

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 3/8" boom pendants, 1st Cwt. 40,10 lbs., 2nd Cwt. 35,800 lbs., 3rd Cwt. 28,500 lbs. Total counterweight 104,400 pounds.

HOIST REEVING 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 1/8" — 6x31 Warrington-Seale, Extra Improved Plow Steel, Regular Lay, IWRC. Minimum Breaking Strength 65 Ton.
WHIP LINE:	1 1/8" — 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		
Bo. Lgth.	Jib No. 123	Jib No. 124	Bo. Lgth.	Jib No. 123	Jib No. 124
220'	—	—	200'	—	40'
210'	—	—	190'	—	60'
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		
Bo. Lgth.	Jib No. 123	Jib No. 124	Jib Lgth.	Jib No. 123	Jib No. 124
190'	—	—	30'	3,000 lb.	2,800 lb.
180'	—	30'	40'	3,600 lb.	2,550 lb.
170'	50'	60'	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	Bo. Ang.: Deg.	Boom Point Elev.: Feet	Capacity: Crawlers Retracted	Capacity: Crawlers Extended	Boom Lgth.: Feet	Oper. Rad.: Feet	Bo. Ang.: Deg.	Boom Point Elev.: Feet	Capacity: Crawlers Retracted	Capacity: Crawlers Extended	Boom Lgth.: Feet	Oper. Rad.: Feet	Bo. Ang.: Deg.	Boom Point Elev.: Feet	Capacity: Crawlers Retracted	Capacity: Crawlers Extended
17	79.0	75.8	275,000	300,000	50	54.6	72.3	55,000	63,100	19	81.2	105.9	224,600	243,000			
18	78.2	75.6	248,000	285,000	55	50.1	68.5	48,400	55,400	20	80.6	105.8	205,800	240,000			
19	77.3	75.4	225,600	270,100	60	45.2	63.9	43,000	49,200	22	79.4	105.4	176,100	213,100			
20	76.5	75.2	206,900	253,500	65	39.9	58.5	38,600	44,200	24	78.3	105.0	153,500	183,800			
22	74.8	74.7	177,200	214,000	70	34.0	51.8	34,900	39,900	26	77.1	104.6	135,900	161,400			
24	73.1	74.1	154,800	184,800	75	26.9	43.3	31,700	36,300	28	75.9	104.1	121,800	143,600			
26	71.4	73.4	137,200	162,500	80	17.4	31.0	29,000	33,200	30	74.7	103.6	110,100	129,200			
28	69.7	72.7	123,100	144,800	17	81.5	96.1	267,100	267,100	32	73.5	103.0	100,400	117,300			
30	67.9	72.0	111,500	130,500	18	80.8	96.0	247,400	262,000	34	72.3	102.4	92,100	107,300			
32	66.1	71.1	101,700	118,600	19	80.2	95.8	225,000	255,000	36	71.1	101.7	85,000	98,800			
34	64.3	70.2	93,500	108,600	20	79.5	95.6	206,200	250,500	38	69.9	101.0	78,800	91,400			
36	62.5	69.2	86,400	100,100	22	78.2	95.2	176,500	213,400	40	68.7	100.3	73,400	85,000			
38	60.6	68.1	80,300	92,700	24	76.9	94.8	154,000	184,200	45	65.6	98.2	62,500	72,000			
40	58.7	66.9	74,900	86,200	26	75.6	94.3	136,400	161,800	50	62.4	95.7	54,100	62,200			
45	53.8	63.6	63,900	73,400	28	74.3	93.8	122,200	144,100	55	59.1	92.9	47,400	54,500			
50	48.6	59.6	55,600	63,700	30	73.0	93.2	110,600	129,700	60	55.7	89.7	42,100	48,300			
55	42.8	54.7	49,000	56,000	32	71.7	92.5	100,900	117,800	65	52.2	86.1	37,700	43,300			
60	36.4	48.7	43,600	49,800	34	70.3	91.8	92,600	107,800	70	48.4	81.9	33,900	39,000			
65	28.8	40.8	39,200	44,800	36	68.9	91.1	85,500	99,200	75	44.5	77.2	30,800	35,400			
70	18.6	29.5	35,500	40,500	38	67.6	90.3	79,400	91,900	80	40.2	71.7	28,000	32,300			
17	80.4	86.0	274,700	294,000	40	66.2	89.4	74,000	85,500	85	35.6	65.3	25,700	29,600			
18	79.7	85.8	247,600	281,600	45	62.7	87.1	63,000	72,500	90	30.3	57.6	23,600	27,200			
19	78.9	85.6	225,200	268,800	50	59.0	84.3	54,600	62,700	95	24.0	47.8	21,700	25,200			
20	78.2	85.4	206,500	252,600	55	55.2	81.0	48,000	55,100	100	15.6	33.9	20,100	23,300			
22	76.8	85.0	176,800	213,600	60	51.2	77.3	42,700	48,900								
24	75.3	84.5	154,300	184,400	65	47.0	73.0	38,200	43,800								
26	73.8	83.9	136,700	162,100	70	42.5	67.9	34,500	39,600								
28	72.3	83.3	122,500	144,300													
30	70.8	82.6	110,900	130,000													
32	69.3	81.9	101,200	118,100													
34	67.7	81.1	93,000	108,100													
36	66.2	80.3	85,900	99,600													
38	64.6	79.4	79,700	92,200													
40	63.0	78.4	74,300	85,800													
45	58.9	75.6	63,400	72,900													
50	50.0	67.0	54,000	62,000													
55	42.0	58.0	48,000	55,000													
60	34.0	50.0	42,000	48,000													
65	26.0	42.0	38,000	43,000													
70	18.0	34.0	34,000	39,000													

