

Liftcrane Boom Capacities

777 SERIES 1

Boom No. 78
47 630 kg Counterweight
360 Degree Rating

European Standards
14 m/s Maximum Wind
Or 10 m/s With Jib

LIFTING CAPACITIES: Lifting capacities for various boom lengths and operating radii are for freely suspended loads and are calculated to comply with DIN 15018, ISO 4305, and NEN 2022 standards and include factors based on 4.5 degree minimum tipping angle. Capacities based on structural competence are denoted by an asterisk (*).

Upper boom point capacity for liftcrane service with single part whip line is 13 380 kg or 26 760 kg with two part whip line. When boom butt mounted auxiliary drum is used, capacity with single part whip line is 9 070 kg or 18 140 kg with two part whip line. In all cases, upper boom point capacities cannot exceed those listed for main boom capacity.

Weight of jib, all load blocks, hooks, weight ball, slings, etc., beneath boom and jib point sheaves, is considered part of main boom load. Boom is not to be lowered beyond radii where combined weights are greater than rated capacity. Where no capacity is shown, operation is not intended or approved.

OPERATING CONDITIONS: Machine to operate in a level position on a firm uniformly supporting surface. Refer to boom rigging **No. 178288** and Wire Rope Specification chart **No. 7945-A**. Crane operator judgment must be used to allow for dynamic load effects of swinging, hoisting or lowering, travel, wind conditions, as well as adverse operating conditions and physical machine depreciation. Refer to operators manual for operating guidelines.

WIND CONDITIONS: Machine may be operated in winds up to 14 m/s (10 m/s when jib is attached) provided crane

operator judgment is used to allow for wind effect on lifted load and other considerations noted on capacity chart are followed.

A surface area of 1.2m²/t of rated load has been included in capacity determination. Wind will have a considerable effect on a load. Loads with a surface area greater than 1.2 m²/t of rated load must be compensated for accordingly by reducing load ratings, reducing operating speeds or by a combination of both. Recommend stopping operation and lowering boom to approximately 70 degree boom angle when wind exceeds 14 m/s (10 m/s when jib is attached). Lower boom and jib to ground when wind is above 22 m/s.

MACHINE TRAVEL: Machine to travel on a firm, level and uniformly supporting surface and boom within boom angle range shown in capacity chart.

OPERATING RADIUS: Operating radius is horizontal distance from axis of rotation to center of vertical hoist line or load block. Boom angle is angle between horizontal and centerline of boom butt and inserts, and is an indication of operating radius. In all cases, operating radius shall govern capacity.

BOOM POINT ELEVATION: Boom point elevation is vertical distance from ground level to centerline of boom point shaft.

MACHINE EQUIPMENT: Machine equipped with 7 544 mm crawlers, 965 mm or 1 219 mm treads, two 305 mm boom hoist cylinders, 7 925 mm mast, four 32 mm boom pendants, and 47 630 kg counterweight.

Deduct From Capacities When Jib Is Attached	
Jib Length	Jib No. 134
9.1m	1 770 kg
12.2m	2 130 kg
15.2m	2 540 kg
18.3m	2 990 kg
21.3m	3 450 kg
24.4m	3 950 kg

Upper Boom Point Deduct
Deduct 450 kg from capacities when upper boom point is attached.

Auxiliary Drum Deduct
Deduct 770 kg from capacities when boom butt is equipped with auxiliary drum.



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Maximum Boom and Jib Lengths Lifted Unassisted					
Over Front of Blocked Crawlers		Over Rear of Blocked Crawlers		Over Side of Crawlers	
Boom Length	Jib No. 134	Boom Length	Jib No. 134	Boom Length	Jib No. 134
64.0m	---	64.0m	---	57.9m	---
61.0m	---	61.0m	---	54.9m	---
57.9m	15.2m	57.9m	12.2m	51.8m	15.2m
54.9m	24.4m	54.9m	21.3m	48.8m	21.3m
		51.8m	24.4m	45.7m	24.4m

Load block, hook and weight ball on ground at start.

