

# MANITOWOC ENGINEERING CO.

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



## CLAMSHELL/GRAPPLE CAPACITIES

BOOM NO. 22A OR NO. 22C WITH OPEN THROAT TOP  
83,400 LB. COUNTERWEIGHT

4100W

4100W SERIES 1

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.

WEIGHT OF BUCKET IS CONSIDERED PART OF THE LOAD. WHERE NO CAPACITY IS SHOWN, OPERATION IS NOT INTENDED OR APPROVED.

MACHINE IS TO BE OPERATED BY CONTROLLED CONVERTER LOWERING OF THE LOAD FOR CAPACITIES ABOVE 20,000 LBS. THE MAXIMUM ALLOWABLE CAPACITY FOR MACHINES EQUIPPED WITH FULL WIDTH FRONT AND REAR DRUMS OR FULL WIDTH FRONT, REAR, AND ROOF MOUNTED DRUMS IS 32,000 LBS. THE MAXIMUM ALLOWABLE CAPACITY FOR MACHINES EQUIPPED WITH FULL WIDTH FRONT AND REAR SPLIT 17-3/8" DRUMS IS 28,000 LBS.

MACHINE TO OPERATE IN A LEVEL POSITION ON A FIRM UNIFORMLY SUPPORTING SURFACE WITH GANTRY UP. REFER TO BOOM RIGGING NO. 48721 OR NO. 190693 AND WIRE ROPE SPECIFICATION CHART NO. 6133. CRANE OPERATOR JUDGMENT MUST BE USED TO ALLOW FOR ADVERSE OPERATING CONDITIONS AND PHYSICAL MACHINE DEPRECIATION.

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 EQUIPPED WITH 26'6" EXTENDIBLE CRAWLERS, 48" TREADS, 17' RETRACTABLE GANTRY, 12 PART BOOM HOIST REEVING, FOUR 1-3/8" BOOM PENDANTS, 1ST COUNTERWEIGHT = 41,900 LBS., AND 2ND COUNTERWEIGHT = 41,500 LBS.

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	CAPACITY CRAWLERS RETRACTED POUNDS	CAPACITY CRAWLERS EXTENDED POUNDS
70	34	67.1	32,000*	32,000*
	36	65.5	32,000*	32,000*
	38	63.7	32,000*	32,000*
	40	62.0	32,000*	32,000*
	45	57.5	32,000*	32,000*
	50	52.7	32,000*	32,000*
	55	47.7	32,000*	32,000*
	60	42.2	32,000*	32,000*
	65	36.0	32,000*	32,000*
	70	28.7	32,000*	32,000*
80	38	67.1	32,000*	32,000*
	40	65.6	32,000*	32,000*
	45	61.7	32,000*	32,000*
	50	57.8	32,000*	32,000*
	55	53.6	32,000*	32,000*
	60	49.3	32,000*	32,000*
	65	44.6	32,000*	32,000*
	70	39.5	32,000*	32,000*
	75	33.7	29,800	32,000*
	80	26.9	27,100	31,300
90	40	68.3	32,000*	32,000*
	45	65.0	32,000*	32,000*
	50	61.6	32,000*	32,000*
	55	58.0	32,000*	32,000*
	60	54.3	32,000*	32,000*
	65	50.5	32,000*	32,000*
	70	46.4	32,000*	32,000*
	75	42.0	29,300	32,000*
	80	37.2	26,600	30,800
	85	31.8	24,300	28,200
100	45	67.5	32,000*	32,000*
	50	64.5	32,000*	32,000*
	55	61.4	32,000*	32,000*
	60	58.2	32,000*	32,000*
	65	54.9	32,000*	32,000*
	70	51.5	31,800	32,000*
	75	47.8	28,700	32,000*
	80	44.0	26,100	30,300
	85	39.8	23,700	27,600
	90	35.3	21,700	25,300
110	95	30.2	19,900	23,300
	100	24.2	18,300	21,500
	50	66.9	32,000*	32,000*
	55	64.1	32,000*	32,000*
	60	61.3	32,000*	32,000*
	65	58.4	32,000*	32,000*
	70	55.4	31,400	32,000*
	75	52.2	28,300	32,000*
	80	49.0	25,600	29,900
	85	45.6	23,300	27,200
120	90	41.9	21,300	24,900
	95	38.0	19,500	22,900
	100	33.7	17,900	21,100
	105	28.8	16,400	19,400
	55	66.4	32,000*	32,000*
	60	63.8	32,000*	32,000*
	65	61.2	32,000*	32,000*
	70	58.5	30,900	32,000*
	75	55.7	27,800	32,000*
	80	52.9	25,100	29,300
130	85	49.9	22,800	26,700
	90	46.8	20,700	24,400
	95	43.6	18,900	22,300
	100	40.1	17,300	20,500
	105	36.4	15,900	18,900
	110	32.2	14,600	17,400
	115	27.6	13,400	16,100