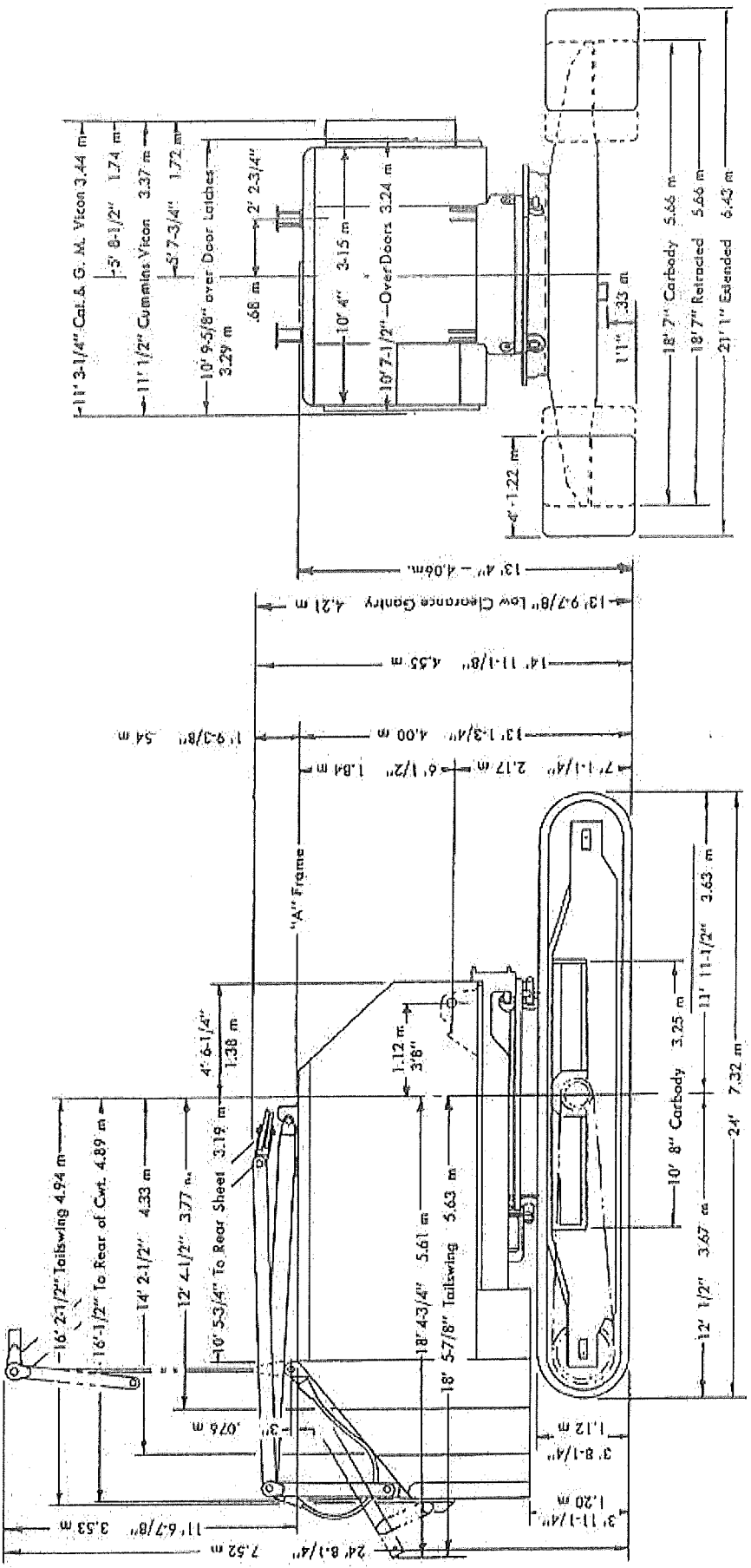
MANITOWOC ENGINEERING CO.

