

KOBELCO

RK250-3



Read and understand these instructions.
Failure to do so will increase risk of injury.

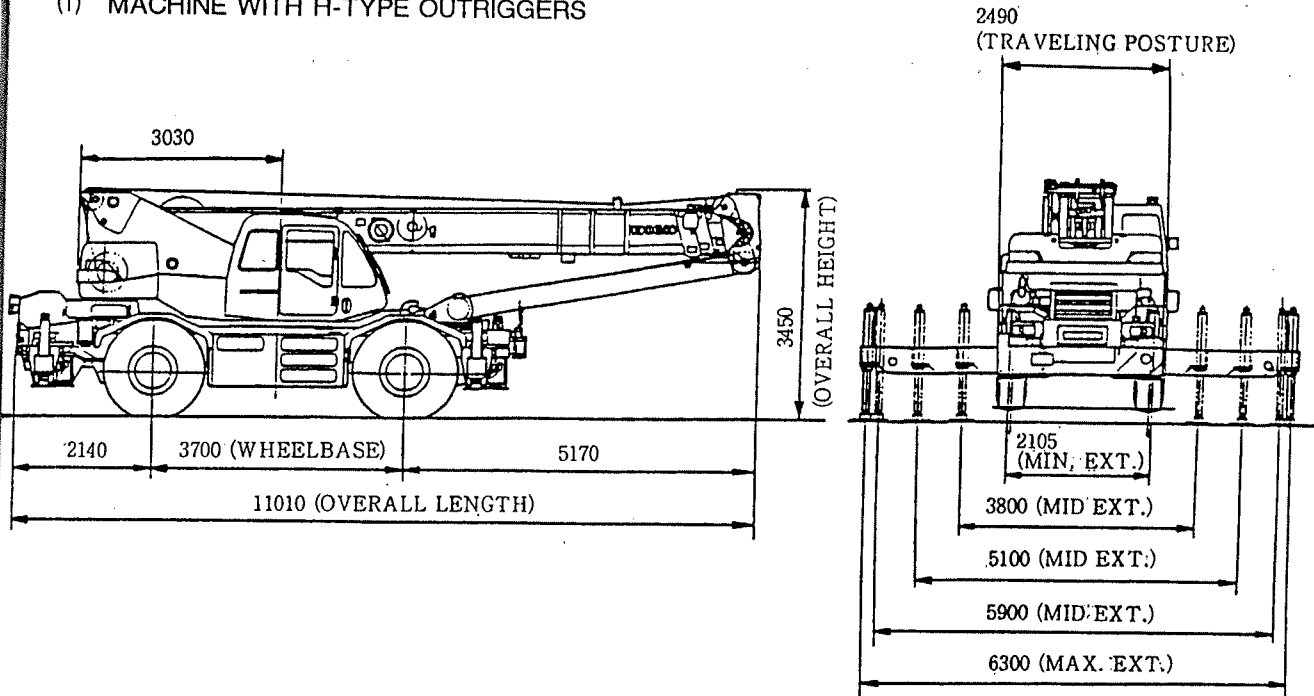
6. SPECIFICATIONS AND TABULATED DATA

6.1 SPECIFICATIONS

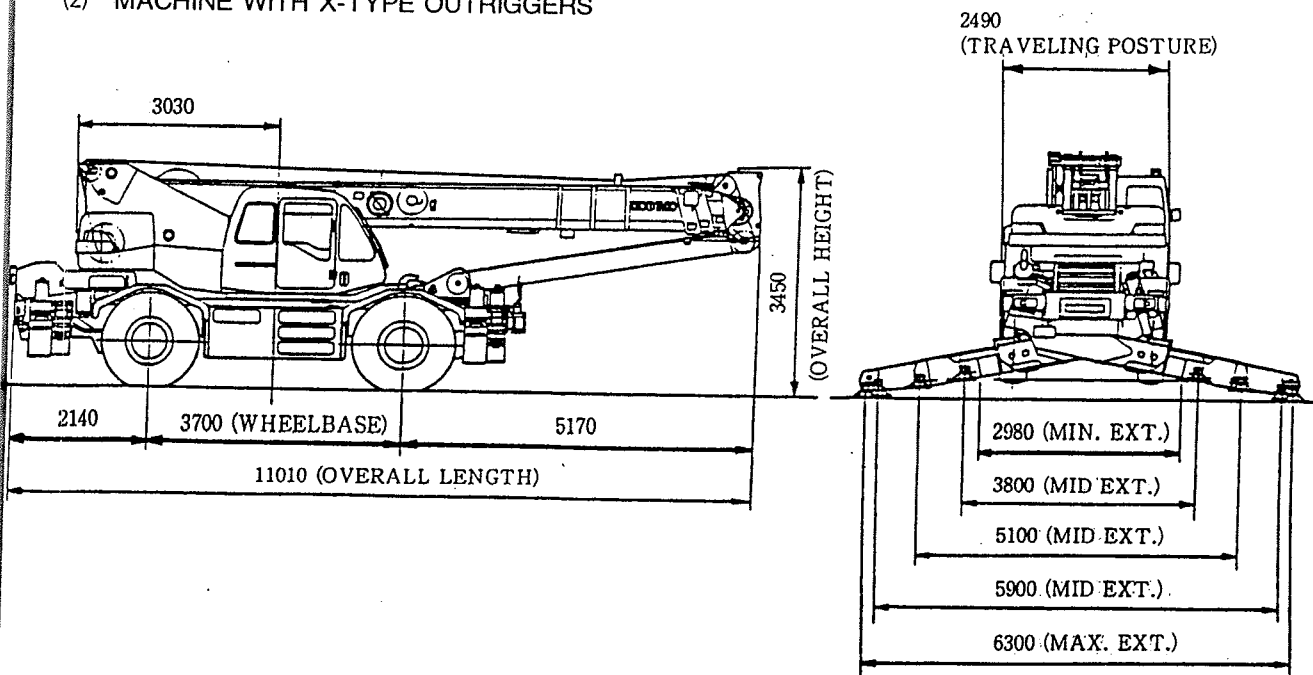
The data described here are for reference. Since described values may sometimes differ from those of the actual machine, use these data for reference only.

6.1.1 GENERAL DIMENSIONS

(1) MACHINE WITH H-TYPE OUTRIGGERS



(2) MACHINE WITH X-TYPE OUTRIGGERS



General Dimension in mm

6.1.2 GENERAL SPECIFICATIONS

(1) CRANE PERFORMANCE

Rated Crane loads	9.3m Boom	25,000kg × 3.5m (8 parts)
	16.4m Boom	18,000kg × 4.5m (6 parts)
	23.5m Boom	11,500kg × 5.5m (4 parts)
	30.6m Boom	7,000kg × 7.5m (4 parts)
	7.5m Jib	3,000kg × 71° (1 part)
	12.0m Jib	2,000kg × 75° (1 part)
	Auxiliary Sheave	3,200kg (1 part)
Main boom length	m	9.3~30.6
Jib length	m	7.5/12.0
Max. lifting height: main hook/aux. hook	m	31.8/43.6
Main winch line speed: high/low	m/min	124/60 (4th layer)
Aux. winch line speed: high/low	m/min	107/52 (2nd layer)
Boom extending speed	sec/m	95.2/21.3
Boom raising speed	sec/deg	47.6/0° ~ 82°
