

# MANITOWOC ENGINEERING CO.

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



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

**BOOM NO. 22E WITH OPEN THROAT TOP  
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 RADI I 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. 176519 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.

DEDUCT 4,000 LBS. FROM CAPACITIES WHEN BOOM BUTTS EQUIPPED WITH AUXILIARY DRUM.

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	0 DEGREE THRU 1 DEGREE MACHINE LIST	1 DEGREE THRU 3 DEGREE MACHINE LIST	BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	0 DEGREE THRU 1 DEGREE MACHINE LIST	1 DEGREE THRU 3 DEGREE MACHINE LIST
			CAPACITY POUNDS	CAPACITY POUNDS				CAPACITY POUNDS	CAPACITY POUNDS
<b>70</b>	35	67.1	30,000*	30,000*	<b>100</b>	45	68.1	30,000*	30,000*
	40	62.9	30,000*	30,000*		50	65.1	30,000*	30,000*
	45	58.4	30,000*	30,000*		55	62.0	30,000*	30,000*
	50	53.7	30,000*	30,000*		60	58.9	30,000*	30,000*
	55	48.7	30,000*	30,000*		65	55.6	30,000*	30,000*
	60	43.3	30,000*	30,000*		70	52.2	30,000*	30,000*
	65	37.3	30,000*	30,000*		75	48.6	30,000*	30,000*
<b>80</b>	70	30.3	30,000*	30,000*	80	44.8	30,000*	29,000*	
	40	66.3	30,000*	30,000*	85	40.7	29,200	27,000*	
	45	62.5	30,000*	30,000*	90	36.3	26,700	25,100	
	50	58.6	30,000*	30,000*	95	31.3	24,500	23,200	
	55	54.5	30,000*	30,000*	100	25.5	22,500	21,400	
	60	50.2	30,000*	30,000*	<b>110</b>	50	67.4	30,000*	30,000*
	65	45.5	30,000*	30,000*		55	64.7	30,000*	30,000*
70	40.5	30,000*	30,000*	60		61.9	30,000*	30,000*	
75	34.9	30,000*	30,000*	65		59.0	30,000*	30,000*	
80	28.4	30,000*	29,300*	70		56.0	30,000*	30,000*	
<b>90</b>	40	69.0	30,000*	30,000*		75	52.9	30,000*	30,000*
	45	65.7	30,000*	30,000*		80	49.6	30,000*	28,800*
	50	62.3	30,000*	30,000*	85	46.2	28,600	26,600	
	55	58.7	30,000*	30,000*	90	42.7	26,100	24,400	
	60	55.1	30,000*	30,000*	95	38.8	23,900	22,400	
	65	51.3	30,000*	30,000*	100	34.6	22,000	20,700	
	70	47.2	30,000*	30,000*	105	29.8	20,200	19,100	
<b>120</b>	75	42.9	30,000*	30,000*	<b>115</b>	55	66.9	30,000*	30,000*
	80	38.2	30,000*	29,100*		60	64.3	30,000*	30,000*
	85	33.0	29,500	27,100*		65	61.7	30,000*	30,000*
	90	26.8	27,000	25,300*		70	59.0	30,000*	30,000*
	55	66.9	30,000*	30,000*		75	56.3	30,000*	30,000*
	60	64.3	30,000*	30,000*		80	53.5	30,000*	28,400
	65	61.7	30,000*	30,000*		85	50.5	28,200	26,000
	70	59.0	30,000*	30,000*		90	47.5	25,800	23,800
	75	56.3	30,000*	30,000*		95	44.2	23,600	21,800
	80	53.5	30,000*	28,400		100	40.8	21,600	20,100
85	50.5	28,200	26,000	105	37.1	19,900	18,500		
90	47.5	25,800	23,800	110	33.1	18,300	17,100		
95	44.2	23,600	21,800	115	28.6	16,800	15,800		
100	40.8	21,600	20,100						