TOWER CRANE CAPACITIES — 4100W

223′ TO 253′ NO. 22A TOWER WITH NO. 23 BOOM
26′ 6″ CRAWLERS — EXTENDED
122,400 LB. COUNTERWEIGHT

4100W SERIES 1 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 2,700 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 ¼″ 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.

CAUTION
OUTSIDE ASSIST REQUIRED

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 253′ 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:
110	35	73.6	365.0	56,200B
	40	70.9	363.4	54,100B
	45	68.1	361.5	52,100B
	50	65.3	359.4	50,200B
	55	62.4	356.9	48,400B
	60	59.4	354.1	46,600B
	65	56.3	351.0	45,000B
	70	53.1	347.5	43,500
	75	49.8	343.5	42,000
	80	46.3	339.0	40,600
	85	42.6	333.9	39,200
	90	38.6	328.0	37,900
	95	34.2	321.2	36,800
	100	29.2	313.2	34,900
	105	23.3	303.0	32,900
	110	15.5	288.8	30,800
120	40	72.5	373.9	50,000B
	45	70.0	372.2	48,200B
	50	67.5	370.3	46,500B
	55	64.8	368.1	44,900B
	60	62.2	365.6	43,300B
	65	59.4	362.8	41,700
	70	56.6	359.7	40,200
	75	53.7	356.2	38,700
	80	50.7	352.3	37,300
	85	47.5	348.0	36,000
	90	44.2	343.1	34,700
	95	40.7	337.7	33,500
	100	36.9	331.5	32,400
	105	32.7	324.2	31,300
	110	28.0	315.7	30,300
	115	22.3	305.0	29,200
	120	14.8	290.2	27,400

Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Ang.: Deg.	Boom Point: Elev.	Capacity:
130	40	73.9	384.4	46,100B
	45	71.6	382.8	44,500B
	50	69.3	381.0	42,900B
	55	66.9	379.0	41,400B
	60	64.5	376.8	39,800
	65	62.0	374.2	38,300
	70	59.5	371.4	36,800
	75	56.9	368.3	35,400
	80	54.2	364.9	34,000
	85	51.5	361.1	32,600
	90	48.6	356.9	31,300
	95	45.6	352.3	30,100
	100	42.4	347.1	28,900
	105	39.0	341.3	27,900
	110	35.4	334.7	26,800
	115	31.4	327.1	25,900
	120	26.8	318.1	25,000
	125	21.4	307.0	24,200
	130	14.3	291.5	23,500
140	45	73.0	393.3	41,100B
	50	70.8	391.7	39,600B
	55	68.6	389.8	38,100
	60	66.4	387.8	36,700
	65	64.2	385.5	35,200
	70	61.9	382.9	33,800
	75	59.5	380.1	32,400
	80	57.1	377.0	31,000
	85	54.6	373.6	29,800
	90	52.1	369.9	28,500
	95	49.5	365.8	27,300
	100	46.7	361.4	26,100
	105	43.8	356.4	25,000
	110	40.8	350.9	24,000
	115	37.5	344.8	23,000
	120	34.0	337.8	22,100
	125	30.2	329.9	21,200
	130	25.8	320.5	20,400
	135	20.7	308.8	19,700
	140	13.7	292.7	19,100

Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Ang.: Deg.	Boom Point: Elev.	Capacity:
150	50	72.1	402.2	37,700B
	55	70.1	400.5	36,400
	60	68.1	398.6	35,000
	65	66.0	396.5	33,600
	70	63.9	394.1	32,300
	75	61.7	391.6	31,000
	80	59.6	388.8	29,700
	85	57.3	385.7	28,400
	90	55.0	382.3	27,200
	95	52.7	378.7	26,000
	100	50.2	374.7	24,900
	105	47.7	370.4	23,900
	110	45.0	365.6	22,800
	115	42.3	360.3	21,900
	120	39.3	354.5	20,900
	125	36.2	348.1	20,000
	130	32.9	340.8	19,200
	135	29.2	332.5	18,400
	140	25.0	322.7	17,600
	145	19.9	310.6	17,000
	150	13.3	293.9	16,400
160	50	73.3	412.7	33,600
	55	71.4	411.1	32,300
	60	69.5	409.3	31,100
	65	67.6	407.4	29,800
	70	65.6	405.2	28,500
	75	63.7	402.8	27,200
	80	61.6	400.2	26,000
	85	59.6	397.4	24,900
	90	57.5	394.4	23,700
	95	55.3	391.1	22,600
	100	53.1	387.5	21,500
	105	50.9	383.5	20,500
	110	48.5	379.3	19,500
	115	46.1	374.7	18,500
	120	43.5	369.6	17,600

Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Ang.: Deg.	Boom Point: Elev.	Capacity:
160	125	40.9	364.1	16,800
	130	38.0	358.1	16,000
	135	35.0	351.3	15,200
	140	31.8	343.7	14,500
	145	28.2	335.1	13,800
170	150	24.1	324.9	13,200
	155	19.3	312.4	12,600
	160	12.8	295.0	12,100
	55	72.5	421.6	29,700
	60	70.8	420.0	28,500
	65	69.0	418.1	27,300
	70	67.2	416.1	26,100
	75	65.3	413.9	24,900
	80	63.4	411.5	23,700
	85	61.5	408.9	22,500
	90	59.6	406.1	21,400
	95	57.6	403.0	20,400
	100	55.6	399.7	19,400
	105	53.6	396.2	18,400
	110	51.4	392.4	17,400
	115	49.2	388.2	16,500
	120	47.0	383.7	15,600
	125	44.6	378.9	14,800
	130	42.2	373.6	14,000
	135	39.6	367.8	13,300
	140	36.9	361.5	12,500
	145	34.0	354.4	11,800
	150	30.8	346.5	11,000
	155	27.3	337.5	10,300
	160	23.4	327.0	9,700
	165	18.7	314.0	9,100
	170	12.5	296.1	8,600

Combined From Charts:
No. 6193-C 3-11-80
No. 5347 8-11-80

***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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REFERENCE ONLY