Swing speed	rpm	3.06

(2) CRANE MAIN MECHANISM

Type of boom	Box type, 4 sections, 2nd singly and 3rd/4th simultaneously telescoping.	
Type of jib	Compressed truss and box type, 2nd drawing out type. Power set jib, 3 step variable tilt type (5°/25°/45°). Sky tilt jib (optional): hydraulically no step tilting type (3° to 45°).	
Boom telescopic system	Direct push by double act. hydr. cyls (2) with use of wire ropes.	
Boom hoist system	Direct push by double act. hydr. cyl. (single).	
Winch system	2 set hydr. motor drive, spur gear reduction. With flow control valve pressure compensating type. High speed (2 pumps flow) and low speed (1 pump) automatic change. Independent 2 winches with automatic brake and free fall.	
Swing system	Hydr. motor drive, planetary gear reduction type. Free/lock selector type, with hand brake attached.	
Outriggers	Type	All hydraulic type, H-type or X-type.
	Extending width	m 6.3/5.9/5.1/3.8/2.105 (min. H-type) 2.98 (min. X-type).

(3) WIRE ROPES

Main winch wire rope	mm φ × m	16 × 170 / IWRC6 × Fi (29) C/O hard twist rope.
Auxiliary winch wire rope	mm φ × m	16 × 92 / IWRC6 × Fi (29) C/O hard twist rope.