A Division of The Manitowoc Company, Inc. Manitowoc, Wisconsin



MANITOWOC 4000W – 24' CRAWLERS EXTENDED

LIFTCRANE CAPACITIES – 104,400# CWT.

BOOM #17 WITH OPEN THROAT TOP

CRAWLER MACHINE ON BARGE – 6 DEGREE MACHINE LIST

RAD. IN FT.	CAPACITIES IN THOUSANDS OF LBS. BOOM LENGTH – FT.															RAD. IN FT.
	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	
16	300.0*	297.1*	277.1*	250.7*												16
17	295.3*	292.5*	272.8*	246.1*												17
18	289.6*	288.0*	268.8*	241.7*	231.3*											18
19	269.9*	268.6*	264.9*	237.4*	227.2*	215.9*										19
20	252.6*	251.4*	250.9*	233.4*	223.3*	213.4*										20
22	214.0	213.6	213.4	213.2	212.9	208.4*	184.8*	176.6*								22
24	184.9	184.4	184.2	184.0	183.7	183.4	179.6*	171.7*	157.0*							24
26	162.6	162.1	161.9	161.7	161.3	161.0	160.7	160.3	157.0*	144.5*	136.7*					26
28	144.9	144.4	144.2	144.0	143.5	143.2	142.9	142.6	142.2	141.2*	133.6*	124.7*				28
30	130.6	130.1	129.8	129.6	129.2	128.8	128.5	128.1	127.8	127.4	127.1	122.0*	113.2*	106.0*		30
32	118.7	118.2	118.0	117.7	117.3	115.9	116.6	116.2	115.8	115.5	115.1	114.7	111.1*	104.0*	95.5*	32
34	108.8	108.2	108.0	107.7	107.2	106.9	106.6	106.2	105.8	105.5	105.0	104.7	104.3	102.1*	93.7*	34
36	100.3	99.7	99.5	99.2	98.7	98.4	98.1	97.9	97.2	96.9	96.5	96.1	95.7	95.3	92.0*	36
38	92.9	92.4	92.1	91.9	91.4	91.0	90.7	90.2	89.5	89.5	89.1	88.7	88.3	87.9	87.5	38
40	86.5	86.0	85.7	85.5	84.9	84.6	84.3	83.8	83.4	83.1	82.6	82.2	81.8	81.4	81.0	40
45	73.7	73.1	72.8	72.5	72.0	71.6	71.3	70.5	70.4	70.1	69.6	69.2	68.8	68.4	67.9	45
50	63.9	63.3	63.0	62.7	62.2	61.8	61.5	61.0	60.6	60.2	59.7	59.3	59.0	58.5	58.1	50
55	56.3	55.6	55.4	55.1	54.5	54.2	53.8	53.3	52.9	52.5	52.0	51.6	51.2	50.7	50.3	55
60	50.1	49.5	49.2	48.9	48.3	48.0	47.6	47.1	46.7	46.3	45.8	45.4	45.0	44.5	44.1	60
65		44.4	44.1	43.9	43.3	42.9	42.6	42.0	41.6	41.2	40.7	40.3	39.9	39.4	39.0	65
70		40.2	39.9	39.6	39.0	38.7	38.3	37.8	37.4	37.0	36.4	36.0	35.6	35.1	34.7	70
75			36.3	36.0	35.4	35.1	34.7	34.1	33.7	33.4	32.8	32.4	32.0	31.5	31.1	75
80			33.2	32.9	32.3	32.0	31.6	31.0	30.6	30.3	29.7	29.3	28.9	28.4	27.9	80
85				30.2	29.6	29.3	28.9	28.3	27.9	27.6	27.0	26.6	26.2	25.7	25.2	85
90				27.9	27.3	26.9	26.5	26.0	25.6	25.2	24.6	24.2	23.8	23.3	22.8	90
95					25.2	24.8	24.5	23.9	23.5	23.1	22.5	22.1	21.7	21.2	20.7	95
100					23.2	23.0	22.6	22.0	21.6	21.2	20.7	20.2	19.8	19.3	18.9	100
105						21.3	20.9	20.4	19.9	19.6	19.0	18.6	18.2	17.6	17.2	105
110							19.4	18.8	18.4	18.1	17.5	17.4	16.7	16.1	15.7	110
115							18.1	17.5	17.1	16.7	16.1	15.7	15.3	14.7	14.3	115
120								16.2	15.8	15.4	14.9	14.5	14.0	13.5	13.1	120
125								15.1	14.7	14.3	13.7	13.3	12.9	12.4	11.9	125
130									13.7	13.3	12.7	12.3	11.9	11.3	10.9	130
135									12.7	12.3	11.7	11.3	10.9	10.4	9.9	135
140										11.4	10.9	10.4	10.0	9.5	9.0	140
145										10.6	10.0	9.6	9.2	8.6	8.2	145
150											9.3	8.8	8.4	7.9	7.4	150
155											8.6	8.1	7.7	7.2	6.7	155
160												7.5	7.1	6.5	6.1	160
165												6.9	6.4	5.9	5.5	165
170													5.9	5.5	4.9	170
175													5.3	4.7	4.3	175
180														4.2		180

