Manitowoc Cranes, Inc.
Manitowoc, Wisconsin 54220 U.S.A.

Liftcrane Luffing Jib Intermediate Fall Capacities

999 SERIES 3

New York City Code
Luffing Jib No. 149 On
Boom No. 82
219,600 Lb. Crane Counterweight
80,000 Lb. Carbody Counterweight
360 Degree Rating

Designed And Tested With The Intent To Be In The Scope of ANSI B30.5

CAUTION: ASSEMBLE-IN-AIR REQUIRED

LIFTING CAPACITIES: Lifting capacities for various boom lengths, boom angles, luffing jib lengths and intermediate fall operating radii are for freely suspended loads and do not exceed New York City criteria of 1.4 factor applied to total machine moment. Capacities based on structural competence are denoted by an asterisk (*). Capacities indicated by (b) require 2,600 Lb. minimum block weight.

Lower boom point must be completely removed for use of this chart.

Weight of all load blocks, hooks, weight ball, slings, hoist lines, etc., beneath intermediate fall is considered part of intermediate fall load. 3,900 Lbs. suspended beneath luffing jib point sheaves has been included in capacity determination. Boom and luffing jib are 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 uniformly supporting surface with gantry up and bearing turntable level within a tolerance of 1/2 in. in 10 Ft. and properly supported. During operation, boom must be maintained at one of the selected angles shown in chart. Refer to luffing jib assembly **No. A01426**, Wire Rope Specification chart **No. 8357-C** and Luffing Jib Raising Procedure chart **No. 8411-A**. 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. Refer to operators manual for operating guidelines.

MACHINE TRAVEL: Machine to travel (outrigger jacks raised) on a firm, level and uniformly supporting surface with boom and luffing jib within angle range shown in capacity chart. Refer to Maximum Allowable Travel Specification chart **No. 8360-D**.

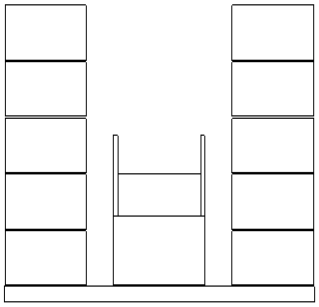
OPERATING RADIUS: Operating radius is horizontal distance from axis of rotation to center of vertical hoist line or load block. Boom angle is angle between horizontal and centerline of boom butt and inserts. Luffing jib angle is angle between horizontal and centerline of luffing jib butt and inserts,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

INTERMEDIATE FALL ELEVATION: Intermediate fall elevation is vertical distance from ground level to centerline of intermediate fall shaft.

MACHINE EQUIPMENT: Machine equipped with 28 Ft. 2 in. crawlers, 48 in. treads, 5 Ft. raising outrigger, 10 Ft. 3 in. retractable gantry, 30 Ft. live mast, 20 part boom hoist reeving, boom support straps, 9 part luffing jib hoist reeving, luffing jib straps, two 1-1/2 in. luffing jib backstay pendants, 219,600 Lb. crane counterweight, two 22,000 Lb. and two 18,000 Lb. carbody counterweights.

Consult chart **No. 8374-A** for luffing jib capacities. Consult chart **No. 8428-A** for intermediate fall capacitites with fixed jib attached.

Fixed jib No. 134 must be removed before use of this chart.



219,600 Lb. Crane Counterweight
10 Side Boxes - 1 Center Box

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219,600 Lb. Crane Counterweight
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360 Degree Rating