(4) HYDRAULIC SYSTEM

Type of hydraulic pump		2 tandem (variable plunger) and 3 tandem gear pumps.
Capacity of hydraulic oil tank	l	396

(5) SAFETY DEVICES

	Moment limiter, swing automatic stop device, multi-display, overhoist preventive device, working range limit device (with swing range brake), outrigger ext. width automatic detecting device, check and safety monitor, auxiliary brake for work, sling wire lock, winch drum lock device, swing lock device, hydraulic safety valve, boom telescope wrong operation preventive device, outrigger safety device, boom hoist safety device, boom telescope safety device, free fall interlock device, interceptive lever lock for on and off, basic machine inclination meter, antislip seat, swing warning flasher, swing voice alarm.
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(6) PERFORMANCE OF CARRIER

Maximum traveling speed	km/h	49	
Min. turning radius 2W steer/4W steer	m	9.3/5.4	
Gradeability	tanθ (deg.)	0.6 (31°)	
Engine	Model	Mitsubishi 6D16T	
	Kind	Water cooled, 4cycle, 6cyls, direct inject. type with inter cooler, diesel	
	Total displacement	cc	7,545
	Max. output	PS/rpm	220/2,800
	Max. torque	kg · m/rpm	65/1,600

(7) MAJOR MECHANISM OF CARRIER

Traveling drive type	4WD (4×4)/2WD (4×2) selecting type	
Torque converter	3 element, 1 step, 2 phases. Electronic control, full automatic with lock-up clutch.	
Transmission	Model	Electronic control, full automatic shift.
	No. of speed change gear	6 speed forward/2 speed reverse (with high/low shift).
Reduction unit form	Axle 2 step reduction type.	
Axle front wheel/rear wheel	All floating type.	
Steering	Form	Engine rpm induction type all hydraulic type power steering. With emergency steering and reverse steering correcting device.
	Mode	Normal (fr. 2W.), cramp (4W.), crab (4W) and rear (re, 2W.).
Brake	Main service brake	With hydr, air booster, disc type 4 wheel brake, torque converter lock-up linked elector-control brake, ADS system.
	Parking brake	Propel shaft brake internal expansion type with aux. brake for work.
Suspension	Hydr-pneumatic suspension (with hydr. lock cylinder). ¹	
Fuel tank capacity	l	300
Tires (front wheel and rear wheel)		16.00-25-28PR

(8) CARRIER SAFETY DEVICES

	Emergency steering device, rear steering auto. lock, suspension lock device, engine overrun warning device, check and safety monitor, boom mirror, reverse voice alarm, left turn voice alarm.
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(9) DIMENSIONS WHEN TRAVELING

Overall length	mm	11,010
Overall width	mm	2,490
Overall height	mm	3,450
Wheelbase (axle distance)	mm	3,700
Tread front wheel/rear wheel	mm	2,020/2,020