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. 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 #48227, LOAD LINE SPECIFICATION CHART #5308 AND RANGE CHART #4796. 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, TWO 2 IN. BOOM PENDANTS, 1ST CWT. = 40,100#, 2ND CWT. = 35,800#, 3RD CWT. = 28,500#.

CJK
04/26/77, Rev. 8/1/78
DRWG. #6508-A

MANITOWOC ENGINEERING CO.
MANITOWOC, WISCONSIN

MANITOWOC 4000W – 24' CRAWLERS EXTENDED

LIFTCRANE CAPACITIES – 104,400# CWT.

BOOM #17 WITH OPEN THROAT TOP

CRAWLER MACHINE ON BARGE – 2 DEGREE MACHINE LIST

RAD. IN FT.	CAPACITIES IN THOUSANDS OF LBS. BOOM LENGTH – FT.															RAD. IN FT.
	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	
16	230.6*	206.3*														16
17	227.5*	203.6*														17
18	224.6*	201.0*	182.0*													18
19	216.7*	198.5*	179.9*													19
20	203.0	196.1*	177.8*	161.4*												20
22	176.1	171.4	167.2	157.9*	143.7*											22
24	155.3	151.5	148.1	144.8	140.8*	129.8*										24
26	138.8	135.6	132.7	130.0	127.2	124.6	117.4*	108.5*								26
28	125.4	122.6	120.2	117.8	115.4	113.1	110.9	106.7*	98.6*							28
30	114.2	111.7	109.6	107.6	105.4	103.5	101.6	99.6	97.0*	89.5*						30
32	104.8	102.6	100.7	99.0	97.0	95.3	93.6	91.8	90.1	87.9*	82.6*					32
34	96.8	94.8	93.1	91.5	89.7	88.2	86.6	85.0	83.5	82.0	80.5	75.3*				34
36	89.9	88.0	86.5	85.0	83.4	82.0	80.6	79.1	77.7	76.4	74.9	73.6	66.3*			36
38	83.8	82.0	80.7	79.4	77.8	76.5	75.3	73.8	72.6	71.3	70.0	68.8	66.1*	57.7*		38
40	78.5	76.8	75.6	74.3	72.9	71.7	70.5	69.2	68.0	66.9	65.6	64.5	63.4	57.5*	50.1*	40
45	67.6	66.1	65.0	64.0	62.8	61.7	60.7	59.6	58.6	57.6	56.5	55.5	54.5	53.5	49.7*	45
50	59.2	57.9	56.9	56.0	54.9	54.0	53.1	52.0	51.2	50.3	49.3	48.4	47.6	46.6	45.7	50
