



KOBELCO

7650

Hydraulic Crawler Crane

Crawler Crane

Heavy-duty Boom

Max. Lifting Capacity: 650 metric ton x 6.0 m

Standard Boom

Max. Lifting Capacity: 400 metric ton x 10.0 m

Luffing Jib

Max. Lifting Capacity: 230 metric ton x 16.0 m

KOBELCO CRANES CO., LTD.

Main Specifications

Specifications		Crane	Luffing Jib
Lifting Capacity			
Max. Lifting Capacity	ton x m	650 x 6.0 (Heavy-duty) 400 x 10.0 (Standard)	230 x 16.0
Basic Boom Length (+Jib Length)	m	24 (Heavy) / 24 (Standard)	30 + 24
Max. Boom Length (+Jib Length)	m	60 (Heavy) / 102 (Standard)	78 + 72
Performance			
Main Hoist Line Speed (High/Low)	m/min	100/44	100/44
Aux. Hoist Line Speed (High/Low)	m/min	100/44	100/44
Boom Hoisting/Lowering (High/Low)	m/min	50/22	50/22
Jib Hoisting/Lowering (High/Low)	m/min	—	100/44
Swing Speed	min ⁻¹ (rpm)	0.6 (0.6)	
Travel Speed (High/Low)	km/h	1.0/0.6	
Gradeability (Without Load)	%	30	
Operating Weight	ton	Approx. 510 (including 24 m boom and 400-ton hook)	Approx. 540 (including 30 m boom and 230-ton hook)
Counterweight	ton	Standard counterweight: 140/Additional counterweight: 84	
Ground Pressure (Without Load)	kPa (kgf/cm ²)	125 (1.28)	133 (1.36)
Wire Rope			
Main Hoist	mm	φ 30	φ 30
Aux. Hoist	mm	φ 30	φ 30
Boom Hoist	mm	φ 28 (2 x 19-part line)	φ 28 (2 x 19-part line)
Boom Guy Line	mm	Rod type	Rod type
Jib Hoist	mm	—	φ 32 (22-part line)
Jib Guy Line	mm	—	φ 54 (4-part line)
Strut Guy Line	mm	—	φ 52 (4-part line)

Power Plant			
Make & Model	QSK19-2A		
Type	Direct injection, water-cooled, 4-cycle diesel engine		
Rated Output	kW/min ⁻¹ (PS/rpm)	447/2,000 (608/2,000)	
Fuel Tank Capacity	liters	900	

Hydraulic Pumps			
Load Hoist, Boom Hoist, Jib Hoist, and Propel	2-variable displacement pump x 4		
Swing	2-variable displacement pump x 1		
Control and auxiliary equipment	3-gear pump		

Hydraulic Motors			
Load Hoist (Main hoist, aux. hoist)	2-speed plunger motor x 1		
Boom Hoist	2-speed plunger motor x 2		
Jib Hoist	2-speed plunger motor x 1		
Swing	Plunger motor x 2		
Propel	2-speed plunger motor x 4		

Remarks : *1 Line speed figures are shown at 1st layer of each drum.
*2 The main hoist, auxiliary hoist, boom hoist, jib hoist and travel speeds vary according to the load being lifted.

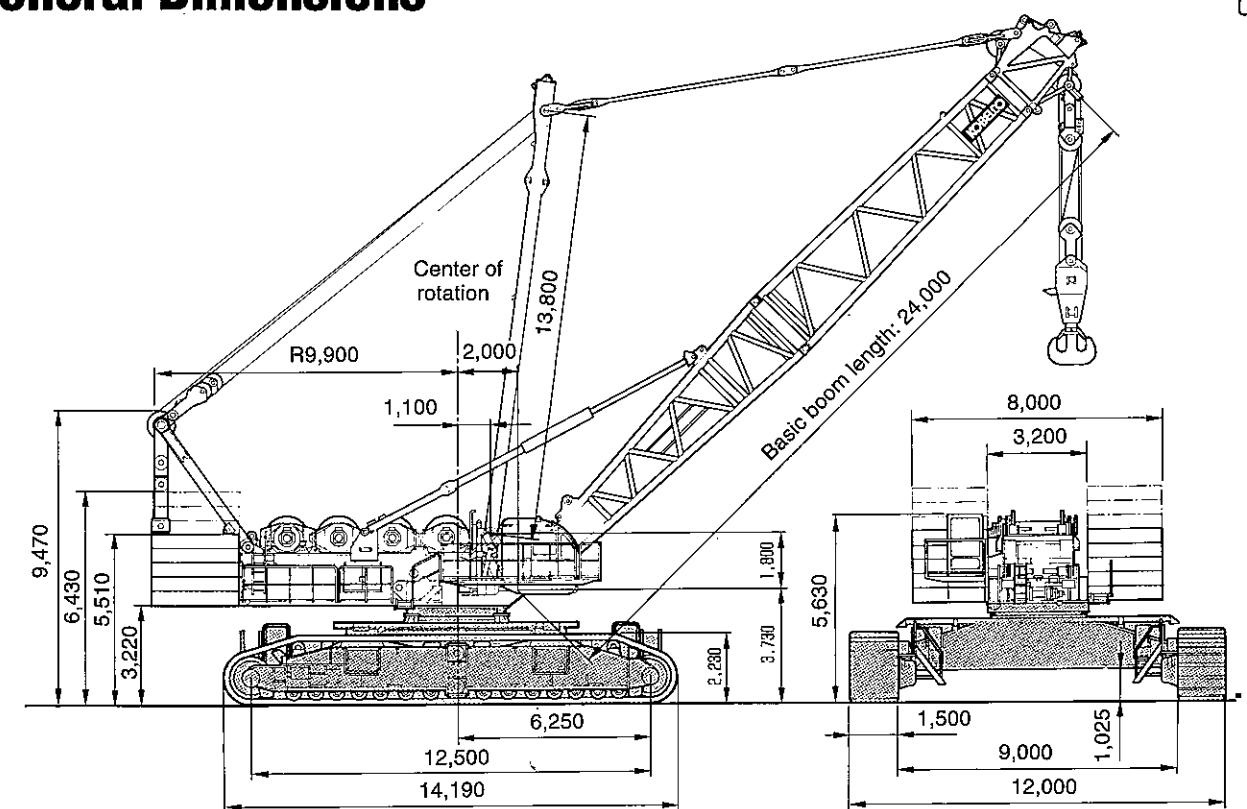
Style and Combination of Boom and Jib

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STYLE	Crawler Crane		Luffing Jib	
	Heavy-Duty Boom	Std. Boom	Fixed Boom	Offset Boom
SPECIFICATIONS				
Max. Lifting Capacity	650 ton x 6.0 m	400 ton x 10.0 m	185 ton x 20.0 m	230 ton x 16.0 m
Max. Total Length (Boom + Jib)	60 m	102 m	78 m + 72 m	78 m + 72 m
COUNTERWEIGHTS				
Std. Counterweight (140 ton)	○	○	○	○
Add. Counterweight (84 ton)	○	○	○	○
BASIC BOOM				
12.0 m Lower Boom	○	○	○	○
10.5 m Std. Insert Tapered Boom	—	○	○	○
10.5 m Heavy-Duty Insert Tapered Boom	○	—	—	—
Std. Upper Boom	—	○	○	○
Heavy-Duty Upper Boom	○	—	—	—
INSERT BOOM				
6.0 m Insert Boom	1	1	1	1
12.0 m Insert Boom	3	6	4	4
LUFFING JIB				
24.0 m Basic Jib	—	—	○	○
12.0 m Insert Jib	—	—	4	4

Note: number of Boom and Jib above shown means the numbers for the maximum length respectively.