Consult jib chart for jib capacities. Upper boom point cannot be used when jib is attached

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Kilograms
18.3m (60 ft.) BOOM			
4.0	82.4	20.4	153 300*
4.5	80.7	20.3	136 000*
5.0	79.1	20.2	120 100
5.5	77.5	20.1	105 900
6.0	75.9	19.9	94 600
7.0	72.6	19.6	77 800
8.0	69.2	19.2	65 800
9.0	65.8	18.8	56 800
10.0	62.3	18.3	49 700
11.0	58.6	17.7	43 100
12.0	54.8	17.0	37 800
14.0	46.5	15.2	30 100
16.0	36.8	12.9	24 600
18.0	23.8	9.2	20 600
21.3m (70 ft.) BOOM			
4.3	82.7	23.4	138 200
4.5	82.0	23.4	129 300
5.0	80.7	23.3	113 000
5.5	79.3	23.2	100 400
6.0	77.9	23.1	90 200
7.0	75.2	22.8	74 600
8.0	72.3	22.5	63 500
9.0	69.5	22.1	55 000
10.0	66.6	21.7	48 400
11.0	63.6	21.2	43 000
12.0	60.5	20.6	38 000
14.0	54.0	19.3	30 200
16.0	46.9	17.6	24 700
18.0	38.8	15.3	20 700
20.0	28.8	12.2	17 600

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Kilograms
24.4m (80 ft.) BOOM			
4.6	82.9	26.4	118 800
5.0	81.9	26.4	106 800
5.5	80.7	26.3	95 400
6.0	79.5	26.2	86 000
7.0	77.1	26.0	71 700
8.0	74.6	25.7	61 200
9.0	72.2	25.4	53 200
10.0	69.6	25.0	47 000
11.0	67.1	24.6	41 900
12.0	64.5	24.1	37 600
14.0	59.1	23.0	30 200
16.0	53.4	21.6	24 700
18.0	47.2	19.9	20 700
20.0	40.2	17.7	17 700
22.0	32.0	14.8	15 200
24.0	21.0	10.6	13 200
27.4m (90 ft.) BOOM			
4.9	83.0	29.5	103 800
5.0	82.8	29.5	101 000
5.5	81.7	29.4	90 500
6.0	80.6	29.3	82 000
7.0	78.5	29.1	68 800
8.0	76.4	28.9	59 000
9.0	74.2	28.6	51 500
10.0	72.0	28.3	45 500
11.0	69.8	27.9	40 700
12.0	67.5	27.5	36 600
14.0	62.9	26.5	30 300
16.0	58.0	25.3	24 700
18.0	52.9	23.9	20 700
20.0	47.4	22.2	17 600
22.0	41.3	20.0	15 200
24.0	34.3	17.4	13 200
26.0	25.7	13.8	11 500

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Kilograms
30.5m (100 ft.) BOOM			
5.5	82.6	32.5	86 500
6.0	81.6	32.4	78 500
7.0	79.7	32.2	66 100
8.0	77.8	32.0	57 000
9.0	75.8	31.7	49 800
10.0	73.9	31.5	44 100
11.0	71.9	31.1	39 500
12.0	69.9	30.8	35 600
14.0	65.8	29.9	29 600
16.0	61.6	28.9	24 800
18.0	57.2	27.7	20 600
20.0	52.5	26.2	17 500
22.0	47.5	24.5	15 100
24.0	42.1	22.4	13 100
26.0	36.0	19.8	11 400
28.0	28.8	16.6	10 100
30.0	19.3	11.9	8 900
33.5m (110 ft.) BOOM			
5.8	82.7	35.5	78 000
6.0	82.4	35.5	75 100
7.0	80.6	35.3	63 600
8.0	78.9	35.1	55 000
9.0	77.1	34.9	48 200
10.0	75.4	34.6	42 800
11.0	73.6	34.3	38 400
12.0	71.8	34.0	34 700
14.0	68.1	33.2	28 800
16.0	64.4	32.3	24 400
18.0	60.5	31.3	20 600
20.0	56.4	30.0	17 400
22.0	52.2	28.5	14 900
24.0	47.7	26.8	13 000
26.0	42.8	24.7	11 300
28.0	37.4	22.3	9 900
30.0	31.2	19.3	8 800
32.0	23.5	15.3	7 800