Capacities continued on reverse side.

SEE CONDITIONS ON REVERSE SIDE

Boom Lgh.: Feet	Oper. Rad.: Feet	Bm. Ang.: Deg.	Boom Poin't: Elev.	Capacity: Crawlers Retracted	Capacity: Crawlers Extended	Boom Lgh.: Feet	Oper. Rad.: Feet	Bm. Ang.: Deg.	Boom Poin't: Elev.	Capacity: Crawlers Retracted	Capacity: Crawlers Extended	Boom Lgh.: Feet	Oper. Rad.: Feet	Bm. Ang.: Deg.	Boom Poin't: Elev.	Capacity: Crawlers Retracted	Capacity: Crawlers Extended	Boom Lgh.: Feet	Oper. Rad.: Feet	Bm. Ang.: Deg.	Boom Poin't: Elev.	Capacity: Crawlers Retracted	Capacity: Crawlers Extended	Boom Lgh.: Feet	Oper. Rad.: Feet	Bm. Ang.: Deg.	Boom Poin't: Elev.	Capacity: Crawlers Retracted	Capacity: Crawlers Extended	Boom Lgh.: Feet	Oper. Rad.: Feet	Bm. Ang.: Deg.	Boom Poin't: Elev.	Capacity: Crawlers Retracted	Capacity: Crawlers Extended	Boom Lgh.: Feet	Oper. Rad.: Feet	Bm. Ang.: Deg.	Boom Poin't: Elev.	Capacity: Crawlers Retracted	Capacity: Crawlers Extended	Boom Lgh.: Feet	Oper. Rad.: Feet	Bm. Ang.: Deg.	Boom Poin't: Elev.	Capacity: Crawlers Retracted	Capacity: Crawlers Extended	Boom Lgh.: Feet	Oper. Rad.: Feet	Bm. Ang.: Deg.	Boom Poin't: Elev.	Capacity: Crawlers Retracted	Capacity: Crawlers Extended
22	81.5	115.9	205,500	215,900	105	47.5	117.7	16,400	19,500	145	38.3	118.6	7,000	9,100	145	38.3	118.6	7,000	9,100	175	17.9	62.3	4,000	5,200	175	17.9	62.3	4,000	5,200	175	17.9	62.3	4,000	5,200	175	17.9	62.3	4,000	5,200														

Capacities continued on next page

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Manitowoc, Wisconsin 54220

S/N 40212-



LIFTCRANE CAPACITIES — 4000W BOOM NO. 22 WITH OPEN THROAT TOP, CONT'D.

SEE CONDITIONS ON FRONT PAGE

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	24,900
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
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-;

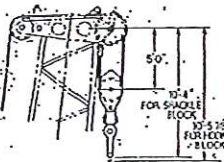
S/N 140212

MANITOWOC ENGINEERING CO.

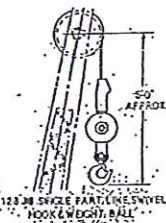
Division of The Manitowoc Company, Inc.

