HYDRAULIC CRAWLER CRANE

CKESOO



Model: CKE900-1F



Max. Lifting Capacity: 90 t x 3.4 m Max. Crane Boom Length: 61.0 m Max. Fixed Jib Combination: 51.8 m + 18.3 m

CONFIGURATION



Fixed Jib Max. Lifting Capacity: 10.9 metric ton x 18.0 m Max. Combination: 51.8 m + 18.3 m **Crane Boom with Fixed Jib** Max. Lifting Capacity: 59.3 metric ton x 4.7 m

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SPECIFICATIONS



Power Plant

Model: Hino diesel engine P11C-UN

Type: Water-cooled, direct fuel injection, with turbocharger Complies with NRMM (Europe) Stage IIIA and US EPA Tier III.

Displacement: 10.520 liters

Rated Power: 247kW/ 2,000 min⁻¹ {rpm} (ISO)

Max. torque: 1,300 N·m/1,500 min⁻¹

Cooling system: Liquid, re-circulating bypass

Starter: 24V / 6.0 kW

Radiator: Corrugated type core, thermostatically controlled Air cleaner: Dry type with replaceable paper element Throttle: Electric throttle control, twist grip type

Fuel filter: Replaceable paper element

Batteries: Two 12 volt, 170 Ah/20 HR capacity series connected

Fuel tank capacity: 400 liters



Hydraulic System

Three variable displacement piston pumps are driven by heavyduty pump drive. Two of variable displacement pumps are used in the main hook hoist circuit, boom hoist circuit, auxiliary hook hoist circuit, third hoist circuit and each propel circuit. The other is used in the swing circuit.

Control: Full-flow hydraulic control system for infinitely variable pressure to front and rear drums, boom hoist brakes and clutches. Controls respond instantly to the touch, delivering smooth function operation.

Cooling: Oil-to-air heat exchanger (plate-fin type)

Filtration: Full-flow and bypass type with replaceable element **Electrical system:** All wiring corded for easy servicing, individ-

ual fused branch circuits.

Max. relief valve pressure:

Load hoist, boom hoist and propel system:

31.9 MPa {325 kgf/cm²}

Swing system: 27.5 MPa {280 kgf/cm²} Control system: 7.0 MPa {71 kgf/cm²}

Reservoir capacity: 440 liters



Boom Hoisting System

Powered by a hydraulic motor through a planetary reducer. **Brake:** A spring-set, hydraulically released multiple-disc brake is mounted on the boom hoist motor and operated through a counter-balance valve.

Drum lock: External ratchet for locking drum.

Drum: Single drum, grooved for 16 mm dia. wire rope.

Line speed: Single on first drum layer **Hoisting/Lowering:** 70 to 2 m/min

Diameter of wire ropes
Boom guy line: 30 mm

Boom hoist reeving: 12 parts of 16 mm dia.high strength

wire rope

Boom backstops: Required for all boom lengths



Load Hoist System

Front and rear drums for load hoist powered by a hydraulic variable plunger motors, driven through planetary reducers.

Negative Brake: A spring-set, hydraulically released multipledisc brake is mounted on the hoist motor and operated through a counter-balance valve. (Positive free fall brake is optional

Drum lock: External ratchet for locking drum.

Drums:

Front drum:

614 mm P.C.D. x 617 mm wide drum, grooved for 26 mm wire rope. Rope capacity is 240 m working length and 300 m storage length.

Rear drum:

 $614 \text{ mm P.C.D.} \times 617 \text{ mm}$ wide drum, grooved for 26 mm wire rope. Rope capacity is 165 m working length and 300 m storage length.

Note: Rope lengths listed above denote drum capacity and may differ from actual rope lengths supplied when machinery is shipped.

Line speed: Single line on the first drum layer

Hoisting/Lowering: 120 to 3 m/min

Line Pull (Single-line):

Rated line pull: 120 kN {11.4 tf}



Swing System

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

Swing parking brakes: A spring-set, hydraulically released multiple-disc brake is mounted on swing motor.

Swing circle: Single-row ball bearing with an integral internally cut swing gear.

Swing lock: Manually, two position lock for transportation

Swing speed: 4.0 min⁻¹ {rpm}



Upper Structure

Torsion-free precision machined upper frame. All components are located clearly and service friendly. Engine with low noise level.Complies with EC Directive 2000/14/EC.

Counterweight: 28.8 ton



Cab & Control

Totally enclosed, full vision cab with safety glass, fully adjustable, high backed seat with a head-rest and armrests, and intermittent wiper and window washer (skylight and front window).

Cab fittings:

Air conditioner, convenient compartment (for tool), cup holder, ashtray, cigarette lighter, sun visor, roof blind, tinted glass, floor mat, foot-rest, shoe tray

Controls:

Four adjustable levers for front drum, rear drum, boom drum and swing controls, and boom hoist pedal.



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.

Carbody weight: 7.3 ton

Crawler drive: Independent hydraulic propel drive is built into each crawler side frame. Each drive consists of a hydraulic motor propelling a driving tumbler through a planetary gear box. Hydraulic motor and gear box are built into the crawler side frame within the shoe width.

Crawler brakes: Spring-set, hydraulically released parking brakes are built into each propel drive.

Steering mechanism: A hydraulic propel system provides both skid steering (driving one track only) and counter-rotating steering (driving each track in opposite directions).

Track rollers: Sealed track rollers for maintenance-free operation.

Shoes (flat): 66 shoes, 800 mm wide each crawler

Max. Travel speed: 1.9/1.2 km/h Max. gradeability: 40%



Weight

Including upper and lower machine, 28.8 ton counterweight, 7.3 ton carbody weight basic boom (or basic jib), hook, and other accessories.

