

**MANITOWOC ENGINEERING CO.**

(A division of The Manitowoc Company, Inc.) Manitowoc, Wisconsin 54220

**LIFT CRANE CAPACITIES****4000V****BOOM NO. 22 WITH OPEN THROAT TOP
24'0" CRAWLERS — 104,400 LB. COUNTERWEIGHT****S/N 40212-****CRAWLER****LIFTING CAPACITIES:** Capacities for various boom lengths and operating radii may be based on per cent of tipping, strength of structural components, operating speeds and other factors.

Capacities are for freely suspended loads and do not exceed 75% of static tipping loads. Capacities based on structural competence are shown by shaded areas.

Capacities are shown in pounds. Deduct 1200 pounds from capacities listed when single sheave upper boom point is attached and 1500 pounds when two sheave upper boom point is attached. Upper boom point cannot be used on 220 ft. boom. Weight of jib, (see chart A), all load blocks, hooks, weight ball, slings, hoist lines beneath boom and jib point sheaves, etc., is considered part of the 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 level position on a firm surface with gantry in working position and under conditions referred to in rigging drawing No. 43952, No. 43698, or No. 48168 and load line specification chart No. 5320.

Crane operator judgment must be used to allow for dynamic load effects of swinging, hoisting or lowering, travel, as well as adverse operating conditions & physical machine depreciation.

OPERATING RADIUS: Operating radius is the horizontal distance from the axis of rotation to the center of vertical hoist line or load block with the load freely suspended. Add 14" to boom point radius for radius of sheave when using single part hoist line.

Boom angle is the 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, in feet, is the vertical distance from ground level to centerline of boom point shaft.**MACHINE EQUIPMENT:** Machine equipped with 24'0" extendible crawlers, 48" treads, 15' retractable gantry, 10 part (No. 43952), 10 or 12 part (No. 43698) or 12 part (No. 48168) boom hoist reeving, four 1 1/2" boom pendants, 1st Cwt. 40,10 lbs., 2nd Cwt. 35,800 lbs., 3rd Cwt. 28,500 lbs. Total counterweight 104,400 pounds.**HOIST REEVEING FOR MAIN LOAD BLOCK**

No. Parts of Line	1	2	3	4	5	6
Max. Load — Lbs.	32,500	64,000	95,500	126,200	157,000	186,800
No. Parts of Line	7	8	9	10	11	12
Max. Load — Lbs.	215,900	243,000	267,100	281,000	294,000	300,000

LOAD AND WHIP LINE SPECIFICATIONS**LOAD LINE:** 1 1/2" — 6x31 Warrington-Seale, Extra Improved Plow Steel, Regular Lay, IWRC. Minimum Breaking Strength 65 Ton.**WHIP LINE:** 1 1/2" — 6x25 Filler Wire, Improved Plow Steel, Regular Lay, IWRC. Minimum Breaking Strength 56.5 Ton. Maximum Load — 28,300 lbs. per line.**MAXIMUM BOOM AND JIB LENGTHS LIFTED UNASSISTED**

OVER FRONT OF BLOCKED CRAWLERS			OVER SIDE OF EXTENDED CRAWLERS		
Bm. Lgth.	Jib No. 123	Jib No. 124	Bm. Lgth.	Jib No. 123	Jib No. 124
220'	—	—	200'	—	40'
210'	—	—	190'	—	—
200'	40'	60'	180'	50'	60'
190'	60'	60'	170'	60'	60'

OVER SIDE OF RETRACTED CRAWLERS			(A) DEDUCT FROM CAPACITIES WHEN JIB IS ATTACHED		
Bm. Lgth.	Jib No. 123	Jib No. 124	Jib Lgth.	Jib No. 123	Jib No. 124
190'	—	—	30'	3,000 lb.	2,300 lb.
180'	—	30'	40'	3,600 lb.	2,550 lb.
170'	50'	—	50'	4,200 lb.	2,800 lb.
160'	60'	60'	60'	4,900 lb.	3,000 lb.

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

For jib capacities, consult jib chart.

Boom Lgth.: Feet	Oper. Rad.: Feet	Bm. Ang.: Deg.	Boom Point: Elev.	Capacity: Crawlers Retracted	Capacity: Crawlers Extended
17	79.0	75.8	275,000	300,000	
18	78.2	75.6	248,000	285,000	
19	77.3	75.4	225,000	270,100	
20	76.5	75.2	206,900	253,500	
22	74.8	74.7	177,200	214,000	
24	73.1	74.1	154,800	184,800	
26	71.4	73.4	137,200	162,500	
28	69.7	72.7	123,100	144,800	
30	67.9	72.0	111,500	130,500	
32	66.1	71.1	101,700	118,600	
34	64.3	70.2	93,500	108,600	
36	62.5	69.2	86,400	100,100	
38	60.6	68.1	80,300	92,700	
40	58.7	66.9	74,900	86,300	
45	53.8	63.6	63,900	73,400	
50	48.6	59.6	55,600	63,700	
55	42.8	54.7	49,000	56,000	
60	36.4	48.7	43,600	49,800	
65	28.8	40.8	39,200	44,800	
70	18.6	29.5	35,500	40,500	
75	10.4	17.1	32,500	37,500	
80	5.1	8.8	30,200	35,000	
85	1.8	3.2	28,500	33,000	
90	0.0	0.0	27,000	31,500	

