

# TOWER CRANE CAPACITIES

4600

SERIES - 4

CRAWLER

124' TO 144' NO. 27B TOWER  
BOOM NO. 22B WITH LIGHT TAPERED TOP  
123,000 LB. COUNTERWEIGHT

**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 all load blocks, hooks, weight ball, slings, hoist lines, etc., beneath boom 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 1,500 POUNDS TO PREVENT BOOM FROM COMING BACK AGAINST BOOM STOP AS LOAD IS RELEASED.**

**OPERATING CONDITIONS:** Machine to operate on a firm surface with roller path level within a tolerance of 1/2" in 10 feet and properly supported, and be rigged in accordance with and under conditions referred to in rigging drawing No. 65156 or No. 66235 and load line specification chart No. 6517-A and chart No. 7264-A for recommended procedure for operating under various wind conditions. **BOOM LENGTHS MUST BE 14' SHORTER THAN TOWER HEIGHT, 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 or load block. Add 1.2' 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 144' tower. Deduct 10' for each 10' reduction of tower height.

**MACHINE EQUIPMENT:** Machine equipped with 30'5" crawlers, 60" treads, 33' retractable gantry, 12 part boom hoist reeving, four 1-1/2" tower pendants, four 1-3/8" boom pendants, and 123,000 lb. counterweight (120,000 lb. with counterweight assembly No. 49667).

HOIST REEVEING FOR MAIN LOAD BLOCK				
No. Parts of Line	1	2	3	4
Maximum Load — Lbs.	40,000	80,000	120,000	160,000

LOAD AND WHIP LINE SPECIFICATIONS	
LOAD LINE: 1-1/4" — 6x31 Warrington-Seale, Extra Improved Plow Steel, Regular Lay, IWRC. Minimum Breaking Strength 79.9 Ton. Approx. Weight Per Ft. in lbs. 2.89.	
WHIP LINE: 1-1/4" — 6x31 Warrington-Seale, Extra Improved Plow Steel, Regular Lay, IWRC. Minimum Breaking Strength 79.9 Ton. Maximum Load — 40,000 lbs. Per Line. Approx. Weight Per Ft. in lbs. 2.89.	

MAXIMUM TOWER AND BOOM LENGTHS LIFTED UNASSISTED			
OVER FRONT OF BLOCKED CRAWLERS		OVER SIDE OF CRAWLERS	
Tower	Boom	Tower	Boom
194'	180'	174'	160'
Load block, hook & weight ball on ground until tower is in vertical position and boom is in operating range.			

Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Ang.: Deg.	Boom Point: Elev.	Capacity:
100	35	73.4	249.2	143,100B
	40	70.4	247.6	134,400B
	45	67.4	245.7	126,400B
	50	64.2	243.4	119,900
	55	61.0	240.8	114,300
110	60	57.7	237.9	109,600
	65	54.2	234.5	105,400
	70	50.6	230.6	101,900
	75	46.8	226.2	94,500
	80	42.7	221.2	87,300
120	85	38.3	215.3	81,100
	90	33.4	208.4	75,700
	95	27.7	199.9	70,800
	100	20.8	188.9	66,500
130	40	72.3	258.2	129,000B
	45	69.5	256.4	122,600
	50	66.7	254.4	115,600
	55	63.8	252.1	110,200
	60	60.9	249.5	105,500
140	65	57.9	246.5	101,400
	70	54.7	243.2	97,900
	75	51.5	239.5	93,800
	80	48.1	235.2	86,600
	85	44.5	230.4	80,400
150	90	40.6	225.0	74,900
	95	36.4	218.7	70,100
	100	31.8	211.3	65,700
	105	26.4	202.4	61,800
	110	19.8	190.6	58,300

Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Ang.: Deg.	Boom Point: Elev.	Capacity:
120	40	73.8	268.6	124,400
	45	71.3	267.0	117,700
	50	68.7	265.2	112,800
	55	66.2	263.1	106,400
	60	63.5	260.8	101,900
130	65	60.8	258.2	97,900
	70	58.1	255.2	94,400
	75	55.2	251.9	91,300
	80	52.2	248.2	85,900
	85	49.1	244.1	79,600
140	90	45.9	239.6	74,100
	95	42.5	234.4	69,300
	100	38.8	228.6	64,900
	105	34.8	221.9	61,000
	110	30.4	214.1	57,500
150	115	25.3	204.6	54,300
	120	18.9	192.3	51,400
160	45	72.8	277.6	113,600
	50	70.5	275.9	105,400
	55	68.1	274.0	104,400
	60	65.7	271.9	98,600
	65	63.3	269.5	94,700
170	70	60.8	266.8	91,300
	75	58.2	263.9	88,300
	80	55.6	260.6	85,100
	85	52.9	257.0	78,800
	90	50.0	253.0	73,300
180	95	47.1	248.6	68,500
	100	44.0	243.7	64,100
	105	40.7	238.2	60,200
	110	37.2	232.0	56,700
	115	33.4	225.0	53,500
190	120	29.2	216.8	50,600
	125	24.3	206.8	47,900
	130	18.2	194.0	45,500

Combined From Charts:  
No. 6901-A 5-22-85  
No. 6517-A 12-22-80