 Specification
 Weight
 Ground pressure

 Crane boom
 Approx. 81.9 ton,
 92.1 kPa {0.94 kgf/cm²}

 Fixed jib
 Approx. 83.8 ton,
 94.2 kPa {0.96 kgf/cm²}



Attachment

Boom and Jib:

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

Boom Jib Length

9					
	Min. Length	Max. Length			
	(Min. Combination)	(Max. Combination)			
Crane Boom	12.2 m	61.0 m			
Fixed Jib	24.4 m + 9.1 m	51.8 m + 18.3 m			

Main Specifications (Model: CKE900-1F) **Crane Boom** Max. Lifting Capacity 90 t / 3.4 m Max. Length 61.0 m **Fixed Jib** Max. Lifting Capacity 10.9 t/ 18.0 m Max. Length 18.3 m 51.8 m + 18.3 m Max. Combination Main & Aux. Winch Max. Line Speed 120 m/min (1st layer) Rated Line Pull (Single Line) 112 kN {11.4 tf} Wire Rope 26 mm Wire Rope Length 240 m (Main) 165 m (Aux.) Spring set hydraulically released (Negative) Brake Type Free-Fall Brake Type Wet-type multiple disc brake (Optional) **Working Speed** Swing Speed 4.0 min-1 {rpm} Travel Speed 1.9/1.2 km/h

Power Plant						
Model	Hino P11C-UN					
Engine Output	247 kW/2,000 min ⁻¹ {rpm}					
Fuel Tank Capacity	400 liters					
Hydraulic System						
Main Pumps	3 variable displacement					
Max. Pressure	31.9 MPa {325 kgf/cm²}					
Hydraulic Tank Capacity	440 liters					
Self-Removal Device	Standard counterweight removal					
Weight						
Operating Weight*	Approx. 81.9 t					
Ground Pressure*	92.1 kPa {0.94 kgf/cm²}					
Counterweight	28.8 t (upper), 7.3 t (lower)					
Transport Weight**	Approx. 44.7 t					

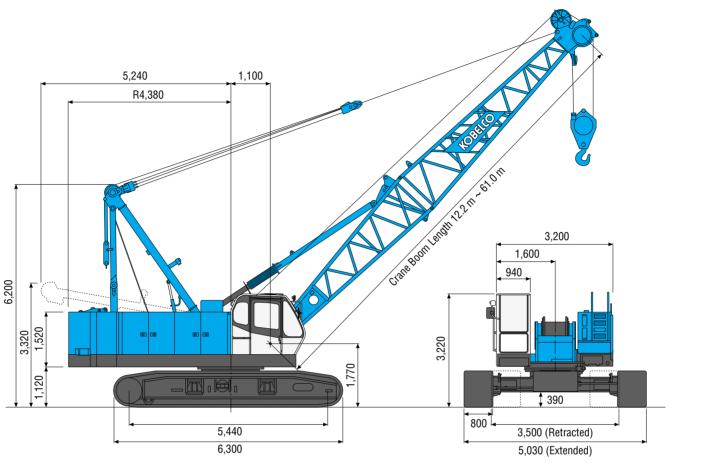
Units are SI units. { } indicates conventional units.

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

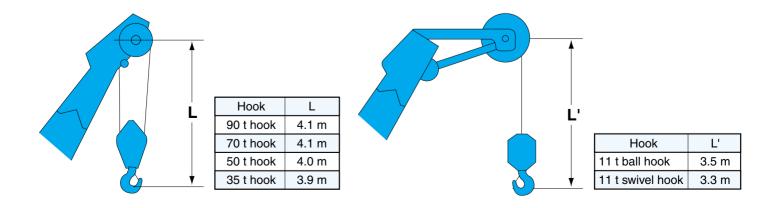
- * Including upper and lower machine, 28.8 ton counterweight, 7.3 ton carbodyweight, basic boom, hook, and other accessories.
- ** Base machine with gantry, boom base, crawlers, wire ropes for main and aux. winches, lower spreader and upper spreader (Refer to P17)

GENERAL DIMENSIONS

Crane Boom (Unit: mm)



Limit of Hook Lifting



BOOM AND JIB ARRANGEMENTS

Crane Boom Arrangements

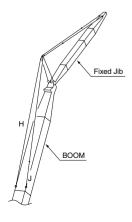
Boom length m (ft)	Boom arrangement
12.2 (40)	5.8 6.4
15.2 (50)	₿ 10 1 →
18.3 (60)	
21.3 (70)	<u>* B 10 20 ↑ → </u>
24.4 (80)	# B 10 10 20 C
27.4 (90)	** B 10 20 20 T >> C B 10 40A T >>
30.5 (100)	# B 10 10 20 20 TO
33.5 (110)	₩ B 10 20 40A 1
36.6 (120)	B 40 40A D B 20 20 40A D
39.6 (130)	® 10 20 20 40A 1 → 1 → 1 → 1 → 1 → 1 → 1 → 1 → 1 → 1

Boom length m (ft)	Boom arrangement
42.7 (140)	★ B 10 10 20 20 f 40A T → ← B 10 10 40 f 40A T → ← B 20 40 f 40A T →
45.7 (150)	₩ B[10] 20 40 40A T
48.8 (160)	
51.8 (170)	B[10] 20 20 40 40A D
54.9 (180)	
57.9 (190)	
61.0 (200)	[™] B[10]10] 20 40 40 40A I →

Symbol	Boom Length	Remarks
B	5.8 m	Boom Base
	6.4 m	Boom Top
10	3.0 m	Insert Boom
20	6.1 m	Insert Boom
40	12.2 m	Insert Boom
40A	12.2 m	Insert Boom with lug

mark shows the guy line installing position when the fixed jib is used.

Fixed Jib Arrangements



Crane boom length	Jib length m (ft)	Jib arrangement
	9.1 (30)	4.6 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
24.4 m	12.2 (40)	
51.8 m	15.2 (50)	BI 20 IT
	18.3 (60)	B 20 10 T

Symbol	Jib Length	Remarks
В	4.6 m	Jib Base
T	4.6 m	Jib Top
10	3.0 m	Insert Jib
20	6.1 m	Insert Jib



Hook Blocks

A range of hook blocks can be specified, each with a safety latch.

