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G.H. JOHNSON CRANE HIRE LTD.

CCH 1200

Fully Hydraulic Crawler Crane

Lifting capacity 120 metric tons



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IHI Construction Machinery Limited

Crane

CCH1200

Specifications

Max. Lifting capacity x working radius	120 metric tons x 5.0m	
Max. boom length	75m	
Max. boom length, (main + jib)	88m (63m boom+25m jib)	
Rope speed	Main drum hoist/lowering	* 100~50/50~25 m/min
	Aux. drum hoist/lowering	* 100~50/50~25 m/min
	Boom drum hoist/lowering	* 60~30 m/min
Part line	Hook block capacity x Part line	120ton x 10
	Hook block capacity x Part line	11ton x 1
	Boom drum hoist/lowering part line	14
Counterweight	50ton	
Total operating weight (with 18m boom)	121.5ton (Approx.)	
Average ground bearing pressure	0.92kgf/cm ²	

* The rope speed changes depending on the load.

Combination of Boom and Jib (●: Available combination)

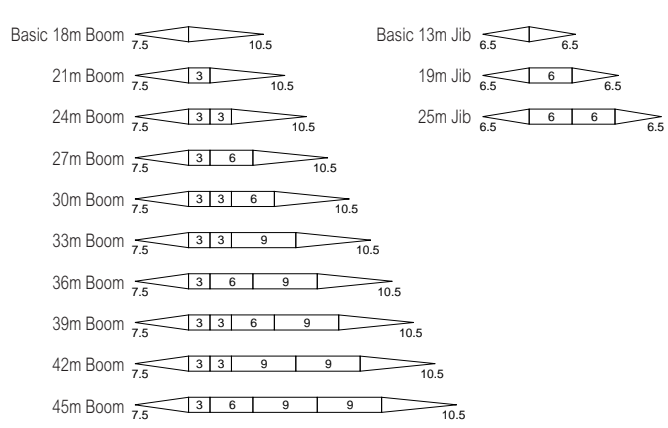
Jib length (m)	Boom length (m)																	
	18-24	27	30	33	36	39	42	45	48	51	54	57	60	63	66	69	72	75
Auxiliary	☒	☒	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
13	☒	☒	☒	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
19	☒	☒	☒	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
25	☒	☒	☒	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Wire rope

Place of use	Rope diameter (mm)	Guaranteed strength (ton)	Rope type
Load hoist	☒ φ 26	61.0	A
Boom hoist	☒ φ 22	36.3	B
Boom suspension	☒ φ 31.5	74.9	C
Jib load hoist	☒ φ 26	61.0	A
Jib Boom suspension	☒ φ 28	59.3	C
Jib strut suspension	☒ φ 28	59.3	C

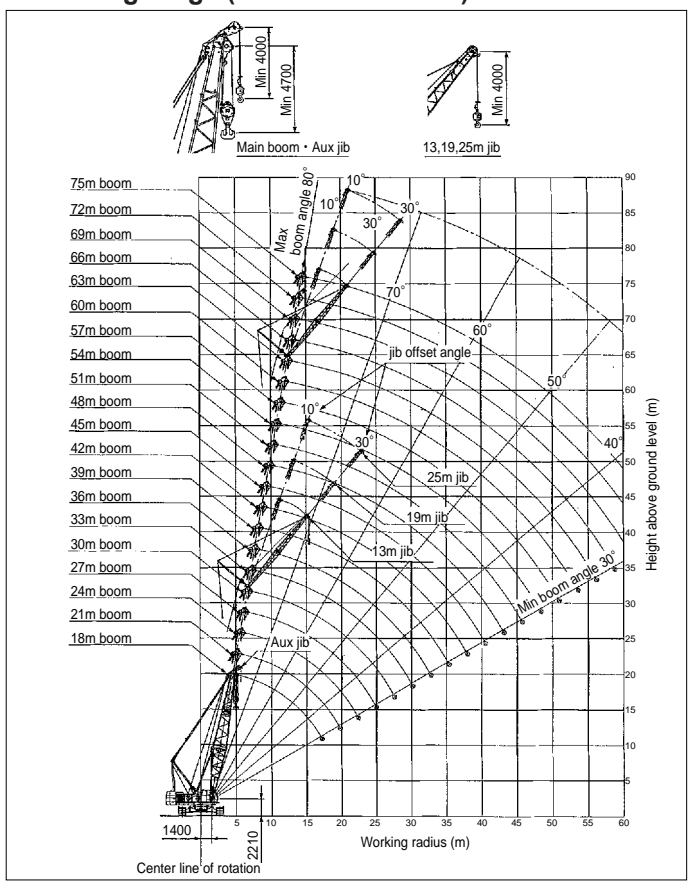
Rope type A: PS(19)+39 x P-7
 B: IWRC 6 x WS(31)
 C: IWRC 6 x Fi(29)

Boom & Jib combination



Note: 1. Compositions shown are for maximum length at time of delivery.
 2. Required middle suspension for boom length 63m and longer.
 3. Boom can be converted into a post for tower crane operation by replacing top section.

