



MANITOWOC 4600 SERIES 3 - RINGER SERIES 2 - 760,000# AUXILIARY CWT.
RINGER CAPACITIES - 60 FT. RINGER ATTACHMENT - ON BLOCKING.
BOOM #35

S/N: 1039

RAD. IN FT.	CAPACITIES IN POUNDS							RAD. IN FT.
	BOOM LENGTH - FT.							
	100	130	160	190	220	250	280	
48	1,200,000*							48
50	1,200,000*							50
52	1,200,000*	1,042,000*						52
55	1,200,000*	1,028,600*						55
57	1,200,000*	1,020,000*	895,000*					57
60	1,188,400*	1,007,500*	884,600*					60
65	1,164,500*	987,800*	868,200*	763,000*				65
70	1,141,400*	969,200*	852,800*	750,700*	659,400*			70
75	1,056,900	951,400*	838,200*	739,100*	650,600*	570,500*		75
80	951,100	934,400*	824,400*	728,100*	642,100*	564,400*	496,500*	80
85	864,100	860,500	811,300*	717,600*	634,100*	558,600*	492,500*	85
90	791,300	787,600	783,800	707,600*	626,500*	553,000*	488,800*	90
95	715,600*	725,800	721,900	698,100*	619,200*	547,800*	485,400*	95
100	645,300*	672,600	668,700	664,800	612,200*	542,800*	482,300*	100
105	583,300*	626,400	622,500	618,600	605,500*	538,100*	479,500*	105
110	527,400*	585,800	582,000	578,000	574,000	533,700*	477,100*	110
115	475,800*	550,000	546,100	542,200	538,200	529,400*	475,000*	115
120	426,200*	518,100	514,200	510,300	506,300	502,200	454,700*	120
125		489,500	485,600	481,700	477,700	473,600	395,400*	125
130		456,700*	459,800	455,900	451,900	447,800	352,900*	130
135		420,700*	436,500	432,500	428,500	424,500	317,500*	135
140		387,000*	415,200	411,300	407,300	403,200	287,300*	140
145		354,700*	395,800	391,900	387,900	383,800	260,600*	145
150			378,000	374,000	370,000	366,000	236,800*	150
155			361,500	357,600	353,600	337,100*	215,000*	155
160			344,900*	342,400	338,400	307,800*	194,800*	160
165			321,200*	328,400	324,400	280,800*	176,200*	165
170			298,300*	315,300	311,300	256,500*	158,900*	170
175				303,200	299,200	234,200*	142,900*	175
180				291,800	287,800	213,800*	127,900*	180
185				281,200	277,200	194,900*	113,800*	185
190				270,000*	267,200	177,200*	100,500*	190
195				253,000*	257,800	160,700*	88,000*	195
200				236,300*	236,800*	145,100*	76,200*	200
205					215,400*	130,200*	65,000*	205
210					195,300*	116,100*		210
215					176,200*	102,700*		215
220					158,100*	90,000*		220
225					140,700*	77,900*		225
230						66,400*		230

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 jib, all load blocks, hooks, weight ball, slings, 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. See boom raising capability chart.

Machine to operate with roller path level within a tolerance of 1-1/4" in 60 ft. and properly supported. Refer to rigging #50860, range chart #6529-A and load line specification charts #6429 and #6431.

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

Operating radius is the horizontal distance from the axis of rotation to the center of vertical hoist line or load block.

Machine equipped with 26'-1" crawlers, 60" treads, 30' heavy duty mast, 30 part independent boom hoist reeving, eight 1-3/4" galvanized boom support strand pendants, 80' fixed auxiliary mast, 112,000# crane cwt. and 760,000# auxiliary cwt.

Maximum Boom and Jib Lengths Lifted Unassisted		Deduct From Capacities When Jib is Attached	
Bo. Lgth.	Jib #122	Jib Lgth.	Jib #122
280'	---	40'	9,300#
280'	40'		

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

DJK:cg
REV. 3/21/74

DRWG. #6212-A

MANITOWOC ENGINEERING CO.
MANITOWOC, WISCONSIN

S/N: 1039

MANITOWOC ENGINEERING CO.