Designed And Tested With The Intent To Be In The Scope of ANSI B30.5

CAUTION: ASSEMBLE-IN-AIR REQUIRED

200 Ft. Boom, 140 Ft. Jib

Int. Fall Oper. Rad. Feet	88 Degree Boom Angle			86 Degree Boom Angle			83 Degree Boom Angle			Int. Fall Oper. Rad. Feet
	Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		
		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds	
35	75.4	274.8	59,000*b							35
40	71.1	273.1	58,500*							40
45	66.6	271.0	45,300*	72.8	273.4	59,000*				45
50	62.0	268.4	36,400*	68.4	271.4	50,500*				50
55	57.1	265.2	30,000*	63.8	269.0	40,100*				55
60	51.9	261.4	25,100*	59.0	266.1	32,700*	68.7	270.5	52,500*	60
65	46.3	256.8	21,300*	54.0	262.6	27,200*	64.2	268.1	41,500*	65
70	40.1	251.2	18,300*	48.6	258.3	23,000*	59.4	265.3	33,800*	70
75	32.9	244.0	15,800*	42.7	253.1	19,600*	54.4	261.8	28,000*	75
80	23.7	234.0	13,800*	35.9	246.6	16,900*	49.1	257.6	23,700*	80
85				27.7	238.0	14,700*	43.2	252.5	20,200*	85
90				15.6	224.1	12,900*	36.5	246.1	17,400*	90
95							28.4	237.7	15,100*	95
100							16.9	224.6	13,200*	100

200 Ft. Boom, 150 Ft. Jib

Int. Fall Oper. Rad. Feet	88 Degree Boom Angle			86 Degree Boom Angle			83 Degree Boom Angle			Int. Fall Oper. Rad. Feet
	Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		
		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds	
40	73.5	283.7	59,000*							40
45	69.7	281.9	54,700*							45
50	65.8	279.7	44,200*	71.2	282.2	59,000*				50
55	61.7	277.1	36,600*	67.3	280.2	48,500*				55
60	57.5	273.9	30,800*	63.3	277.7	39,800*				60
65	53.0	270.3	26,300*	59.2	274.8	33,300*	67.7	279.2	50,100*	65
70	48.2	265.9	22,700*	54.8	271.3	28,300*	63.7	276.8	41,100*	70
75	43.1	260.8	19,800*	50.2	267.3	24,300*	59.5	273.9	34,400*	75
80	37.3	254.5	17,300*	45.2	262.5	21,100*	55.2	270.5	29,200*	80
85	30.6	246.7	15,300*	39.7	256.7	18,500*	50.6	266.5	25,100*	85
90	22.0	235.8	13,500*	33.4	249.6	16,200*	45.6	261.8	21,700*	90
95				25.7	240.2	14,300*	40.2	256.1	19,000*	95
100				14.4	225.3	12,800*	34.0	249.1	16,700*	100
105							26.5	240.0	14,700*	105
110							15.7	225.9	13,100*	110

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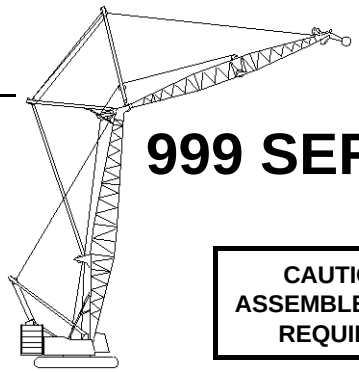

Liftcrane Luffing Jib Intermediate Fall Capacities

999 SERIES 3

New York City Code
Luffing Jib No. 149 On
Boom No. 82
219,600 Lb. Crane Counterweight
80,000 Lb. Carbody Counterweight
360 Degree Rating