Working range (No load condition)



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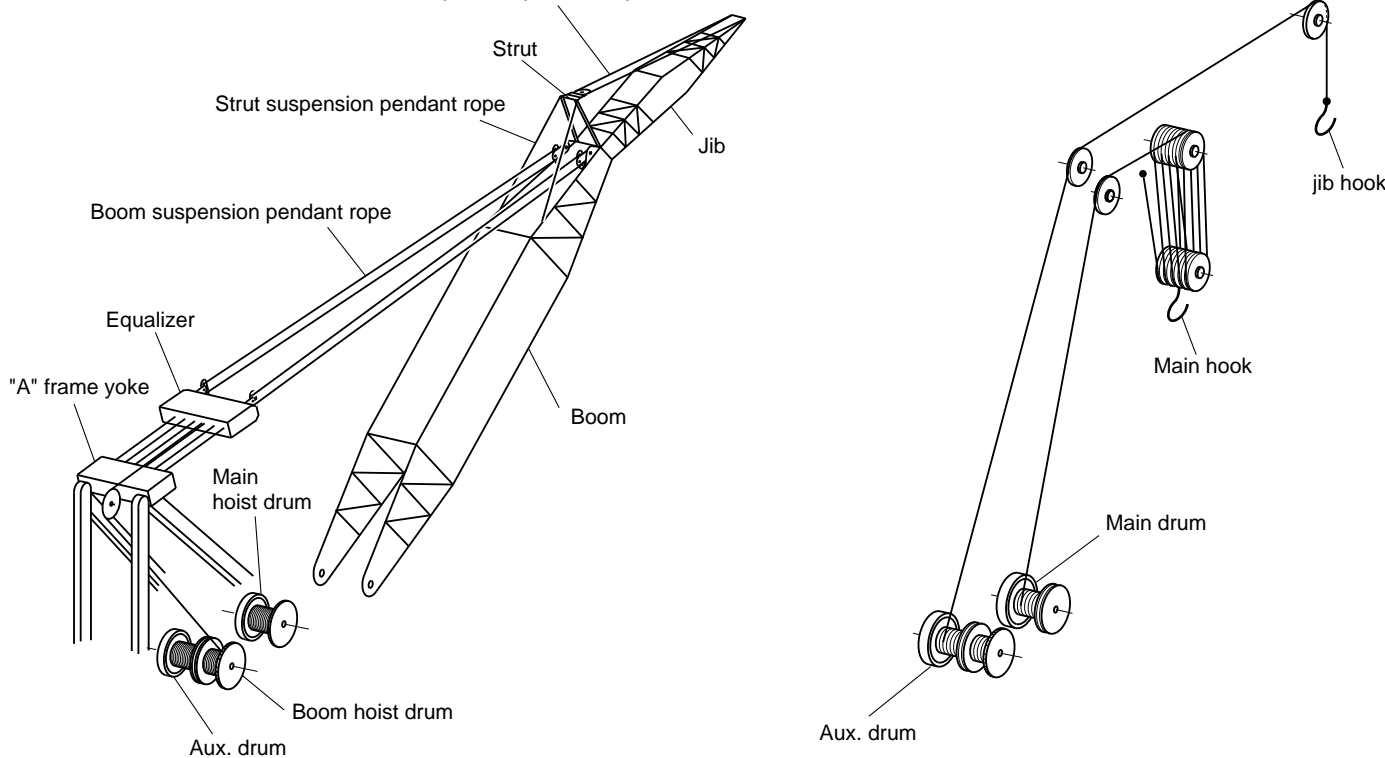
■ Main boom rated lifting loads

(Unit: metric ton)