General Dimensions

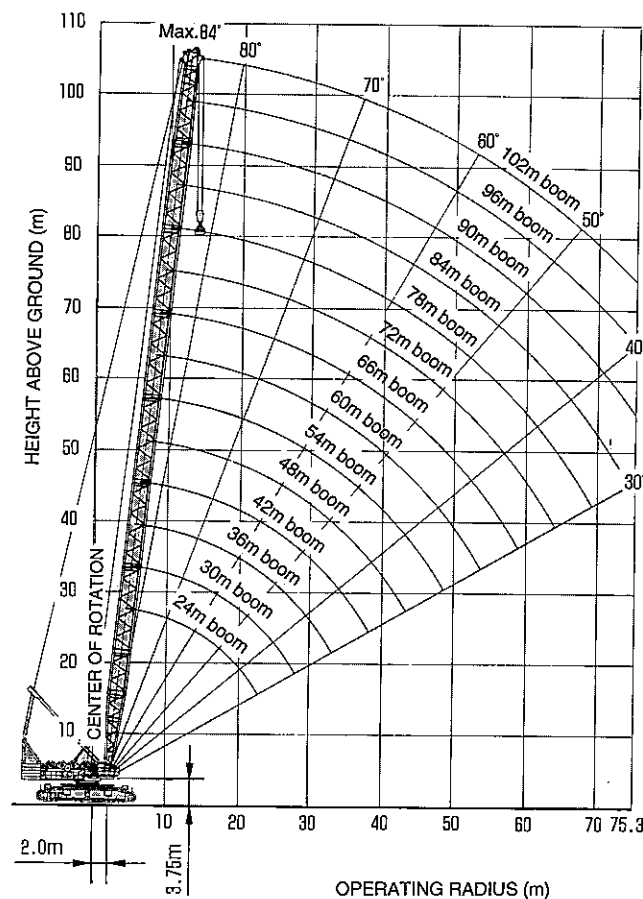


Boom Lifting Capacities

Notes :

- Operating radius is the horizontal distance from the centerline of rotation to a vertical line through the centerline of gravity of load.
- Rated load do not exceed 78% of tipping load on the hard horizontal ground and includes weight of hook block, slings and all other load handling accessories from main boom or jib rating shown.
- Rated loads included in the charts are the maximum allowable freely suspended loads at the given boom length, boom angle and radius, and have been determined for the machine standing level on firm supporting surface under ideal operating conditions. The user must limit or de-rate loads to allow for adverse conditions (such as soft or uneven ground, out-of-level ground conditions, winds, side loads, pendulum action, jerking or sudden stopping of loads, inexperience of personnel, multiple machine lifts, and traveling with a load).
- Areas on rated crane load table where no rating are shown, operation is not intended or approved.
- The loads can be lifted actually is obtained by deducting the weight of hook block, slings and all other load handling accessories from the rated crane load.
- For arrangements of the boom, jib and guy lines and reevings of the boom hoist rope, strictly observe the instruction of the operator's manual.
- Auxiliary sheave will be installed with 24 m to 102 m length of standard boom.
- Rated loads for aux. sheaves are determined by deducting the weights of aux. sheave (600 kg) and main hook from the ratings of main boom, but shall not exceed more than 16.5 metric ton.
- Actual hoistable loads using an auxiliary sheave are determined by deducting the weight of 16.5 metric ton ball-hook (800 kg), slings and other loads handling accessories from the rating shown.
- Maximum operating radius when using an auxiliary sheave must not exceed the maximum operating radius of main boom. Minimum operating radius is the working radius of the auxiliary sheave fitted at the boom angle for the minimum operating radius of the main boom.
- Rated loads for the main boom when equipped with an auxiliary sheave are determined by deducting the weight of the auxiliary sheave (600 kg) from ratings for the main boom without auxiliary sheave. In addition, if a 16.5 ton ball-hook is suspended from the auxiliary sheave, its weight (800 kg) must also be deducted.
- Actual hoistable loads using the main boom equipped with an auxiliary sheave are determined by deducting the weight of the hook and other load-handling gear, such as slings and cables, from ratings for the main boom when equipped with an auxiliary sheave.
- Never use hooks on the main boom and auxiliary sheave simultaneously.

WORKING RANGES



Hook block capacity and weight (metric ton)

Capacity of hook	650 ton	400 ton	230 ton
Weight(metric ton)	12.0	9.1	7.9

Capacity of hook	100 ton	50 ton	16.5 ton ball hook
Weight(metric ton)	4.3	2.3	0.8

Max. hoisting load per part of line

(Single drum)

No. of parts of line	1	2	3	4	5
Max. load (metric ton)	16.5	33.7	50.0	66.0	81.7
No. of parts of line	6	7	8	9	10
Max. load (metric ton)	97.0	112.1	126.9	141.3	155.5
No. of parts of line	11	12	13	14	15
Max. load (metric ton)	169.4	183.0	196.3	209.4	222.2
No. of parts of line	16				
Max. load (metric ton)	230.0				

(Double drum)

No. of parts of line	12	16	20	24	28
Max. load (metric ton)	194.1	253.7	311.0	366.0	418.8
No. of parts of line	32	36	40	44	48
Max. load (metric ton)	469.5	518.3	565.1	610.0	650.0

Main Boom Lifting Capacities

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Boom rated loads in metric tons for 360° working area Standard boom/with Standard Counterweight

Unit: metric ton

Operating radius (m)	24 (79)	30 (98)	36 (118)	42 (138)	48 (157)	54 (177)	60 (197)	66 (217)	72 (236)	78 (256)	84 (276)	90 (295)	96 (315)	102 (335)	Operating radius (m)
6	400														6
7	400	400	400												7
8	400	400	400	400											8
9	400	400	400	400	400	363									9
10	400	400	400	397	395	358	317								10
12	331	328	327	325	323	321	302	269	241	216					12
14	286	285	284	280	275	269	268	257	231	208	187	169	141		14
16	240	239	239	237	232	230	229	227	221	200	180	155	141	112	16
18	204	206	205	204	203	201	200	198	196	190	171	142	141	112	18
20	174	180	180	179	178	177	176	175	173	172	157	131	135	112	20
22	148	156	156	155	155	153	152	151	150	150	146	121	125	109	22
24	120/23.3	138	137	136	136	134	133	132	131	131	130	112	116	101	24
26		123	122	120	120	118	117	116	115	115	114	104	108	93	26
28		110	109	108	108	106	105	104	103	102	101	97	99	87	28
30		107/28.5	99	98	97	95	94	93	92	91	90	89	88	82	30
34			83/33.7	82	81	79	78	77	76	75	74	73	71	70	34
38				70	69	66	65	64	63	62	61	60	58	57	38
42				67/38.9	60	56	55	54	53	52	51	49	48	47	42
46					54/44.1	49	47	46	45	44	43	41	40	39	46
50						43/49.3	41	40	38	37	36	35	33	32	50
54							36	34	33	32	31	29	27	26	54
58								30	28	27	26	24	22	21	58
62								28/59.7	24	23	21	20	17	16	62
66									22/64.9	19	17	16	13		66
70										16	14	12			70

For loads shown above the bold line, double drums must be used.

Boom rated loads in metric tons for 360° working area Standard boom/with Standard Counterweight + Additional Counterweight

Unit: metric ton

Operating radius (m)	54 (177)	60 (197)	66 (217)	72 (236)	78 (256)	84 (276)	90 (295)	96 (315)	102 (335)	Operating radius (m)
9	363									9
10	358	317								10
12	339	302	269	241	216					12
14	312	287	257	231	208	187	169	141		14
16	268	267	246	221	200	180	155	141	112	16
18	234	233	231	211	190	171	142	141	112	18
20	207	206	204	201	180	157	131	135	112	20
22	185	184	182	181	170	146	121	125	109	22
24	167	166	164	163	160	136	112	116	101	24
26	152	151	149	147	146	127	104	108	93	26
28	139	138	136	135	133	119	97	102	87	28
30	128	127	125	123	122	111	91	96	82	30
34	108	107	106	105	104	93	80	85	72	34
38	92	91	90	89	88	78	70	74	63	38
42	79	78	77	76	75	66	62	63	55	42
46	69	68	67	66	65	56	54	53	47	46
50	59/49.3	60	59	57	56	48	47	45	40	50
54		51	52	50	49	42	41	39	34	54
58			45	44	43	36	35	33	28	58
62			41/59.7	40	38	32	30	28	22	62
66				33/64.9	34	28	26	24		66
70					27	24	22	20		70
74						20	18	16		74
78						19/75.3				78

For loads shown above the bold line, double drums must be used.

