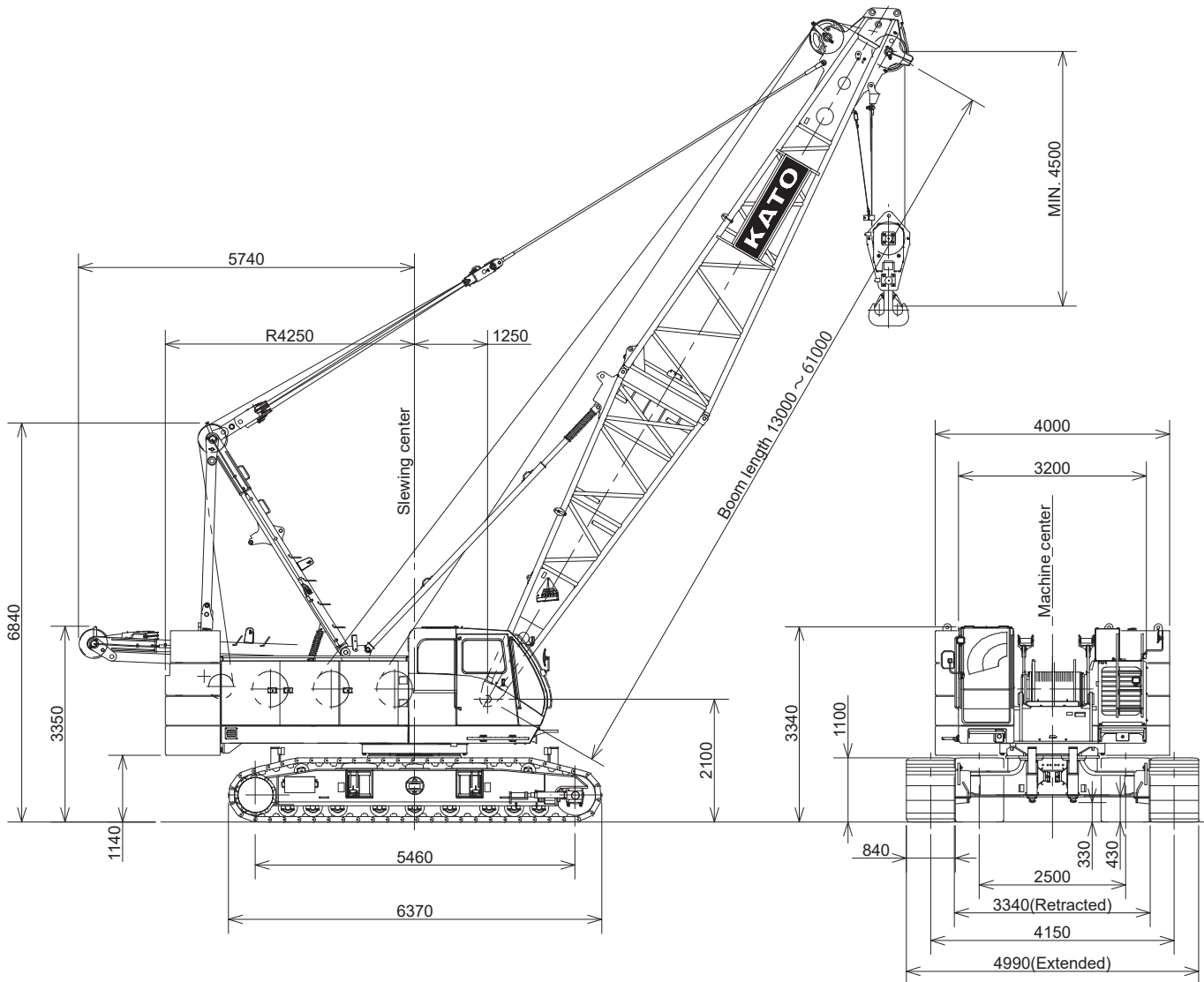


## Table of Contents

CRANE .....	2
Dimensions/Specifications .....	2
Working Ranges Diagram .....	4
Attachment Arrangement .....	5
Rated Lifting Loads .....	6
LUFFING TOWER CRANE .....	12
Dimensions/Specifications .....	12
Working Ranges Diagram .....	13
Attachment Arrangement .....	14
Rated Lifting Loads .....	15
CLAMSHELL SPECIFICATION .....	18
Dimensions/Specifications .....	18
Transport Dimensions and Weights .....	20



Dimensions / Specifications



■ CCH1000 Main Specifications

Item	Specifications	
Swing speed	2.4min <sup>-1</sup>	
Travel speed	※1.5/1.0km/h	
Gradeability	30% (16.7°)	
Engine	Model	Cummins Inc. QSB 6.7 U.S.EPA TIER 3 CARB TIER 3,EU Stage IIIA
	Rated output	179kW/2,000min <sup>-1</sup>
	Total displacement	6.7L
	Fuel tank capacity	400L
	Battery	DC 12V×120AH×2 pcs.

The value marked with “※” will be changed according to the loads given.

■ Crane Specifications

Item	Specifications	
Maximum lifting capacity × working radius	100t × 4.0m	
Standard boom length	13.0m	
Maximum boom length	61.0m	
Maximum boom length with jib boom	71 m (49m boom+22m jib boom)	
Rope speed	Main hoisting/lowering	※120m/min
	Auxiliary hoisting/lowering	※120m/min
	Boom hoisting/lowering	※65m/min
Rope part lines	100t hook	8 part lines
	12t hook	1 part line
	Boom hoist	12part lines
Counterweight	30.6t	
Crane total weight	Approx. 87 ton (with 13 m boom)	
Average ground bearing pressure	87 kPa (0.89 kgf/cm <sup>2</sup> )	

The value marked with “※” will be changed according to the loads given.

## STANDARD EQUIPMENT

### ■ Safety Devices

- Moment Limiter:Over-load prevention device.  
Alarm at 90% , automatic stop at 100%.
- Hook over-winding:Alarm and automatic stopper
- Boom over-hoisting:Automatic stopper
- Boom 2nd over-hoisting:All winch function (non resetable)
- Boom backstopper:Double-stem telescopic
- Swing lock:Pin-lock type
- Main and Auxiliary drum lock:Pawl type
- Boom hoisting drum lock:Pawl type
- Lever lock:Remote control circuit line cut off
- Automatic brake system
- Slewing warning buzzer (with voice alarm)
- Travel warning buzzer (with voice alarm)
- Engine start voice alarm
- Switch of emergency stop the engine
- Hydraulic safety valves
- Auto slowdown(Slow stop)
- Gate lock

### ■ Instrument

- Tachometer (displayed by Moment Limiter)
- Hour meter
- Hydraulic pressure gauge for control circuit
- Fuel level gauge (indicated monitor)
- Engine coolant temperature gauge (indicated monitor)
- Engine diagnostic monitor
- Ultra low speed control

### ■ Auxiliary DEVICE

- Speed control for slewing and winch
- Pump power shift device
- Remote controller for jack and crawler expand cylinder

### ■ Lighting

- Work light:24V × 80W
- Room light:24V × 10W

### ■ Others

- Air conditioner
- Front windshield wiper
- Ceiling wiper
- Sun shade
- Sun visor
- Storage pouch
- Reclining operator's seat
- Radio
- Floor mat
- Warning horn
- Electric fuel pump
- "A" frame hoist cylinders
- Footrest
- Electric engine throttle control grip
- Engine throttle pedal
- Loud speaker
- Step for operator's cab (retractable type)
- Rope guide roller on the boom back (for outer boom)
- Planking (case for erect the boom)

### ■ Accessories

- Standard tools
- Engine tools
- Specialized tools
- Parts catalog(for crane,engine)
- Operator's manual(for crane,engine)
- Work jacket
- Repair paint
- Brush for paint
- Grease
- Filter element(for suction,return,line)
- Safety seat

## OPTIONAL SPECIFICATIONS

### ■ Additional Device

- 3rd hoisting winch (with free fall)
- Main and Auxiliary hoisting winch with free fall(with mode selector)
- Reeving winch combined use tagline
- Tagline
- Drum rotation indication
- Monitor TV (for rear/drum view)
- Monitor TV (for the hook/load )
- Mirror for drum
- Fire extinguisher
- Operator cabin roof guard
- Spark arrestor
- Combustion type heater

### ■ Light And Instrument

- Yellow rotary light
- Airplane warning light
- Over load outside alarm light (red/yellow/green)
- Work light for drum
- Hand light
- Work light for boom
- Back light
- Level
- Anemometer

### ■ Step And Guard

- Cat walk (no handrail,for rear cab)
- Handrail for cat walk
- Wire-mesh boom walkway(for inner boom)
- Wire-mesh for boom walkway(for insert boom and outer boom)
- Safety guard on cab(handrail)
- Safety guard rope on main boom(stanchion rope)

### ■ Attachment

- 3m, 6m, 9m insert boom (with pendant rope and guide roller)
- 10m basic jib and 6m insert jib (with pendant rope and guide roller)
- 1m auxiliary jib and auxiliary wire rope
- 100 ton hook
- 90 ton hook
- 50 ton hook
- 30 ton hook
- 12 ton hook

### ■ Name Plate

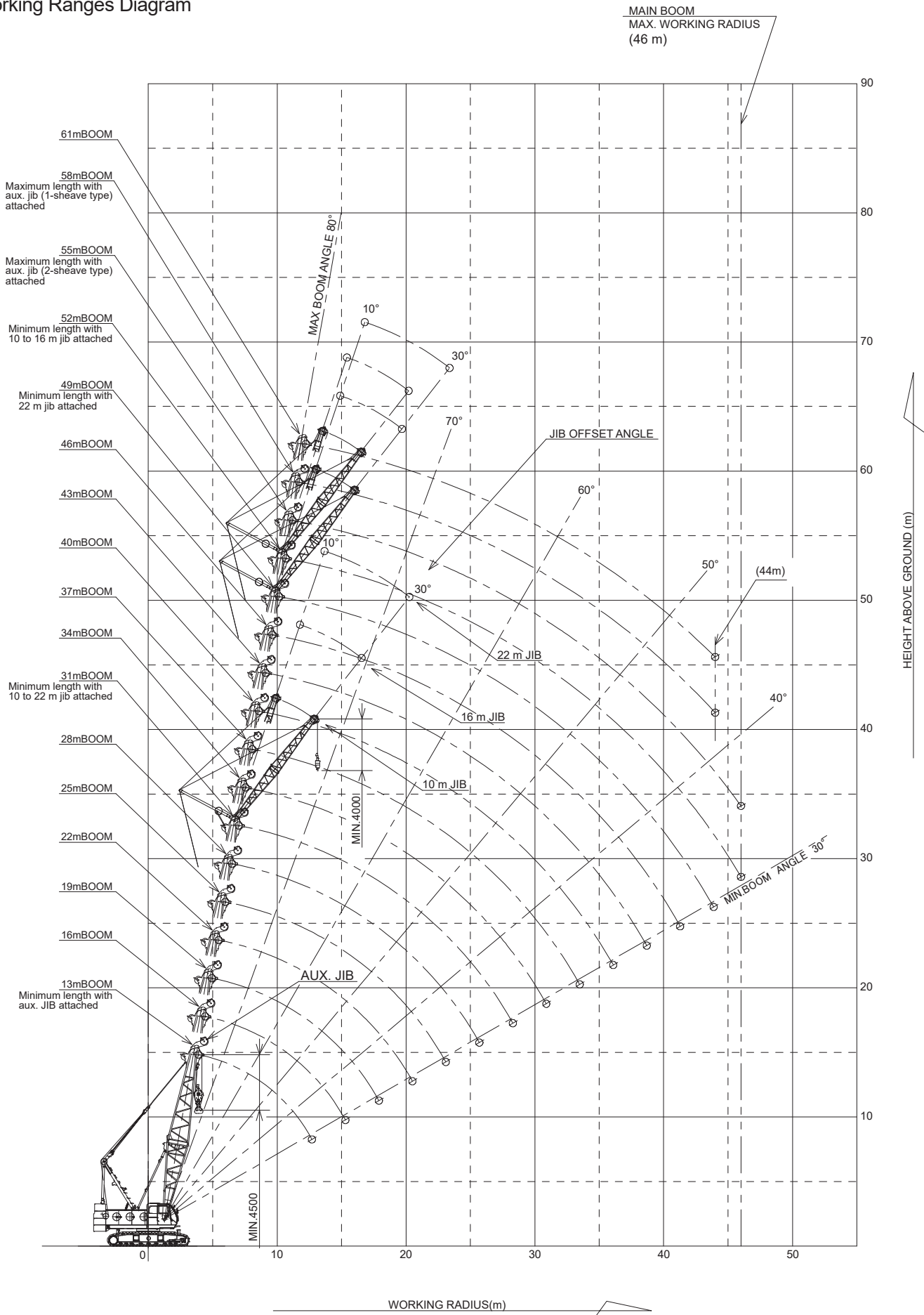
- Name plate (both side of base machine)
- Name plate (outer boom)

