				5.0
6.0	6.0				6.0
7.0	6.7m/6.0				7.0
8.0					8.0
9.0		6.0			9.0
10.0		6.0			10.0
11.0		6.0			11.0
12.0		11.1m/6.0	12.7m/6.0		12.0
13.0			6.0		13.0
14.0			5.4		14.0
15.0			4.7		15.0
16.0			15.4m/4.5	16.3m/4.5	16.0
17.0				4.1	17.0
18.0				3.7	18.0
19.0				3.3	19.0
20.0				19.8m/3.0	20.0
Max. boom angle	35°	35°	35°	35°	Max. boom angle
Min. boom angle	0°	0°	0°	0°	Min. boom angle

Note:
Ratings shown in [ ] are determined by the strength of the boom or other structural components.

Aux. Sheave Rated Loads (Tilt Double Sheave) (Without Main Hook Block)

Counterweight: 13.2 t
(Offset Angle: -32.8°)
Special type boom rated load
(Unit: metric ton)

Working radius (m) \ Boom length (m)	7.7	12.1	16.5	20.9	Boom length (m) \ Working radius (m)
5.0	5.4m/6.0				5.0
6.0	6.0				6.0
7.0	6.7m/6.0				7.0
8.0					8.0
9.0		6.0			9.0
10.0		6.0			10.0
11.0		6.0			11.0
12.0		11.1m/6.0	12.7m/6.0		12.0
13.0			6.0		13.0
14.0			5.8		14.0
15.0			5.1		15.0
16.0			15.4m/4.8	16.3m/4.8	16.0
17.0				4.5	17.0
18.0				4.0	18.0
19.0				3.6	19.0
20.0				19.8m/3.3	20.0
Max. boom angle	35°	35°	35°	35°	Max. boom angle
Min. boom angle	0°	0°	0°	0°	Min. boom angle

Note:
Ratings shown in [ ] are determined by the strength of the boom or other structural components.

Aux. Sheave Rated Loads (Tilt Double Sheave) (With 55t Main Hook Block)

Counterweight: 8.0 t
(Offset Angle: -32.8°)
Special type boom rated load
(Unit: metric ton)

Working radius (m) \ Boom length (m)	7.7	12.1	16.5	20.9	Boom length (m) \ Working radius (m)
5.0	5.4m/6.0				5.0
6.0	6.0				6.0
7.0	6.7m/6.0				7.0
8.0					8.0
9.0		6.0			9.0
10.0		6.0			10.0
11.0		6.0			11.0
12.0		11.1m/6.0	12.7m/4.8		12.0
13.0			4.6		13.0
14.0			3.9		14.0
15.0			3.4		15.0
16.0			15.4m/3.2	16.3m/3.2	16.0
17.0				2.9	17.0
18.0				2.5	18.0
19.0				2.2	19.0
20.0				19.8m/1.9	20.0
Max. boom angle	35°	35°	35°	35°	Max. boom angle
Min. boom angle	0°	0°	0°	0°	Min. boom angle

Note:
Ratings shown in [ ] are determined by the strength of the boom or other structural components.

Aux. Sheave Rated Loads (Tilt Double Sheave) (With 30t Main Hook Block)

Counterweight: 8.0 t
(Offset Angle: -32.8°)
Special type boom rated load
(Unit: metric ton)

Working radius (m) \ Boom length (m)	7.7	12.1	16.5	20.9	Boom length (m) \ Working radius (m)
5.0	5.4m/6.0				5.0
6.0	6.0				6.0
7.0	6.7m/6.0				7.0
8.0					8.0
9.0		6.0			9.0
10.0		6.0			10.0
11.0		6.0			11.0
12.0		11.1m/6.0	12.7m/5.0		12.0
13.0			4.8		13.0
14.0			4.1		14.0
15.0			3.6		15.0
16.0			15.4m/3.4	16.3m/3.4	16.0
17.0				3.1	17.0
18.0				2.7	18.0
19.0				2.4	19.0
20.0				19.8m/2.1	20.0
Max. boom angle	35°	35°	35°	35°	Max. boom angle
Min. boom angle	0°	0°	0°	0°	Min. boom angle

Note:
Ratings shown in [ ] are determined by the strength of the boom or other structural components.