Main Boom Lifting Capacities

Boom rated loads in metric tons for 360° working area Heavy-duty boom/with standard counterweight

Unit: metric ton

Boom length m (ft) Operating radius (m)	24 (79)	30 (98)	36 (118)	42 (138)	48 (157)	54 (177)	60 (197)	Boom length m (ft) Operating radius (m)
6	650							6
7	574	574	550					7
8	501	498	496	492				8
9	447	444	442	440	429	374		9
10	402	400	398	396	394	356	330	10
12	328	326	325	323	321	319	299	12
14	276	274	272	270	269	267	265	14
16	237	235	234	232	230	228	227	16
18	208	206	204	202	201	199	197	18
20	178	177	177	176	175	175	174	20
22	146	154	153	152	151	150	150	22
24	117/23.3	135	134	133	132	131	131	24
26		120	119	118	117	116	115	26
28		108	107	105	104	103	103	28
30		104/28.5	96	95	94	93	92	30
34			81/33.7	78	77	76	75	34
38				66	65	64	63	38
42				64/38.9	55	54	53	42
46					51/44.1	46	45	46
50						41/49.3	39	50
54							33	54

For loads shown above the bold line, double drums must be used.

Boom rated loads in metric tons for 360° working area Heavy-duty boom/with standard counterweight + additional counterweight

Unit: metric ton

Boom length m (ft) Operating radius (m)	24 (79)	30 (98)	36 (118)	42 (138)	48 (157)	54 (177)	60 (197)	Boom length m (ft) Operating radius (m)
6	650							6
7	620	620	565					7
8	538	535	533	500				8
9	480	477	475	473	442	380		9
10	433	430	428	426	424	378	347	10
12	361	359	357	354	352	350	330	12
14	304	302	300	298	296	294	287	14
16	262	260	258	256	255	253	251	16
18	229	227	226	224	222	221	219	18
20	192	202	200	198	197	195	193	20
22	159	181	179	177	176	174	173	22
24	129/23.3	164	162	160	159	157	156	24
26		148	147	146	144	143	141	26
28		130	130	130	130	129	129	28
30		123/28.5	120	119	118	117	116	30
34			101/33.7	99	98	97	96	34
38				85	84	82	81	38
42				82/38.9	72	71	70	42
46					67/44.1	61	60	46
50						55/49.3	53	50
54							46	54

For loads shown above the bold line, double drums must be used.

Luffing Jib Lifting Capacities

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Notes :

- Operating radius is the horizontal distance from the centerline of rotation to a vertical line through the centerline of gravity of load.
- Rated load do not exceed 78% of tipping load on the hard horizontal ground and includes weight of hook block, slings and all other load handling accessories from main boom or jib rating shown.
- Rated loads included in the charts are the maximum allowable freely suspended loads at the given boom length, boom angle and radius, and have been determined for the machine standing level on firm supporting surface under ideal operating conditions. The user must limit or de-rate loads to allow for adverse conditions (such as soft or uneven ground, out-of-level ground conditions, winds, side loads, pendulum action, jerking or sudden stopping of loads, inexperience of personnel, multiple machine lifts, and traveling with a loads).
- Areas on rated crane load table where no rating are shown, operation is not intended or approved.
- The loads can be lifted actually is obtained by deducting the weight of hook block, slings and all other load handling accessories from the rated crane load.
- For jib operations, the main boom should be set at an angle of 88°, 78° or 68°, and the jib raised between 20° and 73°.
- For main boom operations with a jib attached, the jib should be set at an angle of 15°, 25° or 35°, and the main boom raised between 30° and 84°.

- For arrangements of the boom, jib and guy lines and reevings of the boom hoist rope, strictly observe the instruction of the operator's manual.
- An auxiliary sheave may be fitted to configurations from 30m boom + 24m jib to 78m boom + 72m jib.
- Rated loads for the auxiliary sheave are determined by deducting the weights of the auxiliary sheave (600kg) and jib hook from the ratings for the luffing jib. They must not exceed a maximum 16.5 tons.
- Actual hoistable loads using an auxiliary sheave are determined by deducting the weights of the 16.5ton ball-hook and the lifting gear, such as slings and cables, from the ratings.
- Rated loads for luffing jibs equipped with an auxiliary sheave are determined by deducting the weight of the auxiliary sheave from the ratings for the luffing jib with no auxiliary sheave. Additionally, when using a luffing jib with a 16.5ton ball-hook, the weight of the hook (800kg) must also be deducted.
- Actual hoistable loads using a luffing jib with an auxiliary sheave attached are determined by deducting the weights of the main hook and lifting gear, such as slings and cables, from ratings for the luffing jib equipped with an auxiliary sheave.
- The maximum working radius when using an auxiliary sheave must not exceed the maximum working radius of the main boom.
- The boom should in principle be erected over the front of the crawlers, and for main booms exceeding 72m in length pillow plates must be used under the crawlers.
- Rated loads for the main boom when equipped with a luffing jib are not provided.

Boom and jib combinations and allowable boom angle (Standard counterweight)

Boom length	24m jib	30m jib	36m jib	42m jib	48m jib	54m jib	60m jib	66m jib	72m jib	Boom offset angle
30m	○	○	○	○	○	○	○	○	○	68° - 88°
36m	○	○	○	○	○	○	○	○	○	68° - 88°
42m	—	○	○	○	○	○	○	○	○	68° - 88°
48m	—	○	○	○	○	○	○	○	○	68° - 88°
54m	—	○	○	○	○	○	○	○	○	68° - 88°

(Additional counterweight)

Boom length	24m jib	30m jib	36m jib	42m jib	48m jib	54m jib	60m jib	66m jib	72m jib	Boom offset angle
42m	—	○	○	○	○	○	○	○	○	68° - 88°
48m	—	○	○	○	○	○	○	○	○	68° - 88°
54m	—	○	○	○	○	○	○	○	○	68° - 88°
60m	—	—	○	○	○	○	○	○	○	68° - 88°
66m	—	—	○	○	○	○	○	○	○	68° - 88°
72m	—	—	○	○	○	○	○	○	○	68° - 88°
78m	—	—	○	○	○	○	○	○*	○*	68° - 88°

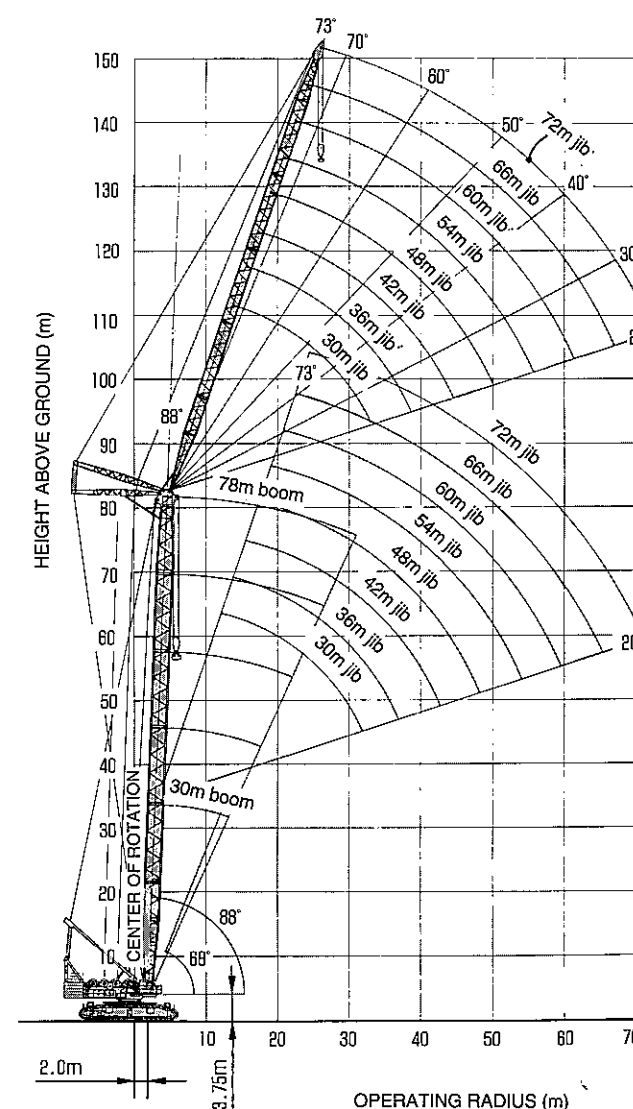
Boom angle marked with an asterisk (*) are 78° - 88°.