### ■ Others

- Large size tool box (with caster)
- Sling wire rope (for lifting machine,attachment)
- Lifting pad for crawler



Working Ranges Diagram



## Attachment Arrangement

### ■Crane Boom Arrangement

Omark : Normal guide-roller position

Boom length (m)	Standard boom arrangement	Boom length (m)	Standard boom arrangement
13.0		40.0	
16.0		43.0	
19.0		46.0	
22.0		49.0	
25.0		52.0	
28.0		55.0	
31.0		58.0	
34.0		61.0	
37.0			

#### 【CAUTION】

Omark : Normal guide-roller position ☆mark : Additional guide-roller position

### ■Crane Jib Arrangement

Jib length (m)	Jib arrangement
10.0	
16.0	
22.0	

### ■Wire Rope

Purpose	Rope dia. (mm)	Breaking Strength (kN)	Rope Type
Main hoisting	φ26	651	P · S (19)+39×P · 7
Boom hoisting	φ20	284	IWRC 6×WS (31)
Boom suspension	φ34	1,020	IWRC 6×P · WS (36)
Jib load hoisting	φ26	566	IWRC 6×P · WS (31)
Jib boom suspension	φ28	585	IWRC 6×Fi (29)
Jib strut suspension	φ28	585	IWRC 6×Fi (29)

### ■Boom And Jib Combination

Boom length (m)	Fly jib length (m)			
	Aux jib	10.0	16.0	22.0
13.0	⊙	×	×	×
16.0	⊙	×	×	×
19.0	⊙	×	×	×
22.0	⊙	×	×	×
25.0	⊙	×	×	×
28.0	⊙	×	×	×
31.0	⊙	⊙	⊙	⊙
34.0	⊙	⊙	⊙	⊙
37.0	⊙	⊙	⊙	⊙
40.0	⊙	⊙	⊙	⊙
43.0	⊙	⊙	⊙	⊙
46.0	⊙	⊙	⊙	⊙
49.0	⊙	⊙	⊙	⊙
52.0	⊙	⊙	⊙	×
55.0	⊙	×	×	×
58.0	⊙	×	×	×
61.0	×	×	×	×

Rated Lifting Loads

Unit (t) Angle (°)

Boom length (m)	13.0		16.0		19.0		22.0		25.0		28.0		31.0		34.0		37.0		
	Working radius (m)	Load	Angle	Load	Angle	Load	Angle	Load	Angle	Load	Angle	Load	Angle	Load	Angle	Load	Angle	Load	Angle
4.0	100.0	79.5																	
4.5	83.0	77.2	83.0	79.7															
5.0	74.2	75.0	74.0	77.8	5.2m × 71.0	79.2	5.6m × 63.4	79.6											
6.0	57.3	70.3	57.2	74.1	57.1	76.7	56.9	78.5	6.2m × 53.8	79.5	6.6m × 49.0	79.8							
7.0	45.1	65.5	45.0	70.3	44.9	73.6	44.7	75.9	44.8	77.6	44.7	78.9	7.2m × 42.8	79.7	7.8m × 37.9	79.6			
8.0	37.1	60.5	37.0	66.5	36.9	70.4	36.7	73.2	36.7	75.2	36.7	76.8	36.6	78.1	36.5	79.2	8.5m × 33.0	79.3	
9.0	31.4	55.1	31.3	62.4	31.2	67.1	31.1	70.4	31.0	72.8	31.0	74.7	30.9	76.2	30.8	77.5	30.7	78.5	
10.0	27.2	49.4	27.1	58.3	27.0	63.8	26.8	67.6	26.8	70.4	26.7	72.6	26.7	74.3	26.5	75.7	26.5	76.9	
12.0	21.3	36.0	21.2	49.2	21.1	56.7	21.0	61.8	20.9	65.4	20.8	68.2	20.7	70.4	20.6	72.2	20.5	73.7	
14.0	12.7m × 19.8	30.0	17.3	38.6	17.2	49.0	17.1	55.6	17.0	60.2	16.9	63.7	16.8	66.4	16.7	68.6	16.6	70.4	
16.0			15.3m × 15.4	30.0	14.4	40.3	14.3	48.9	14.2	54.7	14.1	59.0	14.0	62.3	13.9	64.9	13.8	67.1	
18.0					17.9m × 12.4	30.0	12.2	41.4	12.1	48.8	12.0	54.1	12.0	58.0	11.8	61.1	11.7	63.7	
20.0							10.6	32.6	10.5	42.3	10.4	48.8	10.3	53.5	10.2	57.2	10.1	60.2	
22.0							20.5m × 10.3	30.0	9.2	34.8	9.1	43.0	9.1	48.7	8.9	53.0	8.8	56.5	
24.0									23.1m × 8.6	30.0	8.1	36.5	8.0	43.5	7.9	48.7	7.8	52.7	
26.0											25.7m × 7.3	30.0	7.1	37.8	7.0	43.9	6.9	48.6	
28.0													6.4	31.1	6.2	38.8	6.1	44.3	
30.0													28.3m × 6.3	30.0	5.6	32.9	5.5	39.6	
32.0														30.9m × 5.4	30.0	5.0	34.4		
34.0																33.5m × 4.6	30.0		

(Notes)

- All rated loads are based on the machine being operated on the firm, level, uniformly supporting surface ground, at any point of 360° around the machine within 75% of tipping load and applied load 1.25P + 0.1F.
- Working radius refers to the horizontal distance from the center of swinging to the hook axis.
- The actual lifting load is obtained by subtracting the weight of all lifting devices.  
 100ton hook...1.40 ton    90ton hook...1.20 ton    12ton hook...0.40ton  
 30ton hook...0.80 ton    50ton hook...0.95 ton    12ton swivel hook...0.20ton
- The length of the boom which can be fitted with the jib of each length is listed in the table below.

Jib length (m)	Aux. jib (1-sheave type)	Aux. jib (2-sheave type)	10.0	16.0	22.0
Boom length(m)	13.0 ~ 58.0	13.0 ~ 55.0	31.0 ~ 52.0	31.0 ~ 52.0	31.0 ~ 49.0

- When the jib is mounted the rated load with the main hook is given by subtracting the following weight (including the weight of auxiliary hook) from the value listed in the load table.

Jib length (m)	Aux. jib (1-sheave type)	Aux. jib (2-sheave type)	10.0		16.0		22.0	
Jib angle	~	~	10°	30°	10°	30°	10°	30°
Load to be subtracted (t)	0.8	1.2	1.9	2.0	2.3	2.6	2.8	3.2

- For the work, be sure to expand the crawler and raise the gantry.
- The rated load with auxiliary jib(1-sheave type) is given by subtracting 0.5t from the value corresponding to the length of the mounted boom in the load table.  
 For the rated load of the auxiliary jib (2-sheave type), subtract 0.8t.(Please see auxiliary jib load table)  
 The rated load with the jib of 10.0m to 22.0m long refers to the jib rated load table.
- When the main hook is mounted the load which can be lifted with the jib is given by subtracting the total weight of main and auxiliary hooks from the value in this load table.
- Loads which can be lifted are limited according to the number of wire part lines as shown below.

No. of part lines	1	2	3	4	5	6	7	8
Load limit (tons)	12.0	22.0	33.0	44.0	55.0	66.0	77.0	100.0

- The rated load shown in bold letters are based on structural strength factors.

- For the work of 3rd drum, it applies to above load table.  
 But max. wire part lines is 6 wire part lines. ( Max. rated load : 66.0t )  
 And it must not work 1 wire part line.

## Rated Lifting Loads

Unit (t) Angle (°)

Boom length (m)	40.0		43.0		46.0		49.0		52.0		55.0		58.0		61.0	
	Load	Angle	Load	Angle	Load	Angle	Load	Angle	Load	Angle	Load	Angle	Load	Angle	Load	Angle
9.0	30.6	79.4	9.5m × 28.2	79.5												
10.0	26.4	77.9	26.2	78.8	26.2	79.5	10.6m × 24.0	79.5	11.2m × 22.0	79.4	11.7m × 20.6	79.5				
12.0	20.4	75.0	20.3	76.0	20.2	77.0	20.1	77.8	20.0	78.5	19.9	79.1	12.3m × 18.0	79.4	12.7m × 15.0	79.5
14.0	16.5	72.0	16.4	73.3	16.3	74.4	16.2	75.4	16.1	76.2	16.0	77.0	15.9	77.7	14.0	78.3
16.0	13.7	68.9	13.6	70.5	13.5	71.8	13.4	72.9	13.3	74.0	13.2	74.9	13.1	75.7	12.4	76.4
18.0	11.6	65.8	11.5	67.6	11.4	69.1	11.3	70.5	11.2	71.6	11.1	72.7	11.0	73.6	10.6	74.4
20.0	10.0	62.6	9.9	64.7	9.8	66.4	9.7	68.0	9.5	69.3	9.4	70.5	9.3	71.5	9.2	72.5
22.0	8.7	59.3	8.6	61.7	8.5	63.7	8.4	65.4	8.3	66.9	8.1	68.2	8.0	69.4	7.9	70.5
24.0	7.7	55.9	7.5	58.6	7.4	60.8	7.3	62.8	7.2	64.5	7.1	66.0	7.0	67.3	6.8	68.5
26.0	6.8	52.3	6.7	55.4	6.6	57.9	6.4	60.1	6.3	62.0	6.2	63.7	6.1	65.1	6.0	66.4
28.0	6.0	48.6	5.9	52.1	5.8	54.9	5.7	57.4	5.6	59.5	5.4	61.3	5.3	62.9	5.2	64.4
30.0	5.4	44.6	5.3	48.6	5.2	51.8	5.1	54.5	4.9	56.9	4.8	58.9	4.6	60.7	4.5	62.2
32.0	4.9	40.3	4.7	44.9	4.6	48.5	4.5	51.6	4.4	54.2	4.2	56.4	4.1	58.4	3.9	60.1
34.0	4.4	35.6	4.2	40.9	4.1	45.1	4.0	48.5	3.8	51.4	3.7	53.9	3.5	56.0	3.4	57.9
36.0	3.9	30.2	3.8	36.6	3.6	41.4	3.5	45.3	3.4	48.5	3.3	51.2	3.1	53.6	2.9	55.6
38.0	36.1m × 3.9	30.0	3.4	31.8	3.3	37.5	3.1	41.9	3.0	45.5	2.8	48.5	2.7	51.1	2.5	53.3
40.0			38.7m × 3.2	30.0	2.9	33.1	2.8	38.2	2.6	42.3	2.4	45.6	2.3	48.5	2.1	50.9
42.0					41.3m × 2.7	30.0	2.5	34.2	2.3	38.8	2.1	42.6	2.0	45.8	1.8	48.5
44.0							43.9m × 2.1	30.0	1.9	35.1	1.8	39.4	1.6	42.9	1.5	45.9
46.0									1.7	31.1	1.5	36.0				