Aux. Sheave Rated Loads (Tilt Double Sheave) (Without Main Hook Block)

Counterweight: 8.0 t
(Offset Angle: -32.8°)
Special type boom rated load
(Unit: metric ton)

Working radius (m) \ Boom length (m)	7.7	12.1	16.5	20.9	Boom length (m) \ Working radius (m)
5.0	5.4m/6.0				5.0
6.0	6.0				6.0
7.0	6.7m/6.0				7.0
8.0					8.0
9.0		6.0			9.0
10.0		6.0			10.0
11.0		6.0			11.0
12.0		11.1m/6.0	12.7m/5.4		12.0
13.0			5.2		13.0
14.0			4.5		14.0
15.0			3.9		15.0
16.0			15.4m/3.7	16.3m/3.7	16.0
17.0				3.4	17.0
18.0				3.1	18.0
19.0				2.7	19.0
20.0				19.8m/2.5	20.0
Max. boom angle	35°	35°	35°	35°	Max. boom angle
Min. boom angle	0°	0°	0°	0°	Min. boom angle

Note:
Ratings shown in [ ] are determined by the strength of the boom or other structural components.

Aux. Sheave Rated Loads (Tilt Double Sheave) (With 55t Main Hook Block)

Without Counterweight (Option)
(Offset Angle: -32.8°)
Special type boom rated load
(Unit: metric ton)

Working radius (m) \ Boom length (m)	7.7	12.1	16.5	Boom length (m) \ Working radius (m)
5.0	5.4m/6.0			5.0
6.0	6.0			6.0
7.0	6.7m/6.0			7.0
8.0				8.0
9.0		4.8		9.0
10.0		3.8		10.0
11.0		3.0		11.0
12.0		11.1m/2.9	12.7m/2.2	12.0
13.0			2.0	13.0
14.0			1.6	14.0
15.0			1.2	15.0
16.0			15.4m/1.1	16.0
Max. boom angle	35°	35°	35°	Max. boom angle
Min. boom angle	0°	0°	0°	Min. boom angle

Note:
Ratings shown in [ ] are determined by the strength of the boom or other structural components.

Aux. Sheave Rated Loads (Tilt Double Sheave) (With 30t Main Hook Block)

Without Counterweight (Option)
(Offset Angle: -32.8°)
Special type boom rated load
(Unit: metric ton)

Working radius (m) \ Boom length (m)	7.7	12.1	16.5	Boom length (m) \ Working radius (m)
5.0	5.4m/6.0			5.0
6.0	6.0			6.0
7.0	6.7m/6.0			7.0
8.0				8.0
9.0		5.0		9.0
10.0		4.0		10.0
11.0		3.2		11.0
12.0		11.1m/3.1	12.7m/2.4	12.0
13.0			2.2	13.0
14.0			1.8	14.0
15.0			1.4	15.0
16.0			15.4m/1.3	16.0
Max. boom angle	35°	35°	35°	Max. boom angle
Min. boom angle	0°	0°	0°	Min. boom angle

Note:
Ratings shown in [ ] are determined by the strength of the boom or other structural components.

