Manitowoc, Wisconsin 54220 U.S.A.

Liftcrane Boom Capacities

Boom No. 78T With Heavy Lift Top 0 kg to 4 720 kg Crane Counterweight With 3 630 kg Front Bumper Counterweight Adapter Rating Over Side Sector On Rubber - 0.4 kms/hr Travel Meets ANSI B30.5 Requirements



LIFTING CAPACITIES: Lifting capacities for various boom lengths and operating radii are for freely suspended loads and do not exceed 75% of a static tipping load. 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, hoist lines, 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. 192043**, Wire Rope Specification chart **No. 7973-A** and Operating Range Diagram chart **No. 7974-D**. Crane operator judgment must be used to allow for dynamic load effects of swinging, hoisting or lowering, travel, wind conditions, ground conditions, condition and inflation of tires (800 kPa minimum), as well as adverse operating conditions and physical machine depreciation.

Loads lifted may increase radius due to tire deflection. This increase must be compensated for by raising boom. <u>Refer to operators manual for operating guidelines.</u>

MACHINE TRAVEL: Machine to travel (0.4 kms/hr) on a firm, level and uniformly supporting surface and boom within boom angle range shown in capacity chart. Refer to Maximum

Allowable Travel Specification chart **No. 7976-A**, Maximum Allowable Traveling Weight chart **No. 7972-A** and Weight Distribution chart **No. 7975-A**.

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 Manitowoc 10 x 6 carrier, 7 036 mm wheel base, 2 972 mm front axle track, 2 540 mm rear axle track, 385/95 R 24 tires, 2 438 mm front outriggers, 1 778 mm rear outriggers, two 305 mm boom hoist cylinders, 7.9m mast, two boom support straps, crane counterweight as specified and with 3 360 kg front bumper counterweight adapter.

Note: Travel not allowed with 43 270 kg crane counterweight without boom attached.

Swing over side on rubber not allowed with 12 430 kg thru 43 270 kg crane counterweight.

Swing over side on rubber with 0 kg or 4 720 kg crane counterweight is allowed with or without boom attached.

360 degree swing on rubber with 0 kg or 4 720 kg crane counterweight is allowed without boom attached.

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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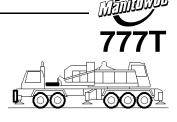




Maximum Boom and Jib Lengths Lifted Unassisted On Outriggers						
	Rear of ggers	Over Side of Fully Extended Outriggers				
Boom Length	Jib No. 134	Boom Length	Jib No. 134			
	.70 kg Crane 630 kg Fron		_			
73.2m	_	67.1m	_			
70.1m	_	64.0m	_			
67.1m	15.2m	61.0m	9.1m			
64.0m	21.3m	57.9m	18.3m			
61.0m	24.4m	54.9m	24.4m			
	60 kg Crane 630 kg Fron					
70.1m	_	61.0m				
67.1m		57.9m	9.1m			
64.0m	9.1m	54.9m	15.2m			
61.0m	18.3m	51.8m	24.4m			
57.9m 24.4m						
	50 kg Crane 630 kg Fron					
64.0m		54.9m	_			
61.0m	4	51.8m	12.2m			
57.9m	12.2m	48.8m	18.3m			
54.9m	21.3m	45.7m	24.4m			
51.8m 24.4m						
20 140 kg Crane Counterweight + 3 630 kg Front Bumper Ctwt.						
57.9m —		51.8m	_			
54.9m 9.1m		48.8m	_			
51.8m	15.2m	45.7m	12.2m			
48.8m	21.3m	42.7m	18.3m			
45.7m	24.4m	39.6m	24.4m			
Load block, hook and weight ball on ground at start.						

Maximum Boom and Jib Lengths Lifted Unassisted On Rubber				
Over	Over Side			
Boom Length	Jib No. 134	Boom Length		
	g Crane Coun g Front Bum			
Not Allowed				
35 560 kg Crane Counterweight + 3 630 kg Front Bumper Ctwt.				
42.7m 39.6m 36.6m 33.5m	9.1m 18.3m 24.4m	Not Allowed		
27 850 kg Crane Counterweight + 3 630 kg Front Bumper Ctwt.				
39.6m 36.6m 33.5m 30.5m	12.2m 21.3m	Not Allowed		
20 140 kg Crane Counterweight + 3 630 kg Front Bumper Ctwt.				
33.5m		Not Allowed		
Load block, hook and weight ball on ground at start.				