Aux. Jib Rated Lifting Loads

Unit (t)

Boom length (m) Working radius (m)	13.0	16.0	19.0	22.0	25.0	28.0	31.0	34.0	37.0	40.0	43.0	46.0	49.0	52.0	55.0	58.0
4.5	4.6m × 12.0															
5.0	12.0	5.1m × 12.0	5.6m × 12.0													
6.0	12.0	12.0	12.0	6.2m × 12.0	6.7m × 12.0											
7.0	12.0	12.0	12.0	12.0	12.0	7.2m × 12.0	7.7m × 12.0									
8.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	8.2m × 12.0	8.8m × 12.0							
9.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	9.3m × 12.0	9.8m × 12.0					
10.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	10.3m × 12.0	10.8m × 12.0	11.4m × 12.0	11.9m × 12.0	
12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.4m × 12.0
14.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
16.0		12.0	17.8m × 12.0	17.7m × 12.0	17.6m × 12.0	17.5m × 12.0	17.4m × 12.0	17.3m × 12.0	17.2m × 12.0	17.1m × 12.0	17.0m × 12.0	16.9m × 12.0	16.8m × 12.0	16.7m × 12.0	16.6m × 12.0	16.5m × 12.0
18.0		16.6m × 12.0	11.8	11.7	11.6	11.5	11.5	11.3	11.2	11.1	11.0	10.9	10.8	10.7	10.6	10.5
20.0			19.2m × 10.8	10.1	10.0	9.9	9.8	9.7	9.6	9.5	9.4	9.3	9.2	9.0	8.9	8.8
22.0				21.8m × 8.9	8.7	8.6	8.6	8.4	8.3	8.2	8.1	8.0	7.9	7.8	7.6	7.5
24.0					7.7	7.6	7.5	7.4	7.3	7.2	7.0	6.9	6.8	6.7	6.6	6.5
26.0					24.4m × 7.5	6.7	6.6	6.5	6.4	6.3	6.2	6.1	5.9	5.8	5.7	5.6
28.0						27.0m × 6.3	5.9	5.7	5.6	5.5	5.4	5.3	5.2	5.1	4.9	4.8
30.0							29.6m × 5.3	5.1	5.0	4.9	4.8	4.7	4.6	4.4	4.3	4.1
32.0								4.6	4.5	4.4	4.2	4.1	4.0	3.9	3.7	3.6
34.0								32.2m × 4.5	4.0	3.9	3.7	3.6	3.5	3.3	3.2	3.0
36.0									34.8m × 3.8	3.4	3.3	3.1	3.0	2.9	2.8	2.6
38.0										37.4m × 3.1	2.9	2.8	2.6	2.5	2.3	2.2
40.0											2.5	2.4	2.3	2.1	1.9	1.8
42.0												2.0	2.0	1.8	1.6	1.5
44.0													42.6m × 1.9	1.6	1.4	
46.0														45.2m × 1.4		

(Notes)

- All rated loads are based on the machine being operated on the firm, level, uniformly supporting surface ground, at any point of 360° around the machine within 75% of tipping load and applied load 1.25P + 0.1F.
- Working radius refers to the horizontal distance from the center of swinging to the hook axis.
- The actual lifting load is obtained by subtracting the weight of all lifting devices.  
 100ton hook···1.40 ton    90ton hook···1.20 ton    12ton hook···0.40ton  
 30ton hook···0.80 ton    50ton hook···0.95 ton
- Rated load shown in bold lines are based on structural strength factors.



## Double Aux. Jib Rated Lifting Loads

Unit (t)

Boom length (m) Working radius (m)	13.0	16.0	19.0	22.0	25.0	28.0	31.0	34.0	37.0	40.0	43.0	46.0	49.0	52.0	55.0
4.5	4.6m × 12.0														
5.0	12.0	5.1m × 12.0	5.6m × 12.0												
6.0	12.0	12.0	12.0	6.2m × 12.0	6.7m × 12.0										
7.0	12.0	12.0	12.0	12.0	12.0	7.2m × 12.0	7.7m × 12.0								
8.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	8.2m × 12.0	8.8m × 12.0						
9.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	9.3m × 12.0	9.8m × 12.0				
10.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	10.3m × 12.0	10.8m × 12.0	11.4m × 12.0	11.9m × 12.0
12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
14.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
16.0		12.0	17.5m × 12.0	17.4m × 12.0	17.3m × 12.0	17.2m × 12.0	17.1m × 12.0	17.0m × 12.0	16.9m × 12.0	16.8m × 12.0	16.7m × 12.0	16.6m × 12.0	16.5m × 12.0	16.4m × 12.0	16.3m × 12.0
18.0		16.6m × 12.0	11.5	11.4	11.3	11.2	11.2	11.0	10.9	10.8	10.7	10.6	10.5	10.4	10.3
20.0			19.2m × 10.5	9.8	9.7	9.6	9.5	9.4	9.3	9.2	9.1	9.0	8.9	8.7	8.6
22.0				21.8m × 8.6	8.4	8.3	8.3	8.1	8.0	7.9	7.8	7.7	7.6	7.5	7.3
24.0					7.4	7.3	7.2	7.1	7.0	6.9	6.7	6.6	6.5	6.4	6.3
26.0					24.4m × 7.2	6.4	6.3	6.2	6.1	6.0	5.9	5.8	5.6	5.5	5.4
28.0						27.0m × 6.0	5.6	5.4	5.3	5.2	5.1	5.0	4.9	4.8	4.6
30.0							29.6m × 5.0	4.8	4.7	4.6	4.5	4.4	4.3	4.1	4.0
32.0								4.3	4.2	4.1	3.9	3.8	3.7	3.6	3.4
34.0								32.2m × 4.2	3.7	3.6	3.4	3.3	3.2	3.0	2.9
36.0									34.8m × 3.5	3.1	3.0	2.8	2.7	2.6	2.5
38.0										37.4m × 2.8	2.6	2.5	2.3	2.2	2.0
40.0											2.2	2.1	2.0	1.8	1.6
42.0												1.7	1.7	1.5	1.3
44.0												42.6m × 1.6	1.3		

### (Notes)

- All rated loads are based on the machine being operated on the firm, level, uniformly supporting surface ground, at any point of 360° around the machine within 75% of tipping load and applied load 1.25P + 0.1F.
- Working radius refers to the horizontal distance from the center of swinging to the hook axis.
- The actual lifting load is obtained by subtracting the weight of all lifting devices.  
 100ton hook···1.40 ton    90ton hook···1.20 ton    12ton hook···0.40ton  
 30ton hook···0.80 ton    50ton hook···0.95 ton
- Rated load shown in bold lines are based on structural strength factors.

Jib Rated Lifting Loads

■ Boom length 31.0m Unit (t)

Boom length (m)		31.0					
Jib length (m)		10.0		16.0		22.0	
Jib offset angle		10°	30°	10°	30°	10°	30°
Working radius (m)							
10.0		10.2m × 12.0					
12.0		12.0	13.2m × 12.0	12.7m × 12.0			
14.0		12.0	12.0	12.0		14.7m × 10.0	
16.0		12.0	12.0	12.0	17.2m × 10.0	10.0	
18.0		11.8	12.0	12.0	10.0	9.5	
20.0		10.2	10.5	10.5	9.8	9.0	20.7m × 6.5
22.0		8.9	9.2	9.2	9.2	8.6	6.5
24.0		7.8	8.0	8.1	8.4	8.2	6.5
26.0		6.9	7.1	7.2	7.5	7.3	6.4
28.0		6.1	6.3	6.4	6.7	6.5	6.2
30.0		5.5	5.7	5.7	6.0	5.9	6.0
32.0		4.9	5.1	5.2	5.4	5.3	5.6
34.0		4.4	4.5	4.7	4.9	4.8	5.1
36.0		4.0	4.1	4.2	4.4	4.4	4.6
38.0		3.6	3.7	3.8	4.0	4.0	4.2
40.0			38.6m × 3.5	3.5	3.6	3.6	3.8
42.0				3.2	3.3	3.3	3.5
44.0				43.8m × 2.9	2.9	3.0	3.2
46.0					44.7m × 2.8	2.8	2.9
48.0						2.5	2.6
50.0						49.4m × 2.3	2.3
52.0							50.6m × 2.2

■ Boom length 34.0m Unit (t)

Boom length (m)		34.0					
Jib length (m)		10.0		16.0		22.0	
Jib offset angle		10°	30°	10°	30°	10°	30°
Working radius (m)							
10.0		10.7m × 12.0					
12.0		12.0	13.7m × 12.0	13.2m × 12.0			
14.0		12.0	12.0	12.0		15.2m × 10.0	
16.0		12.0	12.0	12.0	17.7m × 10.0	10.0	
18.0		11.7	12.0	12.0	10.0	9.6	
20.0		10.0	10.4	10.4	9.9	9.2	21.2m × 6.5
22.0		8.7	9.0	9.0	9.4	8.8	6.5
24.0		7.7	7.9	7.9	8.4	8.1	6.5
26.0		6.8	7.0	7.0	7.4	7.2	6.5
28.0		6.0	6.2	6.3	6.6	6.4	6.3
30.0		5.4	5.5	5.6	5.9	5.8	6.1
32.0		4.8	4.9	5.0	5.3	5.2	5.5
34.0		4.3	4.4	4.5	4.8	4.7	5.0
36.0		3.9	4.0	4.1	4.3	4.2	4.5
38.0		3.5	3.6	3.7	3.9	3.8	4.1
40.0		3.1	3.2	3.3	3.5	3.5	3.7
42.0		40.6m × 3.0	41.2m × 3.0	3.0	3.1	3.2	3.4
44.0				2.7	2.8	2.9	3.1
46.0				2.4	2.5	2.6	2.8
48.0				46.3m × 2.4	47.2m × 2.3	2.3	2.5
50.0						2.1	2.2
52.0						1.9	2.0
54.0							53.2m × 1.8

■ Boom length 37.0m Unit (t)

Boom length (m)		37.0					
Jib length (m)		10.0		16.0		22.0	
Jib offset angle		10°	30°	10°	30°	10°	30°
Working radius (m)							
10.0		11.2m × 12.0					
12.0		12.0		13.8m × 12.0			
14.0		12.0	14.2m × 12.0	12.0		15.7m × 10.0	
16.0		12.0	12.0	12.0		10.0	
18.0		11.6	12.0	11.9	18.2m × 10.0	9.8	
20.0		9.9	10.3	10.3	10.0	9.4	21.7m × 6.5
22.0		8.6	9.0	8.9	9.4	9.0	6.5
24.0		7.5	7.8	7.8	8.3	8.0	6.5
26.0		6.6	6.9	6.9	7.3	7.1	6.5
28.0		5.9	6.1	6.2	6.5	6.3	6.3
30.0		5.2	5.4	5.5	5.8	5.7	6.1
32.0		4.7	4.9	4.9	5.2	5.1	5.5
34.0		4.2	4.3	4.4	4.7	4.6	4.9
36.0		3.7	3.9	4.0	4.2	4.1	4.4
38.0		3.4	3.5	3.6	3.8	3.7	4.0
40.0		3.0	3.1	3.2	3.4	3.4	3.6
42.0		2.7	2.7	2.9	3.1	3.1	3.3
44.0		43.1m × 2.5	43.8m × 2.4	2.6	2.7	2.8	3.0
46.0				2.3	2.4	2.5	2.7
48.0				2.0	2.1	2.2	2.4
50.0				49.0m × 1.9	49.8m × 1.8	2.0	2.1
52.0						1.7	1.9
54.0						1.5	1.6