Boom length (m) Working radius (m)	18.0	21.0	24.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0	69.0	72.0	75.0	
5.0	120.0																				
5.5	106.7	90.0																			
6.0	97.0	90.0	80.0	70.0																	
7.0	83.3	81.2	75.0	7.2m x 70.0	7.1m x 60.0	7.6m x 50.0															
8.0	71.7	71.5	67.5	64.0	60.0	50.0	8.1m x 50.0	8.6m x 40.0													
9.0	60.6	60.0	59.7	57.5	54.1	9.5m x 50.0	50.0	40.0	9.2m x 40.0	9.7m x 40.0											
10.0	51.8	51.6	51.5	51.0	48.8	47.4	46.0	11.3m x 40.0	11.2m x 40.0	11.0m x 40.0	10.2m x 30.0	10.7m x 30.0	11.2m x 28.3	11.8m x 28.1							
12.0	40.6	40.4	40.3	40.2	40.0	39.2	38.4	37.8	37.5	37.1	30.0	30.0	28.3	28.1	12.3m x 20.0	12.8m x 20.0	13.3m x 19.0	13.8m x 16.0			
14.0	32.9	32.7	32.6	32.5	32.3	32.2	32.1	31.9	31.8	31.7	14.1m x 30.0	30.0	28.3	28.1	20.0	20.0	19.0	16.0	14.4m x 14.5	14.9m x 13.0	
16.0	27.6	27.4	27.3	27.2	27.0	26.9	26.8	26.6	26.5	26.4	26.3	26.2	25.1	24.9	20.0	17.4m x 20.0	19.0	16.0	14.5	13.0	
18.0	17.2m x 25.1	23.4	23.3	23.2	23.0	22.9	22.8	22.6	22.5	22.4	22.3	22.2	22.0	21.9	20.0	19.2	17.9	16.0	14.5	13.0	
20.0		19.7m x 20.8	20.2	20.1	19.9	19.8	19.7	19.5	19.4	19.3	19.2	19.1	18.9	18.8	18.2	17.5	16.7	15.2	13.6	11.6	
22.0			17.8	17.7	17.5	17.4	17.3	17.1	17.0	16.9	16.8	16.7	16.5	16.4	16.3	15.8	15.3	14.2	12.6	10.4	
24.0			22.3m x 17.5	15.8	15.6	15.5	15.4	15.2	15.1	15.0	14.9	14.8	14.6	14.5	14.4	14.2	13.8	13.0	11.6	9.4	
26.0				24.9m x 15.0	13.9	13.8	13.7	13.5	13.4	13.3	13.2	13.1	12.9	12.8	12.7	12.5	12.3	11.9	10.5	8.4	
28.0					27.5m x 12.9	12.5	12.4	12.2	12.1	12.0	11.9	11.8	11.6	11.5	11.4	11.2	11.0	10.9	9.6	7.6	
30.0						11.3	11.2	11.0	10.9	10.8	10.7	10.6	10.4	10.3	10.2	10.0	9.8	9.7	8.7	6.9	
32.0						30.1m x 11.2	10.2	10.0	9.9	9.8	9.7	9.6	9.4	9.3	9.2	9.0	8.8	8.6	7.8	6.2	
34.0							32.7m x 9.9	9.1	9.0	8.9	8.8	8.7	8.5	8.4	8.3	8.1	7.9	7.6	7.1	5.5	
36.0								35.3m x 8.6	8.2	8.1	8.0	7.9	7.7	7.6	7.5	7.3	7.1	6.7	6.4	5.0	
38.0									37.9m x 7.6	7.4	7.3	7.2	7.0	6.9	6.8	6.6	6.4	5.9	5.7	4.4	
40.0										6.8	6.7	6.6	6.4	6.3	6.2	6.0	5.8	5.2	5.0	3.9	
42.0										40.5m x 6.7	6.2	6.1	5.9	5.8	5.7	5.5	5.3	4.6	4.4	3.5	
44.0											43.1m x 5.9	5.6	5.4	5.3	5.2	5.0	4.8	4.2	3.9	3.0	
46.0												45.7m x 5.2	4.9	4.8	4.7	4.5	4.3	3.7	3.4	2.6	
48.0													4.5	4.4	4.3	4.1	3.8	3.2	2.9	2.2	
50.0													48.3m x 4.5	4.0	3.9	3.7	3.4	2.8	2.4		
52.0														50.9m x 3.9	3.6	3.4	2.9	2.4	2.0		
54.0															53.5m x 3.4	3.1	2.5	2.0			