Designed And Tested With The Intent To Be In The Scope of ANSI B30.5

CAUTION: ASSEMBLE-IN-AIR REQUIRED

200 Ft. Boom, 160 Ft. Jib

Int. Fall Oper. Rad. Feet	88 Degree Boom Angle			86 Degree Boom Angle			83 Degree Boom Angle			Int. Fall Oper. Rad. Feet
	Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		
		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds	
40	75.4	294.1	57,400*							40
45	72.1	292.6	54,700*							45
50	68.7	290.6	52,800*	73.4	292.8	59,000*				50
55	65.1	288.4	45,900*	70.0	291.0	59,000*				55
60	61.5	285.7	39,400*	66.5	288.9	49,800*				60
65	57.8	282.6	34,100*	63.0	286.4	42,400*	70.3	290.0	58,800*	65
70	53.8	279.0	29,500*	59.3	283.4	36,700*	66.8	287.9	51,700*	70
75	49.7	274.9	25,800*	55.4	280.1	31,600*	63.3	285.5	44,000*	75
80	45.2	270.1	22,600*	51.3	276.2	27,600*	59.6	282.6	37,800*	80
85	40.4	264.4	20,000*	47.0	271.6	24,200*	55.7	279.2	32,600*	85
90	35.0	257.6	17,800*	42.4	266.3	21,300*	51.7	275.4	28,400*	90
95	28.7	249.2	15,900*	37.2	260.0	18,900*	47.4	270.9	24,900*	95
100	20.7	237.6	14,200*	31.4	252.3	16,800*	42.8	265.7	22,000*	100
105				24.2	242.2	15,100*	37.7	259.5	19,500*	105
110				13.5	226.4	13,600*	31.9	251.9	17,300*	110
115							24.8	242.1	15,500*	115
120							14.7	227.1	13,900*	120

200 Ft. Boom, 170 Ft. Jib

Int. Fall Oper. Rad. Feet	88 Degree Boom Angle			86 Degree Boom Angle			83 Degree Boom Angle			Int. Fall Oper. Rad. Feet
	Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		
		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds	
40	73.5	283.7	59,000*							40
45	69.7	281.9	50,500*							45
50	65.8	279.7	40,800*	71.2	282.2	55,900*				50
55	61.7	277.1	33,800*	67.3	280.2	44,800*				55
60	57.5	273.9	28,400*	63.3	277.7	36,700*				60
65	53.0	270.3	24,200*	59.2	274.8	30,800*	67.7	279.2	46,200*	65
70	48.2	265.9	20,900*	54.8	271.3	26,100*	63.7	276.8	37,900*	70
75	43.1	260.8	18,200*	50.2	267.3	22,400*	59.5	273.9	31,700*	75
80	37.3	254.5	15,900*	45.2	262.5	19,400*	55.2	270.5	26,900*	80
85	30.6	246.7	14,000*	39.7	256.7	17,000*	50.6	266.5	23,100*	85
90	22.0	235.8	12,400*	33.4	249.6	14,900*	45.6	261.8	20,000*	90
95				25.7	240.2	13,100*	40.2	256.1	17,500*	95
100				14.4	225.3	11,700*	34.0	249.1	15,300*	100
105							26.5	240.0	13,500*	105
110							15.7	225.9	12,000*	110

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Boom No. 82
219,600 Lb. Crane Counterweight
80,000 Lb. Carbody Counterweight
360 Degree Rating

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CAUTION: ASSEMBLE-IN-AIR REQUIRED

210 Ft. Boom, 110 Ft. Jib

Int. Fall Oper. Rad. Feet	88 Degree Boom Angle			86 Degree Boom Angle			83 Degree Boom Angle			Int. Fall Oper. Rad. Feet
	Jib Angle Degrees	Intermediate Fall Elev. Feet	Intermediate Fall Capacity Pounds	Jib Angle Degrees	Intermediate Fall Elev. Feet	Intermediate Fall Capacity Pounds	Jib Angle Degrees	Intermediate Fall Elev. Feet	Intermediate Fall Capacity Pounds	
35	64.0	252.6	35,400*							35
40	55.4	249.3	25,900*							40
45	45.6	244.7	20,000*	59.5	250.5	30,200*				45
50	33.4	238.0	16,000*	50.3	246.6	22,700*	69.3	252.6	49,000*b	50
55	11.4	223.7	13,200*	39.5	241.0	17,900*	61.1	250.0	32,900*	55
60				24.5	232.0	14,600*	52.1	246.3	24,400*	60
65							41.7	241.1	19,000*	65
70							27.9	233.0	15,300*	70