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Maximum Boom and Jib Lengths Lifted Unassisted On Outriggers				Maximum Boom and Jib Lengths Lifted Unassisted		
	Over Rear of Outriggers Over Side of Fully Extended Outriggers			On Rubber Rear	Over Side	
Boom Length	Jib No. 134	Boom Length	Jib No. 134	Boom Length	Jib No. 134	Boom Length
	12 430 kg Crane Counterweight + 3 630 kg Front Bumper Ctwt.				g Crane Coun	
51.8m 48.8m 45.7m 42.7m	9.1m 15.2m 24.4m	42.7m 39.6m 36.6m 33.5m	12.2m 21.3m 24.4m	27.4m		Not Allowed
4 720 kg Crane Counterweight + 3 630 kg Front Bumper Ctwt.			4 720 kg Crane Counterweight + 3 630 kg Front Bumper Ctwt.			
45.7m 42.7m 39.6m 36.6m	9.1m 18.3m 24.4m	36.6m 33.5m 30.5m	9.1m 18.3m	21.3m		13m
0 kg Crane Counterweight + 3 630 kg Front Bumper Ctwt.				Crane Counter og Front Bum	_	
42.7m 39.6m 36.6m 33.5m 30.5m	9.1m 15.2m 21.3m 24.4m	33.5m		18.3m	_	Not Allowed
Load block, hook and weight ball on ground at start.			Load block, ground at st	, hook and we art.	ight ball on	

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

Refer to chart **No. 8063-AM**, **-BM** or **-CM** (0, 3 630 or 11 340 kg front bumper counterweight [FBC]) for fully extended outrigger boom capacities, chart **No. 8094-AM**, **-CM** or **-EM** (0, 3 630 or 11 340 kg FBC) for straight over rear on rubber boom capacities, chart **No. 8094-BM**, **-DM** or **-FM** (0, 3 630 or 11 340 kg FBC) for over side sector on rubber boom capacities, chart **No. 8095-AM** for partially extended outrigger boom capacities and chart **No. 8096-AM** for fully retracted outrigger boom capacities.

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13.0m (42.5 Ft.)	П	П
Boom	Ш	Ш

			4 720 kg Crane Counterweight	0 kg Crane Counterweight
		Boom	3 630 kg Bumper Ctwt.	3 630 kg Bumper Ctwt.
_	Boom		Boom	Boom
Rad.	Ang.	Elev.	Capacity Kilograms	Capacity Kilograms
m	Deg.	m	Ü	Ŭ
4.0	80.2	15.3	31 900 *	27 300
4.5	77.8	15.1	28 100 *	21 800
5.0	75.4	15.0	24 800	18 100
5.5	73.1	14.8	21 000	15 300
6.0	70.7	14.6	18 200	13 100
7.0	65.7	14.1	14 000	9 800
8.0	60.6	13.6	11 000	7 500
9.0	55.1	12.8	8 800	5 700
10.0	49.1	12.0	7 100	4 300
11.0	42.5	10.9	5 700	3 200
12.0	34.8	9.5	4 500	2 200

18.3m (60 Ft.)	П	П
Boom		Ц

			4 720 kg Crane Counterweight	0 kg Crane Counterweight
		Boom	3 630 kg Bumper Ctwt.	3 630 kg Bumper Ctwt.
Oper.	Boom	Point	Boom	Boom
Rad.	Ang.	Elev.	Capacity	Capacity
m	Deg.	m	Kilograms	Kilograms
4.9	80.3	20.7	24 900 *	19 100
5.0	79.9	20.6	24 300 *	18 400
5.5	78.3	20.5	21 200	15 500
6.0	76.7	20.4	18 400	13 200
7.0	73.4	20.1	14 100	9 900
8.0	70.0	19.7	11 200	7 600
9.0	66.6	19.3	9 000	5 800
10.0	63.1	18.7	7 300	4 500
11.0	59.4	18.1	5 900	3 400
12.0	55.6	17.4	4 800	2 500
14.0	47.3	15.7	3 000	
16.0	37.6	13.4	1 700	

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