- Notes
- Above rated loads are based on firm level ground, within 78% of tipping load at any point 360° throughout and with front stability of 1.15 or more.
 - Working radius is horizontal distance from center of rotation to a vertical line through the center of gravity of the load.
 - The weight of the slings, hook block(s) and auxiliary lifting devices must be considered to be a part of the load.
Hook block
120ton capacity...1.60ton 60ton capacity...1.15ton
50ton capacity...0.95ton 30ton capacity...0.75ton
11ton capacity...0.40ton
 - Jib boom can be fitted to main boom in the following combinations.
- | Jib length(m) | Auxiliary | 13.0 | 19.0 | 25.0 |
|----------------|-----------|-----------|-----------|-----------|
| Boom length(m) | 18.0~72.0 | 30.0~63.0 | 30.0~63.0 | 30.0~63.0 |
- When jib boom is fitted actual loads that can be lifted with main hook block should be reduced according to the above chart (the weights include that of the auxiliary hook block).
- | Jib length(m) | Auxiliary | 13.0 | 19.0 | 25.0 |
|----------------------------|-----------|------|------|------|
| Weight to be deducted(ton) | 0.70 | 2.80 | 3.30 | 3.90 |
- High "A" Frame should be extended before working.
 - The rated loads for the Auxiliary jib must be reduced 0.7 ton from same radius of rated lifting loads of the main boom which installed the jib.
The rated loads for the 13m jib~25m jib are same as main boom's one which installed jib.(Ref Jib rated lifting loads)
However do not exceed below limit.
- | Jib length(m) | Auxiliary | 13.0 | | 19.0 | | 25.0 | |
|---------------------|-----------|------|-----|------|-----|------|-----|
| Jib offset angle | — | 10° | 30° | 10° | 30° | 10° | 30° |
| Limited loads (ton) | 11.0 | 11.0 | 8.5 | 10.0 | 6.5 | 6.5 | 4.5 |
- The rated load for Jib when the main hook is installed must be reduced by the total weight of the main hook and jib hook.
 - Depending on the number of part lines, rated lifting load is limited as follows:
1Part line.....up to 12ton 2Part line.....up to 24ton
3Part line.....up to 36ton 4Part line.....up to 48ton
5Part line.....up to 60ton 6Part line.....up to 72ton
7Part line.....up to 84ton 8Part line.....up to 96ton
9Part line.....up to 108ton 10Part line.....up to 120ton
 - Rated loads shown in bold lines are based on structural strength factors.

Jib suspension pendant rope



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Auxiliary jib rated lifting loads

(Unit:metric ton)

Boom length (m)	18.0	21.0	24.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0	69.0	72.0
Working radius (m)	18.0	21.0	24.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0	69.0	72.0
5.5	5.7m x 11.0																		
6.0	11.0	6.2m x 11.0	6.7m x 11.0																
7.0	11.0	11.0	11.0	7.2m x 11.0	7.8m x 11.0														
8.0	11.0	11.0	11.0	11.0	11.0	8.3m x 11.0	8.8m x 11.0												
9.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	9.3m x 11.0	9.8m x 11.0										
10.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	10.4m x 11.0	10.9m x 11.0	11.4m x 11.0	11.9m x 11.0						
12.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	12.5m x 11.0	13.0m x 11.0	13.5m x 11.0			
14.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	14.5m x 11.0	
16.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	15.1m x 11.0
18.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
20.0	18.5m x 11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
22.0		21.1m x 11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
24.0			23.7m x 11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	23.8m x 11.0
26.0				11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	27.7m x 11.0	27.6m x 11.0	27.4m x 11.0	27.1m x 11.0	26.9m x 11.0	26.4m x 11.0
28.0					26.3m x 11.0	11.0	29.2m x 11.0	29.0m x 11.0	28.7m x 11.0	28.5m x 11.0	28.4m x 11.0	28.2m x 11.0	11.0	10.9	10.8	10.7	10.5	10.3	10.2
30.0						28.9m x 11.0	10.6	10.5	10.3	10.2	10.1	10.0	9.9	9.7	9.6	9.5	9.3	9.1	9.0
32.0							31.5m x 9.8	9.5	9.3	9.2	9.1	9.0	8.9	8.7	8.6	8.5	8.3	8.1	7.9
34.0								8.6	8.4	8.3	8.2	8.1	8.0	7.8	7.7	7.6	7.4	7.2	6.9
36.0									7.6	7.5	7.4	7.3	7.2	7.0	6.9	6.8	6.6	6.4	6.0
38.0									36.6m x 7.4	6.8	6.7	6.6	6.5	6.3	6.2	6.1	5.9	5.7	5.2
40.0										39.2m x 6.4	6.1	6.0	5.9	5.7	5.6	5.5	5.3	5.1	4.5
42.0											41.8m x 5.6	5.5	5.4	5.2	5.1	5.0	4.8	4.6	3.9
44.0												5.0	4.9	4.7	4.6	4.5	4.3	4.1	3.5
46.0											44.4m x 4.9	4.4	4.2	4.1	4.0	3.8	3.6	3.0	2.7
48.0												47.0m x 4.2	3.8	3.7	3.6	3.4	3.1	2.5	2.2
50.0													49.6m x 3.5	3.3	3.2	3.0	2.7	2.1	1.7
52.0														3.0	2.9	2.7	2.2	1.7	1.3
54.0															52.2m x 2.9	2.6	2.4	1.8	1.3