■ Boom length 40.0m Unit (t)

Boom length (m)		40.0					
Jib length (m)		10.0		16.0		22.0	
Jib offset angle		10°	30°	10°	30°	10°	30°
Working radius (m)							
10.0		11.8m × 12.0					
12.0		12.0					
14.0		12.0	14.7m × 12.0	14.3m × 12.0			
16.0		12.0	12.0	12.0		16.2m × 9.5	
18.0		11.5	12.0	11.8	18.7m × 10.0	9.5	
20.0		9.8	10.2	10.2	10.0	9.5	
22.0		8.5	8.9	8.8	9.4	9.0	22.2m × 6.5
24.0		7.4	7.8	7.7	8.2	7.9	6.5
26.0		6.5	6.8	6.8	7.2	7.0	6.5
28.0		5.8	6.0	6.0	6.4	6.2	6.4
30.0		5.1	5.3	5.4	5.7	5.5	6.0
32.0		4.6	4.8	4.8	5.1	5.0	5.4
34.0		4.1	4.2	4.3	4.6	4.5	4.8
36.0		3.6	3.8	3.9	4.1	4.0	4.4
38.0		3.2	3.4	3.5	3.7	3.6	3.9
40.0		2.9	3.0	3.1	3.3	3.3	3.5
42.0		2.5	2.6	2.8	3.0	2.9	3.2
44.0		2.2	2.3	2.5	2.6	2.6	2.9
46.0		45.8m × 1.9	2.0	2.2	2.3	2.3	2.6
48.0			46.4m × 1.9	1.9	2.0	2.1	2.3
50.0				1.6	1.7	1.8	2.0
52.0					1.4	1.6	1.7
54.0							1.5

(Notes)

- All rated loads are based on the machine being operated on the firm, level, uniformly supporting surface ground, at any point of 360° around the machine within 75% of tipping load and applied load 1.25P + 0.1F.
- Working radius refers to the horizontal distance from the center of swinging to the hook axis.
- The actual lifting load is obtained by subtracting the weight of all lifting devices.  
 100ton hook...1.40 ton    90ton hook...1.20 ton    12ton hook...0.40ton  
 30ton hook...0.80 ton    50ton hook...0.95 ton
- Rated load shown in bold lines are based on structural strength factors.

### Jib Rated Lifting Loads

■ Boom length 43.0m Unit (t)

Boom length (m)		43.0					
Jib length (m)		10.0		16.0		22.0	
Jib offset angle		10°	30°	10°	30°	10°	30°
Working radius (m)							
12.0	12.0	12.0					
14.0	12.0	15.3m × 12.0	14.8m × 12.0				
16.0	12.0	12.0	12.0			16.7m × 10.0	
18.0	11.4	11.9	11.7	19.3m × 10.0	10.0		
20.0	9.7	10.1	10.0	10.0	9.6		
22.0	8.4	8.8	8.7	9.3	8.9	22.8m × 6.5	
24.0	7.3	7.6	7.6	8.1	7.8	6.5	
26.0	6.4	6.7	6.7	7.1	6.9	6.5	
28.0	5.6	5.9	5.9	6.3	6.1	6.5	
30.0	5.0	5.2	5.3	5.6	5.4	5.9	
32.0	4.4	4.6	4.7	5.0	4.8	5.3	
34.0	3.9	4.1	4.2	4.5	4.3	4.7	
36.0	3.5	3.7	3.7	4.0	3.9	4.3	
38.0	3.1	3.3	3.3	3.6	3.5	3.8	
40.0	2.7	2.9	3.0	3.2	3.1	3.4	
42.0	2.3	2.5	2.6	2.8	2.8	3.1	
44.0	2.0	2.1	2.3	2.5	2.5	2.8	
46.0	1.7	1.8	2.0	2.2	2.2	2.5	
48.0	1.4	1.5	1.7	1.9	1.9	2.2	
50.0			1.4	1.6	1.6	1.9	
52.0						1.6	

■ Boom length 46.0m Unit (t)

Boom length (m)		46.0					
Jib length (m)		10.0		16.0		22.0	
Jib offset angle		10°	30°	10°	30°	10°	30°
Working radius (m)							
12.0	12.0	12.0					
14.0	12.0	15.8m × 12.0	15.3m × 12.0				
16.0	12.0	12.0	12.0			17.3m × 10.0	
18.0	11.2	11.8	11.6	19.8m × 10.0	10.0		
20.0	9.6	10.1	9.9	10.0	9.8		
22.0	8.3	8.7	8.6	9.2	8.8	23.3m × 6.5	
24.0	7.2	7.6	7.5	8.0	7.7	6.5	
26.0	6.3	6.6	6.6	7.1	6.8	6.5	
28.0	5.5	5.8	5.8	6.2	6.0	6.5	
30.0	4.9	5.1	5.1	5.5	5.3	5.8	
32.0	4.3	4.5	4.6	4.9	4.7	5.2	
34.0	3.8	4.0	4.1	4.4	4.2	4.7	
36.0	3.4	3.6	3.6	3.9	3.8	4.2	
38.0	2.9	3.1	3.2	3.5	3.4	3.7	
40.0	2.6	2.7	2.8	3.1	3.0	3.4	
42.0	2.2	2.4	2.5	2.7	2.7	3.0	
44.0	1.8	2.0	2.1	2.4	2.3	2.7	
46.0	1.5	1.7	1.8	2.1	2.0	2.3	
48.0			1.5	1.7	1.7	2.0	
50.0				1.4	1.5	1.8	
52.0						1.5	

■ Boom length 49.0m Unit (t)

Boom length (m)		49.0					
Jib length (m)		10.0		16.0		22.0	
Jib offset angle		10°	30°	10°	30°	10°	30°
Working radius (m)							
12.0	12.0	13.3m × 12.0					
14.0	12.0		15.9m × 11.5				
16.0	12.0	16.3m × 11.5	11.5			17.8m × 10.0	
18.0	11.1	11.5	11.5			10.0	
20.0	9.5	10.0	9.8	20.3m × 9.0	9.9		
22.0	8.2	8.6	8.5	9.0	8.7	23.8m × 6.5	
24.0	7.1	7.5	7.4	8.0	7.6	6.5	
26.0	6.2	6.5	6.5	7.0	6.7	6.5	
28.0	5.4	5.7	5.7	6.2	5.9	6.5	
30.0	4.8	5.0	5.0	5.4	5.2	5.8	
32.0	4.2	4.4	4.5	4.8	4.6	5.1	
34.0	3.7	3.9	4.0	4.3	4.1	4.6	
36.0	3.2	3.5	3.5	3.8	3.7	4.1	
38.0	2.8	3.0	3.1	3.4	3.3	3.7	
40.0	2.4	2.6	2.7	3.0	2.9	3.3	
42.0	2.0	2.2	2.3	2.6	2.5	2.9	
44.0	1.7	1.9	2.0	2.3	2.2	2.6	
46.0		1.5	1.7	1.9	1.9	2.2	
48.0				1.6	1.6	1.9	
50.0						1.6	

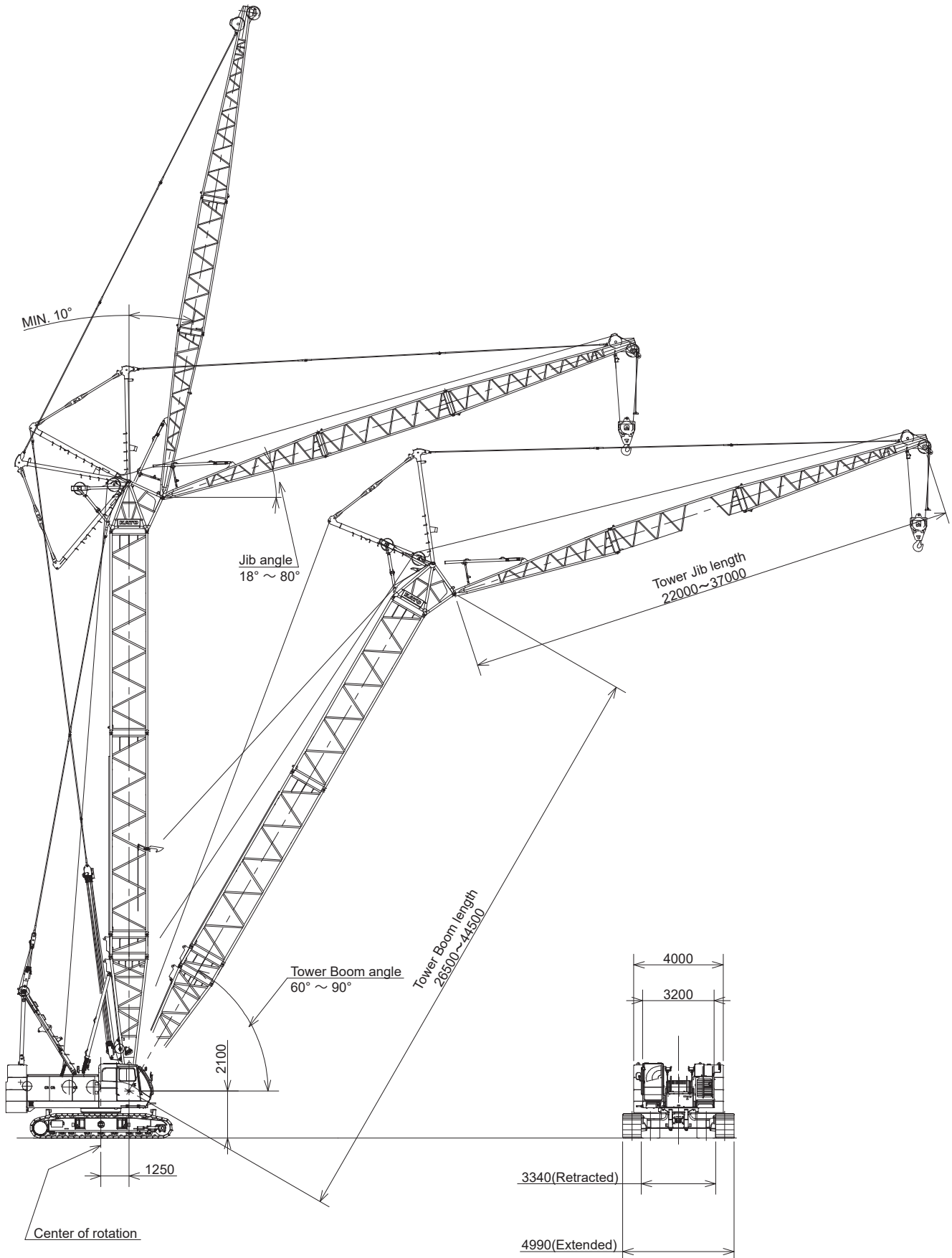
■ Boom length 52.0m Unit (t)

Boom length (m)		52.0			
Jib length (m)		10.0		16.0	
Jib offset angle		10°	30°	10°	30°
Working radius (m)					
12.0	12.0	13.8m × 12.0			
14.0	12.0				
16.0	12.0	16.8m × 11.5	16.4m × 11.0		
18.0	11.0	11.5	11.0		
20.0	9.4	9.9	9.7	20.8m × 9.0	
22.0	8.0	8.5	8.4	9.0	
24.0	6.9	7.4	7.3	7.9	
26.0	6.0	6.4	6.4	6.9	
28.0	5.3	5.6	5.6	6.1	
30.0	4.6	4.9	4.9	5.3	
32.0	4.1	4.3	4.3	4.7	
34.0	3.5	3.8	3.8	4.2	
36.0	3.1	3.3	3.4	3.7	
38.0	2.6	2.9	2.9	3.3	
40.0	2.2	2.5	2.5	2.9	
42.0	1.8	2.1	2.1	2.5	
44.0	1.5	1.7	1.8	2.1	
46.0			1.5	1.8	
48.0				1.4	