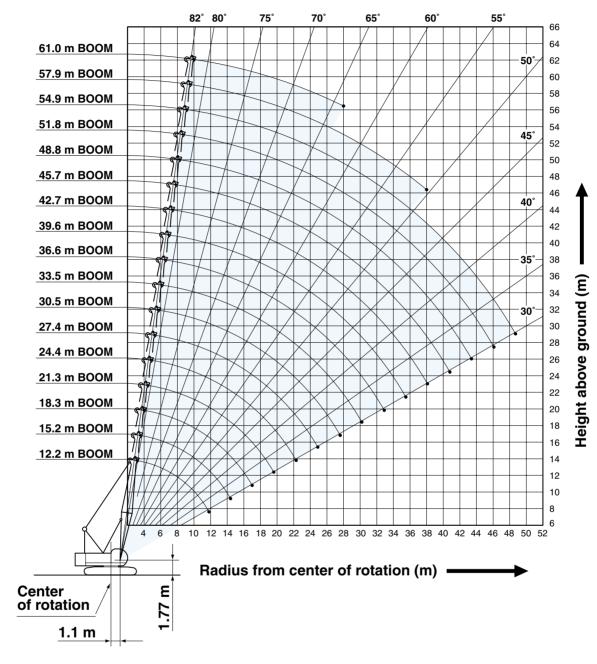
9		. ,		,														
Hooks	Maiolet (Los)	\\\ai=\bt (ca\	\\/ainlet (lca)	Majalak (ka)	Maight (kg)	Majaht (ka)	Maight (kg)	\\/a;= a+ (ca)	_:=\=\ (\(\cdot \)	No. of	lo, of No. of lines and max. rated loads (tons)							
Hooks	Weight (kg)	sheaves	1	2	3	4	5	6	7	8								
90-ton	1,300	4	_	_	_	45.6	57.0	68.4	79.8	90.0								
70-ton	900	3	1	_	34.2	45.6	57.0	68.4	70.0	_								
50-ton	850	3	_	22.8	34.2	45.6	50.0	_	_	_								
35-ton	700	1	1	22.8	34.2	_	_	_	_	_								
11-ton ball hook	290	0	11.0	_	_	_	_	_	_	_								
11-ton swivel hook	100	0	11.0	_	_	_	_	_	_	_								

Symbols for Attachments:



WORKING RANGES AND LIFTING CAPACITIES

Crane Boom Working Ranges



NOTES:

- 1. Ratings according to EN13000.
- 2. Ratings in metric tons for 360° working area.
- 3. Operating radius is the horizontal distance from center of rotation to a vertical line through the center of gravity of the load.
- Weight of hook block (s), slings and other load handling accessories is included in rated load. Their total weight must be subtracted from rated load to obtain weight that can be lifted.
- 5. Ratings shown are based on freely suspended loads and make no allowance for such factors as wind effect on lifted load, ground conditions out-of-level, operating speeds or any other condition that could be detrimental to the safe operation of this equipment. Operator, therefore, has the responsibility to judge the existing conditions and reduce lifted loads and operating speeds accordingly.
- 6. Ratings are for operation on a firm and level surface, up to 1% gradient.
- At radii and boom lengths where no ratings are shown on chart, operation is not intended nor approved.

- 8. Boom inserts and guy lines must be arranged as shown in the "Operator's Manual".
- 9. Boom hoist reeving is 12 part line.
- 10. Gantry must be in raised position for all conditions.
- 11. Boom backstops are required for all boom lengths.
- 12. Crawler frames must be fully extended for all crane operations.
- 13. Ratings shown in ______ are determined by the strength of the boom or other structural component.
- 14. Instruction in the "Operator's Manual" must be strictly observed when operating the machine.
- 15. Crane boom ratings: Deduct weight of main hook block, slings, and all other load handling accessories from crane boom ratings shown.
- 16. Auxiliary sheave ratings for crane boom: Deduct weight of ball hook, slings, and all other load handling accessories from auxiliary sheave ratings for crane boom shown.
- 17. Crane boom lengths for auxiliary sheave mounting are 12.2 m to 57.9 m.



Crane Boom Lifting Capacity

Unit: metric ton

Counterweight: 28.8 t, Carbody weight: 7.3 t

		1											
Boom Length Working (m) radius (m)	12.2	15.2	18.3	21.3	24.4	27.4	30.5	33.5	36.6	39.6	42.7	45.7	Boom Length (m) Working radius (m)
3.0	90.0	3.4m / 90.0	3.9m / 72.4										3.0
4.0	78.0	77.8	72.4	4.3m / 72.4	4.7m / 60.9								4.0
5.0	63.2	63.0	62.8	62.1	59.0	5.1m / 49.2	5.6m / 47.9						5.0
6.0	53.0	52.8	52.7	50.3	48.2	46.3	44.4	42.6	6.4m / 37.3	6.8m / 34.8			6.0
7.0	45.6	45.4	44.0	42.2	40.6	39.2	37.8	36.5	35.3	34.1	7.3m / 31.7	7.7m / 29.1	7.0
8.0	38.1	38.3	37.7	36.3	35.1	34.0	32.8	31.8	30.8	29.8	28.9	28.0	8.0
9.0	32.1	32.5	32.4	31.8	30.8	29.9	28.9	28.1	27.3	26.5	25.7	25.0	9.0
10.0	27.1	28.1	28.0	27.9	27.4	26.7	25.8	25.1	24.5	23.8	23.1	22.5	10.0
12.0	11.8m / 19.6	22.1	22.0	21.8	21.7	21.7	21.2	20.7	20.2	19.6	19.1	18.6	12.0
14.0		17.1	18.0	17.9	17.7	17.7	17.5	17.4	17.1	16.6	16.1	15.8	14.0
16.0		14.4m / 16.1	15.2	15.0	14.9	14.8	14.7	14.6	14.5	14.3	13.9	13.6	16.0
18.0			17.0m / 13.4	12.9	12.8	12.7	12.5	12.5	12.4	12.2	12.1	11.9	18.0
20.0				19.6m / 11.3	11.2	11.1	10.9	10.8	10.7	10.6	10.4	10.4	20.0
22.0					9.9	9.8	9.6	9.5	9.4	9.3	9.1	9.0	22.0
24.0					22.3m / 9.7	8.7	8.5	8.4	8.3	8.2	8.1	8.0	24.0
26.0						24.9m / 8.3	7.6	7.6	7.5	7.3	7.2	7.1	26.0
28.0							27.6m / 7.1	6.8	6.7	6.6	6.4	6.3	28.0
30.0								6.2	6.1	5.9	5.8	5.7	30.0
32.0								30.2m / 6.1	5.5	5.4	5.2	5.1	32.0
34.0									32.9m / 5.3	4.9	4.7	4.7	34.0
36.0										35.5m / 4.6	4.3	4.2	36.0
38.0											4.0	3.9	38.0
40.0											38.1m/3.9	3.5	40.0
42.0												40.8m / 3.4	42.0
Reeves	8	8	7	7	6	5	5	4	4	4	3	3	Reeves