Boom Lgth.: Feet	Oper. Rad.: Feet	Bm. Ang.: Deg.	Boom Point: Elev.	Capacity: Crawlers Retracted	Capacity: Crawlers Extended
50	54.6	72.3	55,000	63,100	
55	50.1	68.5	48,400	55,400	
60	45.2	63.9	43,000	49,200	
65	39.9	58.5	38,600	44,200	
70	34.0	51.8	34,900	39,900	
75	26.9	43.3	31,700	36,300	
80	17.4	31.0	29,000	33,200	
85	8.1	19.1	26,700	30,700	
90	0.0	0.0	24,700	28,000	
95	0.0	0.0	22,500	25,500	
100	0.0	0.0	20,600	23,000	
105	0.0	0.0	18,700	20,500	
110	0.0	0.0	16,900	18,000	
115	0.0	0.0	15,200	16,000	
120	0.0	0.0	13,600	14,000	
125	0.0	0.0	12,200	12,500	
130	0.0	0.0	11,000	11,500	
135	0.0	0.0	10,000	10,500	
140	0.0	0.0	9,200	9,700	
145	0.0	0.0	8,500	9,000	
150	0.0	0.0	7,900	8,400	
155	0.0	0.0	7,400	7,900	
160	0.0	0.0	6,900	7,400	
165	0.0	0.0	6,400	6,900	
170	0.0	0.0	6,000	6,500	
175	0.0	0.0	5,600	6,100	
180	0.0	0.0	5,200	5,700	
185	0.0	0.0	4,900	5,400	
190	0.0	0.0	4,600	5,100	
195	0.0	0.0	4,300	4,800	
200	0.0	0.0	4,000	4,500	
205	0.0	0.0	3,700	4,200	
210	0.0	0.0	3,400	3,900	
215	0.0	0.0	3,100	3,600	
220	0.0	0.0	2,800	3,300	
225	0.0	0.0	2,500	3,000	
230	0.0	0.0	2,200	2,700	
235	0.0	0.0	1,900	2,400	
240	0.0	0.0	1,600	2,100	
245	0.0	0.0	1,300	1,800	
250	0.0	0.0	1,000	1,500	
255	0.0	0.0	700	1,200	
260	0.0	0.0	400	900	
265	0.0	0.0	100	600	
270	0.0	0.0	0	300	
275	0.0	0.0	0	0	
280	0.0	0.0	0	0	
285	0.0	0.0	0	0	
290	0.0	0.0	0	0	
295	0.0	0.0	0	0	
300	0.0	0.0	0	0	

Capacities continued on reverse side.



