

# MANITOWOC ENGINEERING CO.

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



## CLAMSHELL/GRAPPLE CAPACITIES \_\_\_\_\_ 888 SERIES 1

BOOM NO. 22EL

109,100 LB. COUNTERWEIGHT

28'2" CRAWLERS EXTENDED

CRAWLER MACHINE ON A BARGE

0 DEGREE THRU 1 DEGREE AND 1 DEGREE THRU 3 DEGREE MACHINE LIST

360 DEGREE RATING

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 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 LOAD. WHERE NO CAPACITY IS SHOWN, OPERATION IS NOT INTENDED OR APPROVED.

MACHINE TO OPERATE ON A FIRM UNIFORMLY SUPPORTING SURFACE WITH CRAWLERS FULLY EXTENDED, GANTRY UP AND MACHINE LIST NOT TO EXCEED DEGREES NOTED. REFER TO BOOM RIGGING NO. 177156 OR NO. 177353 AND WIRE ROPE SPECIFICATION CHART NO. 7963-A. CRANE OPERATOR JUDGMENT MUST BE USED TO ALLOW FOR ADVERSE OPERATING CONDITIONS AND PHYSICAL MACHINE DEPRECIATION.

OPERATING RADIUS IS HORIZONTAL DISTANCE FROM AXIS OF ROTATION AT BARGE DECK TO CENTER OF GRAVITY OF FREELY SUSPENDED LOAD. BOOM ANGLE IS ANGLE ABOVE TRUE HORIZONTAL AND A LINE DRAWN THROUGH BOOM HINGE PIN AND BOOM POINT SHAFT CENTERLINE.

MACHINE EQUIPPED WITH 28' 2" EXTENDIBLE CRAWLERS, 48" TREADS, 10' 3" RETRACTABLE GANTRY, 30' LIVE MAST, 20 PART BOOM HOIST REEVING, FOUR 1-3/8" BOOM PENDANTS, AND 109,100 LB. COUNTERWEIGHT.

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	0 DEGREE THRU 1 DEGREE MACHINE LIST CAPACITY POUNDS	1 DEGREE THRU 3 DEGREE MACHINE LIST CAPACITY POUNDS
70	35	67.5	30,000*	30,000*
	40	63.0	30,000*	30,000*
	45	58.2	30,000*	30,000*
	50	53.1	30,000*	30,000*
	55	47.6	30,000*	30,000*
	60	41.6	30,000*	30,000*
80	65	34.7	30,000*	30,000*
	70	26.1	30,000*	30,000*
	40	66.6	30,000*	30,000*
	45	62.6	30,000*	30,000*
	50	58.4	30,000*	30,000*
	55	54.0	30,000*	30,000*
90	60	49.3	30,000*	30,000*
	65	44.3	30,000*	30,000*
	70	38.7	30,000*	30,000*
	75	32.3	30,000*	30,000*
	45	65.9	30,000*	30,000*
	50	62.3	30,000*	30,000*
100	55	58.6	30,000*	30,000*
	60	54.7	30,000*	30,000*
	65	50.6	30,000*	30,000*
	70	46.3	30,000*	30,000*
	75	41.6	30,000*	30,000*
	80	36.3	30,000*	28,100*
110	85	30.3	27,700	26,000*
	45	68.4	30,000*	30,000*
	50	65.3	30,000*	30,000*
	55	62.1	30,000*	30,000*
	60	58.7	30,000*	30,000*
	65	55.3	30,000*	30,000*
120	70	51.6	30,000*	30,000*
	75	47.8	30,000*	30,000*
	80	43.7	30,000*	28,100*
	85	39.3	27,700	25,900
	90	34.3	25,100	23,600
	95	28.7	22,800	21,600

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	0 DEGREE THRU 1 DEGREE MACHINE LIST CAPACITY POUNDS	1 DEGREE THRU 3 DEGREE MACHINE LIST CAPACITY POUNDS
110	50	67.7	30,000*	30,000*
	55	64.8	30,000*	30,000*
	60	61.9	30,000*	30,000*
	65	58.8	30,000*	30,000*
	70	55.7	30,000*	30,000*
	75	52.4	30,000*	30,000*
120	80	49.0	30,000*	27,900
	85	45.4	27,300	25,300
	90	41.5	24,800	23,100
	95	37.3	22,500	21,000
	100	32.6	20,500	19,200
	105	27.2	18,700	17,600
130	55	67.1	30,000*	30,000*
	60	64.4	30,000*	30,000*
	65	61.7	30,000*	30,000*
	70	58.9	30,000*	30,000*
	75	56.1	30,000*	30,000*
	80	53.1	30,000*	27,400
140	85	50.0	27,100	24,900
	90	46.8	24,600	22,600
	95	43.3	22,300	20,600
	100	39.6	20,300	18,800
	105	35.6	18,500	17,200
	110	31.2	16,900	15,800
150	115	26.0	15,400	14,400