(10) TOTAL WEIGHT

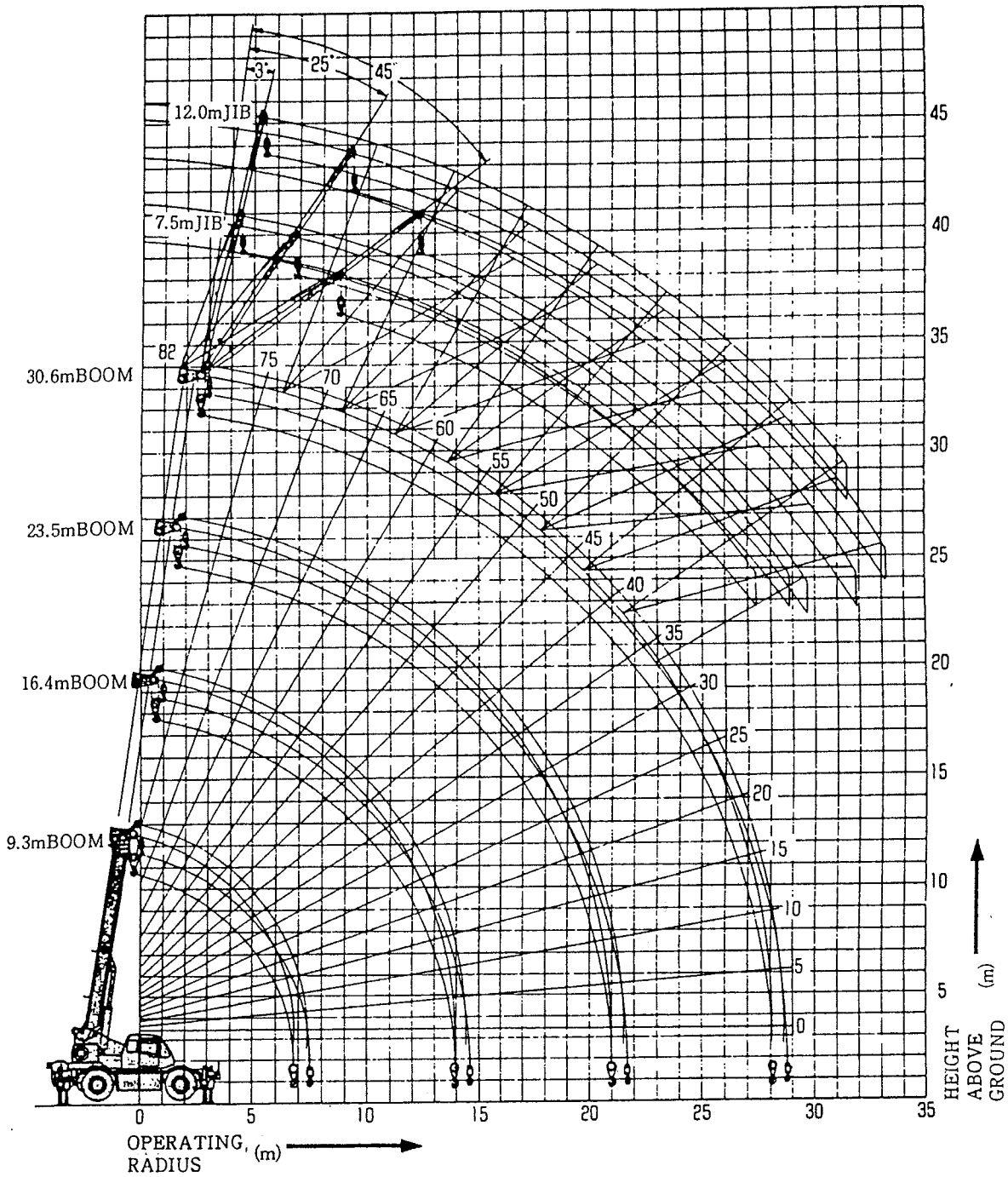
Total load	kg	26,500
Front axle load	kg	13,250
Rear axle load	kg	13,250

(11) SEATING CAPACITY

	2 persons
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6.2.2 WORKING RANGE DIAGRAM (TILT JIB)

(NOTE) This diagram does not include deflection of the boom and jib.