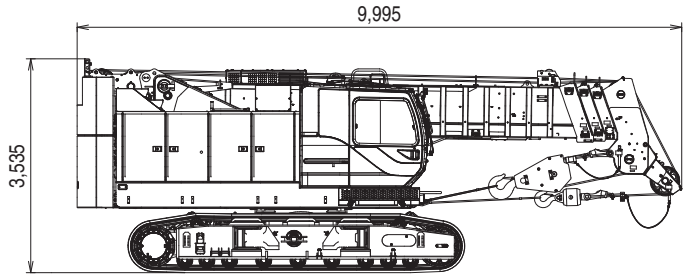
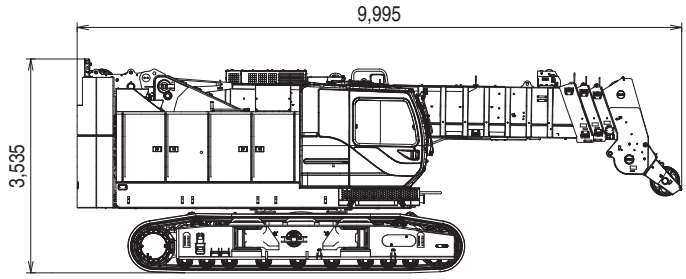
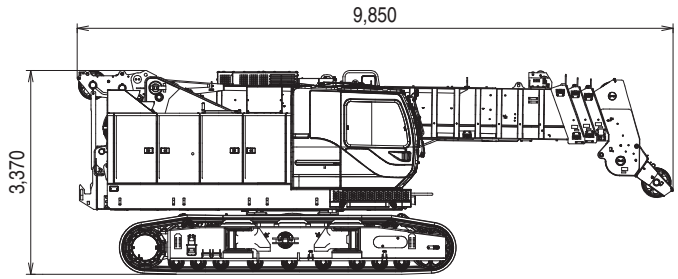
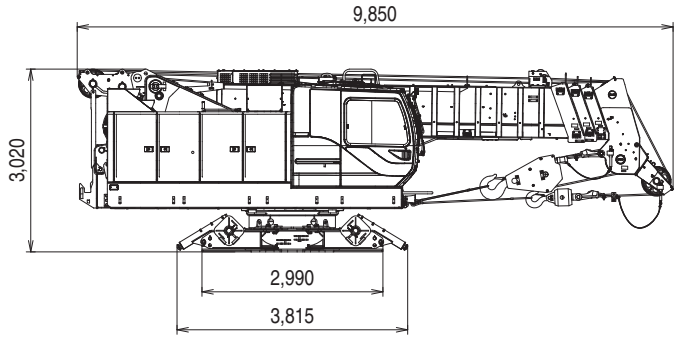
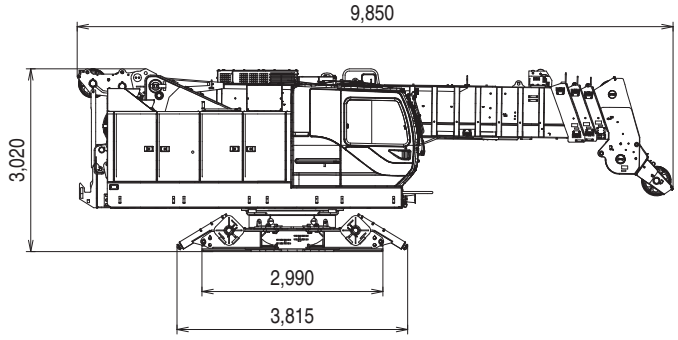
Aux. Sheave Rated Loads (Tilt Double Sheave) (Without Main Hook Block)

Without Counterweight (Option)
(Offset Angle: -32.8°)
Special type boom rated load
(Unit: metric ton)

Working radius (m) \ Boom length (m)	7.7	12.1	16.5	Boom length (m) \ Working radius (m)
5.0	5.4m/6.0			5.0
6.0	6.0			6.0
7.0	6.7m/6.0			7.0
8.0				8.0
9.0		5.4		9.0
10.0		4.4		10.0
11.0		3.6		11.0
12.0		11.1m/3.5	12.7m/2.7	12.0
13.0			2.6	13.0
14.0			2.1	14.0
15.0			1.7	15.0
16.0			15.4m/1.6	16.0
Max. boom angle	35°	35°	35°	Max. boom angle
Min. boom angle	0°	0°	0°	Min. boom angle