Hook block capacity and weight (metric ton)

Capacity of hook	230 ton	100 ton	500 ton	16.5 ton ball hook
Weight(metric ton)	7.9	4.3	2.3	0.8

Max. hoisting load per part of line

No. of parts of line	1	2	3	4	5
Max. load (metric ton)	16.5	33.7	50.0	66.0	81.7
No. of parts of line	6	7	8	9	10
Max. load (metric ton)	97.0	112.1	126.9	141.3	155.5
No. of parts of line	11	12	13	14	15
Max. load (metric ton)	169.4	183.0	196.3	209.4	222.2
No. of parts of line	16				
Max. load (metric ton)	230.0				



Luffing Jib Lifting Capacities

Luffing jib rated loads in metric tons for 360° working area
Luffing jib with 30 m boom/with standard counterweight

Unit: metric ton

Operating radius (m)	30 m Boom															Operating radius (m)
	24 m Jib			30 m Jib			36 m Jib			42 m Jib			48 m Jib			
	Boom Angle			Boom Angle			Boom Angle			Boom Angle			Boom Angle			
	88°	78°	68°	88°	78°	68°	88°	78°	68°	88°	78°	68°	88°	78°	68°	
12	230.0															12
14	230.0			222.2			209.4									14
16	230.0			222.2			203.1			179.3						16
18	207.6			211.2			195.1			172.7			153.4			18
20	173.5	173.5		173.0			184.4			166.5			148.2			20
22	151.7	151.7		151.0			161.8			160.7			143.3			22
24	135.0	135.0		135.0	135.0		143.7			145.7			138.6			24
26		123.0		121.5	121.5		128.8	128.3		130.7			131.8			26
28		113.5		110.3	110.3		116.3	116.1		118.2	115.9		119.2			28
30		105.9	99.3	100.1	100.1		105.7	105.7		107.5	105.6		108.5			30
34			84.2		83.7	83.3	88.0	88.0		90.4	89.4		91.3	88.9		34
38						72.0		74.1	71.0	77.2	77.2		78.1	76.7		38
42						63.2		62.9	62.2	65.8	65.8	61.8	67.6	67.1		42
46									55.2		56.6	54.7	59.0	59.0	54.0	46
50												49.0		51.9	48.2	50
54															43.4	54
58															39.4	58
62																62

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Luffing jib rated loads in metric tons for 360° working area
Luffing jib with 36 m boom/with standard counterweight

Unit: metric ton

Operating radius (m)	36 m Boom															Operating radius (m)
	24 m Jib			30 m Jib			36 m Jib			42 m Jib			48 m Jib			
	Boom Angle			Boom Angle			Boom Angle			Boom Angle			Boom Angle			
	88°	78°	68°	88°	78°	68°	88°	78°	68°	88°	78°	68°	88°	78°	68°	
12	222.2															12
14	222.2			209.4												14
16	222.2			209.4			196.3			179.9						16
18	211.7			209.4			195.6			173.2			153.8			18
20	181.0			186.4			188.3			166.9			148.6			20
22	156.6	156.6		163.1			165.6			161.1			143.7			22
24	136.4	136.4		144.4	141.2		146.8			148.5			139.0			24
26	119.9	119.9		129.1	126.6		131.4			133.1			134.3			26
28		106.3		116.2	114.6		118.6	113.9		120.2			121.3			28
30		95.0		105.1	104.5		107.7	103.8		109.3	103.4		110.3			30
34			78.0		88.6		90.0	87.9		91.7	87.5		92.7	86.9		34
38			66.0		76.6	68.7		75.9	67.9	78.2	75.5		79.2	74.9		38
42						60.2		66.0	59.4	67.3	66.1	58.8	68.5	65.5		42
46									52.6		58.6	52.0	59.7	58.0	51.3	46
50									47.1			46.4		51.9	45.7	50
54												41.8		46.8	41.1	54
58															37.2	58
62																62

Operating radius (m)	30 m Boom												Operating radius (m)
	54 m Jib			60 m Jib			66 m Jib			72 m Jib			
	Boom Angle			Boom Angle			Boom Angle			Boom Angle			
	88°	78°	68°	88°	78°	68°	88°	78°	68°	88°	78°	68°	
18													18
20	132.4												20
22	128.3			113.7									22
24	124.0			109.3			89.6						24
26	119.1			104.9			84.4			71.5			26
28	114.4			100.6			79.6			67.3			28
30	108.8			95.4			75.2			63.4			30
34	91.6	88.3		85.0			67.7			56.8			34
38	78.4	76.1		75.6	75.3		61.5			51.2			38
42	67.9	66.5		67.0	65.8		56.2	56.2		46.5	46.5		42
46	59.4	58.8		59.3	58.1		51.8	51.8		42.4	42.4		46
50	52.3	52.3	47.5	52.3	51.8		48.1	48.1		38.8	38.8		50
54	45.4	45.4	42.7	46.4	46.4	41.8	43.8	43.8	41.5	35.7	35.7		54
58		39.5	38.6	41.2	41.2	37.8	40.0	40.0	37.4	32.9	32.9	32.9	58
62			35.2		36.7	34.3	37.2	37.2	33.9	30.5	30.5	30.5	62
66						31.3		34.7	30.8	28.3	28.3	28.3	66
70						28.7		31.8	28.2	26.5	26.5	26.5	70
74									25.7		24.9	24.6	74
78												22.3	78

Operating radius (m)	36 m Boom												Operating radius (m)
	54 m Jib			60 m Jib			66 m Jib			72 m Jib			
	Boom Angle			Boom Angle			Boom Angle			Boom Angle			
	88°	78°	68°	88°	78°	68°	88°	78°	68°	88°	78°	68°	
20	132.7												20
22	128.6			114.1									22
24	124.4			109.3			90.0						24
26	119.5			105.0			84.8			71.8			26
28	114.7			101.3			80.1			67.6			28
30	110.1			95.9			75.8			63.7			30
34	93.0			85.1			68.2			57.0			34
38	79.6	74.3		75.7	73.6		61.8			51.4			38
42	68.9	64.9		67.3	64.2		56.5	56.5		46.6			42
46	60.2	57.2		59.8	56.6		52.1	52.1		42.5	42.5		46
50	53.0	51.2	45.0	53.0	50.5		48.3	48.3		38.9	38.9		50
54	46.7	46.1	40.4	46.9	45.3	39.5	43.8	43.8		35.7	35.7		54
58		41.8	36.4	41.7	41.0	35.6	40.3	40.3	35.2	32.9	32.9		58
62			33.1		37.3	32.2	37.7	36.9	31.8	30.5	30.5	30.5	62
66			30.3		34.1	29.1		33.7	28.6	28.3	28.3	27.6	66
70						26.4		30.9	25.8	26.4	26.4	24.8	70
74									23.4		24.7	22.3	74
78									21.2			20.2	78
82												18.4	82