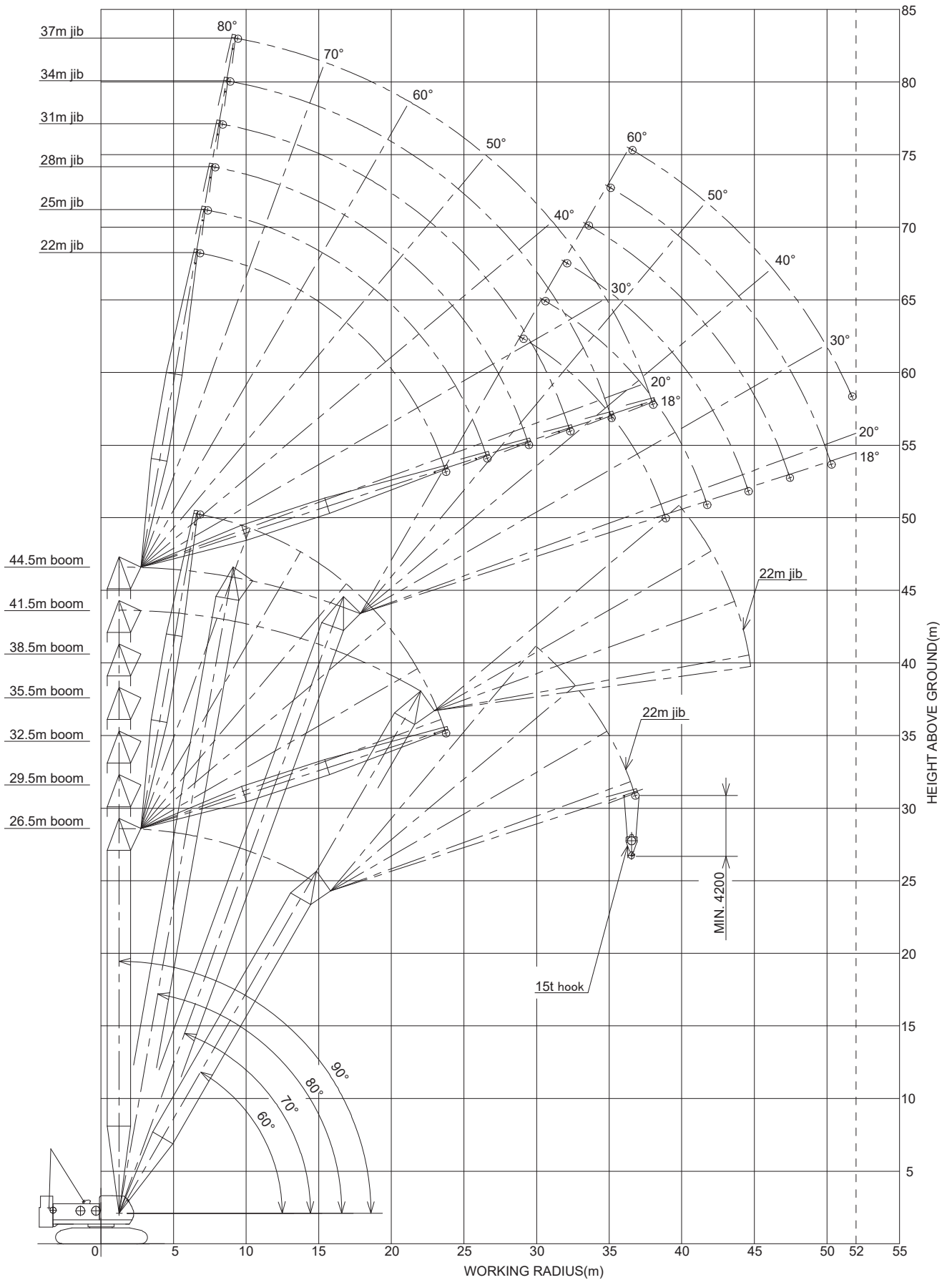


# LUFFING TOWER CRANE

## Dimensions/Specifications



# Working Ranges Diagram



# ■ LUFFING TOWER CRANE

## ■ LUFFING TOWER CRANE

Item	Specifications	
Max. lifting capacity × working radius	15.0t × 14.0m	
Tower Boom length	26.5m ~ 44.5m	
Tower Jib length	22.0m ~ 37.0m	
Max. height of hook from the ground	78.0m(44.5m Tower Boom + 37.0m Jib)	
Rope speed	hoisting/lowering	※120m/min
	Boom hoisting/lowering	※65m/min
	Jib hoisting/lowering	※60m/min
Rope part lines	15.0t hook	2 part lines
	12.0t hook	1 part line
	Boom hoist	12 part lines
	Jib hoist	8 part lines
Standard counterweight	30.6 ton	
Crane total weight	Approx. 99.0 ton (44.5m boom + 37.0m jib + 15.0t hook)	
Average ground bearing pressure	106kPa (1.08kgf/cm <sup>2</sup> )	

Note: The value marked with “※” will be changed according to the loads given.

## ■ Wire Rope

Purpose	Rope dia (mm)	Breaking Strength(kN)	Rope Type
Load hoisting	φ26	651	P · S (19)+39×P · 7
Jib hoisting	φ26	566	IWRC 6×P · WS (31)
Boom hoisting	φ20	284	IWRC 6×WS (31)
Boom suspension	φ34	1,020	IWRC 6×P · WS (36)
Jib boom suspension	φ31.5	735	IWRC 6×Fi (29)
Jib strut suspension	φ31.5	735	IWRC 6×Fi (29)

## Attachment Arrangement

### ■ Tower Boom Arrangement

Tower Boom length (m)	Tower boom arrangement
26.5	
29.5	
32.5	
35.5	
38.5	
41.5	
44.5	

※1R and 9R : 1m and 9m insert boom with rail

※3m ~ 9m insert boom with jib boom suspension

### ■ Tower Jib Arrangement

Omark : Normal guide-roller position

Tower Jib length (m)	Tower Jib Arrangement
22.0	
25.0	
28.0	
31.0	
34.0	
37.0	

### ■ Tower Boom and Jib combination

Tower Boom length (m)	Tower Jib length (m)					
	22.0	25.0	28.0	31.0	34.0	37.0
26.5	◎	×	×	×	×	×
29.5	◎	◎	×	×	×	×
32.5	◎	◎	◎	×	×	×
35.5	◎	◎	◎	◎	×	×
38.5	◎	◎	◎	○	○	×
41.5	◎	○	○	○	○	○
44.5	○	○	○	○	○	○

(Notes)

◎ : Tower Boom angle 90° ~ 60°

○ : Tower Boom angle 90° ~ 70°

It is necessary that the jib weight is mounted for 22.0m Tower jib.

# Tower Crane Rated Lifting Loads

■ Tower Boom length 26.5m, 29.5m

Unit (t)

Boom length (m)	26.5				29.5							
Jib length (m)	22.0				22.0				25.0			
Tower boom angle	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°
Working radius (m)	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°
6.0	6.8m × 14.6				6.8m × 14.6							
7.0	14.6				14.6				7.3m × 15.0			
8.0	14.6				14.6				15.0			
9.0	14.6				14.6				15.0			
10.0	14.6				14.6				15.0			
12.0	14.6				14.6				15.0			
14.0	14.6	15.0m × 14.4			14.6	15.5m × 14.0			15.0			
16.0	13.5	14.0			13.5	13.7			13.9	16.5m × 13.6		
18.0	11.7	12.4			11.7	12.2			12.1	12.5		
20.0	10.2	10.9			10.2	10.6			10.6	11.0		
22.0	8.8	9.6	22.8m × 8.1		8.8	9.5	23.8m × 7.6		9.5	9.8		
24.0	23.5m × 7.7	8.6	7.6		23.5m × 7.7	8.4	7.5		8.5	8.8	25.3m × 7.1	
26.0	★24.0m × 7.4	7.7	6.8		★24.0m × 7.4	7.6	6.7		7.2	8.0	6.9	
28.0		7.0	6.2	29.9m × 4.9		6.8	6.0		26.4m × 7.0	7.3	6.2	
30.0		28.1m × 6.9	5.7	4.9		26.6m × 6.5	5.4	3.4m × 4.4	★26.9m × 6.7	6.7	5.7	
32.0		★28.6m × 6.7	5.2	4.5		★29.1m × 6.2	4.9	4.2		31.5m × 6.2	5.3	33.4m × 4.3
34.0			32.5m × 5.1	4.1			33.5m × 4.5	3.9		★32.0m × 6.0	4.9	4.1
36.0			★33.0m × 5.0	3.8			★34.0m × 4.4	3.6			4.5	3.8
38.0				36.5m × 3.7				3.2			36.4m × 4.4	3.5
40.0				★37.1m × 3.7				★38.6m × 3.2			★36.9m × 4.3	3.3
42.0												40.9m × 3.2
44.0												★41.4m × 3.1

■ Tower Boom length 32.5m

Unit (t)

Boom length (m)	32.5											
Jib length (m)	22.0				25.0				28.0			
Tower boom angle	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°
Working radius (m)	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°
6.0	6.8m × 14.6											
7.0	14.6				7.3m × 15.0				7.8m × 15.0			
8.0	14.6				15.0				15.0			
9.0	14.6				15.0				15.0			
10.0	14.6				15.0				15.0			
12.0	14.6				15.0				15.0			
14.0	14.6				15.0				15.0			
16.0	13.5	13.5			13.9	17.1m × 13.0			13.6			
18.0	11.7	11.9			12.1	12.2			11.8	18.1m × 12.0		
20.0	10.2	10.4			10.6	10.7			10.3	10.7		
22.0	8.8	9.2			9.5	9.6			9.2	9.4		
24.0	23.5m × 7.7	8.2	24.8m × 6.7		8.5	8.7			8.3	8.6		
26.0	★24.0m × 7.4	7.4	6.2		7.2	7.8	26.3m × 6.4		7.5	7.7	27.8m × 5.9	
28.0		6.7	5.6		26.4m × 7.0	7.2	5.9		6.8	7.1	5.8	
30.0		29.1m × 6.3	5.1		★26.9m × 6.7	6.6	5.4		29.2m × 6.1	6.5	5.3	
32.0		★29.6m × 6.0	4.7	32.9m × 3.7		6.0	5.0		★29.7m × 5.9	6.0	5.0	
34.0			4.3	3.5		★32.5m × 5.8	4.6	34.9m × 3.6		5.5	4.6	
36.0			34.5m × 4.2	3.2			4.3	3.5		34.8m × 5.3	4.2	36.8m × 3.3
38.0			★35.1m × 4.0	2.9			37.4m × 4.0	3.2		★35.4m × 5.1	3.9	3.1
40.0				39.5m × 3.7			★37.9m × 3.9	3.0			3.6	2.9
42.0				★40.1m × 2.6				2.8			40.2m × 3.6	2.6
44.0								42.4m × 2.7			★40.8m × 3.5	2.5
46.0								★42.9m × 2.6				45.3m × 2.3
48.0												★45.8m × 2.3

(Notes)

- All rated loads are based on the machine being operated on the firm, level, uniformly supporting surface ground, at any point of 360° around the machine within 75% of tipping load and applied load 1.25P + 0.1F.
- The actual lifting load is obtained by subtracting the mass of all lifting equipment such as the main hook, Aux. hook, etc. from the values given in this table.  
15ton Hook···0.80ton 12ton Hook···0.40ton
- The rated load are limited according to the wire rope part line as shown below:  
1 part of line···up to 12.0ton 2 part of lines···up to 15.0ton
- The angle formed by the center line of post and tower jib(offset angle) should not be always below 10 degrees.
- The angle formed by the center line of tower jib and the horizontal should not be below 18 degrees in case of lifting work.
- The working radius marked with an asterisk(★) in this table indicates the maximum working radius when the wire rope part line is 1 part of line.
- It is necessary that the jib weight is mounted for 22m tower jib.