210 Ft. Boom, 120 Ft. Jib

Int. Fall Oper. Rad. Feet	88 Degree Boom Angle			86 Degree Boom Angle			83 Degree Boom Angle			Int. Fall Oper. Rad. Feet
	Jib Angle Degrees	Intermediate Fall Elev. Feet	Intermediate Fall Capacity Pounds	Jib Angle Degrees	Intermediate Fall Elev. Feet	Intermediate Fall Capacity Pounds	Jib Angle Degrees	Intermediate Fall Elev. Feet	Intermediate Fall Capacity Pounds	
35	69.6	263.7	49,700*							35
40	63.2	261.3	36,100*							40
45	56.4	258.1	27,700*	66.2	262.0	42,300*				45
50	48.8	253.9	22,200*	59.6	259.2	31,600*				50
55	40.2	248.4	18,100*	52.4	255.5	24,800*	67.4	261.3	46,400*	55
60	29.4	240.5	15,100*	44.4	250.7	20,100*	60.9	258.6	34,000*	60
65	9.8	224.3	12,700*	34.8	244.1	16,600*	53.8	255.1	26,400*	65
70				21.5	233.7	13,900*	46.0	250.5	21,200*	70
75							36.8	244.3	17,400*	75
80							24.6	235.0	14,500*	80

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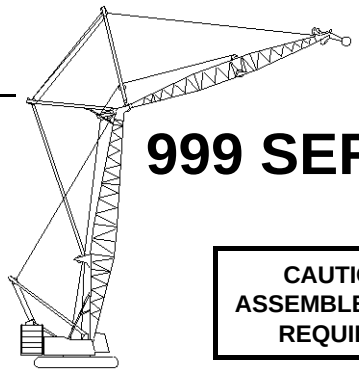

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Boom No. 82
219,600 Lb. Crane Counterweight
80,000 Lb. Carbody Counterweight
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CAUTION: ASSEMBLE-IN-AIR REQUIRED

210 Ft. Boom, 130 Ft. Jib

Int. Fall Oper. Rad. Feet	88 Degree Boom Angle			86 Degree Boom Angle			83 Degree Boom Angle			Int. Fall Oper. Rad. Feet
	Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		
		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds	
35	73.2	274.4	59,000***b**							35
40	68.1	272.4	45,900*****							40
45	62.7	269.9	35,300*****	70.5	273.0	53,900*****				45
50	57.0	266.8	28,200*****	65.2	270.7	40,300*****				50
55	50.9	262.9	23,100*****	59.7	267.9	31,700*****				55
60	44.2	257.9	19,300*****	53.8	264.3	25,700*****	66.2	270.0	43,400*****	60
65	36.4	251.6	16,300*****	47.4	259.9	21,200*****	60.7	267.3	33,700*****	65
70	26.6	242.7	14,000*****	40.2	254.3	17,800*****	54.9	263.9	27,100*****	70
75	8.7	224.8	12,100*****	31.5	246.8	15,200*****	48.6	259.6	22,400*****	75
80				19.4	235.3	13,000*****	41.6	254.3	18,700*****	80
85							33.3	247.2	15,900*****	85
90							22.2	236.8	13,600*****	90