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36.6m (120 ft.) BOOM			
6.1	82.9	38.5	70 900
7.0	81.4	38.4	61 400
8.0	79.8	38.2	53 200
9.0	78.2	38.0	46 800
10.0	76.6	37.8	41 700
11.0	75.0	37.5	37 400
12.0	73.4	37.2	33 800
14.0	70.1	36.5	28 200
16.0	66.7	35.7	23 900
18.0	63.2	34.7	20 500
20.0	59.6	33.6	17 400
22.0	55.8	32.3	14 900
24.0	51.9	30.8	12 900
26.0	47.8	29.1	11 300
28.0	43.3	27.1	9 900
30.0	38.5	24.7	8 700
32.0	33.0	21.8	7 700
34.0	26.6	18.2	6 800
39.6m (130 ft.) BOOM			
6.7	82.5	41.5	61 900
7.0	82.1	41.5	59 300
8.0	80.6	41.3	51 500
9.0	79.1	41.1	45 400
10.0	77.7	40.9	40 500
11.0	76.2	40.7	36 500
12.0	74.7	40.4	33 000
14.0	71.6	39.8	27 500
16.0	68.6	39.0	23 300
18.0	65.4	38.1	20 100
20.0	62.2	37.1	17 400
22.0	58.8	36.0	14 900
24.0	55.3	34.6	12 900
26.0	51.7	33.1	11 200
28.0	47.9	31.4	9 800
30.0	43.8	29.4	8 600
32.0	39.4	27.1	7 600
34.0	34.5	24.3	6 700
36.0	28.9	21.0	6 000
38.0	21.9	16.7	5 300
42.7m (140 ft.) BOOM			
7.3	82.2	44.5	54 600
8.0	81.3	44.4	49 800
9.0	79.9	44.2	44 000
10.0	78.6	44.0	39 300
11.0	77.2	43.8	35 400
12.0	75.8	43.6	32 000
14.0	73.0	43.0	26 700
16.0	70.2	42.3	22 700
18.0	67.3	41.5	19 500
20.0	64.3	40.6	16 900

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Kilograms
42.7m (140 ft.) BOOM			
22.0	61.3	39.5	14 700
24.0	58.1	38.3	12 700
26.0	54.9	36.9	11 000
28.0	51.5	35.4	9 600
30.0	48.0	33.7	8 400
32.0	44.2	31.7	7 300
34.0	40.1	29.4	6 500
36.0	35.7	26.8	5 700
38.0	30.7	23.7	5 000
40.0	24.8	19.8	4 400
45.7m (150 ft.) BOOM			
7.3	82.8	47.6	52 700
8.0	81.9	47.5	48 100
9.0	80.6	47.3	42 600
10.0	79.3	47.2	38 100
11.0	78.1	46.9	34 300
12.0	76.8	46.7	31 100
14.0	74.2	46.2	26 000
16.0	71.5	45.5	22 000
18.0	68.9	44.8	18 900
20.0	66.1	43.9	16 400
22.0	63.4	43.0	14 400
24.0	60.5	41.9	12 500
26.0	57.6	40.6	10 800
28.0	54.5	39.3	9 400
30.0	51.3	37.7	8 200
32.0	48.0	36.0	7 200
34.0	44.5	34.0	6 300
36.0	40.8	31.8	5 500
38.0	36.7	29.3	4 800
40.0	32.2	26.3	4 200
42.0	27.1	22.7	3 700
44.0	20.7	18.0	3 200
48.8m (160 ft.) BOOM			
7.9	82.5	50.6	47 100
8.0	82.4	50.6	46 700
9.0	81.2	50.4	41 400
10.0	80.0	50.3	37 100
11.0	78.8	50.1	33 500
12.0	77.6	49.8	30 400
14.0	75.2	49.3	25 400
16.0	72.7	48.7	21 600
18.0	70.3	48.0	18 600
20.0	67.7	47.3	16 100
22.0	65.1	46.4	14 100
24.0	62.5	45.4	12 400
26.0	59.8	44.2	10 800