# LUFFING TOWER CRANE

## Tower Crane Rated Lifting Loads

■ Tower Boom length 35.5m

Unit (t)

Boom length (m)	35.5																
	22.0				25.0				28.0				31.0				
Jib length (m)																	
Tower boom angle	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°	
Working radius (m)	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°	
6.0	6.8m × 14.6																
7.0	14.6				7.3m × 15.0				7.8m × 15.0								
8.0	14.6				15.0				15.0				8.3m × 13.5				
9.0	14.6				15.0				15.0				13.5				
10.0	14.6				15.0				15.0				13.5				
12.0	14.6				15.0				15.0				13.5				
14.0	14.6				15.0				15.0				13.5				
16.0	13.5	16.6m × 13.0			13.9	17.6m × 12.5			13.6				13.5				
18.0	11.7	11.7			12.1	12.1			11.8	18.6m × 11.3			11.8	19.6m × 10.5			
20.0	10.2	10.2			10.6	10.5			10.3	10.4			10.4	10.2			
22.0	8.8	9.2			9.5	9.4			9.2	9.3			9.2	9.1			
24.0	23.5m × 7.7	8.2	25.9m × 6.2		8.5	8.5			8.3	8.4			8.3	8.2			
26.0	★24.0m × 7.4	7.4	6.1		7.2	7.7	27.4m × 5.9		7.5	7.6			7.5	7.5			
28.0		6.7	5.4		26.4m × 7.0	7.0	5.8		6.8	6.9	28.9m × 5.3		6.8	6.8			
30.0		29.6m × 6.1	4.8		★26.9m × 6.7	6.4	5.2		29.2m × 6.1	6.3	5.1		6.2	6.2	30.4m × 4.8		
32.0		★30.2m × 5.9	4.4			5.8	4.8		★28.7m × 5.9	5.8	4.7		5.3	5.7	4.5		
34.0			4.0	34.4m × 3.1		32.5m × 5.7	4.4			5.4	4.3			32.1m × 5.3	5.3	4.2	
36.0			35.5m × 3.7	2.9		★33.0m × 5.5	4.1	36.4m × 2.3		35.3m × 5.1	4.0		★32.6m × 5.1	4.9	3.9		
38.0			★36.1m × 3.6	2.7			3.8	3.0		★35.9m × 5.0	3.7	38.3m × 2.8		4.6	3.6		
40.0				2.4				38.4m × 3.7	2.7			3.4	2.6		38.2m × 4.5	3.3	40.2m × 2.4
42.0				41.0m × 2.3			★38.9m × 3.6	2.5			41.3m × 3.3	2.4		★38.7m × 4.4	3.1	2.2	
44.0			★41.6m × 2.2					43.9m × 2.3		★41.8m × 3.2	2.2				2.9	2.1	
46.0								★44.4m × 2.3				2.0			44.1m × 2.9	1.9	
48.0												46.8m × 1.8			★44.6m × 2.8	1.7	
50.0												★47.3m × 1.8				49.6m × 1.6	
52.0																★50.1m × 1.6	

The working radius marked with an asterisk(★) in this table indicates the maximum working radius when the wire rope part line is 1 part of line.

■ Tower Boom length 38.5m

Unit (t)

Boom length (m)	38.5																		
	22.0				25.0				28.0				31.0			34.0			
Jib length (m)																			
Tower boom angle	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	90°	80°	70°	
Working radius (m)	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	60°	90°	80°	70°	90°	80°	70°	
6.0	6.8m × 14.6																		
7.0	14.6				7.3m × 15.0				7.8m × 15.0										
8.0	14.6				15.0				15.0				8.3m × 13.5				8.9m × 11.5		
9.0	14.6				15.0				15.0				13.5				11.5		
10.0	14.6				15.0				15.0				13.5				11.5		
12.0	14.6				15.0				15.0				13.5				11.5		
14.0	14.6				15.0				15.0				13.5				11.5		
16.0	13.4	17.1m × 12.4			13.9				13.6				13.5				11.5		
18.0	11.6	11.6			12.0	18.1m × 11.8			11.8	19.1m × 11.0			11.8				11.5		
20.0	10.1	10.1			10.5	10.4			10.3	10.4			10.4	20.2m × 10.2		10.2	21.2m × 9.5		
22.0	8.9	9.0			9.3	9.3			9.2	9.2			9.2	9.1		9.1	9.0		
24.0	23.5m × 7.8	8.0			8.4	8.3			8.3	8.3			8.3	8.2		8.2	8.1		
26.0	★24.0m × 7.6	7.2	26.9m × 5.5		7.3	7.5			7.5	7.5			7.5	7.4		7.3	7.3		
28.0		6.5	5.1		26.4m × 7.0	6.8	28.4m × 5.3		6.8	6.7	29.9m × 4.9		6.8	6.7		6.6	6.6		
30.0		5.9	4.6		★26.9m × 6.8	6.3	4.9		29.2m × 6.1	6.2	4.9		6.2	6.1	31.4m × 4.4	6.1	6.0		
32.0		30.2m × 5.9	4.2			5.8	4.5		★29.7m × 5.9	5.7	4.5		5.3	5.6	4.3	5.6	5.6	32.9m × 4.0	
34.0		★30.7m × 5.7	3.8	35.9m × 2.5		★33.0m × 5.5	4.1			5.2	4.1		32.1m × 5.3	5.2	3.9	5.1	5.1	3.8	
36.0			3.5	2.5		★33.5m × 5.3	3.9	37.9m × 2.6		35.9m × 4.9	3.7		★32.6m × 5.1	4.8	3.6	34.9m × 4.5	4.7	3.5	
38.0			36.6m × 3.4	2.3			3.6	2.6		★36.4m × 4.8	3.4	39.8m × 2.2		4.5	3.4	★35.4m × 4.4	4.4	3.3	
40.0			★37.1m × 3.3	2.1			39.4m × 3.3	2.4			3.2	2.2		38.7m × 4.3	3.1		4.1	3.0	
42.0				1.9			★40.0m × 3.2	2.2			3.0	2.0		★39.2m × 4.2	2.9		41.6m × 3.9	2.8	
44.0				42.5m × 1.8				2.0			42.3m × 2.9	1.9			2.7		★42.1m × 3.8	2.6	
46.0			★43.1m × 1.7					45.4m × 1.9		★42.8m × 2.8	1.7			45.1m × 2.6				2.4	
48.0								★45.9m × 1.9				1.5			★45.7m × 2.5				2.2
50.0													48.3m × 1.5						★48.5m × 2.2
52.0													★48.8m × 1.4						

The working radius marked with an asterisk(★) in this table indicates the maximum working radius when the wire rope part line is 1 part of line.



# Tower Crane Rated Lifting Loads

■ Tower Boom length 41.5m

Unit (t)

Boom length (m)		41.5																				
Jib length (m)		22.0				25.0			28.0			31.0			34.0			37.0				
Tower boom angle		90°	80°	70°	60°	90°	80°	70°	90°	80°	70°	90°	80°	70°	90°	80°	70°	90°	80°	70°		
Working radius (m)		90°	80°	70°	60°	90°	80°	70°	90°	80°	70°	90°	80°	70°	90°	80°	70°	90°	80°	70°		
6.0	6.8m x 14.6																					
7.0	14.6					7.3m x 15.0			7.8m x 15.0													
8.0	14.6					15.0			15.0			8.3m x 13.5			8.9m x 11.5							
9.0	14.6					15.0			15.0			13.5			11.5				9.4m x 9.5			
10.0	14.6					15.0			15.0			13.5			11.5				9.5			
12.0	14.6					15.0			15.0			13.5			11.5				9.5			
14.0	14.6					15.0			15.0			13.5			11.5				9.5			
16.0	13.4		17.6m x 11.8			13.9			13.6			13.5			11.5				9.5			
18.0	11.6	11.4				12.0	18.6m x 11.3		11.8	19.6m x 10.5		11.8			11.5				9.5			
20.0	10.1	10.0				10.5	10.3		10.3	10.2		10.4	20.7m x 9.6		10.2	21.7m x 8.6			9.1			
22.0	8.9	8.8				9.3	9.2		9.2	9.1		9.2	8.8		9.1	8.5			8.7	22.7m x 9.2		
24.0	23.5m x 7.8	7.9				8.4	8.2		8.3	8.0		8.3	7.9		8.2	7.6			8.1	7.7		
26.0	★24.0m x 7.6	7.1	27.9m x 4.9			7.3	7.3		7.5	7.3		7.5	7.1		7.3	6.9			7.4	6.9		
28.0		6.4	4.9			26.4m x 7.0	6.7	29.4m x 4.8	6.8	6.6		6.8	6.5		6.6	6.4			6.7	6.3		
30.0		5.8	4.4			★26.9m x 6.8	6.2	4.7	29.2m x 6.1	6.1	30.9m x 4.4	6.2	6.0		6.1	5.9			6.2	5.8		
32.0		30.7m x 5.6	3.9			5.7	4.3	★29.7m x 5.9	5.6	4.2	5.3	5.5	5.0	32.4m x 4.0	5.6	5.4	33.9m x 3.6	5.7	5.3			
34.0		★31.2m x 5.4	3.6			33.5m x 5.3	4.0		5.1	3.8	32.1m x 5.3	5.0	3.7	5.1	5.0	3.6	5.2	4.9	35.4m x 3.3			
36.0			3.3	37.4m x 2.0		★34.1m x 5.2	3.6		4.8	3.5	★32.6m x 5.1	4.7	3.4	34.9m x 4.5	4.6	3.3	4.7	4.5	3.2			
38.0			37.6m x 3.0	1.9			3.3		36.4m x 4.7	3.2		4.4	3.1	★35.4m x 4.4	4.3	3.0	37.8m x 4.0	4.2	2.9			
40.0			★38.1m x 2.9	1.7			3.1		★36.9m x 4.7	3.0		39.2m x 4.2	2.9		4.0	2.8	★38.3m x 3.8	3.9	2.7			
42.0				1.5				40.5m x 3.1			2.8		★39.8m x 4.1	2.7		3.7	2.6		3.5	2.4		
44.0				1.3				★41.0m x 3.0			43.3m x 2.7		2.5		42.1m x 3.7	2.4			3.4	2.2		
46.0					★44.6m x 1.2						★43.8m x 2.6		2.3		★42.6m x 3.8	2.2			44.9m x 3.2	2.1		
48.0														46.2m x 2.3			2.0		★45.5m x 3.1	1.9		
50.0														★46.7m x 2.2						1.7		
52.0																★49.0m x 1.9				51.9m x 1.6		
54.0																				★52.0m x 1.5		

The working radius marked with an asterisk(★)in this table indicates the maximum working radius when the wire rope part line is 1 part of line.