- Notes
- Above rated loads are based on firm level ground, within 78% of tipping load at any point 360° throughout and with front stability of 1.15 or more.
 - Working radius is horizontal distance from center of rotation to a vertical line through the center of gravity of the load.
 - When the main hook block is installed, the lifting loads of jib must be reduced by the weight of hook block (main and jib) and other lifting devices.
 120ton hook block...1.60ton 60ton hook block...1.15ton
 50ton hook block...0.95ton 30ton hook block...0.75ton
 11ton hook block...0.40ton

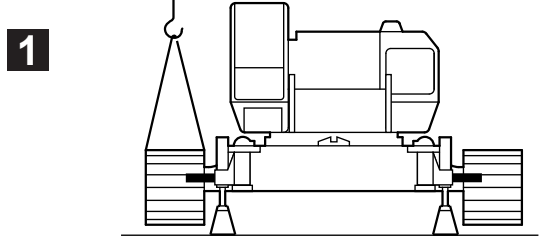
Jib rated lifting loads

Boom length (m)	30.0						42.0						63.0						
	13.0		19.0		25.0		13.0		19.0		25.0		13.0		19.0		25.0		
	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	
9.0																			
10.0	11.3m x 11.0																		
12.0	11.0		13.4m x 10.0				13.4m x 11.0												
14.0	11.0	15.0m x 8.5	10.0		14.9m x 5.5		11.0		15.5m x 10.0										
16.0	11.0	8.5	10.0		5.5		11.0	17.1m x 8.5	10.0		17.0m x 5.5		17.0m x 11.0						
18.0	11.0	8.5	10.0	18.9m x 6.5	5.5		11.0	8.5	10.0		5.5		11.0		19.1m x 10.0				
20.0	11.0	8.5	10.0	6.5	5.5		11.0	8.5	10.0	21.0m x 6.5	5.5		11.0	20.8m x 8.5	10.0		20.7m x 5.5		
22.0	11.0	8.5	10.0	6.5	5.5	22.3m x 4.5	11.0	8.5	10.0	6.5	5.5		11.0	8.5	10.0		5.5		
24.0	11.0	8.5	10.0	6.5	5.5	4.5	11.0	8.5	10.0	6.5	5.5	24.3m x 4.5	11.0	8.5	10.0	24.6m x 6.5	5.5		
26.0	11.0	8.5	10.0	6.5	5.5	4.5	11.0	8.5	10.0	6.5	5.5	4.5	11.0	8.5	10.0	6.5	5.5		
28.0	11.0	8.5	10.0	6.5	5.5	4.5	29.8m x 11.0	8.5	10.0	6.5	5.5	4.5	28.3m x 11.0	8.5	10.0	6.5	5.5	4.5	
30.0	30.7m x 11.0	8.5	10.0	6.5	5.5	4.5	10.9	8.5	31.7m x 10.0	6.5	5.5	4.5	10.0	8.5	10.0	6.5	5.5	4.5	
32.0	10.4	8.5	32.8m x 10.0	6.5	5.5	4.5	9.9	8.5	9.9	6.5	5.5	4.5	9.0	33.1m x 8.5	9.0	6.5	5.5	4.5	
34.0	9.5	8.5	9.5	6.5	5.5	4.5	9.0	35.3m x 8.5	9.0	6.5	5.5	4.5	8.1	8.1	8.1	6.5	5.5	4.5	
36.0	8.7	36.6m x 8.5	8.7	6.5	5.5	4.5	8.2	8.2	8.2	6.5	5.5	4.5	7.3	7.3	7.3	6.5	5.5	4.5	
38.0	8.0	8.0	8.0	6.5	5.5	4.5	7.5	7.5	7.5	6.5	5.5	4.5	6.6	6.6	6.6	38.4m x 6.5	5.5	4.5	
40.0	7.4	7.4	7.4	6.5	5.5	4.5	6.9	6.9	6.9	41.5m x 6.5	5.5	4.5	6.0	6.0	6.0	6.0	5.5	4.5	
42.0	40.1m x 7.4	41.1m x 7.1	6.9	43.5m x 6.5	5.5	4.5	6.4	6.4	6.4	6.4	5.5	4.5	5.5	5.5	5.5	5.5	5.5	5.5	4.5
44.0			6.4	6.4	5.5	4.5	5.9	5.9	5.9	5.9	45.6m x 5.5	4.5	5.0	5.0	5.0	5.0	5.0	5.0	4.5
46.0			45.8m x 6.0	5.9	5.5	4.5	5.4	5.4	5.4	5.4	5.4	4.5	4.5	4.5	4.5	4.5	4.5	4.5	46.1m x 4.5
48.0				47.1m x 5.7	5.5	4.5	5.0	5.0	5.0	5.0	5.0	4.5	4.1	4.1	4.1	4.1	4.1	4.1	4.1
50.0					5.1	4.5	4.6	4.6	4.6	4.6	4.6	4.6	50.7m x 4.5	3.7	3.7	3.7	3.7	3.7	3.7
52.0					51.2m x 4.9	4.5	50.5m x 4.5	51.5m x 4.4	4.3	4.3	4.3	4.3	3.4	3.4	3.4	3.4	3.4	3.4	3.4
54.0							53.1m x 4.5		4.0	4.0	4.0	4.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1
56.0									3.6	3.6	3.6	3.6	2.7	2.7	2.7	2.7	2.7	2.7	2.7
58.0									56.2m x 3.5	57.5m x 3.4	3.3	3.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4
60.0											3.0	3.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1