Boom Length Working (m) radius (m)	48.8	51.8	54.9	57.9	61.0	Boom Length (m) Working radius (m)
8.0	8.1m / 23.4	8.5m / 18.5				8.0
9.0	22.3	18.1	14.0	9.4m / 9.4	9.8m / 6.4	9.0
10.0	21.2	17.1	13.2	9.0	6.3	10.0
12.0	18.2	15.4	11.8	7.9	5.5	12.0
14.0	15.4	14.0	10.6	7.0	4.7	14.0
16.0	13.3	12.9	9.6	6.3	4.1	16.0
18.0	11.6	11.3	8.8	5.6	3.5	18.0
20.0	10.3	10.0	8.0	5.0	3.0	20.0
22.0	9.0	8.9	7.3	4.5	2.6	22.0
24.0	7.9	7.8	6.7	4.0	2.2	24.0
26.0	7.0	6.9	6.2	3.5	1.8	26.0
28.0	6.3	6.1	5.7	3.1	1.5	28.0
30.0	5.6	5.5	5.2	2.8		30.0
32.0	5.1	4.9	4.8	2.4		32.0
34.0	4.6	4.4	4.3	2.1		34.0
36.0	4.1	4.0	3.9	1.8		36.0
38.0	3.8	3.6	3.5	1.5		38.0
40.0	3.4	3.3	3.1			40.0
42.0	3.1	3.0	2.8			42.0
44.0	43.4m / 2.9	2.7	2.6			44.0
46.0		2.4	2.3			46.0
48.0		46.1m/2.4	2.0			48.0
50.0			48.7m / 1.9			50.0
Reeves	3	2	2	1	1	Reeves

Note:

Ratings according to EN13000.

Ratings shown in ______ are determined by the strength of the boom or other structural components. Refer to notes P8.

Auxiliary Sheave Lifting Capacity for Crane Boom (Without Main Hook) Unit: metric ton

Counterweight: 28.8 t, Carbody weight: 7.3 t

Boom Length Working (m) radius (m)	12.2	15.2	18.3	21.3	24.4	27.4	30.5	33.5	36.6	39.6	42.7	45.7	Boom Length (m) Working radius (m)
5.0	11.0	11.0	11.0	11.0	11.0								5.0
6.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0						6.0
7.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0			7.0
8.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	8.0
9.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	9.0
10.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	10.0
12.0	11.8m/11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	12.0
14.0		11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	14.0
16.0		14.4m/11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	16.0
18.0			17.0m/11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	18.0
20.0				19.6m/11.0	11.0	10.9	10.7	10.6	10.5	10.4	10.2	10.2	20.0
22.0					9.7	9.6	9.4	9.3	9.2	9.1	8.9	8.8	22.0
24.0					22.3m/9.5	8.5	8.3	8.2	8.1	8.0	7.9	7.8	24.0
26.0						24.9m/8.1	7.4	7.4	7.3	7.1	7.0	6.9	26.0
28.0							27.6m/6.9	6.6	6.5	6.4	6.2	6.1	28.0
30.0								6.0	5.9	5.7	5.6	5.5	30.0
32.0								30.2m/5.9	5.3	5.2	5.0	4.9	32.0
34.0									32.9m/5.1	4.7	4.5	4.5	34.0
36.0										35.5m/4.4	4.1	4.0	36.0
38.0											3.8	3.7	38.0
40.0											38.1m/3.7	3.3	40.0
42.0												40.8m/3.2	42.0
Reeves	1	1	1	1	1	1	1	1	1	1	1	1	Reeves

Boom Length Working (m) radius (m)	48.8	51.8	54.9	57.9	Boom Length (m) Working radius (m)
9.0	11.0	11.0			9.0
10.0	11.0	11.0	11.0	8.8	10.0
12.0	11.0	11.0	11.0	7.7	12.0
14.0	11.0	11.0	10.4	6.8	14.0
16.0	11.0	11.0	9.4	6.1	16.0
18.0	11.0	11.0	8.6	5.4	18.0
20.0	10.1	9.8	7.8	4.8	20.0
22.0	8.8	8.7	7.1	4.3	22.0
24.0	7.7	7.6	6.5	3.8	24.0
26.0	6.8	6.7	6.0	3.3	26.0
28.0	6.1	5.9	5.5	2.9	28.0
30.0	5.4	5.3	5.0	2.6	30.0
32.0	4.9	4.7	4.6	2.2	32.0
34.0	4.4	4.2	4.1	1.9	34.0
36.0	3.9	3.8	3.7	1.6	36.0
38.0	3.6	3.4	3.3		38.0
40.0	3.2	3.1	2.9		40.0
42.0	2.9	2.8	2.6		42.0
44.0	43.4m/2.7	2.5	2.4		44.0
46.0		2.2	2.1		46.0
48.0		46.1m/2.2	1.8		48.0
50.0			48.7m/1.7		50.0
Reeves	1	1	1	1	Reeves

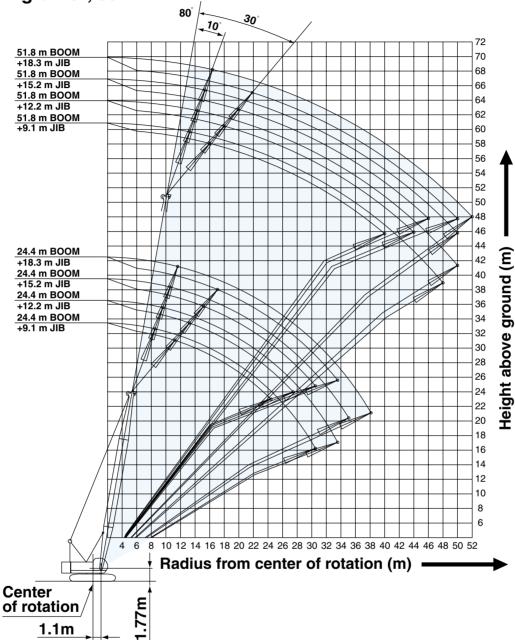
Ratings according to EN13000.

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



Fixed Jib Working Ranges





NOTES:

- 1. Ratings according to EN13000.
- 2. Ratings in metric tons for 360° working area.
- Operating radius is the horizontal distance from center of rotation to a vertical line through the center of gravity of the load.
- 4. Weight of hook block (s), slings and other load handling accessories is included in rated load. Their total weight must be subtracted from rated load to obtain weight that can be lifted.
- 5. Ratings shown are based on freely suspended loads and make no allowance for such factors as wind effect on lifted load, ground conditions out-of-level, operating speeds or any other condition that could be detrimental to the safe operation of this equipment. Operator, therefore, has the responsibility to judge the existing conditions and reduce lifted loads and operating speeds accordingly.
- 6. Ratings are for operation on a firm and level surface, up to 1% gradient.
- 7. At radii and boom lengths where no ratings are shown on chart, operation is not intended nor approved.