55	52.6	51.3	50.4	49.6	48.6	47.7	47.0	46.0	45.2	44.4	43.5	42.7	41.9	41.0	40.2	55
60	47.4	46.0	45.2	44.4	43.4	42.7	41.9	41.0	40.3	39.6	38.7	37.9	37.2	36.4	35.7	60
65		41.6	40.8	40.1	39.1	38.4	37.7	36.9	36.2	35.5	34.7	34.0	33.3	32.5	31.8	65
70		38.0	37.1	36.4	35.5	34.8	34.2	33.3	32.7	32.0	31.3	30.6	29.9	29.2	28.5	70
75			34.0	33.3	32.4	31.7	31.1	30.3	29.7	29.1	28.3	27.7	27.1	26.3	25.7	75
80			31.4	30.6	29.7	29.1	28.5	27.7	27.1	26.5	25.7	25.1	24.5	23.8	23.2	80
85				28.3	27.4	26.8	26.2	25.4	24.8	24.2	23.5	22.9	22.3	21.6	21.0	85
90				26.3	25.3	24.7	24.1	23.4	22.8	22.2	21.5	20.9	20.4	19.7	19.1	90
95					23.5	22.9	22.3	21.6	21.0	20.4	19.7	19.2	18.6	18.0	17.4	95
100					22.0	21.3	20.7	20.0	19.4	18.9	18.2	17.6	17.1	16.4	15.8	100
105						19.8	19.3	18.5	17.9	17.4	16.7	16.2	15.6	15.0	14.4	105
110							18.0	17.2	16.6	16.1	15.4	14.9	14.4	13.7	13.2	110
115							16.8	16.0	15.5	14.9	14.2	13.7	13.2	12.5	12.0	115
120								14.9	14.4	13.9	13.2	12.6	12.1	11.5	11.0	120
125								14.0	13.4	12.9	12.2	11.7	11.1	10.5	10.0	125
130									12.5	12.0	11.3	10.7	10.2	9.6	9.1	130
135									11.7	11.1	10.4	9.9	9.4	8.8	8.3	135
140										10.4	9.7	9.1	8.6	8.0	7.5	140
145										9.7	8.9	8.4	7.9	7.3	6.8	145
150											8.3	7.8	7.3	6.6	6.1	150
155											7.7	7.1	6.6	6.0	5.5	155
160												6.6	6.1	5.4	4.9	160
165												6.0	5.5	4.9	4.4	165
170													5.0	4.4		170
175													4.5			175

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 (*).

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DJK
04/28/77, Rev. 8/1/78
DRWG. #6908-B

MANITOWOC ENGINEERING CO.
MANITOWOC, WISCONSIN

MANITOWOC 4600W – 24' CRAWLERS EXTENDED

LIFTCRANE CAPACITIES – 104,400# CWT.