SEE CONDITIONS ON REVERSE SIDE

	Bm. Ang. Deg.	Boom Point Elev.	Capacity: Crawlers Retracted	Capacity: Crawlers Extended	Boom Lgh. Feet	Oper. Rad. Feet	Bm. Ang. Deg.	Boom Point Elev.	Capacity: Crawlers Retracted	Capacity: Crawlers Extended	Boom Lgh. Feet	Oper. Rad. Feet	Bm. Ang. Deg.	Boom Point Elev.	Capacity: Crawlers Retracted	Capacity: Crawlers Extended
22	81.5	115.9	205,500	215,900	105	43.6	103.7	16,900	19,900	32	80.9	184.9	97,300	114,500		
24	80.4	115.6	175,700	212,000	110	40.6	98.2	15,500	18,400	34	80.3	184.5	89,000	104,400		
26	79.3	115.2	153,200	183,300	115	37.3	92.0	14,300	17,000	36	79.7	184.2	81,800	95,800		
28	78.3	114.8	135,600	161,100	120	33.8	85.0	13,200	15,800	38	79.0	183.8	75,600	88,400		
	77.2	114.4	121,400	143,300	125	29.9	76.9	12,200	14,700	40	78.4	183.4	70,200	81,900		
30	76.1	113.9	109,700	128,900	130	25.5	67.4	11,300	13,600	45	76.7	182.3	59,100	68,800		
32	75.1	113.4	100,000	117,000	135	20.3	55.6	10,400	12,700	50	75.1	181.0	50,700	59,000		
34	74.0	112.8	91,700	107,000	26	81.4	155.4	134,100	157,000	55	73.4	179.6	44,000	51,200		
36	72.9	112.2	84,600	98,400	28	80.7	155.1	119,900	142,000	60	71.8	178.1	38,600	45,000		
38	71.8	111.6	78,500	91,000	30	79.9	154.8	108,200	127,500	65	70.1	176.3	34,200	39,900		
40	70.7	110.9	73,100	84,600	32	79.1	154.4	98,500	115,600	70	68.4	174.4	30,400	35,600		
45	67.9	109.0	62,100	71,600	34	78.3	154.0	90,200	105,500	75	66.7	172.4	27,300	32,000		
50	65.1	106.9	53,700	61,800	36	77.6	153.6	83,100	96,900	80	64.9	170.1	24,500	28,800		
55	62.2	104.4	47,000	54,100	38	76.8	153.1	76,900	89,500	85	63.1	167.7	22,100	26,100		
60	59.2	101.6	41,700	47,900	40	76.0	152.6	71,400	83,100	90	61.3	165.0	20,000	23,700		
65	56.1	98.4	37,200	42,900	45	74.0	151.3	60,400	70,100	95	59.5	162.2	18,200	21,600		
70	52.9	94.9	33,500	38,600	50	72.0	149.8	52,000	60,200	100	57.6	159.2	16,500	19,800		
75	49.6	90.8	30,400	35,000	55	70.0	148.0	45,300	52,500	105	55.7	155.9	15,000	18,100		
80	46.1	86.3	27,600	31,900	60	67.9	146.1	40,000	46,300	110	53.8	152.3	13,700	16,600		
85	42.3	81.2	25,300	29,200	65	65.9	144.0	35,500	41,200	115	51.8	148.5	12,500	15,200		
90	38.3	75.3	23,200	26,800	70	63.8	141.6	31,800	36,900	120	49.7	144.5	11,300	14,000		
95	33.9	68.4	21,300	24,700	75	61.6	139.1	28,600	33,300	125	47.6	140.1	10,300	12,800		
100	28.9	60.2	19,700	22,900	80	59.4	136.2	25,900	30,200	130	45.4	135.3	9,400	11,800		
105	22.9	49.9	18,200	21,200	85	57.2	133.1	23,500	27,500	135	43.1	130.2	8,500	10,800		
22	81.2	125.7	175,500	186,800	90	54.9	129.8	21,400	25,100	140	40.8	124.6	7,700	9,900		
24	80.2	125.4	153,000	163,400	95	52.5	126.1	19,500	23,000	145	38.3	118.6	7,000	9,100		
26	79.3	125.0	135,300	146,900	100	50.0	122.1	17,900	21,100	150	35.6	111.9	6,300	8,300		
28	78.3	124.6	121,100	131,100	105	47.5	117.7	16,400	19,500	155	32.8	104.6	5,700	7,600		
30	77.3	124.2	109,500	128,700	110	44.9	112.9	15,100	17,900	160	29.7	96.3	5,100	7,000		
32	76.3	123.7	99,700	116,800	115	42.1	107.6	13,800	16,600	165	26.3	86.9	4,500	6,300		
34	75.4	123.2	91,500	106,700	120	39.1	101.8	12,700	15,300	170	22.5	75.9	4,000	5,800		
36	74.4	122.7	84,400	98,200	125	36.0	95.3	11,700	14,200	175	17.9	62.3	3,500	5,200		
38	73.4	122.1	78,200	90,800	130	32.6	88.0	10,800	13,200	32	81.4	195.0	96,900	114,100		
40	72.4	121.5	72,800	84,300	135	28.9	79.6	9,900	12,200	34	80.8	194.7	88,500	104,000		
45	69.9	119.8	61,800	71,400	140	24.6	69.7	9,100	11,300	36	80.2	194.3	81,400	95,400		
50	67.3	117.8	53,400	61,500	145	19.6	57.4	8,400	10,500	38	79.6	194.0	75,200	88,000		
55	64.7	115.6	46,700	53,800	28	81.3	165.2	119,600	141,700	40	79.0	193.6	69,700	81,500		
60	62.0	113.1	41,400	47,600	30	80.5	164.9	107,900	127,300	45	77.4	192.6	58,700	68,400		