- 8. Boom inserts and guy lines must be arranged as shown in the "Operator's Manual".
- 9. Boom hoist reeving is 12 part line.
- 10. Gantry must be in raised position for all conditions.
- 11. Boom backstops are required for all boom lengths.
- 12. Crawler frames must be fully extended for all crane operations.
- Ratings shown in ______are determined by the strength of the boom or other structural component.
- 14. Instruction in the "Operator's Manual" must be strictly observed when operating the machine.
- 15. Fixed jib ratings: Deduct weight of jib hook block, slings, and all other load handling accessories from fixed jib ratings shown.
- 16. Crane boom lengths for fixed jib mounting are 24.4 m to 51.8 m.
- 17. Crane boom ratings with fixed jib: Deduct weight of jib hook block, slings, and all other load handling accessories from crane boom ratings with fixed jib shown.



Fixed Jib Lifting Capacities (Without Main Hook)

Unit: metric ton

Jib Off	set A	ngle:	10°
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Ji	b O	ffset	Ang	le: 1	0°							Cou	nterwe	ight: 28	3.8 t, Ca	rbody	weight	: 7.3 t
300	m length (m)		24	.4			30).5			36	6.6			42	2.7		Boom length (m
Jit	length (m)	9.1	12.2	15.2	18.3	9.1	12.2	15.2	18.3	9.1	12.2	15.2	18.3	9.1	12.2	15.2	18.3	Jib length (m)
	9.0	10.9																9.0
	10.0	10.9				10.9												10.0
	12.0	10.9	10.9	9.0		10.9	10.9			10.9								12.0
	14.0	10.9	10.9	9.0	8.1	10.9	10.9	9.0	8.1	10.9	10.9	9.0		10.9	10.9			14.0
	16.0	10.9	10.5	8.7	7.7	10.9	10.9	9.0	8.1	10.9	10.9	9.0	8.1	10.9	10.9	9.0		16.0
	18.0	10.9	9.5	7.8	6.8	10.9	10.6	8.7	7.5	10.9	10.9	9.0	8.1	10.9	10.9	9.0	8.1	18.0
	20.0	10.3	8.6	7.1	6.2	10.1	9.7	7.9	6.8	9.9	10.0	8.6	7.4	9.6	9.8	9.0	7.9	20.0
	22.0	9.0	7.8	6.5	5.6	8.8	8.9	7.2	6.2	8.6	8.7	8.0	6.8	8.4	8.5	8.5	7.3	22.0
Ē	24.0	8.0	7.2	5.9	5.1	7.8	8.0	6.6	5.7	7.5	7.7	7.3	6.2	7.3	7.5	7.6	6.7	24.0
) Sn	26.0	7.2	6.7	5.5	4.7	7.0	7.1	6.2	5.3	6.7	6.9	6.8	5.8	6.5	6.7	6.7	6.3	24.0 g
radius	28.0	6.5	6.2	5.1	4.4	6.3	6.4	5.7	4.9	6.1	6.2	6.2	5.4	5.8	5.9	6.0	5.8	28.0 🖁
Working	30.0	5.9	5.8	4.8	4.1	5.7	5.8	5.4	4.6	5.5	5.5	5.7	5.0	5.2	5.3	5.4	5.4	30.0
Š	32.0		5.5	4.5	3.8	5.2	5.3	5.1	4.3	5.0	5.0	5.1	4.7	4.7	4.8	4.9	4.9	32.0
	34.0			4.2	3.6	4.7	4.8	4.8	4.0	4.5	4.6	4.7	4.4	4.3	4.3	4.4	4.5	34.0
	36.0				3.4		4.4	4.5	3.8	4.1	4.2	4.2	4.2	3.8	3.9	4.0	4.0	36.0
	38.0				3.2		4.0	4.1	3.6	3.8	3.8	3.9	3.9	3.5	3.6	3.6	3.7	38.0
	40.0							3.8	3.4	3.4	3.5	3.6	3.6	3.2	3.3	3.3	3.3	40.0
	42.0								3.3		3.2	3.3	3.3	2.9	3.0	3.0	3.1	42.0
	44.0								3.1			3.0	3.1	2.5	2.7	2.8	2.8	44.0
	46.0												2.8	2.2	2.3	2.5	2.6	46.0
	48.0												2.4		2.0	2.2	2.3	48.0
	50.0															1.9	2.0	50.0
	52.0																1.7	52.0
-																		

Boor	m length (m)		48	3.8			51	.8		Boom lengt	th (m)
Jib	length (m)	9.1	12.2	15.2	18.3	9.1	12.2	15.2	18.3	Jib length	(m)
	14.0	10.9				10.9				14.0	
	16.0	10.9	10.9			10.9	10.9			16.0	
	18.0	10.8	10.9	9.0	8.1	10.7	10.8	9.0	8.1	18.0	
	20.0	9.5	9.6	9.0	8.1	9.4	9.5	9.0	8.1	20.0	
	22.0	8.2	8.4	8.5	7.8	8.1	8.3	8.3	8.0	22.0	
	24.0	7.2	7.3	7.4	7.2	7.1	7.2	7.3	7.4	24.0	
(E)	26.0	6.3	6.5	6.6	6.7	6.2	6.4	6.5	6.6	26.0	ĕ
lius	28.0	5.7	5.8	5.9	5.9	5.6	5.7	5.8	5.8	28.0	Working radius
Working radius	30.0	5.1	5.2	5.2	5.3	5.0	5.1	5.1	5.2	30.0	gra
kinç	32.0	4.6	4.6	4.7	4.8	4.4	4.5	4.6	4.7	32.0	
Wor	34.0	4.1	4.2	4.3	4.3	4.0	4.1	4.2	4.2	34.0	3
	36.0	3.7	3.8	3.8	3.9	3.6	3.6	3.7	3.8	36.0	
	38.0	3.4	3.4	3.5	3.5	3.3	3.3	3.4	3.4	38.0	
	40.0	3.0	3.1	3.2	3.2	2.9	3.0	3.0	3.1	40.0	
	42.0	2.8	2.8	2.9	2.9	2.7	2.7	2.8	2.8	42.0	
	44.0	2.5	2.5	2.6	2.6	2.3	2.4	2.5	2.5	44.0	
	46.0	2.2	2.2	2.4	2.4	2.1	2.1	2.2	2.3	46.0	
	48.0	1.8	1.9	2.1	2.1	1.7	1.8	1.9	2.0	48.0	
	50.0	1.4	1.6	1.8	1.9		1.5	1.6	1.7	50.0	
	52.0			1.5	1.6				1.5	52.0	
Re	eeves	1	1	1	1	1	1	1	1	Reev	es

Note:

Ratings according to EN13000.