■ Tower Boom length 44.5m

Unit (t)

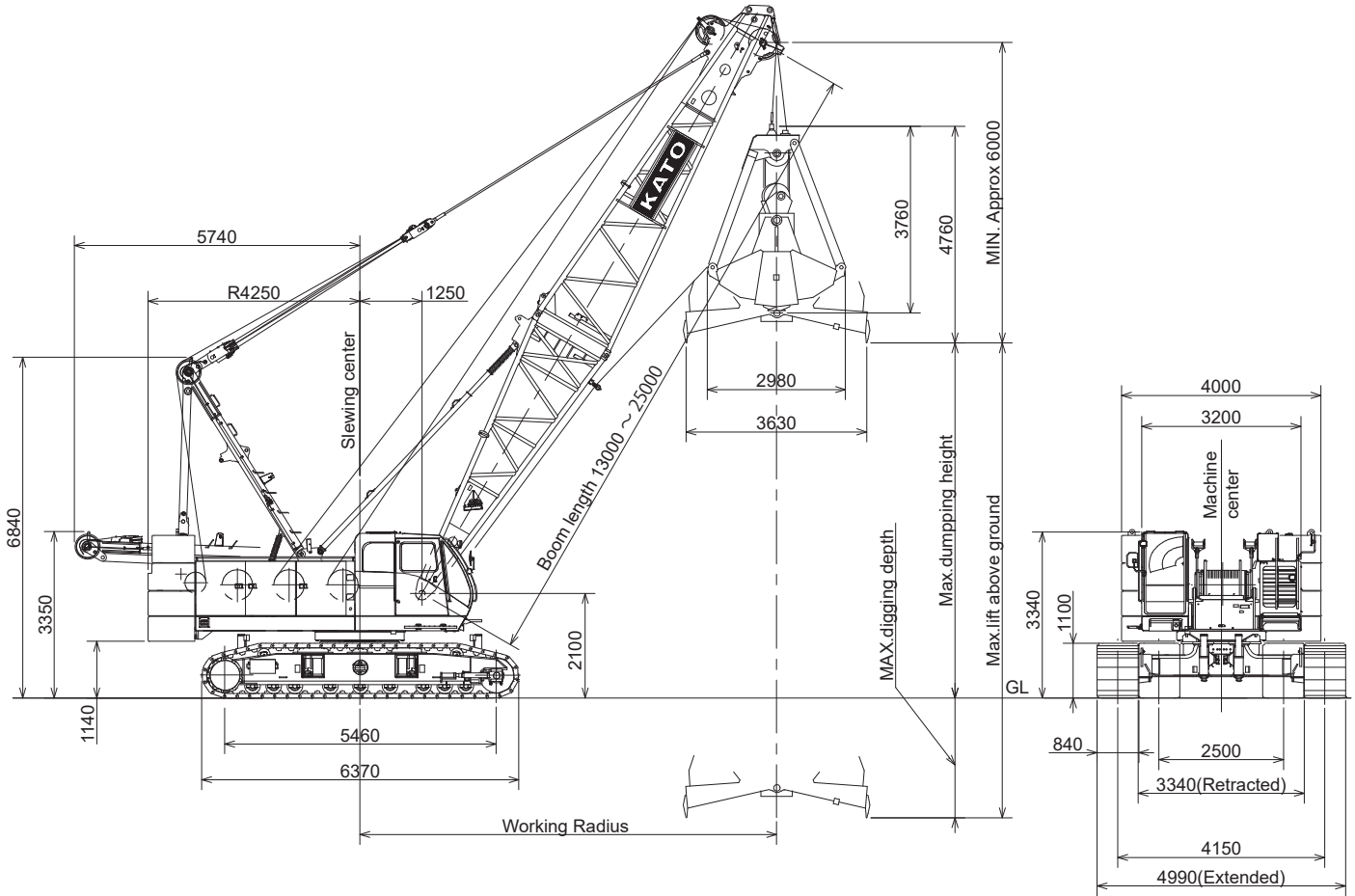
Boom length (m)		44.5																				
Jib length (m)		22.0				25.0			28.0			31.0			34.0			37.0				
Tower boom angle		90°	80°	70°	60°	90°	80°	70°	90°	80°	70°	90°	80°	70°	90°	80°	70°	90°	80°	70°		
Working radius (m)		90°	80°	70°	60°	90°	80°	70°	90°	80°	70°	90°	80°	70°	90°	80°	70°	90°	80°	70°		
6.0	6.8m x 14.6																					
7.0	14.6					7.3m x 15.0			7.8m x 15.0													
8.0	14.6					15.0			15.0			8.3m x 13.5			8.9m x 11.5							
9.0	14.6					15.0			15.0			13.5			11.5				9.4m x 9.5			
10.0	14.6					15.0			15.0			13.5			11.5				9.5			
12.0	14.6					15.0			13.5m x 15.0			13.5			11.5				9.5			
14.0	14.6					15.0			14.7			13.5			11.5				9.5			
16.0	13.4					13.9			13.4			13.5			11.5				9.5			
18.0	11.6	18.1m x 10.9				12.0	19.1m x 10.7		11.8			11.8			11.5				9.5			
20.0	10.1	9.6				10.5	10.0		10.3	20.2m x 9.7		10.4	21.2m x 9.1		10.2				9.1			
22.0	8.9	8.5				9.3	8.9		9.2	8.7		9.2	8.7		9.1	22.2m x 8.5		8.7	23.2m x 7.9			
24.0	23.5m x 7.8	7.6				8.4	8.0		8.3	7.8		8.3	7.8		8.2	7.5		8.1	7.6			
26.0	★24.0m x 7.6	6.9				7.3	7.2		7.5	7.1		7.5	7.0		7.3	6.8		7.4	6.8			
28.0		6.2	28.9m x 4.3	26.4m x 7.0		6.6			6.8	6.4		6.8	6.4		6.6	6.2		6.7	6.2			
30.0		5.7	4.1	★26.9m x 6.8	6.0	30.4m x 4.3	29.2m x 6.1	5.9	31.9m x 3.9	6.2	5.8		6.1	5.7		6.2	5.6					
32.0		31.2m x 5.4	3.7			5.5	4.0	★29.7m x 5.9	5.4	3.8	5.3	5.4	33.4m x 3.6	5.6	5.3		5.7	5.2				
34.0		★31.7m x 5.3	3.4			5.2	3.7		5.0	3.6	32.1m x 5.3	5.0	3.5	5.1	4.9	34.9m x 3.2	5.2	4.8				
36.0			3.1	34.1m x 5.2	3.4		3.4	4.6	3.3	★32.6m x 5.1	4.6	3.1	34.9m x 4.5	4.5	3.1	4.7	4.4	36.4m x 2.9				
38.0			2.9	★34.6m x 5.1	3.2		3.2	36.9m x 4.4	3.0		4.3	2.9	★35.4m x 4.4	4.2	2.8	37.8m x 4.0	4.1	2.6				
40.0			38.6m x 2.8		2.9		2.9	★37.4m x 4.3	2.8		39.8m x 4.0	2.7		3.9	2.6	★38.3m x 3.8	3.8	2.4				
42.0			★39.2m x 2.7		41.5m x 2.7			2.6		★40.3m x 4.0	2.5		3.6	2.4			3.5	2.2				
44.0					★42.0m x 2.7				2.4			2.3		42.6m x 3.5	2.2		3.2	2.0				
46.0									44.3m x 2.3			2.1		★43.1m x 3.4	2.0		45.5m x 3.1	1.8				
48.0									★44.9m x 2.3					47.2m x 2.0	1.8		★46.0m x 3.0	1.6				
50.0													★47.7m x 1.9		1.7					1.5		
52.0															★50.6m x 1.6					1.3		

The working radius marked with an asterisk(★)in this table indicates the maximum working radius when the wire rope part line is 1 part of line.



# CLAMSHELL SPECIFICATION

## Dimensions/Specifications



### Clamshell Specifications

Item	Specifications
Maximum lifting capacity	10.0 ton (bucket weight + load)
Maximum lift above ground	35.0m (13m boom)
Rope speed	Bucket closing ※120m/min
	Bucket holding ※120m/min
	Boom hoisting/lowering ※65m/min
Rope part lines	Bucket closing 6 part lines (all bucket common)
	Bucket holding 1 part line (all bucket common)
	Boom hoist 12part lines
Standard counterweight	Approx.30.6 ton
Crane total weight	Approx. 91 ton (with 13m boom+2.5 m <sup>2</sup> bucket)
Average ground bearing pressure	91 kPa (0.93 kgf/ cm <sup>2</sup> ) (with 13m boom+2.5 m <sup>2</sup> bucket)

The value marked with “※” will be changed according to the loads given.

### Clamshell bucket specification

Classifications	Capacity (m <sup>3</sup> )	Weight (ton)	Type
Heavy duty	1.6	6.2	Option
General purpose	2.5	5.5	Standard
Medium duty	3.0	4.5	Option
Light duty	4.0	4.0	Option
Light duty	5.0	4.0	Option

### Wire Rope

Purpose	Rope dia. (mm)	Breaking Strength(kN)	Rope Type
Bucket closing	φ 26	566	※IWRC 6×P·WS (31)
Bucket suspension	φ 26	566	※IWRC 6×P·WS (31)
Boom hoist	φ 20	284	IWRC 6×WS (31)
Boom suspension	φ 34	1020	IWRC 6×P·WS (36)
Hydraulic tagline	φ 10	54	6×19

The wire rope marked with “※” is for excavation work.

When carrying out crane (loading) work, it is necessary to use a load hoisting wire rope.

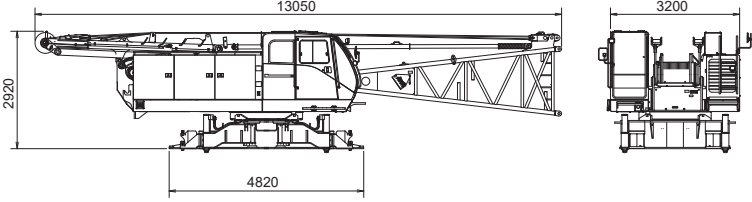
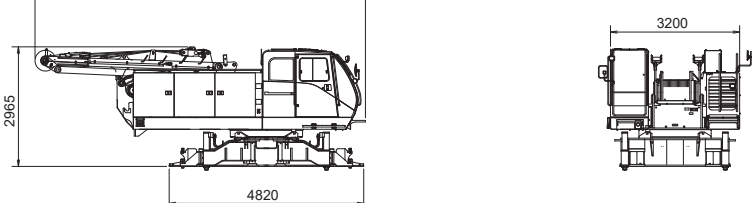
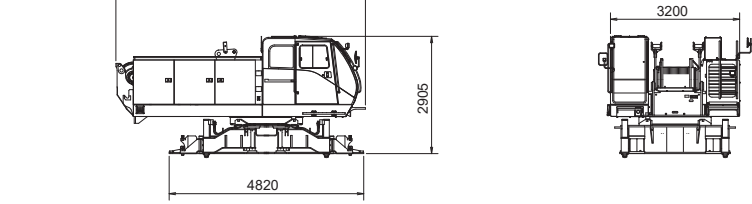
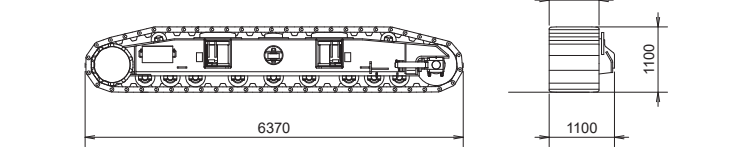
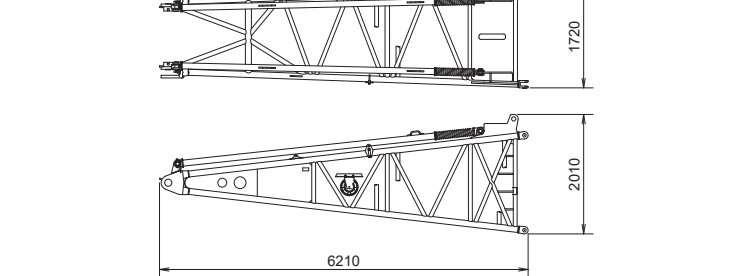
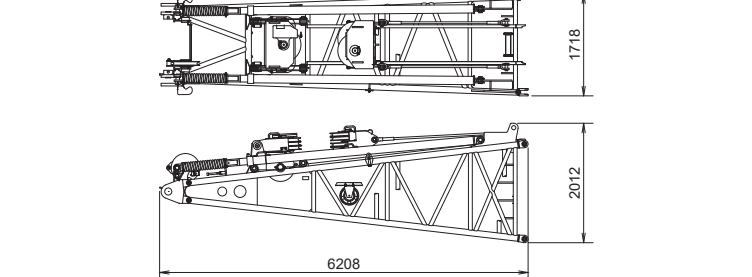
## ■ Working radius and Rated loads