Manitowoc, Wisconsin

MAXIMUM BOOM ANGLE
82° For No. 22 Boom W/Straight Top
83° For No. 22 Boom W/45° Offset Top
83° For No. 22 Boom W/Hammerhead Top



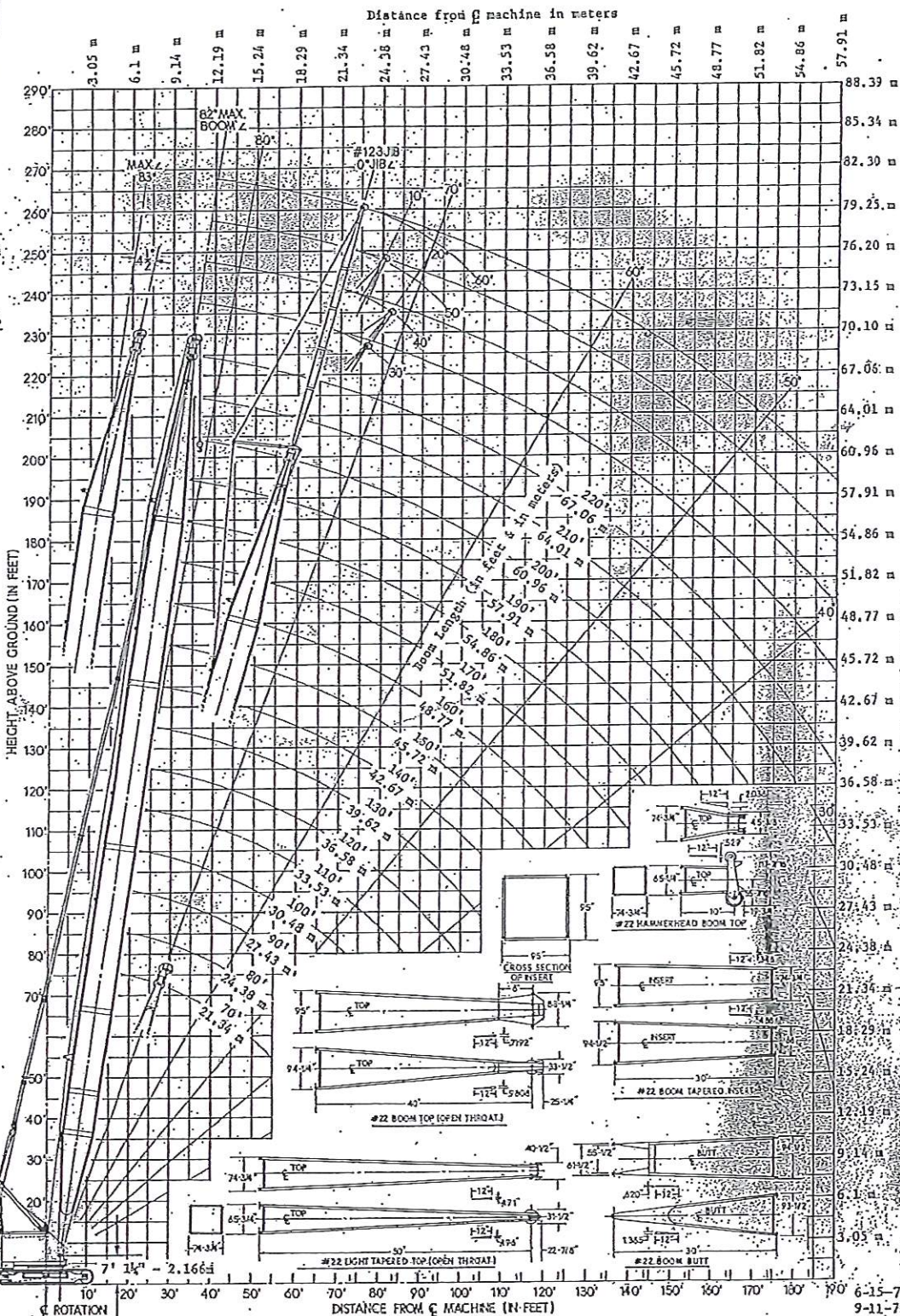
HAMMERHEAD TOP W/12 PART LOAD LINE 155 TON BLOCK



#22 LIGHT TAPERED TOP



#22 HAMMERHEAD TOP



HEIGHT ABOVE GROUND (IN FEET)

DISTANCE FROM MACHINE (IN FEET)

Height above ground in meters

RANGE DIAGRAM - M4000W - No. 22-BOOM W/ No. 123 JIB And OFFSET TOP

- NOTE 1: This drawing is intended only as a guide to assist in job planning.
- NOTE 2: For planning a lift, this drawing is to be used in conjunction with appropriate A. Capacity Charts. C. Load Line Specifications. E. Outline Dimensions. B. Range Chart. D. Rigging Drawing.
- NOTE 3: For planning lifts where clearances are limited and accuracy is desired, a detailed layout should be prepared.
- NOTE 4: Distance of MANITOWOC load block to boom point based on 30 fleet angle or physical limitations.
- NOTE 5: When equipped with hoist line limit switch, contact factory for load block to boom point minimum distance.