65	59.3	110.2	36,900	42,600	32	79.8	164.6	98,100	115,300	50	75.9	191.4	50,200	58,500		
70	56.4	107.1	33,200	38,300	34	79.1	164.2	89,800	105,200	55	74.3	190.0	43,600	50,800		
75	53.5	103.6	30,000	34,700	36	78.3	163.8	82,700	96,600	60	72.8	188.6	38,200	44,600		
80	50.5	99.7	27,300	31,600	38	77.6	163.4	76,500	89,200	65	71.2	186.9	33,700	39,400		
85	47.3	95.3	24,900	28,900	40	76.9	162.9	71,100	82,800	70	69.6	185.1	30,000	35,100		
90	44.0	90.5	22,800	26,500	45	75.0	161.7	60,100	69,700	75	67.9	183.2	26,800	31,500		
105	40.4	84.9	21,000	24,400	50	73.2	160.2	51,600	59,900	80	66.3	181.1	24,000	28,400		
110	36.6	78.7	19,300	22,600	55	71.3	158.6	45,000	52,200	85	64.7	178.8	21,700	25,700		
115	32.4	71.4	17,900	20,900	60	69.4	156.9	39,600	45,900	90	63.0	176.4	19,600	23,300		
24	81.0	135.5	152,600	183,300	65	67.5	154.9	35,200	40,800	95	61.3	173.7	17,700	21,200		
26	80.1	135.2	135,000	160,600	70	65.5	152.7	31,400	36,600	100	59.5	170.9	16,000	19,300		
28	79.2	134.8	120,800	142,800	75	63.5	150.3	28,200	32,900	105	57.8	167.8	14,500	17,600		
30	78.3	134.4	109,100	128,300	80	61.5	147.7	25,500	29,800	110	56.0	164.6	13,200	16,100		
32	77.4	134.0	99,400	116,400	85	59.4	144.9	23,100	27,100	115	54.1	161.1	12,000	14,700		
34	76.5	133.5	91,100	106,400	90	57.3	141.8	21,000	24,700	120	52.2	157.3	10,900	13,500		
36	75.6	133.0	84,000	97,800	95	55.2	138.5	19,200	22,600	125	50.3	153.3	9,900	12,400		
38	74.7	132.5	77,800	90,400	100	53.0	134.9	17,500	20,800	130	48.3	149.0	8,900	11,300		
40	73.8	131.9	72,400	84,000	105	50.7	130.9	16,000	19,100	135	46.3	144.4	8,100	10,300		
45	71.5	130.4	61,400	71,000	110	48.3	126.7	14,700	17,600	140	44.1	139.4	7,300	9,500		
50	69.1	128.6	53,000	61,100	115	45.9	122.0	13,500	16,200	145	41.9	134.1	6,500	8,600		
55	66.7	126.5	46,300	53,400	120	43.4	117.0	12,400	15,000	150	39.6	128.3	5,800	7,900		
60	64.3	124.3	41,000	47,200	125	40.7	111.4	11,300	13,800	155	37.2	122.0	5,200	7,200		
65	61.8	121.7	36,500	42,100	130	37.9	105.3	10,400	12,800	160	34.6	115.1	4,600	6,500		
70	59.3	118.9	32,800	37,900	135	34.8	98.5	9,600	11,800	165	31.9	107.5	4,100	5,900		
75	56.7	115.8	29,600	34,300	140	31.6	90.8	8,800	10,900	170	28.9	98.9	3,700	5,300		
80	54.0	112.3	26,900	31,200	145	28.0	82.1	8,000	10,100	175	25.6	89.2	3,300	4,700		
85	51.3	108.5	24,500	28,500	150	23.9	71.8	7,300	9,400	180	21.9	77.9	3,000	4,200		
90	48.4	104.3	22,400	26,100	155	18.9	59.0	6,700	8,600	34	81.3	204.8	88,200	95,500		
95	45.4	99.6	20,600	24,000	30	81.1	175.1	107,500	126,200	36	80.7	204.5	81,000	95,000		
100	42.2	94.4	18,900	22,100	32	80.4	174.7	97,700	114,900	38	80.1	204.1	74,800	87,600		
105	38.8	88.5	17,400	20,500	34	79.7	174.4	89,400	104,800	40	79.5	203.8	69,400	81,100		
110	35.1	81.9	16,100	19,000	36	79.0	174.0	82,300	96,200	45	78.1	202.8	58,300	68,100		
115	31.1	74.2	14,900	17,600	38	78.3	173.6	76,100	88,800	50	76.6	201.7	49,900	58,200		
120	26.5	65.1	13,800	16,400	40	77.7	173.2	70,700	82,400	55	75.1	200.4	43,200	50,400		
125	21.0	53.8	12,800	15,200	45	75.9	172.0	59,600	69,300	60	73.6	199.0	37,800	44,200		
26	80.8	145.3	134,500	157,000	50	74.2	170.7	51,200	59,500	65	72.1	197.5	33,300	39,000		
28	80.0	145.0	120,300	142,400	55	72.4	169.2	44,500	51,700	70	70.6	195.8	29,600	34,800		
30	79.2	144.6	108,600	127,900	60	70.6	167.5	39,200	45,500	75	69.1	194.0	26,400	31,100		
32	78.3	144.2	98,900	116,000	65	68.9	165.7	34,700	40,400	80	67.6	192.0	23,600	28,000		
34	77.5	143.8	90,600	105,900	70	67.0	163.6	31,000	36,100	85	66.0	189.8	21,300	25,300		
36	76.6	143.3	83,500	97,300	75	65.2	161.4	27,800	32,500	90	64.4	187.5	19,200	22,900		
38	75.8	142.8	77,300	89,900	80	63.3	159.0	25,100	29,400	95	62.8	185.0	17,300	20,800		
40	75.0	142.3	71,900	83,500	85	61.4	156.4	22,700	26,700	100						