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

Refer to notes P12.

Unit: metric ton

Jib Offset Angle: 30°

Countaryolabte 29.9 t	Carbody waight: 7.2 t
Counterweight: 28.8 t.	Carbody weight: 7.3 t

Boor	m length (m)		24	1.4			30).5			36	6.6			42	2.7		Boom length (m)
Jib	length (m)	9.1	12.2	15.2	18.3	9.1	12.2	15.2	18.3	9.1	12.2	15.2	18.3	9.1	12.2	15.2	18.3	Jib length (m)
	12.0	9.5																12.0
	14.0	9.3	6.9			9.5				9.5								14.0
	16.0	8.6	6.4			9.0	6.7			9.4				9.5				16.0
	18.0	8.0	5.9	4.8		8.6	6.2	5.0		9.0	6.5			9.4	6.7			18.0
	20.0	7.5	5.6	4.5	3.8	8.0	5.9	4.7	3.9	8.5	6.2	4.9	4.1	8.9	6.4	5.1		20.0
	22.0	7.1	5.3	4.2	3.6	7.6	5.6	4.4	3.7	8.1	5.9	4.6	3.9	8.4	6.1	4.8	4.0	22.0 <
radius (m)	24.0	6.8	5.0	4.0	3.4	7.3	5.3	4.2	3.5	7.7	5.6	4.4	3.7	7.6	5.8	4.6	3.8	24.0 Working 26.0
adin	26.0		4.8	3.8	3.2	7.0	5.1	4.0	3.3	7.0	5.4	4.2	3.5	6.7	5.6	4.4	3.6	26.0
	28.0			3.6	3.0	6.4	4.9	3.8	3.1	6.2	5.1	4.0	3.3	6.0	5.4	4.2	3.4	28.0 radius (m)
Working	30.0			3.5	2.9		4.7	3.7	3.0	5.6	4.9	3.8	3.2	5.3	5.2	4.0	3.3	30.0 🚡
>	32.0				2.8			3.6	2.9	5.1	4.8	3.7	3.1	4.8	5.0	3.9	3.2	32.0
	34.0								2.8		4.6	3.6	3.0	4.4	4.5	3.8	3.1	34.0
	36.0								2.7			3.5	2.9	3.9	4.1	3.7	3.0	36.0
	38.0											3.4	2.8		3.7	3.6	2.9	38.0
	40.0												2.7			3.5	2.8	40.0
	42.0																2.7	42.0
	44.0																2.6	44.0
Re	eeves	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Reeves

Boo	m length (m)		48	3.8			51	.8		Boom length ((m)
Jib	length (m)	9.1	12.2	15.2	18.3	9.1	12.2	15.2	18.3	Jib length (m	n)
	18.0	9.5				9.5				18.0	
	20.0	9.2	6.6	5.1		9.3	6.6			20.0	
	22.0	8.5	6.3	4.9	4.1	8.5	6.4	5.0		22.0	
	24.0	7.5	6.0	4.7	3.9	7.5	6.1	4.8	3.9	24.0	
	26.0	6.6	5.8	4.5	3.7	6.6	5.9	4.6	3.8	26.0	
2	28.0	5.9	5.6	4.3	3.6	5.9	5.7	4.4	3.6	28.0	۱ ح
radius (m)	30.0	5.2	5.4	4.1	3.4	5.2	5.4	4.2	3.5	30.0	Working
adin	32.0	4.7	4.9	4.0	3.3	4.7	4.8	4.1	3.4		
ng	34.0	4.2	4.4	3.9	3.2	4.2	4.3	4.0	3.3	34.0	radius
Working	36.0	3.9	3.9	3.8	3.1	3.7	3.8	3.9	3.2	36.0	ıs (m)
>	38.0	3.5	3.6	3.7	3.0	3.3	3.5	3.6	3.1	38.0	ᆁ
	40.0		3.2	3.4	2.9	3.0	3.2	3.3	3.0	40.0	
	42.0		2.9	3.0	2.8		2.9	3.0	2.9	42.0	
	44.0			2.7	2.7		2.6	2.7	2.6	44.0	
	46.0				2.6			2.4	2.4	46.0	
	48.0				2.3				2.2	48.0	
	50.0								2.0	50.0	
R	eeves	1	1	1	1	1	1	1	1	Reeve	s

Ratings according to EN13000.

Ratings shown in ______are determined by the strength of the boom or other structural components. Refer to notes P12.



Crane Boom Lifting Capacity with Fixed Jib

Unit: metric ton

												Cou	nterwe	ignt: 28	3.8 t, Ca	arbody	weight	7.3 t
Boor							27	7.4			30).5			33	3.5		Boom length (m)
Jib	length (m)	9.1	12.2	15.2	18.3	9.1	12.2	15.2	18.3	9.1	12.2	15.2	18.3	9.1	12.2	15.2	18.3	Jib length (m)
	4.0	4.7m/59.3	4.7m/58.9	4.7m/58.5	4.7m/58.0													4.0
	5.0	57.4	57.0	56.6	56.1	5.1m/47.6	5.1m/47.2	5.1m/46.8	5.1m/46.3	5.6m/46.3	5.6m/45.9	5.6m/45.5	5.6m/45.0					5.0
	6.0	46.6	46.2	45.8	45.3	44.7	44.3	43.9	43.4	42.8	42.4	42.0	41.5	41.0	40.6	40.2	39.7	6.0
	7.0	39.0	38.6	38.2	37.7	37.6	37.2	36.8	36.3	36.2	35.8	35.4	34.9	34.9	34.5	34.1	33.6	7.0
	8.0	33.5	33.1	32.7	32.2	32.4	32.0	31.6	31.1	31.2	30.8	30.4	29.9	30.2	29.8	29.4	28.9	8.0
	9.0	29.2	28.8	28.4	27.9	28.3	27.9	27.5	27.0	27.3	26.9	26.5	26.0	26.5	26.1	25.7	25.2	9.0
E	10.0	25.8	25.4	25.0	24.5	25.1	24.7	24.3	23.8	24.2	23.8	23.4	22.9	23.5	23.1	22.7	22.2	10.0 ≦
radius	12.0	20.1	19.7	19.3	18.8	20.1	19.7	19.3	18.8	19.6	19.2	18.8	18.3	19.1	18.7	18.3	17.8	12.0 है
gra	14.0	16.1	15.7	15.3	14.8	16.1	15.7	15.3	14.8	15.9	15.5	15.1	14.6	15.8	15.4	15.0	14.5	14.0
Working	16.0	13.3	12.9	12.5	12.0	13.2	12.8	12.4	11.9	13.1	12.7	12.3	11.8	13.0	12.6	12.2	11.7	16.0 ⁵
ջ	18.0	11.2	10.8	10.4	9.9	11.1	10.7	10.3	9.8	10.9	10.5	10.1	9.6	10.9	10.5	10.1	9.6	18.0 €
	20.0	9.6	9.2	8.8	8.3	9.5	9.1	8.7	8.2	9.3	8.9	8.5	8.0	9.2	8.8	8.4	7.9	20.0
	22.0	8.3	7.9	7.5	7.0	8.2	7.8	7.4	6.9	8.0	7.6	7.2	6.7	7.9	7.5	7.1	6.6	22.0
	24.0	22.3m/8.1	22.3m/7.7	22.3m/7.3	22.3m/6.8	7.1	6.7	6.3	5.8	6.9	6.5	6.1	5.6	6.8	6.4	6.0	5.5	24.0
	26.0					24.9m/6.7	24.9m/6.3	24.9m/5.9	24.9m/5.4	6.0	5.6	5.2	4.7	6.0	5.6	5.2	4.7	26.0
	28.0									27.6m/5.5	27.6m/5.1	27.6m/4.7	27.6m/4.2	5.2	4.8	4.4	3.9	28.0
	30.0													4.6	4.2	3.8	3.3	30.0
	32.0													30.2m/4.5	30.2m/4.1	30.2m/3.7	30.2m/3.2	32.0
Re	eeves	6	6	6	6	5	5	5	5	5	5	4	4	4	4	4	4	Reeves