Luffing Jib Lifting Capacities

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Luffing jib rated loads in metric tons for 360° working area
Luffing jlb with 42 m boom/with standard counterweight + additional counterweight Unit: metric ton

Operating radius (m)	42 m Boom															Operating radius (m)
	30 m Jib			36 m Jib			42 m Jib			48 m Jib			54 m Jib			
	Boom Angle			Boom Angle			Boom Angle			Boom Angle			Boom Angle			
	88°	78°	68°	88°	78°	68°	88°	78°	68°	88°	78°	68°	88°	78°	68°	
14	196.3															14
16	196.3			183.0												16
18	196.3			183.0			169.4			154.2						18
20	189.5			183.0			167.4			149.0			133.1			20
22	165.9			168.5			161.5			144.0			128.9			22
24	146.7			149.2			151.0			139.3			124.8			24
26	130.9	130.9		133.4			135.1			134.8			119.8			26
28	117.7	117.7		120.2	120.2		121.9			123.1			115.0			28
30	106.3	106.3		109.0	109.0		110.7			111.8			110.4			30
34		88.0		91.0	91.0		92.8	92.8		93.8	93.8		94.3			34
38		73.7	73.7		77.2		79.0	79.0		80.1	80.1		80.5	80.5		38
42			62.4		66.3	66.3	67.9	67.9		69.2	69.2		69.6	69.6		42
46			53.1			57.4		58.9	58.9	60.2	60.2		60.7	60.7		46
50						50.0		51.4	51.4		52.7	52.7	53.4	53.4		50
54								45.0		46.4	46.4		47.1	47.1	47.1	54
58											41.0		41.8	41.8	41.8	58
62											36.3		37.2	37.2	37.2	62
66															33.1	66

Luffing jib rated loads in metric tons for 360° working area
Luffing jlb with 48 m boom/with standard counterweight + additional counterweight Unit: metric ton

Operating radius (m)	48 m Boom															Operating radius (m)
	30 m Jib			36 m Jib			42 m Jib			48 m Jib			54 m Jib			
	Boom Angle			Boom Angle			Boom Angle			Boom Angle			Boom Angle			
	88°	78°	68°	88°	78°	68°	88°	78°	68°	88°	78°	68°	88°	78°	68°	
14	169.4															14
16	169.4			169.4												16
18	169.4			169.4			155.5									18
20	169.4			169.4			155.5			141.3			133.4			20
22	166.9			169.4			155.5			141.3			129.2			22
24	148.6			151.2			153.1			139.6			125.1			24
26	132.5			135.0			136.9			135.1			120.2			26
28	118.9	118.9		121.6			123.4			124.6			115.4			28
30	107.4	107.4		110.1	110.1		111.9			113.1			110.7			30
34		88.8		91.8	91.8		93.6	93.6		94.8			95.3			34
38		74.5			77.7		79.6	79.6		80.8	80.8		81.2	81.2		38
42			63.2		66.6		68.4	68.4		69.7	69.7		70.2	70.2		42
46			54.0		57.6	57.6		59.4		60.6	60.6		61.2	61.2		46
50						50.2		51.9	51.9		53.1	53.1	53.7	53.7		50
54						43.9			45.5		46.7	46.7	47.4	47.4	47.4	54
58									40.1			41.3		42.0	42.0	58
62												36.6		37.4	37.4	62
66															33.4	66
70															29.8	70

Operating radius (m)	42 m Boom									Operating radius (m)
	60 m Jib			66 m Jib			72 m Jib			
	Boom Angle			Boom Angle			Boom Angle			
	88°	78°	68°	88°	78°	68°	88°	78°	68°	
22	114.4									22
24	10.9.9			90.5						24
26	105.7			85.1			72.2			26
28	101.9			80.2			67.9			28
30	96.5			75.7			64.0			30
34	85.4			68.1			57.2			34
38	75.9			61.6			51.5			38
42	67.4	67.4		56.2	56.2		46.7			42
46	60.0	60.0		51.5	51.5		42.5	42.5		46
50	53.2	53.2		47.8	47.8		38.9	38.9		50
54	47.3	47.3		43.9	43.9		35.7	35.7		54
58	42.1	42.1	42.1	40.6	40.6		32.9	32.9		58
62		37.5	37.5	38.0	38.0	38.0	30.5	30.5	30.5	62
66		33.4	33.4		35.8	35.8	28.3	28.3	28.3	66
70			29.8		33.9	33.9	26.4	26.4	26.4	70
74			26.5			32.3		24.7	24.7	74
78						31.0		23.1	23.1	78
82									21.8	82
86									20.5	86

Operating radius (m)	48 m Boom									Operating radius (m)
	60 m Jib			66 m Jib			72 m Jib			
	Boom Angle			Boom Angle			Boom Angle			
	88°	78°	68°	88°	78°	68°	88°	78°	68°	
22	114.8									22
24	110.2			91.0						24
26	106.1			85.5			72.5			26
28	102.5			80.5			68.2			28
30	97.1			76.0			64.2			30
34	85.8			68.3			57.4			34
38	76.1			61.8			51.7			38
42	67.6	67.6		56.3			46.8			42
46	60.0	60.0		51.7	51.7		42.6	42.6		46
50	53.4	53.4		48.0	48.0		39.0	39.0		50
54	47.5	47.5		43.9	43.9		35.8	35.8		54
58	42.3	42.3	42.3	40.2	40.2		33.0	33.0		58
62		37.6	37.6	37.0	37.0	37.0	30.5	30.5		62
66		33.4	33.4	34.1	34.1	34.1	28.3	28.3	28.3	66
70			29.6		31.5	31.5	26.4	26.4	26.4	70
74			26.1		29.2	29.2		24.7	24.7	74
78						27.2		23.3	23.3	78
82						25.3			22.0	82
86									20.8	86

Luffing Jib Lifting Capacities

Luffing jib rated loads in metric tons for 360° working area
Luffing jib with 54 m boom/with standard counterweight + additional counterweight Unit: metric ton

Operating radius (m)	54 m Boom															Operating radius (m)
	30 m Jib			36 m Jib			42 m Jib			48 m Jib			54 m Jib			
	Boom Angle			Boom Angle			Boom Angle			Boom Angle			Boom Angle			
	88°	78°	68°	88°	78°	68°	88°	78°	68°	88°	78°	68°	88°	78°	68°	
14	169.4															14
16	169.4			155.5												16
18	169.4			155.5			141.3									18
20	169.4			155.5			141.3			141.3						20
22	159.2			155.5			141.3			141.3			126.9			22
24	147.0			148.7			141.3			140.0			125.4			24
26	134.0			136.3			137.9			135.4			120.5			26
28	120.1	120.1		122.9			124.8			126.1			115.7			28
30	108.4	108.4		111.3			113.1			114.4			111.0			30
34		89.1		92.6	92.6		94.5	94.5		95.7			96.2			34
38		73.1		76.5	76.5		80.2	80.2		81.4	81.4		81.9			38
42		59.7	59.7		63.4		68.9	68.9		70.2	70.2		70.7	70.7		42
46			48.4		52.1	52.1		59.7		61.0	61.0		61.6	61.6		46
50			38.7			42.4		52.2	52.2		53.5		54.1	54.1		50
54						34.0			45.8		47.1	47.1	47.7	47.7		54
58									40.3		41.7	41.7		42.3	42.3	58
62									35.7				37.0	37.6	37.6	62
66												33.0			33.5	66
70															29.8	70