BOOM #17 WITH OPEN THROAT TOP

CRAWLER MACHINE ON BARGE – 3 DEGREE MACHINE LIST

RAD. IN FT.	CAPACITIES IN THOUSANDS OF LBS. BOOM LENGTH – FT.															RAD. IN FT.
	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	
16	204.0*															16
17	201.6*	178.4*														17
18	199.2*	176.4*														18
19	196.5*	174.4*	156.6*													19
20	183.7	172.5*	155.0*													20
22	161.0	155.2	150.0	137.0*												22
24	143.2	138.4	134.1	130.0	121.6*											24
26	128.6	124.7	121.1	117.7	114.2	109.5*										26
28	117.0	113.4	110.3	107.4	104.4	101.6	96.8*	90.8*								28
30	107.1	103.9	101.3	98.7	96.0	93.6	91.3	88.9								30
32	98.7	95.9	93.5	91.2	88.8	86.6	84.5	82.4	80.4	75.3*						32
34	91.5	88.9	86.7	84.7	82.5	80.5	78.7	76.7	74.9	73.2	68.6*					34
36	85.2	82.8	80.9	79.0	77.0	75.2	73.5	71.7	70.0	68.4	66.8	60.0*				36
38	79.7	77.4	75.7	74.0	72.1	70.5	68.9	67.2	65.7	64.2	62.7	59.9*	52.0*			38
40	74.8	72.7	71.1	69.5	67.8	66.3	64.8	63.2	61.8	60.4	59.0	57.6	51.8*	44.8*		40
45	64.8	62.9	61.5	60.2	58.7	57.4	56.2	54.8	53.6	52.5	51.2	50.0	48.9	44.5*	38.4*	45
50	57.0	55.3	54.1	53.0	51.6	50.5	49.4	48.2	47.1	46.1	45.0	43.9	42.9	41.6	38.1*	50
55	50.9	49.2	48.1	47.1	45.9	44.9	43.9	42.8	41.8	40.9	39.9	38.9	38.0	37.0	36.1	55
60	46.0	44.3	43.3	42.3	41.2	40.2	39.4	38.3	37.4	36.6	35.6	34.8	33.9	33.0	32.2	60
65		40.2	39.2	38.3	37.2	36.4	35.5	34.6	33.7	33.0	32.0	31.2	30.5	29.6	28.8	65
70		36.9	35.8	34.9	33.8	33.0	32.3	31.3	30.6	29.8	29.0	28.2	27.5	26.6	25.9	70
75			32.9	32.0	31.0	30.2	29.5	28.6	27.8	27.1	26.3	25.6	24.9	24.1	23.4	75
80			30.5	29.5	28.5	27.7	27.0	26.2	25.5	24.8	24.0	23.3	22.6	21.8	21.1	80
85				27.4	26.3	25.6	24.9	24.0	23.4	22.7	21.9	21.2	20.6	19.8	19.2	85
90				25.5	24.4	23.7	23.0	22.1	21.5	20.9	20.1	19.4	18.8	18.1	17.4	90
95					22.7	22.0	21.3	20.5	19.8	19.2	18.4	17.8	17.2	16.5	15.9	95
100					21.3	20.5	19.8	19.0	18.3	17.7	17.0	16.4	15.8	15.1	14.5	100
105						19.1	18.5	17.6	17.0	16.4	15.7	15.1	14.5	13.8	13.2	105
110							17.2	16.4	15.8	15.2	14.5	13.9	13.3	12.6	12.0	110
115							16.2	15.3	14.7	14.1	13.4	12.8	12.2	11.5	10.9	115
120								14.3	13.7	13.1	12.4	11.8	11.2	10.5	10.0	120
125								13.4	12.7	12.2	11.4	10.8	10.3	9.6	9.1	125
130									11.9	11.3	10.6	10.0	9.5	8.8	8.2	130
135									11.1	10.5	9.8	9.2	8.7	8.0	7.5	135
140										9.8	9.1	8.5	8.0	7.3	6.8	140
145										9.2	8.4	7.8	7.3	6.6	6.1	145
150											7.8	7.2	6.7	6.1	5.5	150
155											7.2	6.7	6.1	5.4	4.9	155
160												6.1	5.6	4.9	4.4	160
165												5.6	5.1	4.4		165
170													4.6			170
175													4.2			175

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 (*).

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DJK
04/28/77, Rev. 8/1/78
DRWG. #6908-C

MANITOWOC ENGINEERING CO.
MANITOWOC, WISCONSIN

MANITOWOC 4000W – 24' CRAWLERS EXTENDED

LIFTCRANE CAPACITIES – 104,400# CWT.