Booi	n length (m)		36	5.6			39	9.6			42	2.7			45	5.7		Boom length (m)
Jib	length (m)	9.1	12.2	15.2	18.3	9.1	12.2	15.2	18.3	9.1	12.2	15.2	18.3	9.1	12.2	15.2	18.3	Jib length (m)
	6.0	6.4m/35.7	6.4m/35.3	6.4m/34.9	6.4m/34.4	6.8m/33.2	6.8m/32.8	6.8m/32.4	6.8m/31.9									6.0
	7.0	33.7	33.3	32.9	32.4	32.5	32.1	31.7	31.2	7.3m/30.1	7.3m/29.7	7.3m/29.3	7.3m/28.8	7.7m/27.5	7.7m/27.1	7.7m/26.7	7.7m/26.2	7.0
	8.0	29.2	28.8	28.4	27.9	28.2	27.8	27.4	26.9	27.3	26.9	26.5	26.0	26.4	26.0	25.6	25.1	8.0
	9.0	25.7	25.3	24.9	24.4	24.9	24.5	24.1	23.6	24.1	23.7	23.3	22.8	23.4	23.0	22.6	22.1	9.0
	10.0	22.9	22.5	22.1	21.6	22.2	21.8	21.4	20.9	21.5	21.1	20.7	20.2	20.9	20.5	20.1	19.6	10.0
	12.0	18.6	18.2	17.8	17.3	18.0	17.6	17.2	16.7	17.5	17.1	16.7	16.2	17.0	16.6	16.2	15.7	12.0
	14.0	15.5	15.1	14.7	14.2	15.0	14.6	14.2	13.7	14.5	14.1	13.7	13.2	14.2	13.8	13.4	12.9	14.0
Ē	16.0	12.9	12.5	12.1	11.6	12.7	12.3	11.9	11.4	12.3	11.9	11.5	11.0	12.0	11.6	11.2	10.7	16.0 ≤
radius (m)	18.0	10.8	10.4	10.0	9.5	10.6	10.2	9.8	9.3	10.5	10.1	9.7	9.2	10.3	9.9	9.5	9.0	18.0 Working radiu
radi	20.0	9.1	8.7	8.3	7.8	9.0	8.6	8.2	7.7	8.8	8.4	8.0	7.5	8.8	8.4	8.0	7.5	20.0 👼
Working	22.0	7.8	7.4	7.0	6.5	7.7	7.3	6.9	6.4	7.5	7.1	6.7	6.2	7.4	7.0	6.6	6.1	22.0
Vor	24.0	6.7	6.3	5.9	5.4	6.6	6.2	5.8	5.3	6.5	6.1	5.7	5.2	6.4	6.0	5.6	5.1	24.0
_	26.0	5.9	5.5	5.1	4.6	5.7	5.3	4.9	4.4	5.6	5.2	4.8	4.3	5.5	5.1	4.7	4.2	26.0
	28.0	5.1	4.7	4.3	3.8	5.0	4.6	4.2	3.7	4.8	4.4	4.0	3.5	4.7	4.3	3.9	3.4	28.0
	30.0	4.5	4.1	3.7	3.2	4.3	3.9	3.5	3.0	4.2	3.8	3.4	2.9	4.1	3.7	3.3	2.8	30.0
	32.0	3.9	3.5	3.1	2.6	3.8	3.4	3.0	2.5	3.6	3.2	2.8	2.3	3.5	3.1	2.7	2.2	32.0
	34.0	32.9m/3.7	32.9m/3.3	32.9m/2.9	32.9m/2.4	3.3	2.9	2.5	2.0	3.1	2.7	2.3	1.8	3.1	2.7	2.3	1.8	34.0
	36.0					35.5m/3.0	35.5m/2.6	35.5m/2.2	35.5m/1.7	2.7	2.3	1.9	1.4	2.6	2.2	1.8		36.0
	38.0									2.4	2.0	1.6		2.3	1.9	1.5		38.0
	40.0									38.1m/2.3	38.1m/1.9	38.1m/1.5		1.9	1.5			40.0
	42.0													40.8m/1.8	40.8m/1.4			42.0
Re	eeves	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	Reeves