Boom length (m)	13.0				16.0				19.0				22.0				25.0			
Boom angle (° )	35	45	55	65	35	45	55	65	35	45	55	65	35	45	55	65	35	45	55	65
Working radius (m)	12.4	11.0	9.3	7.4	14.9	13.1	11.0	8.6	17.3	15.2	12.7	9.9	19.8	17.4	14.5	11.2	22.2	19.5	16.2	12.4
Rated lifting loads (t)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	9.7	10.0	10.0	10.0	8.2	9.8	10.0	10.0
Boom point height (m)	9.2	11.0	12.5	13.7	11.0	13.1	15.0	16.4	12.7	15.3	17.4	19.2	14.4	17.4	19.9	21.9	16.1	19.5	22.4	24.6
Max.dumping height (m)	3.2	5.0	6.5	7.7	5.0	7.1	9.0	10.4	6.7	9.3	11.4	13.2	8.4	11.4	13.9	15.9	10.1	13.5	16.4	18.6
Max.digging depth (m)	31.8	30.0	28.5	27.3	30.0	27.9	26.0	24.6	28.3	25.8	23.6	21.8	26.6	23.6	21.1	19.1	24.9	21.5	18.6	16.4

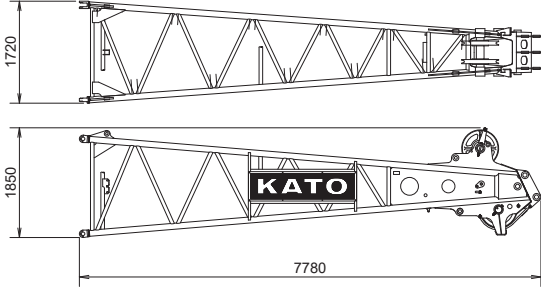
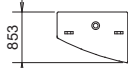
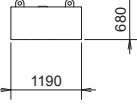
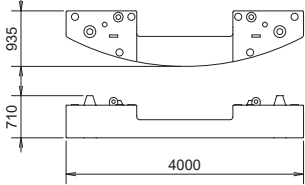
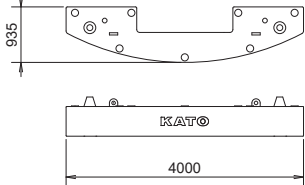
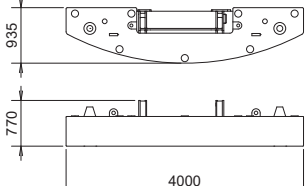
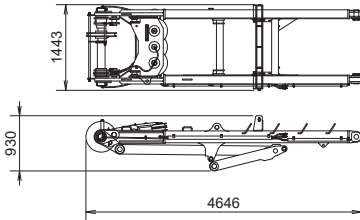
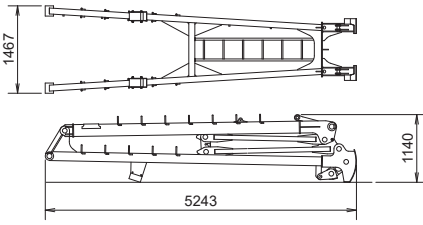
### (Notes)

1. The maximum boom length is 25 meters.
2. The rated lifting load indicates the maximum lifting weight of a bucket and its content.  
Select an appropriate bucket depending on content, so as not to exceed the rated lifting load.
3. The working radius refers to the horizontal distance from the center of swinging to the vertical line through the center of the bucket.
4. Maximum dumping height depends on the height of a bucket attached. In the chart, top clearance of 6 meters is assumed.
5. Maximum digging depth is the value calculated by subtracting maximum dumping height from the maximum lifting range of 35 meters.
6. The aux. jib cannot be used for bucket work.
7. When lowering a bucket using half brake, ensure that the drop height is about 10 meters or less.  
Use powered lowering as well as free fall when the drop height is higher than 10 meters.
8. The maximum weight of a bucket is 6.2 tons, but it is necessary to use a lighter bucket depending on work cycle and drop height.
9. Avoid sudden acceleration or deceleration while slewing the machine, which would apply dragging the load sideways to the boom. Be careful especially when a longer boom is used.

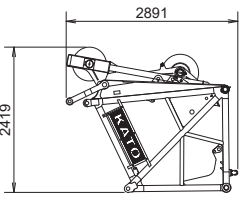
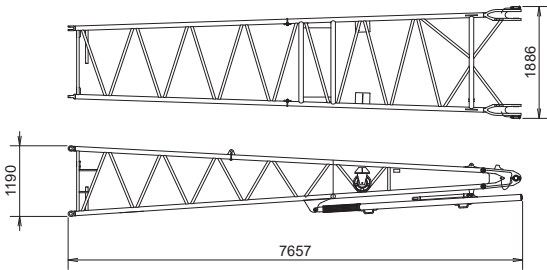
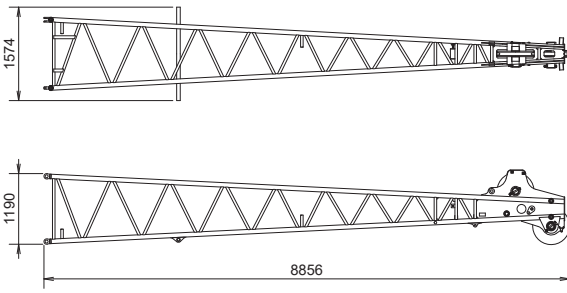
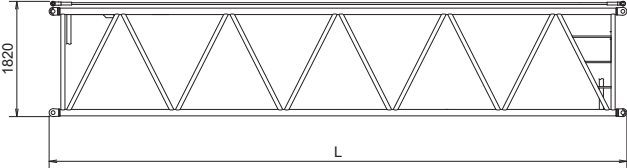
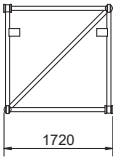
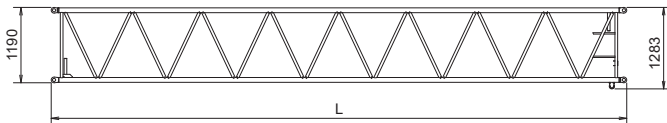
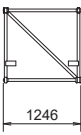
# Transport Dimensions and Weights

Name	Dimension (mm)	Q' ty	Weight (t)
Base Machine with: Main/Aux. Boom Hoist Drum Main Boom Hoist Wire A-frame Inner Boom		1	32.0
Base Machine with: Main/Aux. Boom Hoist Drum Main Boom Hoist Wire A-frame		1	30.3
Base Machine Only Main/Aux. Boom Hoist Drum Main Boom Hoist Wire		1	28.0
Crawler		2	10.1
Inner Boom		1	1.72
Tower Inner Boom		1	2.9

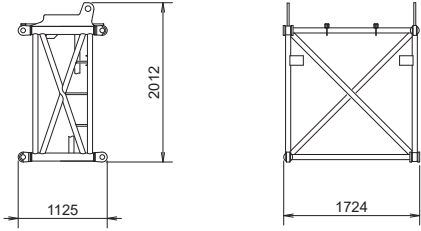
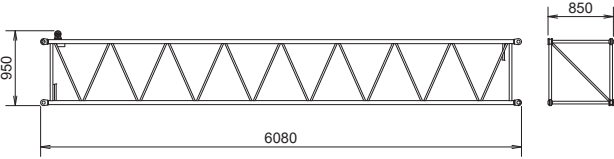
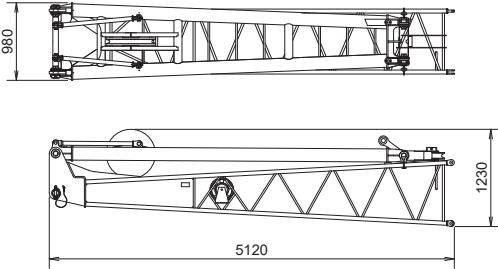
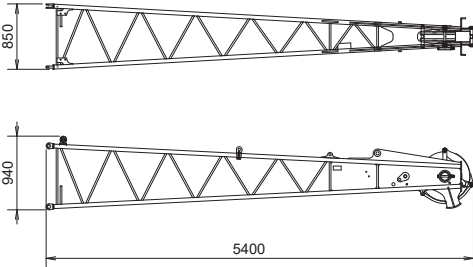
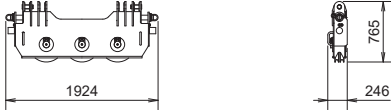

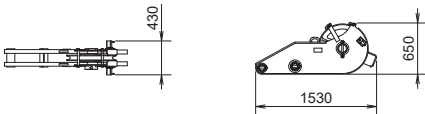
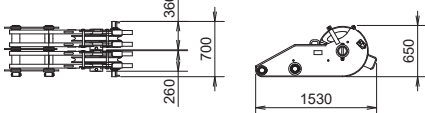
# Transport Dimensions and Weights

Name	Dimension (mm)	Q'ty	Weight (t)
Outer Boom		1	1.78
Counterweight 4th stage (left)		1	3.0
Counterweight 4th stage (right)		1	3.0
Counterweight 3rd stage		1	7.8
Counterweight 2nd stage		1	8.3
Counterweight 1st stage		1	8.5
A-frame		1	1.9
Tower Strut		1	1.13

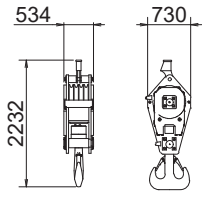
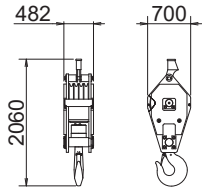
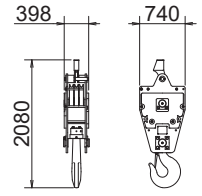
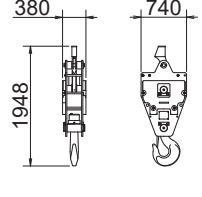
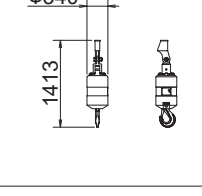
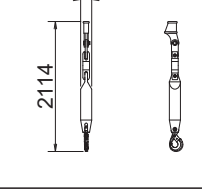
# Transport Dimensions and Weights

Name	Dimension (mm)	Q' ty	Weight (t)
Tower Top	 <p>Dimension 2419×1724×2891</p>	1	1.52
Tower Inner Jib		1	0.75
Tower Outer Jib		1	0.78
Insert Boom (3m)		1	0.5
Insert Boom (6m)		1	0.79
Insert Boom (9m)		1	1.1
Tower Special Insert Boom (9m)	 <p>3m Insert Boom L=3130 6m Insert Boom L=6130 9m Insert Boom L=9130</p>	1	1.19
Tower Insert Jib (3m)		1	0.22
Tower Insert Jib (6m)		1	0.35
Tower Insert Jib (9m)		 <p>3m Insert Jib L=3090 6m Insert Jib L=6090 9m Insert Jib L=9090</p>	1

## Transport Dimensions and Weights

Name	Dimension (mm)	Q' ty	Weight (t)
Tower Special Insert Boom (1m)		1	0.28
Insert Jib (6m)		1	0.5
Inner Jib (w/Strut)		1	0.82
Outer Jib		1	0.31
Equalizer		1	0.41
Middle Equalizer		1	0.33
Aux. Jib		1	0.24
Double Aux. Jib		1	0.47

## ■ Transport Dimensions and Weights

Name	Dimension (mm)	Q'ty	Weight (t)
100ton Hook		1	1.40
90ton Hook		1	1.20
50ton Hook		1	0.95
30ton Hook (Interchangeable To 15ton Hook For Tower Jib)		1	0.80
12ton Hook		1	0.40
12ton Swivel Hook		1	0.20

\* KATO products and specifications are subject to improvements and changes without notice.

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