**MANITOWOC ENGINEERING CO.**

(A division of The Manitowoc Company, Inc.)

Manitowoc, Wisconsin 54220

S/N 40212-

**LIFT CRANE CAPACITIES — 4000W****BOOM NO. 22 WITH OPEN THROAT TOP, CONT'D.****SEE CONDITIONS ON FRONT PAGE**

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Boom Lgh.: Feet	Oper. Rad.: Feet	Bo. Ang.: Deg.	Boom Point Elev.	Capacity: Crawlers Retracted	Capacity: Crawlers Extended
36	81.1		214.6	80,600	94,600
38	80.6		214.3	74,400	87,200
40	80.0		213.9	68,900	80,700
45	78.6		213.0	57,900	67,600
50	77.3		211.9	49,400	57,700
55	75.9		210.7	42,700	50,000
60	74.4		209.4	37,300	43,700
65	73.0		207.9	32,900	38,600
70	71.6		206.4	29,100	34,300
75	70.1		204.6	25,900	30,700
80	68.7		202.7	23,200	27,500
85	67.2		200.7	20,800	24,800
90	65.7		198.5	18,700	22,400
95	64.2		196.2	16,800	20,300
100	62.7		193.7	15,200	18,500
105	61.1		191.0	13,700	16,800
110	59.6		188.2	12,300	15,300
115	58.0		185.2	11,100	13,900
120	56.4		181.9	10,000	12,600
125	54.7		178.5	9,000	11,500
130	53.0		174.9	8,000	10,400
135	51.3		171.0	7,200	9,500
140	49.5		166.8	6,400	8,600
145	47.7		162.4	5,700	7,800
150	45.8		157.7	5,000	7,000
155	43.9		152.7	4,300	6,300
160	41.9		147.3		5,600
165	39.8		141.5		5,000
170	37.6		135.3		4,400

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38	81.0		224.4	73,900	86,800
40	80.5		224.1	68,500	80,300
45	79.2		223.2	57,400	67,200
50	77.8		222.2	48,900	57,300
55	76.5		221.0	42,200	49,500
60	75.2		219.8	36,800	43,200
65	73.8		218.4	32,400	38,100
70	72.5		216.9	28,600	33,800
75	71.1		215.2	25,400	30,200
80	69.7		213.4	22,700	27,000
85	68.3		211.5	20,300	24,300
90	66.9		209.5	18,200	21,900
95	65.5		207.2	16,300	19,800
100	64.0		204.9	14,600	17,900
105	62.6		202.4	13,100	16,200
110	61.1		199.7	11,800	14,700
115	59.6		196.9	10,600	13,300
120	58.1		193.8	9,500	12,100
125	56.5		190.6	8,400	11,000
130	55.0		187.2	7,500	9,900
135	53.3		183.6	6,600	8,900
140	51.7		179.8	5,800	8,000
145	50.0		175.7	5,100	7,200
150	48.3		171.4	4,400	6,500
155	46.5		166.8		5,700
160	44.7		161.9		5,100
165	42.8		156.7		4,400

Combined From Char
 No. 5225 1-24-;
 No. 5226 1-24-;
 No. 5359 7-20-;
 No. 5320 7-20-;



SN: 40212

JWOC 4000W - 24' CRAWLERS EXTENDED

LIFT CRANE CAPACITIES - 104,400# CWT.

BCOM #22 WITH OPEN THROAT TOP

CRAWLER MACHINE ON BARGE - 0 DEGREE MACHINE LIST

CAPACITIES IN THOUSANDS OF LBS.														
ROOM LENGTH - FEET														
	70	80	90	100	110	120	130	140	150	160	170	180	190	200
1	000													

APACITIES ARE FOR A CRAWLER MACHINE WHEN OPERATING ON A BARGE. MACHINE SHALL BE POSITIVELY SECURED TO PREVENT SHIFTING. 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 (*).

HEIGHT OF ALL LOAD BLOCKS, HOOKS, WEIGHT BALL, SLINGS, HOIST LINES BENEATH BOOM POINT SHEAVES, ETC. IS CONSIDERED PART OF THE MAIN BOOM LOAD. DUCT 1,200# FROM ABOVE CAPACITIES WHEN SINGLE SHEAVE UPPER BOOM POINT IS ATTACHED AND 1,500# WHEN TWO SHEAVE UPPER BOOM POINT IS ATTACHED. BOOM IS NOT TO BE LOWERED BEYOND RADI WHERE COMBINED WEIGHTS ARE GREATER THAN RATED CAPACITY. WHERE NO CAPACITY IS SHOWN, OPERATION IS NOT INTENDED OR APPROVED.

REFER TO RIGGING #48168, LOAD LINE SPECIFICATION CHART #5320 AND RANGE CHART #5359. CRANE OPERATOR JUDGMENT MUST BE USED TO ALLOW FOR DYNAMIC LOAD EFFECTS OF SWINGING, HOISTING OR LOWERING, AS WELL AS ADVERSE OPERATING CONDITIONS AND PHYSICAL MACHINE DEPRECIATION.

OPERATING RADIUS IS THE HORIZONTAL DISTANCE FROM THE AXIS OF ROTATION AT BARGE DECK TO THE CENTER OF VERTICAL HOIST LINE OR LOAD BLOCK.

MACHINE EQUIPPED WITH 24' EXTENDIBLE CRAWLERS, 48 IN. TREADS, 15' RETRACTABLE GANTRY, 12 PART BOOM HOIST REEVING, FOUR 1-3/8 IN. BOOM PENDANTS, 1ST CWT. = 40,100#, 2ND CWT. = 35,800#, 3RD CWT. = 28,500#.