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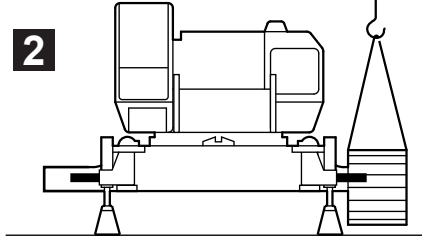
Self dismantling method convenient transportation

Attachments, counterweights and crawler frames can be dismantled to lighten the weight, shorten the width and lower the height of the base machine for convenient transportation.



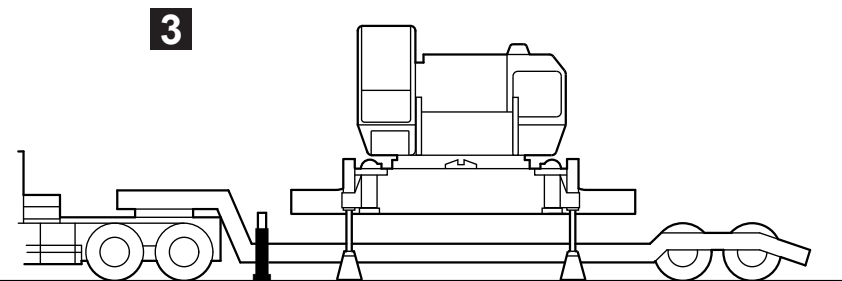
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- Remove attachments and counterweights.
- Open and lock jack-up boom.(standerd equipment)
- Disconnect hydraulic hoses of traction motor drive.
- Set pedestals on firm level ground.
- Lift up base machine slightly by jack-up cylinder.
- Suspend crawler frame (approx. 13ton) with another crane.
- Push out and remove crawler frame by laterl cylinder (standard equipment).



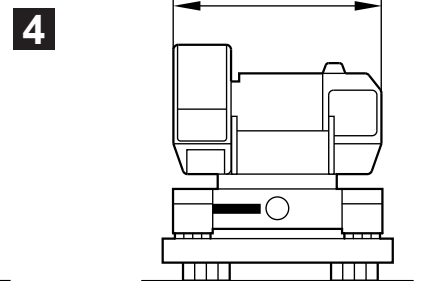
2

- Follow the same procedures to remove the other side of the crawler frame.