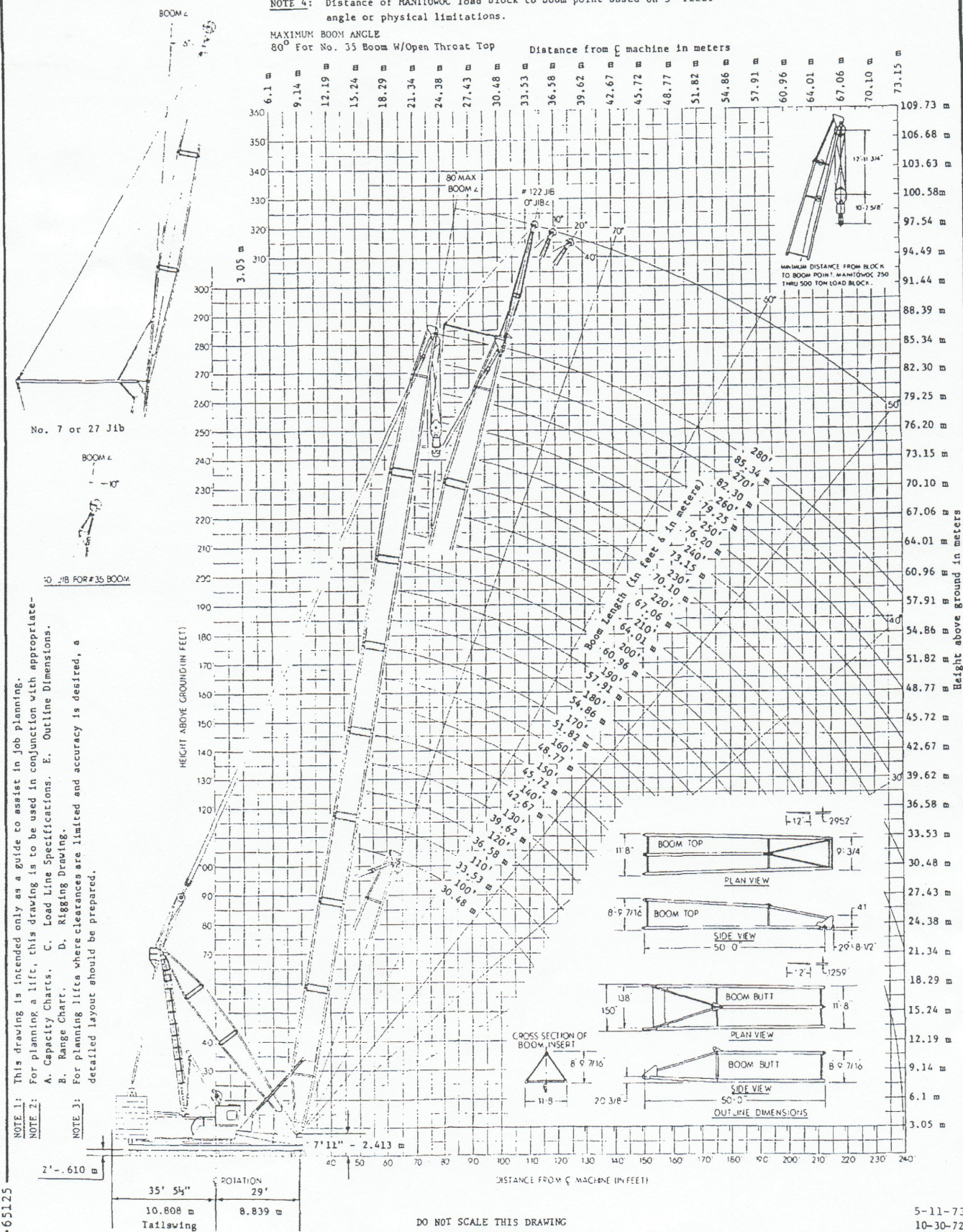
A Division of The Manitowoc Company, Inc.

Monitowoc, Wisconsin

NOTE 4: Distance of MANITOWOC load block to boom point based on 30° fleet angle or physical limitations.

MAXIMUM BOOM ANGLE

80° For No. 35 Boom W/Open Throat Top

Distance from ζ machine in meters

RANGE DIAGRAM-M4600-No.35 BOOM-60ft.RINGER®SERIES 2

5-11-73
10-30-72



MANITOWOC 4600 SERIES 3 - RINGER SERIES 2
RANGE CHART
BOOM #35

S/N: 1039

RAD. IN FT.	BOOM ANGLE IN DEGREES							RAD. IN FT.
	BOOM LENGTH - FT.							
	100	130	160	190	220	250	280	
48	79.8							48
50	78.6							50
52	77.5	80.4						52
55	75.7	79.0						55
57	74.5	78.1	80.4					57
60	72.7	76.8	79.3					60
65	69.7	74.5	77.5	79.5				65
70	66.6	72.2	75.6	77.9	79.6			70
75	63.4	69.9	73.8	76.4	78.3	79.7		75
80	60.1	67.5	71.9	74.8	76.9	78.5	79.8	80
85	56.7	65.1	70.0	73.3	75.6	77.4	78.7	85
90	53.2	62.6	68.1	71.7	74.2	76.2	77.7	90
95	49.5	60.1	66.1	70.1	72.9	75.0	76.6	95
100	45.5	57.5	64.1	68.5	71.5	73.8	75.6	100
105	41.3	54.8	62.1	66.8	70.1	72.6	74.5	105
110	36.7	52.0	60.1	65.2	68.7	71.4	73.5	110
115	31.4	49.2	58.0	63.5	67.3	70.2	72.4	115
120	25.3	46.2	55.8	61.8	65.9	69.0	71.3	120
125		43.0	53.6	60.1	64.5	67.7	70.2	125
130		39.6	51.3	58.3	63.0	66.5	69.1	130
135		36.0	49.0	56.5	61.5	65.2	68.0	135
140		32.0	46.5	54.7	60.0	63.9	66.9	140
145		27.4	44.0	52.8	58.5	62.7	65.8	145
150			41.3	50.8	57.0	61.4	64.7	150
155			38.5	48.9	55.4	60.0	63.5	155
160			35.5	46.8	53.8	58.7	62.4	160
165			32.3	44.7	52.2	57.3	61.2	165
170			28.7	42.5	50.5	56.0	60.0	170
175				40.2	48.8	54.6	58.8	175
180				37.8	47.0	53.1	57.6	180
185				35.2	45.2	51.7	56.4	185
190				32.5	43.3	50.2	55.2	190
195				29.5	41.4	48.7	53.9	195
200				26.2	39.3	47.1	52.6	200
205					37.2	45.6	51.3	205
210					35.0	43.9		210
215					32.6	42.2		215
220					30.1	40.5		220
225					27.4	38.7		225
230						36.8		230

Boom angle is the angle between horizontal and a line through the boom hinge that is parallel to the lower chords of inserts and boom top. Boom angle is an indication of operating radius, but in all cases, operating radius shall govern capacity.

NOTE: THIS IS A RANGE CHART
NOT A CAPACITY CHART

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3/21/74

DRWG. #6529-A

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