BOOM #22 WITH OPEN THROAT TOP

CRAWLER MACHINE ON BARGE – 0 DEGREE MACHINE LIST

RAD. IN FT.	CAPACITIES IN THOUSANDS OF LBS. BOOM LENGTH – FT.													RAD. IN FT.
	70	80	90	100	110	120	130	140	150	160	170	180	190	200	
17	300.0*	294.0*	267.1*												17
18	285.0*	281.6*	262.0*												18
19	267.3*	266.5*	256.0*	243.0*											19
20	249.9*	249.1*	249.3*	240.0*	215.9*										20
22	212.5	212.2	211.9	211.5	211.2	186.8*									22
24	183.3	183.0	182.6	182.2	181.9	181.5	181.4								24
26	160.9	160.5	160.2	159.7	159.4	158.9	158.8	157.0*	157.0*						26
28	143.2	142.8	142.4	141.9	141.5	141.1	141.0	140.5	140.1	139.7					28
30	128.8	128.4	128.0	127.5	127.1	126.6	126.5	126.0	125.6	125.2	124.9				30
32	116.9	116.5	116.1	115.5	115.1	114.6	114.5	114.1	113.6	113.2	112.9	112.5	112.1		32
34	106.9	106.5	106.0	105.5	105.1	104.6	104.5	104.0	103.5	103.0	102.6	102.4	102.0	95.5*	34
36	98.4	97.9	97.5	96.9	96.5	96.0	95.9	95.4	94.9	94.4	94.2	93.8	93.3	92.8	36
38	91.0	90.5	90.1	89.5	89.1	88.6	88.5	87.9	87.5	87.0	86.7	86.3	85.9	85.4	38
40	84.6	84.1	83.7	83.1	82.7	82.1	82.0	81.5	81.0	80.5	80.2	79.8	79.4	78.9	40
45	71.7	71.2	70.7	70.1	69.7	69.1	69.0	68.4	68.0	67.4	67.2	66.7	66.3	65.7	45
50	61.9	61.4	60.9	60.2	59.8	59.3	59.1	58.6	58.1	57.5	57.3	56.8	56.3	55.8	50
55	54.2	53.7	53.2	52.5	52.1	51.5	51.4	50.8	50.4	49.8	49.5	49.1	48.6	48.0	55
60	48.0	47.5	47.0	46.3	45.9	45.3	45.2	44.6	44.1	43.6	43.3	42.8	42.3	41.8	60
65	43.0	42.4	41.9	41.2	40.8	40.2	40.1	39.5	39.0	38.4	38.2	37.7	37.2	36.6	65
70	38.7	38.2	37.7	37.0	36.6	35.9	35.8	35.2	34.7	34.1	33.9	33.4	32.9	32.3	70
75		34.6	34.1	33.4	32.9	32.3	32.2	31.6	31.1	30.5	30.2	29.7	29.2	28.7	75
80		31.5	31.0	30.3	29.8	29.2	29.1	28.5	28.0	27.4	27.1	26.6	26.1	25.5	80
85			28.3	27.6	27.1	26.5	26.3	25.7	25.3	24.7	24.4	23.9	23.4	22.8	85
90			25.9	25.2	24.7	24.1	24.0	23.4	22.9	22.3	22.0	21.5	21.0	20.4	90
95				23.1	22.7	22.0	21.9	21.3	20.8	20.2	19.9	19.4	18.9	18.3	95
100				21.2	20.8	20.2	20.0	19.4	18.9	18.3	18.0	17.5	17.0	16.4	100
105					19.1	18.5	18.3	17.7	17.2	16.6	16.3	15.8	15.3	14.7	105
110						17.0	16.8	16.2	15.7	15.1	14.8	14.3	13.8	13.2	110
115						15.6	15.5	14.8	14.3	13.7	13.5	12.9	12.4	11.8	115
120							14.2	13.6	13.1	12.5	12.2	11.7	11.2	10.6	120
125							13.1	12.5	12.0	11.3	11.1	10.5	10.0	9.4	125
130								11.4	10.9	10.3	10.0	9.5	9.0	8.4	130
135								10.5	10.0	9.3	9.1	8.5	8.0	7.4	135
140									9.1	8.4	8.2	7.6	7.1	6.5	140
145									8.2	7.6	7.3	6.8	6.3	5.7	145
150										6.9	6.6	6.0	5.5	4.9	150
155										6.1	5.9	5.3	4.8	4.2	155
160											5.2	4.7	4.1		160
165											4.6	4.0			165

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 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-A

MANITOWOC ENGINEERING CO.
MANITOWOC, WISCONSIN

MANITOWOC 4000W – 24' CRAWLERS EXTENDED

LIFTCRANE CAPACITIES – 104,400# CWT.