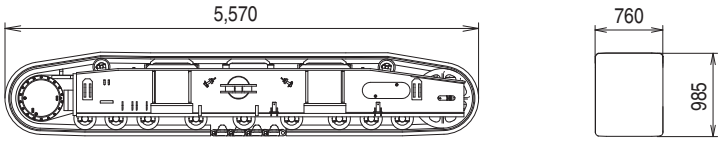
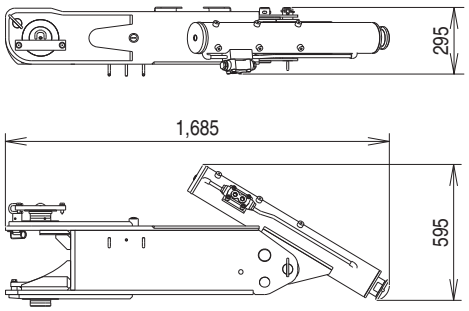
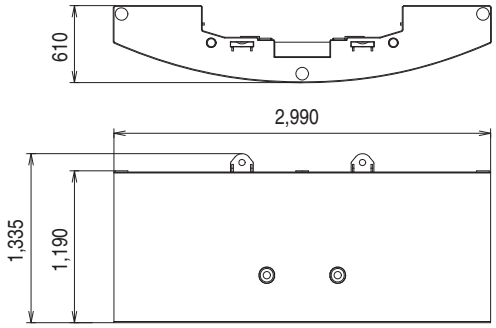
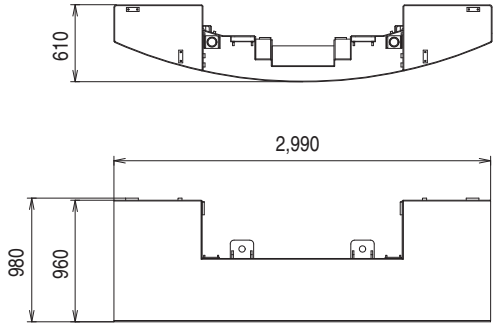
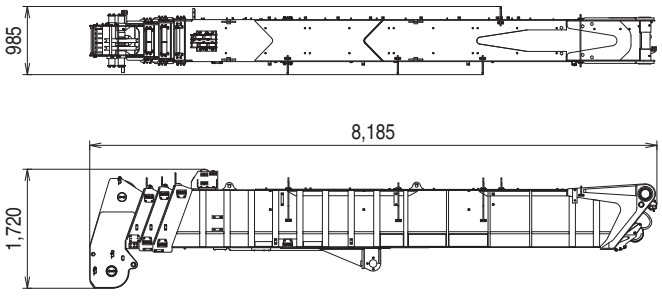
Note:
Ratings shown in [ ] are determined by the strength of the boom or other structural components.

TRANSPORTATION PLAN

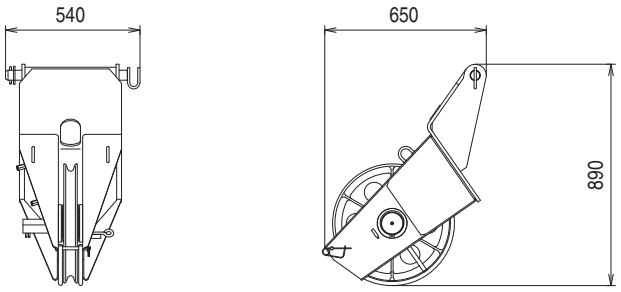
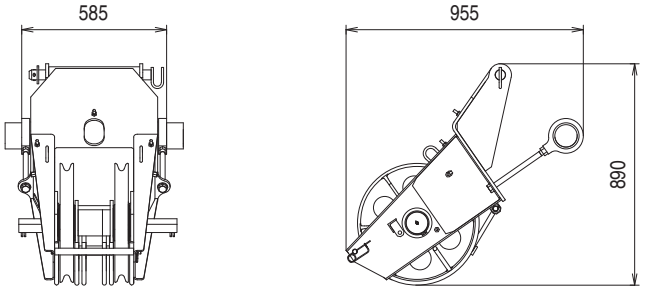
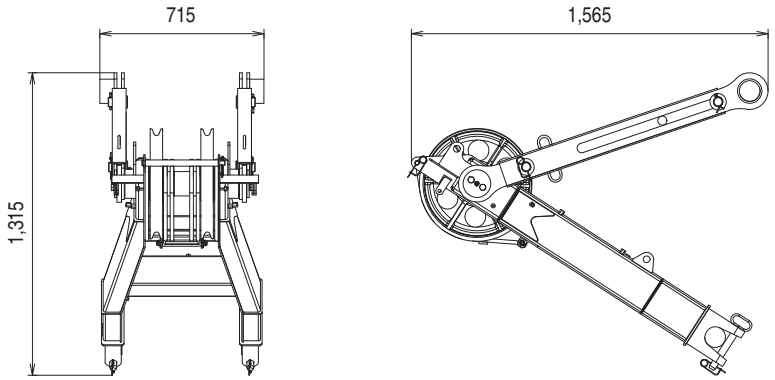
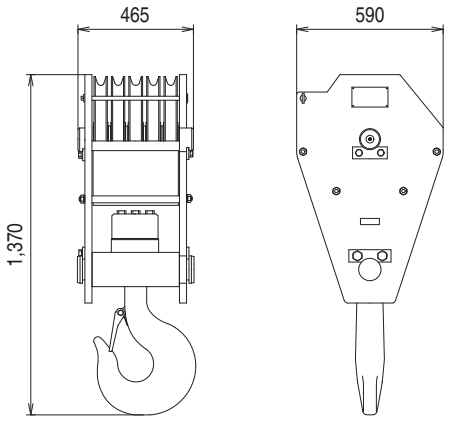
Name	Dimension (mm)	Weight (kg)
Base Machine With hook		54,700 (56,600*)
Base Machine Without hook		53,900 (55,900*)
Base Machine Without hook and counterweight		40,700 (42,600*)
Base Machine Without counterweight, crawler, side catwalk and crawler connect link		30,200 (32,300*)
Base Machine Without hook, counterweight, crawler, side catwalk and crawler connect link		29,500 (31,300*)