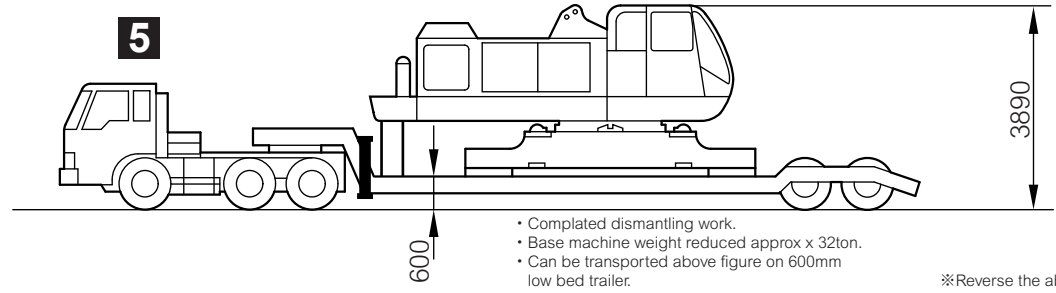
3

- Lift up base machine by jack-up cylinders to provide enough ground clearance for receiving trailer underneath.



4

- Retract jack-up cylinders to bring the base machine in contact with the trailer bed, then turn the superstructure 90° to direct the operator's cab in the opposite direction as trailer.



5

- Completed dismantling work.
- Base machine weight reduced approx x 32ton.
- Can be transported above figure on 600mm low bed trailer.

※Reverse the above procedures to re-assemble.

Optional Equipment

- Moment limiter (overload prevention)
- Warning at 90% of rated load
- Warning at optionally set boom angle
- Shockless stop, load hoist and boom hoist or lowering at limited condition
- Insert boom (w/pendant cable) 3m, 6m, 9m
- 13m basic jib, 3m, 6m insert (w/pendant rope)
- Auxiliary jib
- 60 ton, 50 ton, and 30 ton hook block
- 11 ton hook block for jib
- Combustion type heater

- Air conditioner
- Wireless phone
- Yellow rotary light
- Boom point clearance light
- Bullhorn
- Catwalk
- Catwalk (w/handrail)
- Offlimit fence
- Electrical type level indicator
- Safety guard on boom
- Reeving winch
- Hydraulic type tagline

- Rope guide roller on boom (additional)
- Drum roller
- Name plate (both side of outer boom and cab)
- Fire extinguisher
- Flash light for inspection
- Hoist drum mirror
- Boom foot pin cylinder
- Fulcrum plate for rising of attachment
- Monitor TV (watching rear left and drum)
- Monitor TV (watching lifting load)
- Large size tool box with caster
- Sling wire for disassembling and assembly

● **Four powerful, independently driven drum winches mounted on dual in-line shafts**

Main and auxiliary drums are located on the left side on front and rear shafts while jib hoist and boom hoist drums are on the right. Each drum is individually driven via a reduction unit from a variable displacement axial piston type hydraulic motor, delivering powerful winch performance.
(Front right drum is optional on applications other than the luffing jib crane.)



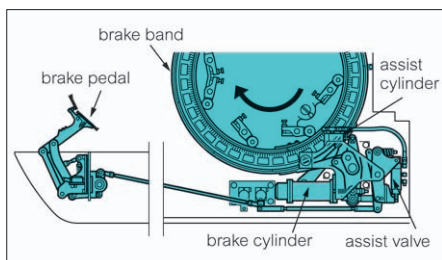
● **Power-efficient fully controlled hydraulic system**

Two variable displacement pumps and one gear pump incorporated into the engine provide the most effective application of engine output. Hydraulic flow and pressure are automatically regulated within maximum engine output, delivering high flow and low pressure for lighter loads, low flow and high pressure under heavy loading.



● **Fatigue-free brake operation**

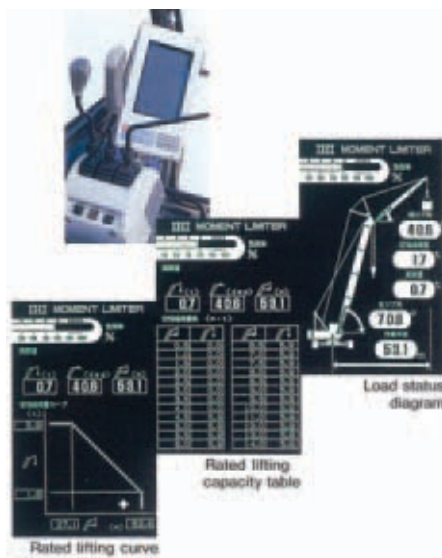
Hydraulically assisted main and auxiliary braking systems allow easy, delicate half-brake control.



● **Moment limiter (Option)**

The moment limiter has a graphic display with interactive screen. A panel switch lets the operator select from three display modes: load status diagram, rated lifting curve, and rated lifting capacity table.