6.3 RATED CRANE LOAD TABLE

(1) BOOM RATED LOADS (ton)/WITH OUTRIGGERS USED

Boom Length Operating Radius (m)	Outriggers Max. (6.3m) Ext. (Whole around)					Outriggers Mid. (6.3m) Ext. (Over side)					Outriggers Mid. (9.3m) Ext. (Over side)					Outriggers Min. Ext. (Over side)					Boom Length Operating Radius (m)					
	9.3	16.4	23.5	30.6	30.6	9.3	16.4	23.5	30.6	30.6	9.3	16.4	23.5	30.6	30.6	9.3	16.4	23.5	30.6	30.6		9.3	16.4	23.5	30.6	
2.5	25.00	18.00				25.00	18.00				25.00	18.00				25.00	18.00				11.10	10.00				2.5
3.0	25.00	18.00				25.00	18.00				25.00	18.00				25.00	18.00				11.10	10.00				3.0
3.5	25.00	18.00	11.50			25.00	18.00	11.50			25.00	18.00	11.50			25.00	18.00	11.50			8.40	8.00	9.30			3.5
4.0	23.00	18.00	11.50			23.00	18.00	11.50			23.00	18.00	11.50			23.00	18.00	11.50			6.70	6.30	7.20			4.0
4.5	21.20	18.00	11.50			21.20	18.00	11.50			21.20	18.00	11.50			21.20	18.00	11.50			5.50	5.10	5.90			4.5
5.0	19.40	16.70	11.50	7.00		19.40	16.70	11.50	7.00		19.40	16.70	11.50	7.00		19.40	16.70	11.50	7.00		4.55	4.20	4.90	5.30		5.0
5.5	17.80	15.50	11.50	7.00	7.00	17.80	15.50	11.50	7.00	7.00	17.80	15.50	11.50	7.00	7.00	17.80	15.50	11.50	7.00	7.00	3.85	3.50	4.15	4.50		5.5
6.0	16.30	14.40	10.85	7.00	7.00	16.30	14.40	10.85	7.00	7.00	16.30	14.40	10.85	7.00	7.00	16.30	14.40	10.85	7.00	7.00	3.30	2.95	3.55	3.90		6.0
6.5	15.10	13.40	10.25	7.00	7.00	15.10	13.40	10.25	7.00	7.00	15.10	13.40	10.25	7.00	7.00	15.10	13.40	10.25	7.00	7.00	2.85	2.45	3.05	3.35		6.5
6.8	7.00	12.80	9.90	7.00	7.00	7.00	12.80	9.90	7.00	7.00	7.00	12.80	9.90	7.00	7.00	7.00	12.80	9.90	7.00	7.00	2.60	2.20	2.75	3.05		6.8
7.0		12.50	9.70	7.00	7.00		12.50	9.70	7.00	7.00		12.50	9.70	7.00	7.00		12.50	9.70	7.00	7.00		2.05	2.60	2.85	7.0	
7.5		11.70	9.15	7.00	7.00		10.95	9.15	7.00	7.00		8.20	8.50	7.00	7.00		4.90	5.50	5.75	7.00		1.70	2.20	2.45	7.5	
8.0		10.90	8.70	6.70	6.70		9.65	8.70	6.70	6.70		7.30	7.80	6.70	6.70		4.40	4.90	5.15	7.00		1.40	1.90	2.10	8.0	
9.0		8.65	7.70	6.15	6.15		7.60	7.70	6.15	6.15		5.85	6.45	6.05	6.05		3.50	3.95	4.20	7.00		0.90	1.40	1.60	9.0	
10.0		7.05	6.90	5.60	5.60		6.20	6.90	5.60	5.60		4.75	5.35	5.55	5.55		2.80	3.25	3.50	7.00			1.05	1.25	10.0	
11.0		5.85	6.25	5.15	5.15		5.10	6.25	5.15	5.15		3.90	4.50	4.75	4.75		2.25	2.70	2.95	7.00				0.95	11.0	
12.0		4.95	5.45	4.70	4.70		4.30	4.90	4.70	4.70		3.30	3.80	4.10	4.10		1.80	2.25	2.50	7.00					12.0	
13.0		4.20	4.70	4.30	4.30		3.70	4.25	4.30	4.30		2.75	3.25	3.50	3.50		1.40	1.90	2.15	7.00					13.0	
13.5		3.90	4.40	4.15	4.15		3.40	4.00	4.15	4.15		2.50	3.00	3.25	3.25		1.20	1.75	2.00	7.00					13.5	
13.9		3.70	4.15	4.05	4.05		3.25	3.80	3.95	3.95		2.30	2.85	3.10	3.10		1.00	1.65	1.90	7.00					13.9	
14.0			4.10	4.00	4.00			3.75	3.90	3.90			2.80	3.05	3.05			1.60	1.85	7.00					14.0	
15.0			3.60	3.70	3.70			3.25	3.40	3.40			2.45	2.65	2.65			1.35	1.55	7.00					15.0	
16.0			3.15	3.45	3.45			2.80	3.00	3.00			2.10	2.35	2.35			1.10	1.35	7.00					16.0	
17.0			2.80	3.05	3.05			2.45	2.65	2.65			1.80	2.05	2.05			0.95	1.15	7.00					17.0	
18.0			2.45	2.70	2.70			2.15	2.40	2.40			1.55	1.80	1.80			0.75	1.00	7.00					18.0	
19.0			2.15	2.45	2.45			1.90	2.10	2.10			1.35	1.55	1.55			0.60	0.85	7.00					19.0	
20.0			1.90	2.20	2.20			1.65	1.90	1.90			1.15	1.40	1.40				0.70	7.00					20.0	
21.0			1.70	1.95	1.95			1.50	1.70	1.70			1.20	1.40	1.40					7.00					21.0	
22.0				1.75	1.75				1.50	1.50			1.05	1.20	1.20					7.00					22.0	
24.0				1.40	1.40				1.15	1.15			0.75	0.90	0.90					7.00					24.0	
26.0				1.15	1.15				0.90	0.90			0.50	0.65	0.65					7.00					26.0	
28.0				0.95	0.95				0.65	0.65			0.65	0.80	0.80					7.00					28.0	
28.1				0.95	0.95				0.65	0.65			0.65	0.80	0.80					7.00					28.1	
Min. Boom Angle	0°	0°	0°	0°	0°	0°	0°	0°	0°	0°	0°	0°	15°	23°	23°	0°	0°	26°	44°	44°	0°	48°	60°	65°	Min. Boom Angle	