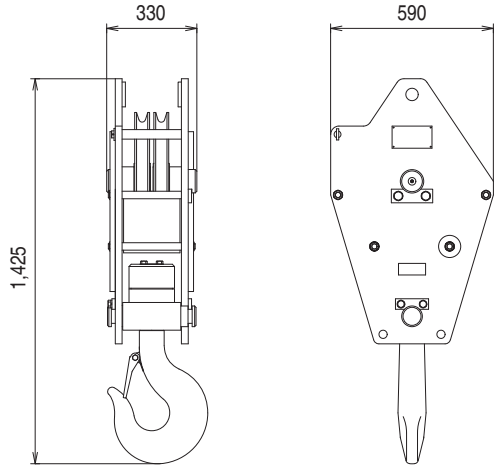
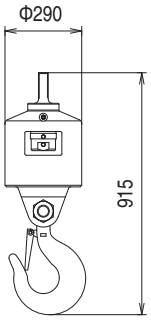
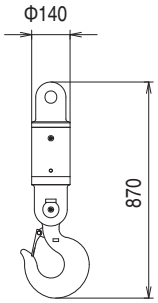
* With third winch and other optional parts / attachments

PARTS AND ATTACHMENTS

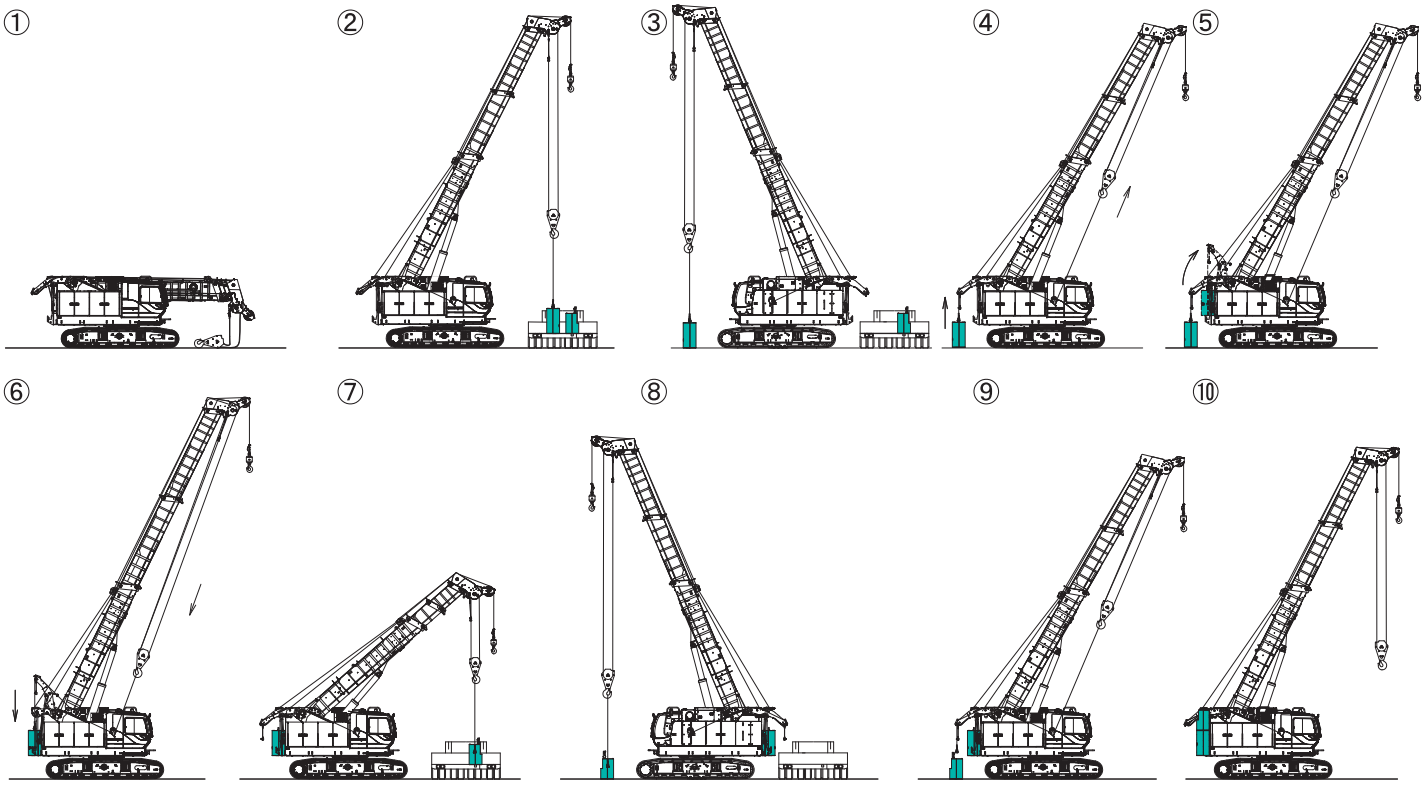
Name	Dimension (mm)	Weight (kg)
Crawler		5,500
Translifter (4 pieces)		275 / 1 piece
Counterweight (1) Without securing bolt		8,000
Counterweight (2) Without securing bolt Without storage bracket		5,200
Boom Assy		6,470