210 Ft. Boom, 140 Ft. Jib

Int. Fall Oper. Rad. Feet	88 Degree Boom Angle			86 Degree Boom Angle			83 Degree Boom Angle			Int. Fall Oper. Rad. Feet
	Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		
		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds	
35	75.7	284.9	59,000***b**							35
40	71.4	283.2	59,000*****							40
45	66.9	281.2	46,300*****	73.4	283.6	59,000*****				45
50	62.3	278.6	37,100*****	69.0	281.7	52,800*****				50
55	57.4	275.5	30,400*****	64.5	279.4	41,600*****				55
60	52.3	271.7	25,500*****	59.7	276.5	33,700*****	69.8	280.9	56,600*****	60
65	46.7	267.2	21,600*****	54.7	273.1	28,000*****	65.3	278.7	44,300*****	65
70	40.6	261.6	18,500*****	49.4	268.9	23,600*****	60.6	275.9	35,700*****	70
75	33.5	254.5	16,000*****	43.5	263.9	20,100*****	55.7	272.6	29,500*****	75
80	24.4	244.8	13,900*****	36.9	257.6	17,300*****	50.4	268.6	24,800*****	80
85	7.8	225.3	12,200*****	29.0	249.3	15,000*****	44.7	263.7	21,100*****	85
90				17.8	236.7	13,100*****	38.2	257.7	18,100*****	90
95							30.6	249.9	15,700*****	95
100							20.4	238.5	13,600*****	100

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210 Ft. Boom, 150 Ft. Jib

Int. Fall Oper. Rad. Feet	88 Degree Boom Angle			86 Degree Boom Angle			83 Degree Boom Angle			Int. Fall Oper. Rad. Feet
	Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		
		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds	
40	73.8	293.8	55,800*							40
45	70.0	292.0	53,100*							45
50	66.1	289.8	45,000*	71.8	292.4	59,000*				50
55	62.0	287.2	37,100*	67.9	290.4	50,200*				55
60	57.8	284.2	31,200*	63.9	288.0	41,100*				60
65	53.3	280.5	26,600*	59.8	285.2	34,300*	68.6	289.7	53,200*	65
70	48.6	276.3	22,900*	55.4	281.8	29,000*	64.7	287.4	43,400*	70
75	43.5	271.2	19,900*	50.8	277.9	24,900*	60.5	284.6	36,100*	75
80	37.7	265.0	17,400*	45.9	273.2	21,500*	56.2	281.3	30,500*	80
85	31.1	257.3	15,300*	40.5	267.6	18,800*	51.7	277.5	26,100*	85
90	22.7	246.7	13,600*	34.3	260.6	16,500*	46.8	272.9	22,600*	90
95	7.2	225.8	12,200*	26.9	251.7	14,600*	41.5	267.5	19,700*	95
100				16.5	238.1	12,900*	35.6	260.9	17,200*	100
105							28.5	252.4	15,300*	105
110							18.9	240.1	13,500*	110

210 Ft. Boom, 160 Ft. Jib

Int. Fall Oper. Rad. Feet	88 Degree Boom Angle			86 Degree Boom Angle			83 Degree Boom Angle			Int. Fall Oper. Rad. Feet
	Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		
		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds	
40	75.7	304.2	52,000*							40
45	72.3	302.7	49,900*							45
50	68.9	300.8	47,400*	73.9	303.0	59,000*				50
55	65.4	298.5	44,900*	70.5	301.2	55,500*				55
60	61.8	295.9	39,700*	67.0	299.2	51,000*				60
65	58.0	292.8	34,400*	63.5	296.7	43,300*				65
70	54.1	289.3	29,800*	59.8	293.9	37,400*	67.7	298.4	52,500*	70
75	50.0	285.2	25,900*	56.0	290.5	32,300*	64.1	296.0	45,800*	75
80	45.6	280.4	22,800*	51.9	286.7	28,100*	60.5	293.2	39,400*	80
85	40.8	274.9	20,100*	47.7	282.3	24,600*	56.7	290.0	33,900*	85
90	35.4	268.2	17,800*	43.1	277.1	21,700*	52.7	286.3	29,400*	90
95	29.2	259.8	15,900*	38.0	271.0	19,200*	48.5	282.0	25,800*	95
100	21.3	248.5	14,300*	32.2	263.5	17,100*	43.9	277.0	22,700*	100
105	6.7	226.3	12,900*	25.3	253.8	15,200*	39.0	271.0	20,100*	105
110				15.5	239.3	13,700*	33.4	263.8	17,800*	110
115							26.7	254.7	15,900*	115
120							17.7	241.6	14,300*	120