DO NOT SCALE THIS DRAWING

Larger Size Diagrams Available - Contact Dealer.

48955

S/N: 40212

JMOC 4000W - 24' CRAWLERS EXTENDED
 LIFT CRANE CAPACITIES - 104,400# CWT.
 BOOM #22 WITH OPEN THROAT TOP
 CRAWLER MACHINE ON BARGE - 0 DEGREE MACHINE LIST

AD. N°	CAPACITIES IN THOUSANDS OF LBS.												RAD. IN. FT.		
	70	80	90	100	110	120	130	140	150	160	170	180		190	200
1	300.0*	297.0*	267.1*	243.0*	215.9*	186.5*	157.0*	140.5	157.0*	139.7	123.2	112.4	103.4	97.5	91.8
2	287.0*	281.0*	262.0*	240.0*	211.2	181.5	149.0	126.0	114.0	103.0	97.0	91.0	85.0	79.0	73.0
3	279.3*	275.5*	236.3*	215.2	189.4	159.1	127.0	104.0	92.0	87.0	81.0	75.0	69.0	63.0	57.0
4	212.3	212.0	211.5	209.5	199.5	189.5	179.5	169.5	159.5	149.5	139.5	129.5	119.5	109.5	99.5
5	183.0	180.5	160.2	142.7	127.1	114.4	101.7	89.0	76.3	63.6	50.9	38.2	25.5	12.8	0.1
6	143.2	142.5	128.0	115.5	105.5	95.5	85.5	75.5	65.5	55.5	45.5	35.5	25.5	15.5	5.5
7	116.9	116.5	106.5	96.5	86.5	76.5	66.5	56.5	46.5	36.5	26.5	16.5	6.5	0.5	0.5
8	94.9	94.5	84.5	74.5	64.5	54.5	44.5	34.5	24.5	14.5	4.5	0.5	0.5	0.5	0.5
9	71.9	71.5	61.5	51.5	41.5	31.5	21.5	11.5	1.5	0.5	0.5	0.5	0.5	0.5	0.5
10	54.0	54.0	44.0	34.0	24.0	14.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	43.0	43.0	33.0	23.0	13.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	31.0	31.0	21.0	11.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	20.0	20.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	10.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
33	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
38	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
39	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
41	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
43	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
44	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
46	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
48	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
49	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
51	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
53	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
54	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
56	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
58	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
59	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
61	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
63	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
64	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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 (*).
 HEIGHT OF ALL LOAD BLOCKS, HOOKS, WEIGHT BALLS, 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 RADIUS 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' EXTENSIBLE 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#.

MANITOWOC ENGINEERING CO.
 MANITOWOC, WISCONSIN

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

D/W: 4/16/16

JCC 4000W - 24' CRAWLERS EXTENDED
 LIFT/RAVE 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.						
	70	80	90	100	110	120	130	140	150	160	170		180	190	200			
17	230.8*																	
18	218.0*																	
19	206.5*																	
20	196.0	199.1*	182.8*	157.6	136.7	120.1												
21	170.3	189.2*	161.7	125.5	111.9	97.9												
22	150.3	146.5	143.4	113.6	101.9	90.0												
23	134.3	131.7	119.2	103.9	93.2	83.3												
24	121.3	118.7	105.9	92.9	81.6	72.7												
25	101.2	108.1	97.2	85.9	74.6	65.9												
26	86.7	91.5	83.6	75.9	69.7	64.5												
27	80.7	87.5	80.6	74.9	70.7	67.1												
28	73.4	79.4	74.2	70.8	68.5	65.9												
29	68.8	73.9	70.5	67.9	65.7	63.9												
30	65.9	71.4	68.1	65.9	63.7	62.1												
31	62.4	68.1	64.9	62.9	60.7	59.1												
32	59.5	65.4	62.2	60.2	58.0	56.4												
33	56.8	62.8	59.6	57.6	55.4	53.8												
34	54.4	60.4	57.2	55.2	53.0	51.4												
35	52.1	58.1	54.9	52.9	50.7	49.1												
36	49.8	55.8	52.6	50.6	48.4	46.8												
37	47.5	53.5	50.3	48.3	46.1	44.5												
38	45.2	51.2	48.0	46.0	43.8	42.2												
39	42.9	48.9	45.7	43.7	41.5	40.0												
40	40.6	46.6	43.4	41.4	39.2	37.6												
41	38.3	44.3	41.1	39.1	36.9	35.3												
42	36.0	42.0	38.8	36.8	34.6	33.0												
43	33.7	39.7	36.5	34.5	32.3	30.7												
44	31.4	37.4	34.2	32.2	30.0	28.4												
45	29.1	35.1	31.9	29.9	27.7	26.1												
46	26.8	32.8	29.6	27.6	25.4	23.8												
47	24.5	30.5	27.3	25.3	23.1	21.5												
48	22.2	28.2	25.0	23.0	20.8	19.2												
49	19.9	26.9	23.7	21.7	19.5	17.9												
50	17.6	24.6	21.4	19.4	17.2	15.6												
51	15.3	22.3	19.1	17.1	14.9	13.3												
52	13.0	20.0	16.8	14.8	12.6	11.0												
53	10.7	17.7	14.5	12.5	10.3	8.7												
54	8.4	15.4	12.2	10.2	8.0	6.4												
55	6.1	13.1	9.9	7.9	5.7	4.1												
56	3.8	10.8	7.6	5.6	3.4	1.8												

