TOWER CRANE CAPACITIES _____ 4100W

4100W SERIES 1

193' TO 213' NO. 22A TOWER WITH NO. 23 BOOM
26' 6" CRAWLERS — EXTENDED
122,400 LB. COUNTERWEIGHT

CAUTION
OUTSIDE ASSIST REQUIRED

CRAWLER

LIFTING CAPACITIES: Capacities for various tower heights, 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 jib, (see chart A) all load blocks, hooks, weight ball, slings, hoist lines, etc., beneath boom and jib point sheaves, is considered part of the main boom load. 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 approved. **CAPACITY INDICATED BY "B" REPRESENTS A BOOM POSITION WHICH REQUIRES LOAD HANDLING DEVICES OF AT LEAST 2,200 POUNDS TO PREVENT BOOM FROM COMING BACK AGAINST BOOM STOP AS LOAD IS RELEASED.**

OPERATING CONDITIONS: Machine to operate in a level position on a firm surface, crawlers fully extended, roller path level within a tolerance of 1/4" in 10 feet, and properly supported, and be rigged in accordance with and under conditions referred to in rigging drawing No. 50805 and load line specification chart No. 5347, and chart No. 5527 for recommended procedure for operating under various wind conditions. **CAUTION: OUTSIDE ASSIST REQUIRED. SEE CHART NO. 5393 FOR TOWER AND BOOM RAISING PROCEDURE.**

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 or load block with the load freely suspended. Add 12" to boom point radius for radius of sheave when using single part of 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.

BOOM POINT ELEVATION: Boom point elevation, in feet, is the vertical distance from ground level to centerline of boom point shaft. Distances are given for 213' tower. Deduct 10' for each 10' reduction of tower height.

MACHINE EQUIPMENT: Machine equipped with 26' — 6" extendible crawlers, 48" treads, 17' retractable gantry, 12 part boom hoist reeving, four 1-3/8" tower pendants, two 1-1/2" boom pendants, two 7/8" intermediate suspension pendants on boom lengths of 130' and over. 1st ctwt. 41,900 lbs., 2nd ctwt. 41,500 lbs., 3rd ctwt. 39,000 lbs. total counterweight 122,400 pounds.

LOAD LINE SPECIFICATIONS   SEE NOTE *
FULL WIDTH FRONT OR FULL WIDTH REAR DRUM LOAD LINE: 1-1/8" — 6x31 Warrington-Seale, Extra Improved Plow Steel, Regular Lay, IWRC. Minimum Breaking Strength 65 Ton. Maximum Load — 32,500 lbs. per Line. (Approx. Weight Per Ft. in Lbs. 2.34)
SPLIT REAR DRUM, RIGHT HAND LOAD LINE: 1-1/8" — 6x31 Warrington-Seale, Improved Plow Steel, Regular Lay, IWRC. Minimum Breaking Strength 56.5 Ton. Maximum Load 28,300 Lbs. Per Line. (Approx. Weight Per Ft. in Lbs. 2.34)

(A) DEDUCT FROM CAPACITIES WHEN JIB IS ATTACHED	
JIB LENGTH	**JIB NO. 124**
30'	2,000 Lb.
40'	2,400 Lb.
50'	2,800 Lb.
60'	3,200 Lb.

Load block, hook & weight ball on 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.

For jib capacities, consult jib chart.