(2) BOOM RATED LOADS (ton) WITHOUT OUTRIGGERS USED

Boom Length (m) Operating Radius (m)	Stationary Lifting						Picking and Carrying (2 km/h and less)					
	Whole Around			Over Side			Whole Around			Over Side		
	9.3	16.4	23.5	9.3	16.4	23.5	9.3	16.4	23.5	9.3	16.4	23.5
3.0	8.15	7.30		14.00	9.00		5.90	5.30		10.10	6.50	
3.5	6.05	5.60	4.50	14.00	9.00	6.50	4.40	4.00	3.20	10.10	6.50	4.70
4.0	4.65	4.40	4.50	12.60	9.00	6.50	3.30	3.20	3.20	9.10	5.50	4.70
4.5	3.65	3.40	3.90	11.25	9.00	6.50	2.60	2.40	2.80	8.10	5.50	4.70
5.0	2.90	2.70	3.35	9.90	8.15	6.50	2.10	1.90	2.40	7.10	5.90	4.70
5.5	2.30	2.10	2.80	8.55	7.35	6.15	1.70	1.50	2.00	6.20	5.30	4.40
6.0	1.80	1.65	2.30	7.20	6.60	5.80	1.30	1.20	1.70	5.20	4.80	4.20
6.5	1.40	1.30	1.90	6.15	5.90	5.45	1.00	0.90	1.40	4.40	4.20	3.90
6.8	1.15	1.10	1.70	5.60	5.40	5.25	0.80	0.75	1.25	3.95	3.90	3.75
7.0		1.00	1.60		5.20	5.10		0.70	1.20		3.70	3.70
8.0		0.50	1.10		4.00	4.40			0.80		2.90	3.20
9.0			0.70		3.50	3.70			0.50		2.20	2.70
10.0					2.40	3.00					1.70	2.20
11.0					1.85	2.45					1.30	1.80
12.0					1.40	2.00					1.00	1.40
13.0					1.05	1.65					0.80	1.20
14.0						1.35					1.00	1.40
15.0						1.10					0.80	1.50
16.0						0.85					0.60	1.60
17.0						0.65					0.50	17.0
Min. Boom Angle	0°	53°	62°	0°	22°	36°	0°	57°	62°	0°	22°	36°

Boom Angle (°)	Outrigger Mid (3.8m) Extended (Over side)		
	5° Offset	25° Offset	45° Offset
80.0	3.00	2.10	1.25
75.0	3.00	2.10	1.25
73.5	2.60	1.94	1.21
71.0	2.00	1.61	1.14
69.0	1.60	1.36	1.00
65.0	1.00	0.88	0.75
60.0	0.52	0.48	0.47
Min. Boom Angle	60°	60°	60°

(3) JIB RATED LOADS (ton) WITH OUTRIGGERS USE (SKY TILT JIB IS OPTIONAL.)

1. Boom +7.5 m Jib

Boom Angle (°)	Outrigger Max. (6.3m) Extended (Whole around)			45° Offset
	5° Offset	25° Offset	Load (t)	
80.0	3.00	2.10	1.25	1.25
75.0	3.00	2.10	1.25	1.25
73.5	3.00	2.10	1.22	
71.0	3.00	2.10	1.17	
69.0	2.82	2.10	1.13	
65.0	2.50	1.88	1.06	
60.0	2.10	1.65	1.00	
55.0	1.51	1.28	0.95	
52.0	1.22	1.08	0.88	
50.0	1.05	0.95	0.83	
48.0	0.91	0.82	0.78	
45.0	0.74	0.66	0.70	
40.0	0.50	0.44		
37.0	0.39	0.32		
35.0	0.32			
Min. Boom Angle	35°	37°		45°