PARTS AND ATTACHMENTS

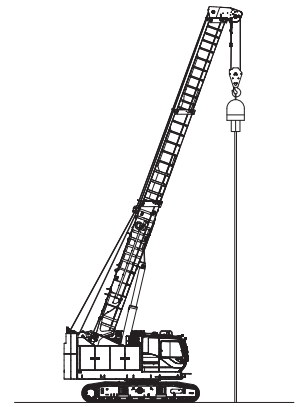
Name	Dimension (mm)	Weight (kg)
Auxiliary Sheave (Single Sheave)		100
Auxiliary Sheave (Double Sheave) (Option)		170
Auxiliary Sheave (Tilt Double Sheave) (Option)		275
55 t Hook (Single Hook)		550

Name	Dimension (mm)	Weight (kg)
30 t Hook (Single Hook)		350
6 t Ball Hook		160
6 t Light Weight Swivel Hook		60

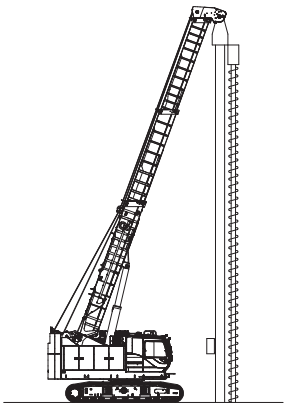
Counterweight Self-Removal Device (Option)



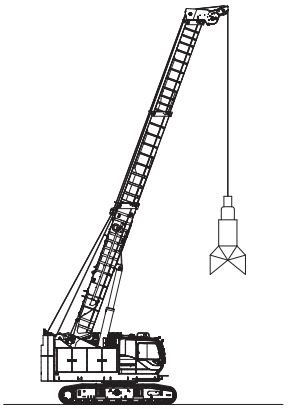
Recommended Attachments



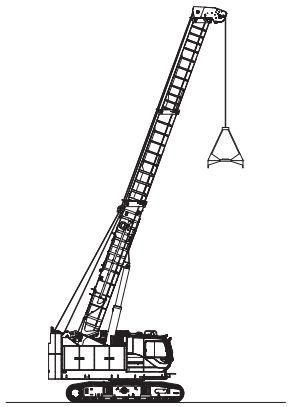
Vibro-hammer



Auger attachments
Electric type under 28.2kN/m
Hydraulic type under 70.7kN/m



Hammer-grab	
1,200dia.	○



Clamshell
Total weight under 2.5 metric tons

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

Bulletin No. TK550G-2SB-SPEC-EN

2403S Printed in Japan