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

TOWER CRANE CAPACITIES — 3900T

114′ TO 164′ OF NO. 9A TOWER WITH NO. 18 BOOM — SERIES-2
61,200 LB. CRANE COUNTERWEIGHT
RATING OVER SIDE OR REAR ON EXTENDED OUTRIGGERS — TRUCK CRANE

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 BASED ON STRUCTURAL COMPETENCE ARE SHOWN BY SHADED AREAS.**

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.

OPERATING CONDITIONS: Machine to operate on a firm surface with outriggers fully extended and roller path level within a tolerance of 1/2″ in 10 ft. on 100′ and 110′ boom, 3/8″ in 10 ft. on 120′ thru 150′ boom and properly supported. Refer to rigging No. 65136 and No. 66015, load line specification chart No. 5327, operating range diagram chart No. 6423-A and chart No. 6631-A for recommended procedure for operating under various wind conditions. **BOOM MUST BE AT LEAST 14′ 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, 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 12″ to boom point radius for radius of sheave when using single part 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 164′ tower. Deduct 10′ for each 10′ reduction in tower height.

MACHINE EQUIPMENT: Machine equipped with Manitowoc-Hendrickson 12 x 6 carrier, 226″ wheelbase, 10,500 lb. front bumper ctwt., 112″ outriggers or Manitowoc-Pierce 10 x 6 carrier, 258.5″ wheelbase, 5,300 lb. front bumper ctwt., 112″ outriggers or Consolidated Dynamics 12 x 6 carrier, model 12615, 235″ wheelbase, 5,500 lb. front bumper ctwt., 115″ outriggers. Machine also equipped with 15′ retractable gantry, 10 part boom hoist reeving, four 1-1/4″ tower pendants, two 1-1/4″ boom pendants, two 7/8″ intermediate suspension pendants as specified on rigging drawing, 61,200 lb. 2 piece crane ctwt.

LOAD AND WHIP LINE SPECIFICATIONS
LOAD LINE: 1″ — 6x25 Filler Wire, Improved Plow Steel, Regular Lay, IWRC. Minimum Breaking Strength 44.9 Ton. Maximum Load = 22,500 Lbs. Per Line. (Approx. Weight Per Ft. in Lbs. 1.85)
WHIP LINE: 1″ — 6x25 Filler Wire, Improved Plow Steel, Regular Lay, IWRC. Minimum Breaking Strength 44.9 Ton. Maximum Load — 22,500 Lbs. Per Line. (Approx. Weight Per Ft. in Lbs. 1.85)

MAXIMUM TOWER AND BOOM LENGTHS LIFTED UNASSISTED			
OVER REAR ON EXTENDED OUTRIGGERS		OVER SIDE ON EXTENDED OUTRIGGERS	
Tower	Boom	Tower	Boom
164′ (B) 154′	150′ 140′	134′ (B) 124′	120′ 110′
(B) When tower equipped with 40′ insert No. 191146 per rigging No. 66015.			
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.			

(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.

For jib capacities, consult jib chart.

Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Ang.: Deg.	Boom Point: Elev.	Capacity:
100	40	68.7	264.9	36,600
	45	65.6	262.8	34,900
	50	62.4	260.4	33,300
	55	59.1	257.6	31,800
	60	55.7	254.4	30,400
	65	52.1	250.7	29,100
	70	48.4	246.6	27,900
	75	44.5	241.8	26,300
	80	40.2	236.3	24,400
	85	35.5	229.9	22,700
	90	30.3	222.2	21,200
	95	24.0	212.4	19,800
	100	15.5	198.4	18,600
110	40	70.7	275.6	34,900
	45	67.9	273.7	33,400
	50	65.1	271.5	31,900
	55	62.2	269.0	30,600
	60	59.2	266.2	29,300
	65	56.1	263.0	28,000
	70	52.9	259.5	26,800
	75	49.5	255.5	25,700
	80	46.0	250.9	24,100
	85	42.3	245.8	22,400
	90	38.3	239.9	20,900
	95	33.8	233.0	19,500
	100	28.8	224.8	18,300
	105	22.8	214.5	17,200
	110	14.8	199.8	16,300

Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Ang.: Deg.	Boom Point: Elev.	Capacity:
120	40	72.4	286.1	33,000
	45	69.8	284.4	31,600
	50	67.3	282.4	30,300
	55	64.7	280.2	29,000
	60	62.0	277.7	27,700
	65	59.2	274.9	26,500
	70	56.4	271.7	25,400
	75	53.5	268.2	24,300
	80	50.5	264.3	23,200
	85	47.3	260.0	22,200
	90	44.0	255.1	20,700
	95	40.4	249.5	19,300
	100	36.6	243.3	18,100
	105	32.4	236.0	17,000
	110	27.6	227.3	16,000
	115	21.9	216.4	15,100
	120	14.1	201.0	14,300
130	40	73.8	296.6	31,900
	45	71.4	295.0	30,700
	50	69.1	293.2	29,400
	55	66.7	291.2	28,200
	60	64.3	288.9	27,000
	65	61.8	286.4	25,800
	70	59.3	283.5	24,700
	75	56.7	280.4	23,600
	80	54.0	277.0	22,600
	85	51.2	273.1	21,600
	90	48.4	268.9	20,400
	95	45.3	264.2	19,100
	100	42.2	259.0	17,900
	105	38.8	253.1	16,800
	110	35.1	246.5	15,800
	115	31.0	238.8	14,900
	120	26.5	229.7	14,100
	125	21.0	218.3	13,300
	130	13.6	202.2	12,600

Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Ang.: Deg.	Boom Point: Elev.	Capacity:
140	45	72.8	305.5	27,600
	50	70.7	303.9	26,500
	55	68.5	302.0	25,400
	60	66.3	299.9	24,300
	65	64.0	297.6	23,200
	70	61.7	295.0	22,200
	75	59.3	292.2	21,200
	80	56.9	289.1	20,200
	85	54.5	285.7	19,200
	90	51.9	281.9	18,400
	95	49.3	277.8	17,500
	100	46.5	273.3	16,700
	105	43.6	268.3	15,900
	110	40.6	262.8	15,100
	115	37.3	256.6	14,400
	120	33.8	249.6	13,700
	125	29.9	241.5	13,100
	130	25.5	232.0	12,400
	135	20.2	220.1	11,700
	140	13.1	203.4	11,100

Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Ang.: Deg.	Boom Point: Elev.	Capacity:
150	45	74.0	315.9	22,600
	50	72.0	314.4	21,800
	55	70.0	312.7	20,900
	60	67.9	310.8	20,100
	65	65.8	308.6	19,200
	70	63.7	306.3	18,400
	75	61.6	303.7	17,600
	80	59.4	300.9	16,800
	85	57.1	297.8	16,000
	90	54.8	294.4	15,200
	95	52.5	290.7	14,500
	100	50.0	286.7	13,800
	105	47.5	282.3	13,100
	110	44.8	277.5	12,500
	115	42.1	272.2	11,900
	120	39.1	266.4	11,300
	125	36.0	259.9	10,700
	130	32.6	252.6	10,100
	135	28.9	244.2	9,600
	140	24.6	234.2	9,100
	145	19.5	221.9	8,700
	150	12.6	204.5	8,500

Combined From Charts:
No. 6769-A 8-16-84
No. 5327 3-21-80

Operating Range Diagram continued on reverse side.

OPERATING RANGE DIAGRAM — 3900T

RATING OVER SIDE OR REAR AND FRONT ON EXTENDED OUTRIGGERS **TRUCK CRANE**

Approved working area is shown in the following diagram for boom chart capacities and jib chart capacities over side or rear and boom over front.

Lifting is approved only in this area for which ratings are shown on the capacity charts.

Operating outside the working area is not intended or approved.

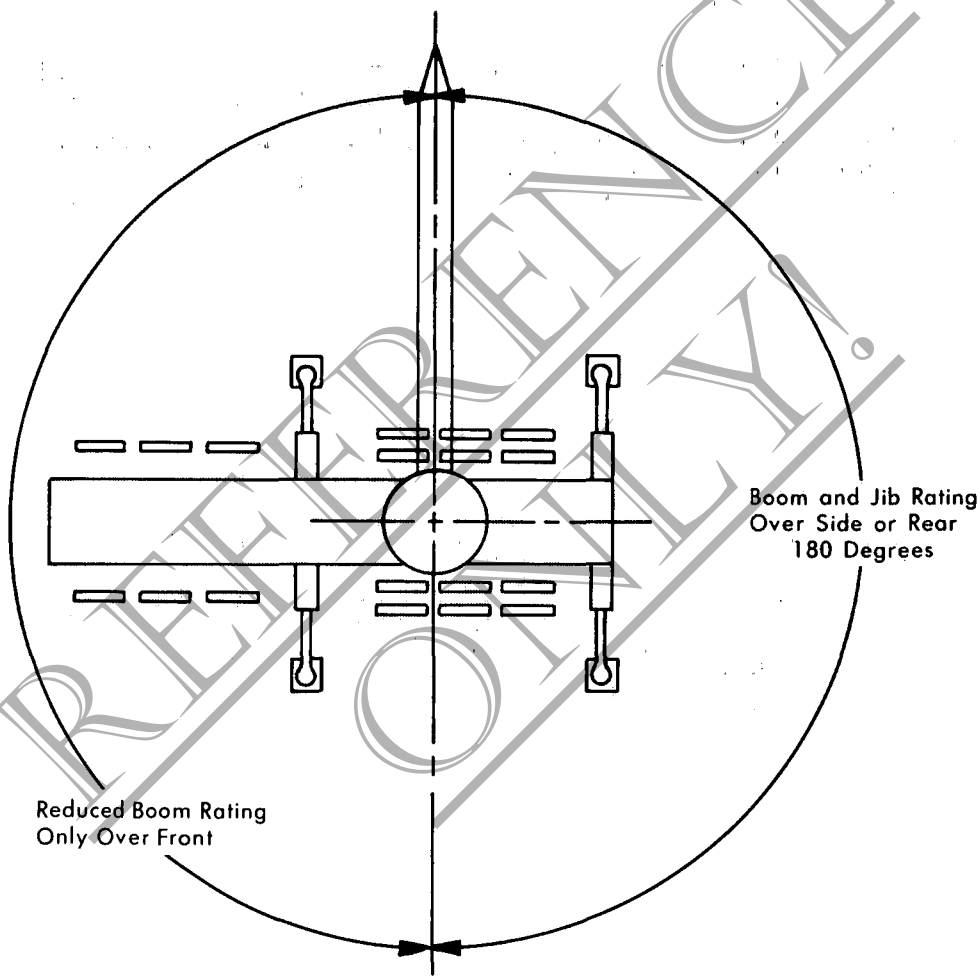

DIAGRAM OF BOOM AND JIB
OPERATING RANGE OVER SIDE AND REAR
AND BOOM OVER FRONT

(Ref. Drwg. No. 6423-A)