Boom Angle (°)	Outrigger Mid (5.9m) Extended (Over side)			45° Offset
	5° Offset	25° Offset	Load (t)	
80.0	3.00	2.10	1.25	1.25
75.0	3.00	2.10	1.25	1.25
73.5	3.00	2.10	1.22	
71.0	3.00	2.10	1.17	
70.0	2.90	2.10	1.15	
69.0	2.82	2.10	1.13	
65.0	2.50	1.88	1.06	
60.0	1.85	1.49	1.00	
55.0	1.19	1.05	0.92	
52.0	0.89	0.82	0.76	
50.0	0.74	0.69	0.65	
49.0	0.68	0.63	0.59	
48.0	0.61	0.56	0.53	
45.0	0.46	0.40	0.37	
Min. Boom Angle	45°	45°	45°	45°

Boom Angle (°)	Outrigger Mid (5.1m) Extended (Over side)			45° Offset
	5° Offset	25° Offset	Load (t)	
80.0	3.00	2.10	1.25	1.25
75.0	3.00	2.10	1.25	1.25
73.5	3.00	2.10	1.22	
72.0	3.00	2.10	1.17	
71.0	2.84	2.10	1.15	
70.0	2.67	2.10	1.13	
69.0	2.52	2.00	1.10	
65.0	1.95	1.60	1.03	
63.0	1.70	1.42	0.98	
60.0	1.34	1.15	0.92	
55.0	0.86	0.76	0.70	
52.0	0.63	0.56	0.56	
50.0	0.50	0.45	0.45	
49.0	0.45	0.40	0.40	
Min. Boom Angle	49°	49°	49°	49°

2. Boom +12m Jib

Boom Angle (°)	Outriggers Max. (6.3m) Ext. (Whole around)		
	5° Offset	25° Offset	45° Offset
	Load (t)	Load (t)	Load (t)
80.0	2.00	1.20	1.00
75.0	2.00	1.13	1.00
73.5	1.87	1.11	1.00
71.0	1.70	1.08	0.95
69.0	1.58	1.06	0.91
65.0	1.40	1.01	0.84
60.0	1.20	0.94	0.74
55.0	1.10	0.88	0.64
52.0	0.92	0.84	0.59
50.0	0.81	0.74	0.54
48.0	0.72	0.65	0.51
45.0	0.59	0.53	0.45
40.0	0.44	0.38	
Min. Boom Angle	40°	40°	45°

Boom Angle (°)	Outriggers Mid (5.9m) Ext. (Over side)		
	5° Offset	25° Offset	45° Offset
	Load (t)	Load (t)	Load (t)
80.0	2.00	1.20	1.00
75.0	2.00	1.13	1.00
73.5	1.87	1.11	1.00
71.0	1.70	1.08	0.95
70.0	1.64	1.07	0.93
69.0	1.58	1.06	0.91
65.0	1.40	0.91	0.84
60.0	1.20	0.94	0.74
55.0	0.96	0.86	0.64
52.0	0.76	0.67	0.59
50.0	0.61	0.55	0.52
49.0	0.54	0.50	0.47
48.0	0.47	0.44	0.43
Min. Boom Angle	48°	48°	48°

Boom Angle (°)	Outriggers Mid (5.1m) Ext. (Over side)		
	5° Offset	25° Offset	45° Offset
	Load (t)	Load (t)	Load (t)
80.0	2.00	1.20	1.00
75.0	2.00	1.15	1.00
73.5	1.86	1.12	1.00
72.0	1.75	1.10	0.97
71.0	1.70	1.09	0.95
70.0	1.62	1.08	0.93
69.0	1.55	1.06	0.91
65.0	1.40	1.01	0.84
63.0	1.23	0.99	0.81
60.0	1.02	0.82	0.75
55.0	0.69	0.56	0.52
52.0	0.52	0.42	0.40
50.0	0.40	0.35	
Min. Boom Angle	50°	50°	52°

Boom Angle (°)	Outriggers Mid (3.8m) Ext. (Over side)		
	5° Offset	25° Offset	45° Offset
	Load (t)	Load (t)	Load (t)
80.0	2.00	1.20	1.00
75.0	2.00	1.15	1.00
73.5	1.82	1.13	1.00
71.0	1.52	1.10	0.90
69.0	1.27	0.94	0.80
65.0	0.83	0.66	0.57
60.0	0.45	0.35	0.33
Min. Boom Angle	60°	60°	60°