Operating radius (m)	54 m Boom									Operating radius (m)
	60 m Jib			66 m Jib			72 m Jib			
	Boom Angle			Boom Angle			Boom Angle			
	88°	78°	68°	88°	78°	68°	88°	78°	68°	
22	115.1									22
24	110.6			91.4						24
26	106.6			85.8			72.9			26
28	103.1			80.9			68.5			28
30	97.6			76.3			64.5			30
34	86.1			68.5			57.6			34
38	76.2			61.9			51.9			38
42	67.6	67.6		56.5			46.9			42
46	60.1	60.1		51.9	51.9		42.7			46
50	53.5	53.5		48.2	48.2		39.0	39.0		50
54	47.6	47.6		43.9	43.9		35.8	35.8		54
58	42.5	42.5		40.2	40.2		33.0	33.0		58
62		37.9	37.9	37.0	37.0		30.5	30.5		62
66		33.8	33.8	34.4	34.4	34.4	28.3	28.3		66
70		30.1	30.1		32.1	32.1	26.3	26.3	26.3	70
74			26.8		30.1	29.3		24.5	24.5	74
78			23.8			26.7		22.9	22.9	78
82						24.5			21.4	82
86									20.1	86
90									18.8	90

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Luffing jib rated loads in metric tons for 360° working area
Luffing jib with 60 m boom/with standard counterweight + additional counterweight Unit: metric ton

Operating radius (m)	60 m Boom															Operating radius (m)
	36 m Jib			42 m Jib			48 m Jib			54 m Jib			60 m Jib			
	Boom Angle			Boom Angle			Boom Angle			Boom Angle			Boom Angle			
	88°	78°	68°	88°	78°	68°	88°	78°	68°	88°	78°	68°	88°	78°	68°	
16	141.3															16
18	141.3			141.3												18
20	141.3			141.3			126.9									20
22	141.3			141.3			126.9			126.9						22
24	137.7			138.3			126.9			125.7			110.9			24
26	128.2			128.8			126.9			120.9			103.3			26
28	119.9			120.4			120.9			116.1			98.8			28
30	112.2			112.9			113.3			111.4			96.0			30
34	93.7	93.7		95.2			96.5			97.4			84.3			34
38	78.3	78.3		80.8	80.8		82.0	82.0		82.6			74.5			38
42		67.3		69.2	69.2		70.6	70.6		71.2	71.2		66.3			42
46		57.6			59.4		61.3	61.3		61.9	61.9		59.1	59.1		46
50			49.5		51.2			53.7		54.3	54.3		53.0	53.0		50
54			42.5		44.1	44.1		47.2		47.8	47.8		47.7	47.7		54
58			36.4			38.0		41.7	41.7		42.3	41.2	43.1	43.1		58
62						32.6			37.0		37.5	37.1		39.1	36.4	62
66									32.9			33.6		35.5	32.9	66
70									29.3				30.6	32.3	29.8	70
74												27.9			27.1	74
78															24.7	78

Operating radius (m)	60 m Boom						Operating radius (m)
	66 m Jib			72 m Jib			
	Boom Angle			Boom Angle			
	88°	78°	68°	88°	78°	68°	
24	91.9						24
26	86.3			73.3			26
28	81.2			68.8			28
30	76.6			64.8			30
34	68.8			57.8			34
38	62.1			52.0			38
42	56.6			47.1			42
46	52.2	52.2		42.8			46
50	48.3	48.3		39.1	39.1		50
54	44.1	44.1		35.9	35.9		54
58	40.8	40.8		33.0	33.0		58
62	37.5	37.5		30.5	30.5		62
66	34.4	34.4	34.4	28.3	28.3		66
70		31.2	31.2	26.3	26.3	26.3	70
74		28.1	28.1		24.5	24.5	74
78			25.1		22.9	22.8	78
82			22.1		21.4	20.7	82
86			19.1			18.8	86
90						17.1	90



Luffing Jib Lifting Capacities

Luffing jib rated loads in metric tons for 360° working area
Luffing jib with 66 m boom/with standard counterweight + additional counterweight Unit: metric ton

Operating radius (m)	66 m Boom															Operating radius (m)
	36 m Jib			42 m Jib			48 m Jib			54 m Jib			60 m Jib			
	Boom Angle			Boom Angle			Boom Angle			Boom Angle			Boom Angle			
	88°	78°	68°	88°	78°	68°	88°	78°	68°	88°	78°	68°	88°	78°	68°	
16	141.3															16
18	141.3			126.9												18
20	141.3			126.9			126.9									20
22	132.5			126.9			126.9			112.1						22
24	122.7			123.2			122.9			112.1			111.2			24
26	114.1			114.7			114.4			112.1			105.2			26
28	106.3			107.0			106.9			106.8			99.2			28
30	99.3			100.2			100.1			100.1			93.9			30
34	87.0	87.0		88.2			88.4			88.5			84.5			34
38	76.3	76.3		78.2	78.2		78.5			78.6			76.8			38
42		67.1		69.5	69.5		69.9	69.9		69.9	69.9		70.0			42
46		59.1			62.1		61.7	61.7		62.3	62.3		62.8	62.8		46
50		52.0	50.6		55.6			54.5		54.6	54.6		55.4	55.4		50
54			45.2		49.8	44.3		48.0		48.0	48.0		48.9	48.9		54
58			40.7			39.7		41.9	38.0		41.8		43.3	43.3		58
62						35.9			34.2		36.2	33.2		38.3		62
66						32.6			30.9		30.9	29.9		34.0	29.2	66
70									28.1			27.1		30.0	26.3	70
74												24.6			23.8	74
78												22.5			21.6	78
82															19.7	82

Operating radius (m)	66 m Boom						Operating radius (m)
	66 m Jib			72 m Jib			
	Boom Angle			Boom Angle			
	88°	78°	68°	88°	78°	68°	
24	92.4						24
26	86.7			73.6			26
28	81.6			69.2			28
30	77.0			65.1			30
34	69.0			58.1			34
38	62.3			52.2			38
42	56.9			47.2			42
46	52.4			42.9			46
50	48.5	48.5		39.2	39.2		50
54	44.2	44.2		35.9	35.9		54
58	40.8	40.8		33.0	33.0		58
62	37.5	37.5		30.5	30.5		62
66	34.6	34.6		28.3	28.3		66
70		31.9	25.5	26.3	26.3		70
74		29.3	23.0		24.5	22.0	74
78		27.0	20.8		22.9	19.7	78
82			18.8		21.4	17.8	82
86			17.0			16.0	86
90						14.4	90
94						13.0	94

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Luffing jib rated loads in metric tons for 360° working area
Luffing jib with 72 m boom/with standard counterweight + additional counterweight Unit: metric ton

Operating radius (m)	72 m Boom															Operating radius (m)
	36 m Jib			42 m Jib			48 m Jib			54 m Jib			60 m Jib			
	Boom Angle			Boom Angle			Boom Angle			Boom Angle			Boom Angle			
	88°	78°	68°	88°	78°	68°	88°	78°	68°	88°	78°	68°	88°	78°	68°	
16	126.9															16
18	126.9			126.3												18
20	116.7			116.4			112.1									20
22	107.8			107.6			106.9			106.1						22
24	99.9			99.8			99.2			98.7			97.0			24
26	93.0			93.0			92.4			91.9			91.1			26
28	86.7			86.8			86.3			85.9			85.1			28
30	81.1			81.3			80.8			80.5			79.7			30
34	71.3	71.3		71.8			71.4			71.2			70.4			34
38	63.0	63.0		63.8	63.8		63.5			63.4			62.7			38
42		55.9		56.9	56.9		56.8	56.8		56.8			56.2			42
46		49.8			51.0		51.1	51.1		51.2	51.2		50.6	50.6		46
50		44.5			45.8		45.9	45.9		46.2	46.2		45.7	45.7		50
54			39.8		41.2			41.4		41.8	41.8		41.4	41.4		54
58			35.6			36.3		37.3			37.8		37.5	37.5		58
62			31.9			32.7		33.7	31.0		34.3			33.9		62
66						29.6			27.9		31.0	27.0		30.7	25.4	66
70									25.2			24.4		27.8	22.7	70
74									22.9			22.0			20.4	74
78												20.0			18.3	78
82															16.5	82
86															15.0	86