BOOM #22 WITH OPEN THROAT TOP

CRAWLER MACHINE ON BARGE – 2 DEGREE MACHINE LIST

RAD. IN FT.	CAPACITIES IN THOUSANDS OF LBS. BOOM LENGTH – FT.														RAD. IN 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*	199.1*													19
20	196.0	189.2*	182.8*												20
22	170.3	165.9	161.7	157.6											22
24	150.3	146.7	143.3	139.8	136.7										24
26	134.3	131.3	128.4	125.5	122.8	120.1									26
28	121.3	118.7	116.2	113.6	111.3	108.9	107.0								28
30	110.4	108.1	105.9	103.6	101.6	99.5	97.9	95.9							30
32	101.2	99.2	97.2	95.2	93.4	91.5	90.0	88.2	86.5						32
34	93.4	91.5	89.8	87.9	86.2	84.5	83.2	81.6	80.0	78.4					34
36	86.6	84.9	83.3	81.5	80.0	78.4	77.3	75.7	74.3	72.8	71.6				36
38	80.7	79.1	77.6	75.9	74.6	73.1	72.0	70.6	69.3	67.9	66.8	65.5			38
40	75.4	73.9	72.5	71.0	69.7	68.3	67.4	66.0	64.8	63.5	62.5	61.3	60.1	58.8	40
45	64.7	63.4	62.2	60.8	59.7	58.5	57.7	56.5	55.4	54.3	53.4	52.4	51.3	50.2	45
50	56.4	55.2	54.1	52.9	51.9	50.8	50.1	49.1	48.1	47.0	46.3	45.4	44.4	43.4	50
55	49.8	48.7	47.7	46.6	45.7	44.6	44.1	43.1	42.2	41.2	40.6	39.7	38.8	37.9	55
60	44.5	43.4	42.5	41.4	40.6	39.6	39.1	38.1	37.3	36.4	35.8	35.0	34.2	33.3	60
65	40.1	39.1	38.1	37.1	36.3	35.4	34.9	34.0	33.2	32.4	31.8	31.0	30.5	29.4	65
70	36.5	35.4	34.5	33.4	32.7	31.8	31.4	30.5	29.8	28.9	28.4	27.7	26.9	26.1	70
75		32.2	31.4	30.3	29.6	28.7	28.3	27.5	26.8	26.0	25.5	24.8	24.1	23.3	75
80		29.6	28.7	27.6	26.9	26.1	25.7	24.9	24.2	23.4	22.9	22.2	21.5	20.8	80
85			26.3	25.3	24.6	23.8	23.4	22.6	21.9	21.1	20.7	20.0	19.3	18.6	85
90			24.3	23.2	22.5	21.7	21.4	20.6	19.9	19.1	18.7	18.0	17.4	16.6	90
95				21.4	20.7	19.9	19.5	18.8	18.1	17.4	16.9	16.3	15.6	14.9	95
100				19.8	19.1	18.3	17.9	17.2	16.5	15.8	15.4	14.7	14.1	13.4	100
105					17.7	16.8	16.5	15.7	15.1	14.3	13.9	13.3	12.7	12.0	105
110						15.5	15.2	14.4	13.8	13.0	12.6	12.0	11.4	10.7	110
115						14.3	14.0	13.2	12.6	11.8	11.5	10.8	10.2	9.5	115
120							12.9	12.1	11.5	10.8	10.4	9.8	9.1	8.4	120
125							11.9	11.1	10.5	9.8	9.4	8.8	8.2	7.5	125
130								10.2	9.6	8.9	8.5	7.9	7.3	6.6	130
135								9.4	8.8	8.0	7.6	7.0	6.4	5.7	135
140									8.0	7.2	6.9	6.2	5.7	5.0	140
145									7.3	6.5	6.1	5.5	4.9	4.2	145
150										5.9	5.5	4.9	4.3		150
155										5.2	4.9	4.2			155
160											4.3				160

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 (*).