Unit: metric ton

Counterweight: 28.8 t, Carbody weight: 7.3 t

Boor	m length (m)		48	3.8			51	.8		Boom lengt	.h (m)
Jib	length (m)	9.1	12.2	15.2	18.3	9.1	12.2	15.2	18.3	Jib length	(m)
	8.0	8.1m/21.8	8.1m/21.4	8.1m/21.0	8.1m/20.5	8.5m/16.9	8.5m/16.5	8.5m/16.1	8.5m/15.6	8.0	
	9.0	20.7	20.3	19.9	19.4	16.5	16.1	15.7	15.2	9.0	
	10.0	19.6	19.2	18.8	18.3	15.5	15.1	14.7	14.2	10.0	
	12.0	16.6	16.2	15.8	15.3	13.8	13.4	13.0	12.5	12.0	
	14.0	13.8	13.4	13.0	12.5	12.4	12.0	11.6	11.1	14.0	
	16.0	11.7	11.3	10.9	10.4	11.3	10.9	10.5	10.0	16.0	
<u>-</u>	18.0	10.0	9.6	9.2	8.7	9.7	9.3	8.9	8.4	18.0	≤
Working radius (m)	20.0	8.7	8.3	7.9	7.4	8.4	8.0	7.6	7.1	20.0	Working radius (m)
adiı	22.0	7.4	7.0	6.6	6.1	7.3	6.9	6.5	6.0	22.0	ng r
ingı	24.0	6.3	5.9	5.5	5.0	6.2	5.8	5.4	4.9	24.0	adiu
/ork	26.0	5.4	5.0	4.6	4.1	5.3	4.9	4.5	4.0	26.0	ıs (m
>	28.0	4.7	4.3	3.9	3.4	4.5	4.1	3.7	3.2	28.0	٦
	30.0	4.0	3.6	3.2	2.7	3.9	3.5	3.1	2.6	30.0	
	32.0	3.5	3.1	2.7	2.2	3.3	2.9	2.5	2.0	32.0	
	34.0	3.0	2.6	2.2	1.7	2.8	2.4	2.0	1.5	34.0	
	36.0	2.5	2.1	1.7	1.2	2.4	2.0	1.6		36.0	
	38.0	2.2	1.8	1.4		2.0	1.6			38.0	
	40.0	1.8	1.4			1.7				40.0	
L	42.0	1.5				1.4				42.0	
Re	eeves	2	2	2	2	2	2	2	2	Reev	es

Note:

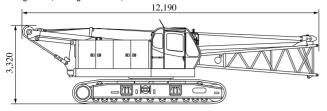
Ratings according to EN13000. Refer to notes P12.

PARTS AND ATTACHMENTS

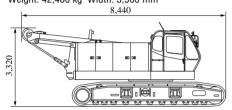
Base Machine

Base machine with gantry, boom base, crawlers, wire ropes for main and aux. winches, lower spreader and upper spreader

Weight: 44,700 kg Width: 3,500 mm



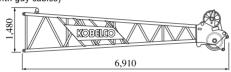
Base machine with gantry, crawlers, wire ropes for main and aux. winches Weight: 42,460 kg Width: 3,500 mm



Boom Top

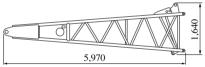
Weight: 1,240 kg (with guy cables)





Boom Base

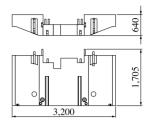
Weight: 1,110 kg





Counterweight A

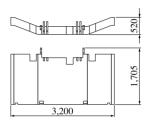
Weight: 12,070 kg



Dimensions: mm Weight: kg

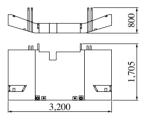
Counterweight B

Weight: 7,370 kg



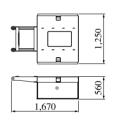
Counterweight C

Weight: 9,350 kg



Carbodyweight

Weight: 3,650 kg (1 pc)



Other Attachments

Attachments	Weight	Dimensions (L x W x H)
3.0 m insert boom	360 kg (with guy cables)	3,165 mm x 1,490 mm x 1,315 mm
6.1 m insert boom	590 kg (with guy cables)	6,210 mm x 1,490 mm x 1,315 mm
12.2 m insert boom	1,080 kg (with guy cables)	12,305 mm x 1,490 mm x 1,315 mm
12.2 m insert boom with lug	1,100 kg (with guy cables)	12,305 mm x 1,490 mm x 1,315 mm
Jib top	280 kg	4,910 mm x 800 mm x 800 mm
Jib base	200 kg	4,810 mm x 795 mm x 795 mm
3.0 m insert jib	120 kg (with guy cables)	3,115 mm x 795 mm x 795 mm
6.1 m insert jib	210 kg (with guy cables)	6,160 mm x 795 mm x 795 mm
Jib strut	250 kg	3,620 mm x 835 mm x 615 mm
Upper spreader	235 kg	1,460 mm x 250 mm x 630 mm
Cawler (1 piece)	7,500 kg	6,280 mm x 800 mm x 980 mm
Auxiliary sheave	195 kg	870 mm x 820 mm
11-ton swivel hook	100 kg	950 mm x 110 mm dia.
11-ton ball hook	290 kg	1,065 mm x 355 mm dia.
35-ton hook block	700 kg	1,575 mm x 700 mm x 400 mm
50-ton hook block	850 kg	1,700 mm x 435 mm x 700 mm
70-ton hook block	900 kg	1,820 mm x 700 mm x 385 mm
90-ton hook block	1,300 kg	1,870 mm x 700 mm x 515 mm

Note: Estimated weights may vary \pm 2%.

C/ES/O/O/O



Standard Equipment

Upper structure/Lower structure

Counterweight: 28.8 ton (total weight) Carbody weight: 7.3 ton (total weight)

800 mm shoe crawlers Batteries (170Ah/20HR)

Travel kit

Gantry raising/lowering cylinder

Electric hand throttle grip

Variable boom hoist speed controller Variable main/aux. hoist speed controller Swing neutral-free/brake select switch

Side deck for cab Steps (crawlers)

Two front working lights

Upper spreader storage guide

Tools (for routine maintenance)

Two rear view mirrors

Mirror for monitoring drums

Electric fuel pump

Counterweight self-removal

Cable roller (for boom)

Tool box (front of left-side guard)

Cab/Control

Boom hoist pedal (EU area only)

Air conditioner

Cup holder

Ashtray

Cigar lighter

Intermittent wiper & window washer (skylight and front window)

Sun visor

Roof blind

Floor mat (cloth)

Foot rest

Shoe tray

Level gauge (operator cabin)

Safety Device

Load Moment Indicator (with boom lowering slow stop function)

LMI release key (for hook over-hoist prevention device

and boom over-hoist prevention device)

LCD multi display

Ultimate stop function for boom over-hoist

Function lock lever Propel lever lock

Mechanical drum lock pawl (main, aux. and boom hoist)

Signal horn

Swing parking brake

Mechanical swing lock pin (four positions)

Swing flashers/warning buzzer

Cab window guard (left side)

Cab top guard

Fire extinguisher

External lamp for over-load alarm

Life hammer

Note: Standard equipment may vary depending on your areas or countries.

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