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Kilograms
48.8m (160 ft.) BOOM			
28.0	57.0	43.0	9 400
30.0	54.2	41.6	8 200
32.0	51.2	40.0	7 100
34.0	48.1	38.3	6 200
36.0	44.8	36.3	5 500
38.0	41.3	34.2	4 700
40.0	37.6	31.7	4 100
42.0	33.5	28.8	3 600
44.0	28.9	25.4	3 100
46.0	23.4	21.3	2 700
51.8m (170 ft.) BOOM			
7.9	82.9	53.7	45 600
8.0	82.8	53.7	45 200
9.0	81.7	53.5	40 100
10.0	80.6	53.4	36 000
11.0	79.5	53.2	32 500
12.0	78.4	53.0	29 500
14.0	76.1	52.5	24 700
16.0	73.8	51.9	21 000
18.0	71.5	51.3	18 000
20.0	69.1	50.5	15 600
22.0	66.7	49.7	13 600
24.0	64.3	48.8	11 900
26.0	61.8	47.7	10 500
28.0	59.2	46.6	9 200
30.0	56.6	45.3	8 000
32.0	53.9	43.9	6 900
34.0	51.1	42.3	6 100
36.0	48.1	40.6	5 200
38.0	45.1	38.7	4 600
40.0	41.8	36.5	3 900
42.0	38.4	34.1	3 400
44.0	34.6	31.3	2 900
46.0	30.4	28.1	2 400
48.0	25.6	24.3	2 100



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Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Kilograms
54.9m (180 ft.) BOOM			
8.5	82.7	56.7	41 000
9.0	82.2	56.6	38 900
10.0	81.1	56.4	34 900
11.0	80.1	56.3	31 500
12.0	79.0	56.1	28 600
14.0	76.9	55.6	24 000
16.0	74.7	55.1	20 300
18.0	72.5	54.5	17 500
20.0	70.3	53.8	15 100
22.0	68.1	53.0	13 100
24.0	65.8	52.2	11 500
26.0	63.5	51.2	10 000
28.0	61.1	50.1	8 800
30.0	58.7	48.9	7 700
32.0	56.2	47.6	6 700
34.0	53.6	46.2	5 800
36.0	51.0	44.6	5 000
38.0	48.2	42.9	4 300
40.0	45.3	41.0	3 700
42.0	42.3	38.8	3 100
44.0	39.0	36.5	2 600
46.0	35.5	33.8	2 200
57.9m (190 ft.) BOOM			
9.1	82.5	59.7	37 100
10.0	81.6	59.5	33 900
11.0	80.6	59.4	30 600
12.0	79.6	59.2	27 800
14.0	77.6	58.8	23 300
16.0	75.5	58.3	19 800
18.0	73.5	57.7	17 000
20.0	71.4	57.0	14 600
22.0	69.3	56.3	12 700
24.0	67.1	55.5	11 100

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Kilograms
57.9m (190 ft.) BOOM			
26.0	65.0	54.6	9 600
28.0	62.8	53.6	8 500
30.0	60.5	52.5	7 400
32.0	58.2	51.3	6 500
34.0	55.8	49.9	5 600
36.0	53.4	48.5	4 800
38.0	50.9	46.9	4 100
40.0	48.2	45.2	3 500
42.0	45.5	43.3	2 900
44.0	42.6	41.2	2 400
61.0m (200 ft.) BOOM			
9.1	82.8	62.7	36 000
10.0	82.0	62.6	32 900
11.0	81.1	62.5	29 800
12.0	80.1	62.3	27 000
14.0	78.2	61.9	22 700
16.0	76.3	61.4	19 200
18.0	74.3	60.9	16 500
20.0	72.4	60.3	14 200
22.0	70.4	59.6	12 300
24.0	68.4	58.8	10 700
26.0	66.3	57.9	9 300
28.0	64.2	57.0	8 100
30.0	62.1	56.0	7 100
32.0	60.0	54.8	6 200
34.0	57.8	53.6	5 300
36.0	55.5	52.3	4 600
38.0	53.2	50.8	3 900
40.0	50.8	49.2	3 300
42.0	48.3	47.5	2 700
44.0	45.7	45.6	2 200

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Kilograms
64.0m (210 ft.) BOOM			
9.8	82.6	65.7	32 700
10.0	82.4	65.7	31 900
11.0	81.5	65.5	28 900
12.0	80.6	65.4	26 300
14.0	78.8	65.0	22 000
16.0	76.9	64.6	18 600
18.0	75.1	64.0	15 900
20.0	73.2	63.5	13 700
22.0	71.3	62.8	11 900
24.0	69.4	62.1	10 300
26.0	67.5	61.3	9 000
28.0	65.5	60.4	7 700
30.0	63.6	59.4	6 700
32.0	61.5	58.3	5 800
34.0	59.5	57.2	5 000
36.0	57.4	55.9	4 300
38.0	55.2	54.6	3 700
40.0	53.0	53.1	3 100
42.0	50.7	51.5	2 500
44.0	48.3	49.8	2 000