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

MANITOWOC ENGINEERING CO.
MANITOWOC, WISCONSIN

MANITOWOC 4000W – 24' CRAWLERS EXTENDED

LIFTCRANE 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. BOOM LENGTH – FT.													RAD. IN FT.
	70	80	90	100	110	120	130	140	150	160	170	180	190	200	
18	193.9#														18
19	184.6#														19
20	175.2	168.0#													20
22	153.9	148.5	143.5												22
24	137.1	132.6	128.4	124.3											24
26	123.4	119.6	116.0	112.5	109.2										26
28	112.1	108.8	105.7	102.6	99.8	96.9									28
30	102.6	99.7	97.0	94.2	91.7	89.1	87.1								30
32	94.5	91.9	89.4	86.9	84.7	82.4	80.6	78.4							32
34	87.5	85.1	82.9	80.6	78.6	76.5	74.9	72.9	71.1						34
36	81.4	79.2	77.2	75.1	73.2	71.3	69.9	68.0	66.3	64.6					36
38	76.0	74.0	72.2	70.2	68.5	66.7	65.4	63.7	62.1	60.5	59.2				38
40	71.3	69.4	67.7	65.8	64.2	62.6	61.4	59.8	58.3	56.8	55.6	54.2			40
45	61.5	59.9	58.4	56.7	55.4	53.9	52.9	51.6	50.3	48.9	47.9	46.7	45.5	44.2	45
50	53.9	52.4	51.1	49.6	48.4	47.1	46.3	45.0	43.9	42.7	41.8	40.7	39.6	38.5	50
55	47.8	46.4	45.2	43.9	42.8	41.6	40.9	39.7	38.7	37.6	36.8	35.8	34.8	33.7	55
60	42.8	41.5	40.4	39.1	38.1	37.0	36.4	35.3	34.3	33.3	32.6	31.7	30.8	29.8	60
65	38.8	37.5	36.4	35.2	34.2	33.2	32.6	31.6	30.7	29.7	29.0	28.2	27.3	26.4	65
70	35.4	34.0	33.0	31.8	30.9	29.9	29.4	28.4	27.6	26.6	26.0	25.2	24.4	23.5	70
75		31.1	30.1	28.9	28.1	27.1	26.6	25.6	24.8	23.9	23.4	22.6	21.8	20.9	75
80		28.7	27.5	26.4	25.6	24.6	24.2	23.2	22.5	21.6	21.1	20.3	19.5	18.7	80
85			25.4	24.2	23.4	22.5	22.0	21.1	20.4	19.5	19.0	18.3	17.5	16.7	85
90			23.5	22.3	21.5	20.6	20.1	19.3	18.5	17.7	17.2	16.5	15.8	15.0	90
95				20.6	19.8	18.9	18.5	17.6	16.9	16.1	15.6	14.9	14.2	13.4	95
100				19.2	18.3	17.3	16.9	16.1	15.4	14.6	14.1	13.4	12.7	12.0	100
105					16.9	16.0	15.6	14.8	14.1	13.9	12.8	12.1	11.4	10.7	105
110						14.8	14.4	13.5	12.8	12.1	11.6	10.9	10.3	9.5	110
115						13.7	13.3	12.4	11.7	10.9	10.5	9.8	9.2	8.4	115
120							12.2	11.4	10.7	9.9	9.5	8.8	8.2	7.5	120
125							11.3	10.5	9.8	9.0	8.6	7.9	7.3	6.6	125
130								9.6	9.0	8.2	7.8	7.1	6.5	5.7	130
135								8.9	8.2	7.4	7.0	6.3	5.7	5.0	135
140									7.5	6.7	6.2	5.6	5.0	4.2	140
145									6.8	6.0	5.6	4.9	4.3		145
150										5.4	4.9	4.3			150
155										4.8	4.4				155

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DJK
04/27/77, Rev. 8/1/78
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MANITOWOC ENGINEERING CO.
MANITOWOC, WISCONSIN