DJK
04/27/77 Rev. 8/1/78
DRWG. #6909-A

MANITOWOC ENGINEERING CO.
MANITOWOC, WISCONSIN



JCC 4000W - 24' CRAWLERS EXTENDED

LIFT CRANE CAPACITIES - 104,400# CWT.

BCCM #22 WITH OPEN THROAT TOP

CRAWLER MACHINE ON BARGE - 2 DEGREE MACHINE LIST

AD.	CAPACITIES IN THOUSANDS OF LBS.															RAD. IN. FT.
	BODM LENGTH - FT.															
	70	80	90	100	110	120	130	140	150	160	170	180	190	200		
17	230.8*														17	
18	218.0*														18	
19	206.5*														19	
20	196.0	199.1*	182.8*	157.6	136.7	120.1	107.0	93.2	86.0	79.8	71.6	65.3	60.1	55.0	20	
21	170.3	189.2*	161.7	139.8	122.8	108.9	97.9	88.0	80.3	74.2	68.5	63.2	58.0	53.0	21	
22	150.3	189.5*	143.3	125.5	111.3	99.3	90.2	81.5	74.8	69.0	63.8	58.8	54.0	49.5	22	
23	134.3	181.7	128.2	113.6	101.6	91.4	83.0	75.2	69.0	63.8	58.8	54.0	49.5	45.5	23	
24	121.3	171.3	119.2	107.2	97.0	87.8	79.4	72.6	66.8	61.8	57.0	52.5	48.0	44.0	24	
25	110.1	162.5	112.5	102.5	93.6	85.3	77.7	71.0	65.4	60.4	55.8	51.5	47.0	43.0	25	
26	101.2	155.3	107.5	98.5	90.6	83.1	76.1	70.0	64.6	59.6	55.0	50.8	46.5	42.5	26	
27	93.6	149.7	102.5	94.5	87.6	80.9	74.5	68.8	63.6	58.6	54.0	49.8	45.5	41.5	27	
28	86.7	145.3	99.5	92.5	86.6	80.9	75.1	69.6	64.6	59.6	55.0	50.8	46.5	42.5	28	
29	80.7	141.7	97.2	90.2	84.3	78.5	72.6	67.2	62.2	57.2	52.5	48.2	44.0	40.0	29	
30	75.4	138.7	94.7	87.7	81.8	76.0	70.0	64.6	59.6	54.6	50.0	45.8	41.5	37.5	30	
31	70.8	136.0	92.4	85.4	79.5	73.6	67.6	62.2	57.2	52.2	47.5	43.2	39.0	35.0	31	
32	66.8	133.5	90.2	83.2	77.3	71.4	65.4	60.0	55.0	50.0	45.5	41.2	37.0	33.0	32	
33	63.4	131.1	88.0	81.0	75.1	69.2	63.2	57.8	52.8	47.8	43.2	39.0	34.8	30.8	33	
34	60.5	128.8	85.8	78.8	72.9	67.0	61.0	55.6	50.6	45.6	41.0	36.8	32.5	28.5	34	
35	58.0	126.6	83.6	76.6	70.7	64.8	58.8	53.4	48.4	43.4	38.8	34.5	30.2	26.2	35	
36	55.8	124.4	81.4	74.4	68.5	62.6	56.6	51.2	46.2	41.2	36.6	32.2	27.9	23.9	36	
37	53.8	122.2	79.2	72.2	66.3	60.4	54.4	49.0	44.0	39.0	34.4	30.0	25.7	21.7	37	
38	51.8	120.0	77.0	70.0	64.1	58.2	52.2	46.8	41.8	36.8	32.2	27.8	23.5	19.5	38	
39	49.8	117.8	74.8	67.8	61.9	56.0	50.0	44.6	39.6	34.6	30.0	25.6	21.3	17.3	39	
40	47.8	115.6	72.6	65.6	59.7	53.8	47.8	42.4	37.4	32.4	27.8	23.4	19.1	15.1	40	
41	45.8	113.4	70.4	63.4	57.5	51.6	45.6	40.2	35.2	30.2	25.6	21.2	16.9	12.9	41	
42	43.8	111.2	68.2	61.2	55.3	49.4	43.4	38.0	33.0	28.0	23.4	19.0	14.7	10.7	42	
43	41.8	109.0	66.0	59.0	53.1	47.2	41.2	35.8	30.8	25.8	21.2	16.8	12.5	8.5	43	
44	39.8	106.8	63.8	56.8	50.9	45.0	39.0	33.6	28.6	23.6	19.0	14.6	10.3	6.3	44	
45	37.8	104.6	61.6	54.6	48.7	42.8	36.8	31.4	26.4	21.4	16.8	12.4	8.1	4.1	45	
46	35.8	102.4	59.4	52.4	46.5	40.6	34.6	29.2	24.2	19.2	14.6	10.2	5.9	1.9	46	
47	33.8	100.2	57.2	50.2	44.3	38.4	32.4	27.0	22.0	17.0	12.4	8.0	3.7	-	47	
48	31.8	98.0	55.0	48.0	42.1	36.2	30.2	24.8	19.8	14.8	10.2	5.8	1.5	-	48	
49	29.8	95.8	52.8	45.8	39.9	34.0	28.0	22.6	17.6	12.6	8.0	3.6	1.3	-	49	
50	27.8	93.6	50.6	43.6	37.7	31.8	25.8	20.4	15.4	10.4	5.8	3.4	1.1	-	50	
51	25.8	91.4	48.4	41.4	35.5	29.6	23.6	18.2	13.2	8.2	3.6	3.2	0.9	-	51	
52	23.8	89.2	46.2	39.2	33.3	27.4	21.4	16.0	11.0	6.0	3.4	3.0	0.7	-	52	
53	21.8	87.0	44.0	37.0	31.1	25.2	19.2	13.8	8.8	3.8	3.2	2.8	0.5	-	53	
54	19.8	84.8	41.8	34.8	28.9	23.0	17.0	11.6	6.6	3.6	3.0	2.6	0.3	-	54	
55	17.8	82.6	39.6	32.6	26.7	20.8	14.8	9.4	4.4	3.4	2.8	2.4	0.1	-	55	
56	15.8	80.4	37.4	30.4	24.5	18.6	12.6	7.2	2.2	3.2	2.6	2.2	-	-	56	