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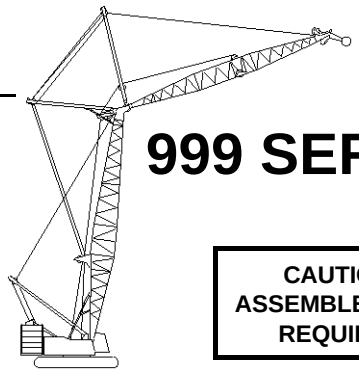


Liftcrane Luffing Jib Intermediate Fall Capacities

999 SERIES 3

New York City Code
Luffing Jib No. 149 On
Boom No. 82
219,600 Lb. Crane Counterweight
80,000 Lb. Carbody Counterweight
360 Degree Rating

Designed And Tested With The Intent To Be In The Scope of ANSI B30.5

CAUTION: ASSEMBLE-IN-AIR REQUIRED

210 Ft. Boom, 170 Ft. Jib

Int. Fall Oper. Rad. Feet	88 Degree Boom Angle			86 Degree Boom Angle			83 Degree Boom Angle			Int. Fall Oper. Rad. Feet
	Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		
		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds	
40	73.8	293.8	54,000*							40
45	70.0	292.0	51,200*							45
50	66.1	289.8	41,500*	71.8	292.4	58,100*				50
55	62.0	287.2	34,200*	67.9	290.4	46,300*				55
60	57.8	284.2	28,800*	63.9	288.0	37,900*				60
65	53.3	280.5	24,500*	59.8	285.2	31,600*	68.6	289.7	49,100*	65
70	48.6	276.3	21,100*	55.4	281.8	26,800*	64.7	287.4	40,000*	70
75	43.5	271.2	18,300*	50.8	277.9	22,900*	60.5	284.6	33,300*	75
80	37.7	265.0	16,000*	45.9	273.2	19,800*	56.2	281.3	28,100*	80
85	31.1	257.3	14,000*	40.5	267.6	17,300*	51.7	277.5	24,100*	85
90	22.7	246.7	12,400*	34.3	260.6	15,100*	46.8	272.9	20,800*	90
95	7.2	225.8	11,100*	26.9	251.7	13,300*	41.5	267.5	18,100*	95
100				16.5	238.1	11,800*	35.6	260.9	15,800*	100
105							28.5	252.4	13,900*	105
110							18.9	240.1	12,300*	110

Manitowoc Cranes, Inc.
Manitowoc, Wisconsin 54220 U.S.A.

Liftcrane Luffing Jib Intermediate Fall Capacities

999 SERIES 3

New York City Code
Luffing Jib No. 149 On
Boom No. 82
219,600 Lb. Crane Counterweight
80,000 Lb. Carbody Counterweight
360 Degree Rating

Designed And Tested With The Intent To Be In The Scope of ANSI B30.5

CAUTION: ASSEMBLE-IN-AIR REQUIRED

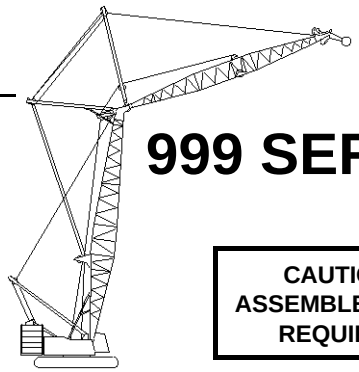
220 Ft. Boom, 110 Ft. Jib

Int. Fall Oper. Rad. Feet	88 Degree Boom Angle			86 Degree Boom Angle			83 Degree Boom Angle			Int. Fall Oper. Rad. Feet
	Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		
		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds	
35	64.6	262.8	36,600*							35
40	56.0	259.6	26,600*							40
45	46.3	255.1	20,500*	60.7	261.0	31,900*				45
50	34.4	248.5	16,400*	51.7	257.2	23,800*				50
55	14.4	235.7	13,500*	41.1	251.9	18,600*	63.2	260.6	36,500*	55
60				27.1	243.6	15,100*	54.4	257.2	26,400*	60
65							44.4	252.4	20,300*	65
70							31.8	245.3	16,300*	70

