MANITOWOC ENGINEERING CO.
Division of The Manitowoc Company, Inc. Manitowoc, Wisconsin 54220

TOWER CRANE INTERMEDIATE FALL CAPACITIES — 4100W

4100W SERIES 1 CRAWLER

123' TO 183' NO. 22A TOWER WITH NO. 23 BOOM
26' 6" CRAWLERS — EXTENDED
122,400 LB. COUNTERWEIGHT

LIFTING CAPACITIES: Capacities for various tower lengths, boom lengths and operating radii are for freely suspended loads and do not exceed **75%** of a static tipping load. **CAPACITIES SHOWN BY SHADED AREAS ARE BASED ON STRUCTURAL COMPETENCE.**

Capacities are shown in pounds. Weight of all load blocks, hooks, weight ball, slings, hoist lines, etc., beneath boom, jib and intermediate fall point sheaves, is considered part of the intermediate fall load. When jib is attached, a deduction for jib weight is not required for this chart only. 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 aproved.

A maximum of two hoist lines may be used with one over the intermediate fall and one over the boom point or jib point. Simultaneous handling of loads with hoist lines over the intermediate fall and boom point or jib point is not permitted.

OPERATING CONDITIONS: Machine to operate on a firm surface with crawlers fully extended and roller path level within a tolerance of ½" in 10' and properly supported. Refer to rigging No. 50805, load line specification chart No. 5347 and chart No. 5527 for recommended procedure for operating under various wind conditions. **BOOM MUST BE AT LEAST 13' SHORTER THAN TOWER IN ORDER TO FOLD BOOM UNDER TOWER.**

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

OPERATING RADIUS: Operating radius is the horizontal distance from the axis of rotation to the center of vertical hoist line. Boom angle is the angle between horizontal and centerline of boom butt and inserts and is an indication of operating radius. In all cases, operating radius shall govern capacity.

INTERMEDIATE FALL POINT ELEVATION: Intermediate fall point elevation, in feet, is the vertical distance from ground level to centerline of intermediate fall point shaft. Distances are given for 183' tower. Deduct 10' for each 10' reduction in tower height.

MACHINE EQUIPMENT: Machine equipped with 26' — 6" extendible crawlers, 48" treads, 17' retractable gantry, 12 part boom hoist reeving, four 1⅜" tower pendants, two 1½" boom pendants, two ⅞" intermediate suspension pendants. 1st ctwt. 41,900 lbs., 2nd ctwt. 41,500 lbs., 3rd ctwt. 39,000 lbs. Total counterweight 122,400 pounds.

LOAD LINE SPECIFICATIONS
INTERMEDIATE FALL: 1" — 6x25 Filler Wire, Improved Plow Steel, Regular Lay, IWRC. Minimum Breaking Strength 44.9 Ton. (Approx. Weight Per Ft. in Lbs. 1.85)

MAXIMUM TOWER AND BOOM LENGTHS LIFTED UNASSISTED			
OVER FRONT OF BLOCKED CRAWLERS		OVER SIDE OF EXTENDED CRAWLERS	
Tower	Boom	Tower	Boom
183'	170'	153'	140'
Load block, hook and weight ball in ground until tower is in vertical position and boom is in operating range. Jib to be attached with tower in vertical position and with boom in a position which will allow jib to be attached.			

Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Angle: Deg.	Int. Fall Point: Elev.	Capacity:
110 AND 120	35	63.1	245.9	15,000
	40	57.9	242.9	12,700
	45	52.3	239.3	11,200
	50	46.3	234.8	10,000
	55	39.6	229.2	8,900
	60	31.6	221.9	8,100
	65	21.1	211.2	7,500
130 AND 140 AND 150	30	68.0	248.3	15,000
	35	63.1	245.9	15,000
	40	57.9	242.9	12,700
	45	52.3	239.3	11,200
	50	46.3	234.8	10,000
	55	39.6	229.2	8,900
	60	31.6	221.9	8,100
	65	21.1	211.2	7,500

Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Angle: Deg.	Int. Fall Point Elev.	Capacity:
160	30	71.2	259.0	15,000
	35	67.0	257.0	15,000
	40	62.7	254.6	14,200
	45	58.2	251.6	12,600
	50	53.4	248.1	11,200
	55	48.3	243.8	10,100
	60	42.8	238.7	9,200
	65	36.6	232.5	8,400
	70	29.3	224.5	7,800
	75	19.5	212.9	7,200
170	35	69.9	267.8	15,000
	40	66.2	265.7	15,000
	45	62.3	263.2	14,000
	50	58.4	260.3	12,400
	55	54.2	256.8	11,100
	60	49.9	252.8	10,200
	65	45.2	248.0	9,300
	70	40.0	242.4	8,600
	75	34.2	235.6	7,900
	80	27.4	226.9	7,300
	85	18.2	214.4	7,000

Combined From Charts:
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