Operating radius (m)	72 m Boom						Operating radius (m)
	66 m Jib			72 m Jib			
	Boom Angle			Boom Angle			
	88°	78°	68°	88°	78°	68°	
26	81.7			74.0			26
28	81.7			69.5			28
30	77.3			65.4			30
34	69.2			58.3			34
38	62.3			52.4			38
42	55.8			47.3			42
46	50.3			43.0			46
50	45.5	45.5		39.2			50
54	41.2	41.2		35.9	35.9		54
58	37.3	37.2		33.0	33.0		58
62	33.9	33.5		30.5	30.5		62
66	30.9	30.3		28.2	28.2		66
70		27.5	21.9	26.3	26.3		70
74		24.9	19.6		24.3	18.5	74
78		22.7	17.5		22.1	16.5	78
82			15.7		20.1	14.6	82
86			14.1			13.0	86
90			12.6			11.5	90
94						10.2	94



Luffing Jib Lifting Capacities

Luffing jib rated loads in metric tons for 360° working area

Luffing jib with 78 m boom/with standard counterweight + additional counterweight

Unit: metric ton

Operating radius (m)	78 m Boom															Operating radius (m)
	36 m Jib			42 m Jib			48 m Jib			54 m Jib			60 m Jib			
	Boom Angle			Boom Angle			Boom Angle			Boom Angle			Boom Angle			
	88°	78°	68°	88°	78°	68°	88°	78°	68°	88°	78°	68°	88°	78°	68°	
16	112.1															16
18	102.6			101.9												18
20	94.0			93.7			92.6									20
22	86.5			86.3			85.6			84.8						22
24	79.9			79.9			79.3			78.8			77.8			24
26	74.1			74.1			73.6			73.2			72.3			26
28	68.9			69.0			68.6			68.1			67.4			28
30	64.1			64.4			64.1			63.6			63.0			30
34	55.9			56.4			56.3			55.9			55.3			34
38	48.9	48.9		49.7	49.7		49.7			49.4			49.0			38
42		43.0		43.9	43.9		44.2	44.2		43.9			43.6			42
46		37.8		38.9	38.9		39.3	39.3		39.2	39.2		38.9			46
50		33.3		34.5	34.5		35.0	35.0		35.1	35.1		34.9	34.9		50
54			29.4	30.6			31.1	31.1		31.4	31.4		31.3	31.3		54
58			25.9	27.2	27.2		27.6			28.1			28.1	28.1		58
62			22.7		24.1		24.5	24.5		25.1				25.2		62
66					21.4			21.6		22.4	21.3			22.5		66
70					18.9			19.0			18.8			20.1	18.1	70
74								16.6			16.6			17.9	15.9	74
78											14.7				14.0	78
82											13.0				12.3	82
86															10.8	86

Boom	78 m Boom						Boom
	66 m Jib			72 m Jib			
	Boom Angle			Boom Angle			
	88°	78°	68°	88°	78°	68°	
26	71.7						26
28	66.8			65.7			28
30	62.4			61.5			30
34	54.7			54.0			34
38	48.4			47.7			38
42	43.0			42.5			42
46	38.4			37.9			46
50	34.4	34.4		34.0			50
54	30.9	30.9		30.6	30.5		54
58	27.8	27.6		27.5	27.0		58
62	25.0	24.5		24.8	24.0		62
66	22.4	21.9		22.3	21.3		66
70		19.5		20.0	19.0		70
74		17.4			16.9		74
78		15.5			15.0		78
82					13.3		82
86					11.7		86

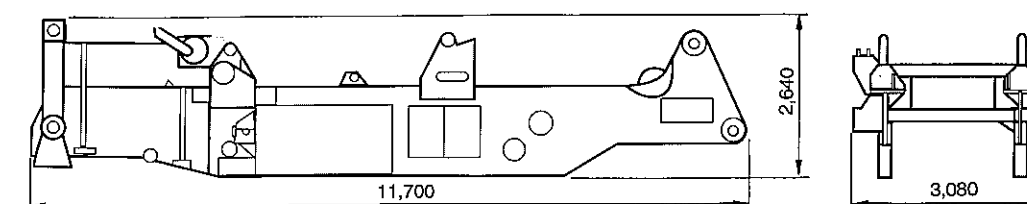
Weight and Measurement for Transportation