CAPACITIES ARE FOR A CRAWLER MACHINE WHEN OPERATING ON A BARGE. MACHINE SHALL BE POSITIVELY SECURED TO PREVENT SHIFTING/TIPPING LOADS. 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. 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 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 #5355. 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. = 35,600#, 3RD CWT. = 28,500#.

MANITOWOC ENGINEERING CO.
 MANITOWOC, WISCONSIN

DJK 04/27/77 Rev. 8/1/78
 DRWG. #6509-B

SN: 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		
19.9*																	
19.6*																	
17.5																	
17.2																	
17.0																	
16.8																	
16.5																	
16.2																	
16.0																	
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2.2																	
2.0																	
1.8																	
1.5																	

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 BALLS, 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 AND 1,500# WHEN TWO 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#.

DJK
04/27/77, REV. 8/1/78
DRWG. #6909-C

MANITOWOC ENGINEERING CO.
MANITOWOC, WISCONSIN



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	Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Angle: Deg.	Capacity: Crawlers Retracted	Capacity: Crawlers Extended	
70	34	66.9	28,000	28,000	100	45	67.3	28,000	28,000	
	36	65.2	28,000	28,000		50	64.3	28,000	28,000	
	38	63.4	28,000	28,000		55	61.2	28,000	28,000	
	40	61.7	28,000	28,000		60	58.0	28,000	28,000	
	45	57.2	28,000	28,000		65	54.7	26,600	28,000	
	50	52.4	28,000	28,000		70	51.2	23,700	27,900	
	55	47.3	28,000	28,000		75	47.6	21,200	25,000	
	60	41.8	28,000	28,000		80	43.7	19,100	22,600	
	65	35.6	28,000	28,000		85	39.6	17,200	20,500	
	70	28.2	25,400	28,000		90	35.0	15,600	18,600	
80	38	66.8	28,000	28,000	95	29.8	14,100	16,900		
	40	65.3	28,000	28,000	100	23.7	12,800	15,500		
	45	61.5	28,000	28,000	110	50	66.7	28,000	28,000	
	50	57.5	28,000	28,000		55	63.9	28,000	28,000	
	55	53.4	28,000	28,000		60	61.1	28,000	28,000	
	60	49.0	28,000	28,000		65	58.2	26,200	28,000	
	65	44.2	27,700	28,000		70	55.2	23,300	27,500	
	70	39.1	24,800	28,000		75	52.0	20,800	24,600	
75	33.3	22,300	26,100	80		48.8	18,600	22,200		
80	26.4	20,200	23,700	85		45.3	16,800	20,000		
90	40	68.1	28,000	28,000	120	90	41.7	15,100	18,200	
	45	64.8	28,000	28,000		95	37.7	13,700	16,500	
	50	61.3	28,000	28,000		100	33.4	12,400	15,000	
	55	57.8	28,000	28,000		105	28.5	11,200	13,700	
	60	54.1	28,000	28,000		130	55	66.2	28,000	28,000
	65	50.2	27,200	28,000			60	63.6	28,000	28,000
	70	46.1	24,300	28,000			65	61.0	25,600	28,000
	75	41.7	21,900	25,700			70	58.3	22,700	26,900
	80	36.9	19,700	23,200			75	55.6	20,200	24,100
	85	31.4	17,900	21,100			80	52.7	18,100	21,600
	90	25.0	16,200	19,200			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	32.0		9,600	11,900		
				115	27.3	8,600	10,600			