CAPACITIES ARE FOR A CRAWLER MACHINE WHEN OPERATING ON A BARGE. MACHINE SHALL BE POSITIVELY SECURED TO PREVENT SHIFTING. 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 (*).

WEIGHT OF ALL LOAD BLOCKS, HOOKS, WEIGHT BALL, SLINGS, HOIST LINES BENEATH BOOM POINT SHEAVES, ETC. IS CONSIDERED PART OF THE MAIN BOOM LOAD. DEDUCT 1,200# FROM ABOVE CAPACITIES WHEN SINGLE SHEAVE UPPER BOOM POINT IS ATTACHED. 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.

REFER TO RIGGING #48168, LOAD LINE SPECIFICATION CHART #5320 AND RANGE CHART #5359. CRANE OPERATOR JUDGMENT MUST BE USED TO ALLOW FOR DYNAMIC LOAD EFFECTS OF SWINGING, HOISTING OR LOWERING, AS WELL AS ADVERSE OPERATING CONDITIONS AND PHYSICAL MACHINE DEPRECIATION.

OPERATING RADIUS IS THE HORIZONTAL DISTANCE FROM THE AXIS OF ROTATION AT BARGE DECK TO THE CENTER OF VERTICAL HOIST LINE OR LOAD BLOCK.

MACHINE EQUIPPED WITH 24' EXTENDIBLE CRAWLERS, 48 IN. TREADS, 15' RETRACTABLE GANTRY, 12 PART BOOM HOIST REEVING, FOUR 1-3/8 IN. BOOM PENDANTS, 1ST CWT. = 40,100#, 2ND CWT. = 35,800#, 3RD CWT. = 28,500#.



S/N: 40212

LOWDC 4000W - 24' CRAWLERS EXTENDED

LIFT CRANE CAPACITIES - 104,400# CWT.

BOOM #22 WITH OPEN THROAT TOP

CRAWLER MACHINE ON BARGE - 3 DEGREE MACHINE LIST

RAD. IN FT.		CAPACITIES IN THOUSANDS OF LBS.												RAD. IN FT.	
		70	80	90	100	110	120	130	140	150	160	170	180	190	200
19	19	193.9*													19
20	20	184.6*													20
22	22	175.5*													22
24	24	166.4*													24
26	26	157.3*													26
28	28	148.2*													28
30	30	139.1*													30
32	32	130.0*													32
34	34	120.9*													34
36	36	111.8*													36
38	38	102.7*													38
40	40	93.6*													40
42	42	84.5*													42
44	44	75.4*													44
46	46	66.3*													46
48	48	57.2*													48
50	50	48.1*													50
52	52	39.0*													52
54	54	30.0*													54
56	56	21.0*													56
58	58	12.0*													58
60	60	3.0*													60
62	62														62
64	64														64
66	66														66
68	68														68
70	70														70
72	72														72
74	74														74
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198	198														198
200	200														200

CAPACITIES ARE FOR A CRAWLER MACHINE WHEN OPERATING ON A BARGE. MACHINE SHALL BE POSITIVELY SECURED TO PREVENT SHIFTING. 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 (*).

WEIGHT OF ALL LOAD BLOCKS, HOOKS, WEIGHT BALL, SLINGS, HOIST LINES BENEATH BOOM POINT SHEAVES, ETC., IS CONSIDERED PART OF THE MAIN BOOM LOAD. DEDUCT 1,200# FROM ABOVE CAPACITIES WHEN SINGLE SHEAVE UPPER BOOM POINT IS ATTACHED. 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.

REFER TO RIGGING #48168, LOAD LINE SPECIFICATION CHART #5320 AND RANGE CHART #5359. CRANE OPERATOR JUDGMENT MUST BE USED TO ALLOW FOR DYNAMIC LOAD EFFECTS OF SWINGING, HOISTING OR LOWERING, AS WELL AS ADVERSE OPERATING CONDITIONS AND PHYSICAL MACHINE DEPRECIATION.