7650

■ Base Machine

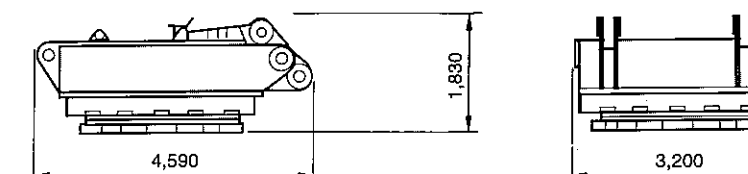
● Upper Frame

Weight: 33.8 ton x 1



● Center Frame

Weight: 26.5 ton x 1



● Winch

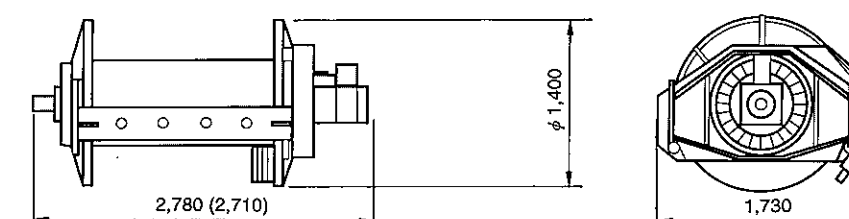
Dimension: 2,780 x 1,730 x ϕ 1,400

Weight: 9.6 ton x 2

● No. 2 Hoisting Winch

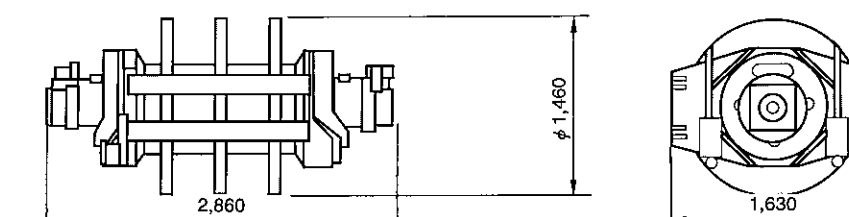
Dimension: 2,710 x 1,730 x ϕ 1,400

Weight: 8.2 ton x 1



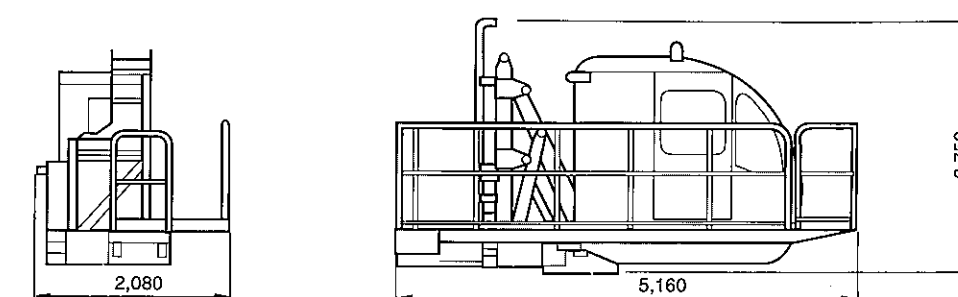
● No. 1 Hoisting Winch

Weight: 10.8 ton x 1



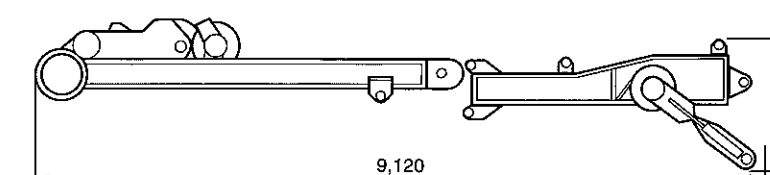
● Cab

Weight: 3.0 ton x 1



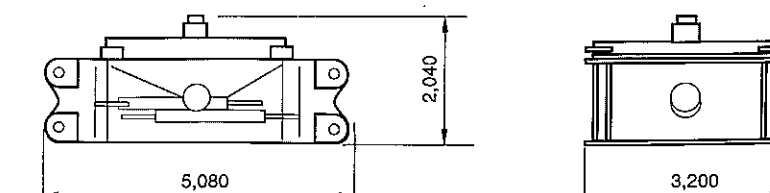
● Gantry Spreader

Weight: 21.2 ton x 1



● Carbody

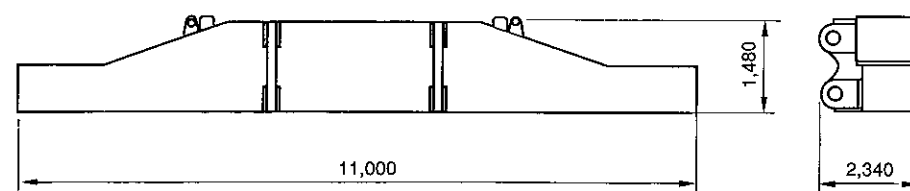
Weight: 27.7 ton x 1



REMARKS: The above procedure is based on the purchase of the optional items as mentioned.
These optional items are recommended to purchase for shortening the disassembling time to transport.

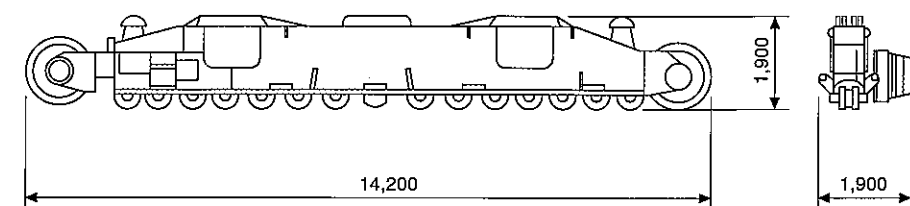
● **Axles**

Weight: 21.1 ton x 2

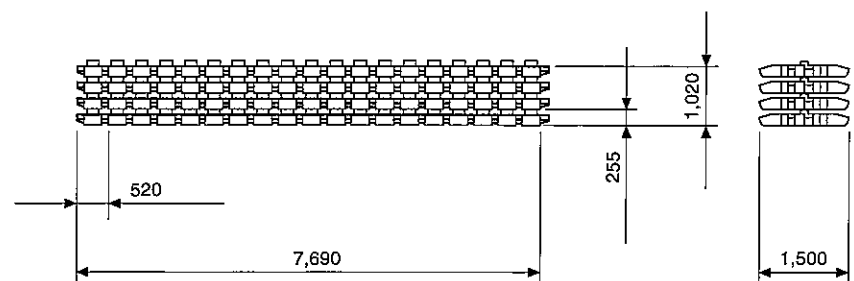
● **Crawler Frame**

Dimnsion: 1,900 x 14,200 x 1,900

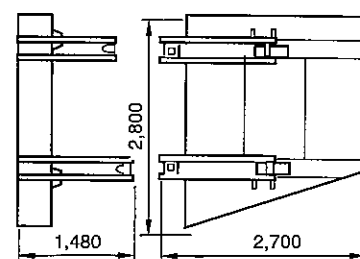
Weight: 39.8 ton x 2

● **Crawler Shoes**

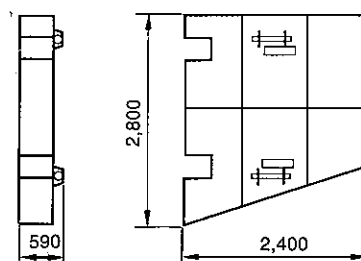
Weight: 23.5 ton x 2

● **Counterweight (Base)**

Weight: 14.0 ton x 2

● **Counterweight No.1**

Weight: 14.0 ton x 2

● **Counterweight No.2**

Weight: 14.0 ton x 2

● **Counterweight No.3**

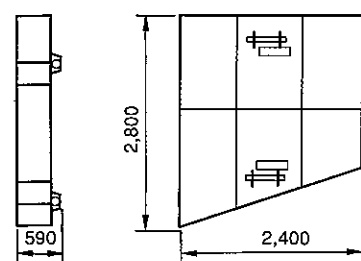
Dimnsion: 2,800 x 590 x 2,400

Weight: 14.0 ton x 4

● **Additional Counterweight**

Dimnsion: 2,800 x 590 x 2,400

Weight: 14.0 ton x 6

**Attachment**

Description	Width x Height x Length	Weight	Remarks
Hook			
650-ton hook*	1,630 x 1,450 x 4,790	12.0	
400-ton hook	1,270 x 970 x 4,330	9.1	Including aux. sheave frame
230-ton hook	1,280 x 1,240 x 2,840	7.9	
100-ton hook	750 x 1,080 x 2,380	4.3	
50-ton hook	570 x 1,080 x 2,120	2.3	
16.5-ton ball hook	1,430 x ϕ 480	0.8	
Boom, Jib, and Aux. Sheave			
Standard upper boom	2,920 x 3,540 x 3,210	7.5	Including point sheave, idler sheave, step, and link
Heavy-duty upper boom	2,920 x 3,540 x 3,210	9.0	Including point sheave, idler sheave, step, and link
10.5 m standard tapered insert boom	3,130 x 2,450 x 10,750	7.0	Including step, hand rail, sling, and equalizing drum
10.5 m heavy-duty tapered insert boom	3,130 x 2,450 x 10,750	8.0	Including step, hand rail, sling, and equalizing drum
Lower boom	3,190 x 2,610 x 12,370	12.5	Including step, hand rail, sling, and cable reel
6.0 m insert boom	3,170 x 2,600 x 6,250	3.5	Including step, hand rail, and sling
12.0 m insert boom	3,220 x 2,600 x 12,250	6.0	Including step, hand rail, and sling
Luffing Jib			
Upper jib	2,490 x 1,980 x 9,790	5.5	Including point sheave, idler sheave, step, sling, and link
Lower jib	3,120 x 1,860 x 9,250	4.0	Including point sheave, idler sheave, step, sling, and link
6.0 m insert jib	2,530 x 2,020 x 6,140	1.5	Including step, hand rail, and sling
12.0 m insert jib	2,530 x 2,020 x 12,140	2.7	Including step, hand rail, and sling
Auxiliary sheave	760 x 1,040 x 2,070	0.5	Including point sheave
Auxiliary sheave for jib	1,080 x 1,020 x 1,380	0.6	Including point sheave
Mast, Strut, and Backstops			
Upper mast	2,660 x 890 x 3,500	8.0	Including sheave and link
Lower mast	2,510 x 700 x 11,770	3.0	Including mast foot-pin assembling/disassembling device
Front upper strut	1,940 x 1,200 x 7,610	3.2	Including point sheave, link
Front lower strut	1,830 x 1,130 x 6,360	1.5	Including idler sheave
Rear upper strut	1,940 x 2,420 x 7,610	4.1	Including point sheave, idler sheave and link
Rear lower strut	1,830 x 1,280 x 5,210	1.3	Including idler sheave
Boom backstop	470 x 15,250	2.3	
Jib backstop	220 x 3,990	0.2	
Strut backstop	270 x 5,610	0.5	
Inner support	3,400 x 2,370 x 2,100	1.4	



KOBELCO 7650

NOTE: Due to our policy of continual product improvement, all design and specifications are subject to change without advance notice. Data herein is informational in nature and shall not be constructed warrant suitability of the machine for any particular purpose as performance may vary with the conditions encountered. These statements are correct at time of going to press.

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