Boom Lgth. Feet	Oper. Rad. Feet	Boom Ang. Deg.	Boom Point Elev.	Capacity	Boom Lgth. Feet	Oper. Rad. Feet	Boom Ang. Deg.	Boom Point Elev.	Capacity	Boom Lgth. Feet	Oper. Rad. Feet	Boom Ang. Deg.	Boom Point Elev.	Capacity	Boom Lgth. Feet	Oper. Rad. Feet	Boom Ang. Deg.	Boom Point Elev.	Capacity
110	35	73.6	325.0	61,300B	**130**	40	73.9	344.4	50,600B	**150**	50	72.1	362.2	41,100	**160**	125	40.9	324.1	17,500
	40	70.9	323.4	58,900B		45	71.6	342.8	48,700B		55	70.1	360.5	39,500		130	38.0	318.1	16,700
	45	68.1	321.5	56,500B		50	69.3	341.0	46,700B		60	68.1	358.6	37,900		135	35.0	311.3	15,700
	50	65.3	319.4	54,300B		55	66.9	339.0	44,800		65	66.0	356.5	36,300		140	31.8	303.7	14,900
	55	62.4	316.9	52,200B		60	64.5	336.8	43,000		70	63.9	354.1	34,700		145	28.2	295.1	14,100
	60	59.4	314.1	50,200B		65	62.0	334.2	41,200		75	61.7	351.6	33,100		150	24.1	284.9	13,300
	65	56.3	311.0	48,300		70	59.5	331.4	39,400		80	59.6	348.8	31,600		155	19.3	272.4	12,600
	70	53.1	307.5	46,400		75	56.9	328.3	37,800		85	57.3	345.7	30,200		160	12.8	255.0	12,100
	75	49.8	303.5	44,700		80	54.2	324.9	36,100		90	55.0	342.3	28,900	**170**	55	72.5	381.6	32,200
	80	46.3	299.0	43,000		85	51.5	321.1	34,600		95	52.7	338.7	27,600		60	70.8	380.0	30,800
	85	42.6	293.9	41,500		90	48.6	316.9	33,200		100	50.2	334.7	26,300		65	69.0	378.1	29,400
	90	38.6	288.0	39,500		95	45.6	312.3	31,800		105	47.7	330.4	25,100		70	67.2	376.1	27,900
	95	34.2	281.2	37,100		100	42.4	307.1	30,600		110	45.0	325.6	24,000		75	65.3	373.9	26,600
	100	29.2	273.2	34,900		105	39.0	301.3	29,300		115	42.3	320.3	22,900		80	63.4	371.5	25,200
	105	23.3	263.0	32,900		110	35.4	294.7	28,100		120	39.3	314.5	21,800		85	61.5	368.9	23,900
	110	15.5	248.8	30,800		115	31.4	287.1	27,100		125	36.2	308.1	20,900		90	59.6	366.1	22,700
120	40	72.5	333.9	54,700B		120	26.8	278.1	26,100		130	32.9	300.8	20,000		95	57.6	363.0	21,500
	45	70.0	332.2	52,600B		125	21.4	267.0	25,200		135	29.2	292.5	19,100		100	55.6	359.7	20,400
	50	67.5	330.3	50,600B		130	14.3	251.5	24,400		140	25.0	282.7	18,300		105	53.6	356.2	19,300
	55	64.8	328.1	48,700B	**140**	45	73.0	353.3	45,000B		145	19.9	270.6	17,600		110	51.4	352.4	18,300
	60	62.2	325.6	46,700		50	70.8	351.7	43,200B		150	13.3	253.9	17,000		115	49.2	348.2	17,300
	65	59.4	322.8	44,800		55	68.6	349.8	41,400	**160**	50	73.3	372.7	36,700		120	47.0	343.7	16,300
	70	56.6	319.7	43,000		60	66.4	347.8	39,600		55	71.4	371.1	35,200		125	44.6	338.9	15,300
	75	53.7	316.2	41,300		65	64.2	345.5	37,900		60	69.5	369.3	33,600		130	42.2	333.6	14,300
	80	50.7	312.3	39,800		70	61.9	342.9	36,300		65	67.6	367.4	32,100		135	39.6	327.8	13,400
	85	47.5	308.0	38,200		75	59.5	340.1	34,700		70	65.6	365.2	30,600		140	36.9	321.5	12,600
	90	44.2	303.1	36,700		80	57.1	337.0	33,100		75	63.7	362.8	29,200		145	34.0	314.4	11,800
	95	40.7	297.7	35,300		85	54.6	333.6	31,600		80	61.6	360.2	27,800		150	30.8	306.5	11,000
	100	36.9	291.5	34,000		90	52.1	329.9	30,200		85	59.6	357.4	26,400		155	27.3	297.5	10,300
	105	32.7	284.2	32,600		95	49.5	325.8	28,800		90	57.5	354.4	25,100		160	23.4	287.0	9,700
	110	28.0	275.7	30,800		100	46.7	321.4	27,600		95	55.3	351.1	23,900		165	18.7	274.0	9,100
	115	22.3	265.0	29,200		105	43.8	316.4	26,300		100	53.1	347.5	22,700		170	12.5	256.1	8,600
	120	14.8	250.2	27,400		110	40.8	310.9	25,200		105	50.9	343.5	21,500					
						115	37.5	304.8	24,100		110	48.5	339.3	20,500					
						120	34.0	297.8	23,100		115	46.1	334.7	19,400					
						125	30.2	289.9	22,200		120	43.5	329.6	18,500					
						130	25.8	280.5	21,300										
						135	20.7	268.8	20,500										
						140	13.7	252.7	19,900										

* NOTE: Hoist line on full width rear drum or right rear drum is used only when two load lines are required over the boom point.

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