OPERATING RADIUS IS THE HORIZONTAL DISTANCE FROM THE AXIS OF ROTATION AT BARGE DECK TO THE CENTER OF VERTICAL HOIST LINE OR LOAD BLOCK.

MACHINE EQUIPPED WITH 24' EXTENDIBLE CRAWLERS, 48 IN. TREADS, 15' RETRACTABLE GANTRY, 12 PART BOOM HOIST REEVEING, FOUR 1-3/8 IN. BOOM PENDANTS, 1ST CWT. = 40,100#, 2ND CWT. = 35,800#, 3RD CWT. = 28,500#.

**MANITOWOC ENGINEERING CO.**

Division of The Manitowoc Company, Inc. - Manitowoc, Wisconsin 54220

**CLAMSHELL CAPACITIES — 4000W VICON****BOOM NO. 22 WITH OPEN THROAT TOP
75,900 LB. COUNTERWEIGHT**

LIFTING CAPACITIES: Capacities for various boom lengths and operating radii are for freely suspended loads and do not exceed 67.5% of a static tipping load. Capacities are based on tipping, structural competence, operating speeds and other factors. Capacities based on structural competence are shown by shaded areas.

Capacities are shown in pounds. Weight of bucket is considered part of the load. Where no capacity is shown, operation is not intended or approved.

OPERATING CONDITIONS: Machine is to be operated by controlled converter lowering of the load for capacities above 20,000 lb.

Machine to operate in a level position on a firm surface with gantry up. Refer to rigging drawing No. 48168 and wire rope specification chart No. 5342. Crane operator judgment must be used to allow for adverse operating conditions and physical machine depreciation.

OPERATING RADIUS: Operating radius is the horizontal distance from the axis of rotation to the center of gravity of the freely suspended load. Boom angle is the angle above true horizontal of a line drawn through the boom hinge pin and the upper boom point shaft centerline.

MACHINE EQUIPMENT: Machine equipped with 24' extendible crawlers, 48" treads, 15' retractable gantry, 12 part boom hoist reeving, four 1 1/2" boom pendants, 1st cwt. 40,100 lb., 2nd cwt. 35,800 lb.

Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Angle: Deg.	Capacity: Crawlers Retracted	Capacity: Crawlers Extended
70	34	66.9	28,000	28,000
	36	65.2	28,000	28,000
	38	63.4	28,000	28,000
	40	61.7	28,000	28,000
	45	57.2	28,000	28,000
	50	52.4	28,000	28,000
	55	47.3	28,000	28,000
	60	41.8	28,000	28,000
	65	35.6	28,000	28,000
	70	28.2	25,400	28,000
80	38	66.8	28,000	28,000
	40	65.3	28,000	28,000
	45	61.5	28,000	28,000
	50	57.5	28,000	28,000
	55	53.4	28,000	28,000
	60	49.0	28,000	28,000
	65	44.2	27,700	28,000
	70	39.1	24,800	28,000
	75	33.3	22,300	26,100
	80	26.4	20,200	23,700
90	40	68.1	28,000	28,000
	45	64.8	28,000	28,000
	50	61.3	28,000	28,000
	55	57.8	28,000	28,000
	60	54.1	28,000	28,000
	65	50.2	27,200	28,000
	70	46.1	24,300	28,000
	75	41.7	21,900	25,700
	80	36.9	19,700	23,200
	85	31.4	17,900	21,100
	90	25.0	16,200	19,200

Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Angle: Deg.	Capacity: Crawlers Retracted	Capacity: Crawlers Extended
100	45	67.3	28,000	28,000
	50	64.3	28,000	28,000
	55	61.2	28,000	28,000
	60	58.0	28,000	28,000
	65	54.7	26,600	28,000
	70	51.2	23,700	27,900
	75	47.6	21,200	25,000
	80	43.7	19,100	22,600
	85	39.6	17,200	20,500
	90	35.0	15,600	18,600
110	95	29.8	14,100	16,900
	100	23.7	12,800	15,500
	50	66.7	28,000	28,000
	55	63.9	28,000	28,000
	60	61.1	28,000	28,000
	65	58.2	26,200	28,000
	70	55.2	23,300	27,500
	75	52.0	20,800	24,600
	80	48.8	18,600	22,200
	85	45.3	16,800	20,000
120	90	41.7	15,100	18,200
	95	37.7	13,700	16,500
	100	33.4	12,400	15,000
	105	28.5	11,200	13,700
	55	66.2	28,000	28,000
	60	63.6	28,000	28,000
	65	61.0	25,600	28,000
	70	58.3	22,700	26,900
	75	55.6	20,200	24,100
	80	52.7	18,100	21,600
115	85	49.7	16,200	19,500
	90	46.6	14,500	17,600
	95	43.3	13,100	15,900
	100	39.9	11,800	14,500
	105	36.1	10,600	13,100
110	110	32.0	9,600	11,900
	115	27.3	8,600	10,600