When the actual load reaches 90% of rated lifting capacity, an intermittent warning buzzer sounds. At 100% of rated capacity, the buzzer sounds continuously, ceasing when load is hoisted or when boom is lowered. The moment limiter uses shockless control valves to slow and then stop the movement of boom or tower jib as they reach minimum or maximum operating angles. Boom angle limitations can be set by the operator, and the display blinks as a warning when these limits are reached.



● **Mode selector switch installed in control lever**

Control levers, pedals and switches are designed for easy operation. One-touch winch mode selector switches (foot/auto braking) are installed in the grips of main and auxiliary drum control levers. And an engine throttle control is built into the grip of the swing control lever, for fingertip command over engine speed.



● **Ultra-low-speed control for precision work**

Hydraulic pump delivery volume is controlled in conjunction with engine speed, supplemented by an independent swash-plate angle control dial. Together, these devices provide easy, accurate, seat-side control over delivery volume, for precise inching work.



● **OK monitor**

The OK monitor allows the operator to assess mechanical operating conditions at a glance, without leaving the seat. It includes bar graphs for water temperature, engine oil pressure and hydraulic oil temperature gauges, along with battery charging and air cleaner clogging information.

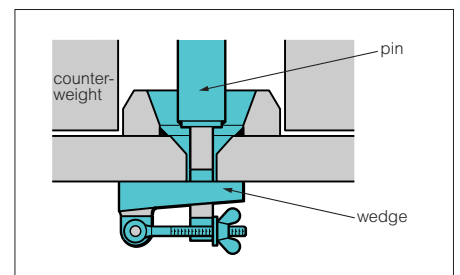


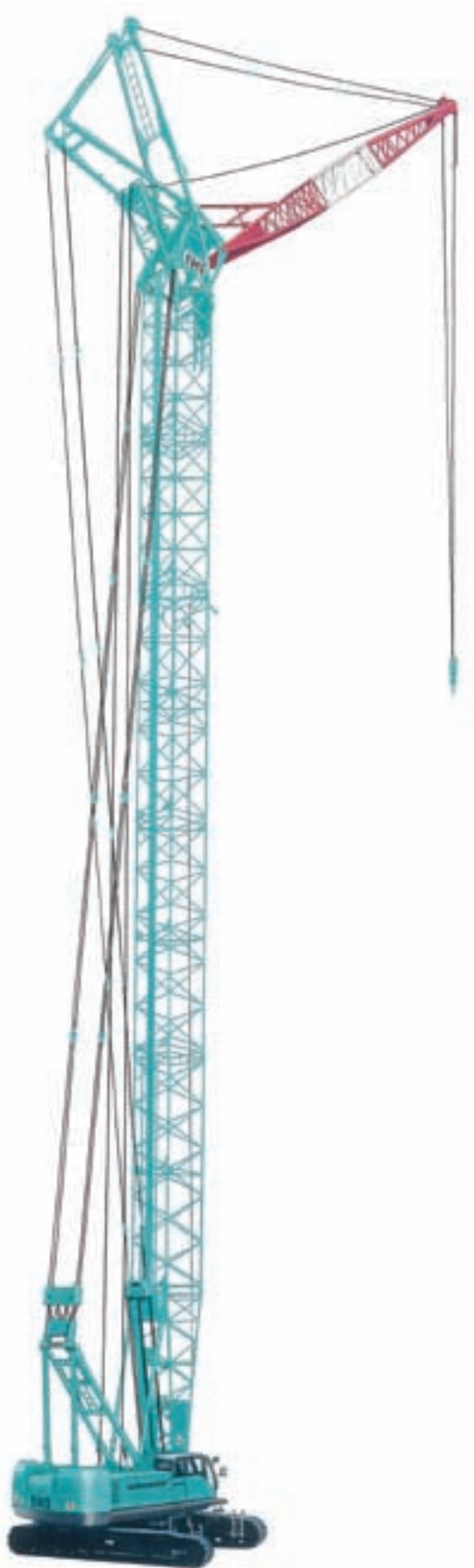
● **Fuel-efficient automatic engine deceleration system**

With the Auto-Decel selector engaged, the system senses hydraulic pressure, reducing engine speed to idle speed when the crane is inactive.

● **Stacking type counterweights**

Counterweights are stacked on the tail of the turntable, for excellent stability, efficient transport, and safe and easy assembly/disassembly. Weights—seven blocks of up to 14.7ton-- are secured directly to the turntable with pins and wedges.





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