220 Ft. Boom, 120 Ft. Jib

Int. Fall Oper. Rad. Feet	88 Degree Boom Angle			86 Degree Boom Angle			83 Degree Boom Angle			Int. Fall Oper. Rad. Feet
	Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		
		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds	
35	70.1	273.9	51,600*							35
40	63.7	271.5	37,100*							40
45	56.9	268.3	28,400*	67.1	272.3	44,800*				45
50	49.4	264.2	22,600*	60.6	269.6	33,200*				50
55	40.9	258.8	18,400*	53.5	266.1	25,800*	69.0	271.8	51,600*	55
60	30.3	251.1	15,300*	45.6	261.4	20,800*	62.5	269.3	37,000*	60
65	12.5	236.6	13,000*	36.3	255.1	17,100*	55.6	266.0	28,300*	65
70				23.8	245.6	14,300*	48.0	261.7	22,600*	70
75							39.2	256.0	18,400*	75
80							28.1	247.7	15,300*	80

Manitowoc Cranes, Inc.
Manitowoc, Wisconsin 54220 U.S.A.



Liftcrane Luffing Jib Intermediate Fall Capacities

999 SERIES 3

New York City Code
Luffing Jib No. 149 On
Boom No. 82
219,600 Lb. Crane Counterweight
80,000 Lb. Carbody Counterweight
360 Degree Rating

Designed And Tested With The Intent To Be In The Scope of ANSI B30.5

CAUTION: ASSEMBLE-IN-AIR REQUIRED

220 Ft. Boom, 130 Ft. Jib

Int. Fall Oper. Rad. Feet	88 Degree Boom Angle			86 Degree Boom Angle			83 Degree Boom Angle			Int. Fall Oper. Rad. Feet
	Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		
		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds	
35	73.6	284.5	59,000***b**							35
40	68.4	282.6	47,200*****							40
45	63.1	280.1	36,200*****	71.2	283.2	57,100*****				45
50	57.4	277.0	28,800*****	65.9	281.0	42,300*****				50
55	51.3	273.2	23,500*****	60.5	278.3	32,900*****				55
60	44.7	268.3	19,600*****	54.6	274.8	26,600*****	67.5	280.5	47,200*****	60
65	37.0	262.1	16,600*****	48.3	270.6	21,900*****	62.1	277.9	36,200*****	65
70	27.4	253.5	14,100*****	41.2	265.1	18,400*****	56.4	274.7	28,800*****	70
75	11.1	237.4	12,300*****	32.8	258.0	15,600*****	50.2	270.7	23,600*****	75
80				21.5	247.3	13,300*****	43.4	265.6	19,700*****	80
85							35.5	259.1	16,600*****	85
90							25.3	249.8	14,200*****	90

220 Ft. Boom, 140 Ft. Jib

Int. Fall Oper. Rad. Feet	88 Degree Boom Angle			86 Degree Boom Angle			83 Degree Boom Angle			Int. Fall Oper. Rad. Feet
	Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		
		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds	
35	76.0	295.0	57,100***b**							35
40	71.7	293.4	54,500*****							40
45	67.2	291.3	47,400*****	74.0	293.8	59,000*****				45
50	62.6	288.8	37,800*****	69.6	292.0	55,200*****				50
55	57.8	285.7	31,000*****	65.1	289.7	43,200*****				55
60	52.7	282.0	25,800*****	60.4	286.9	34,900*****	70.9	291.3	59,000*****	60
65	47.1	277.5	21,900*****	55.4	283.6	28,800*****	66.4	289.2	47,400*****	65
70	41.0	272.0	18,700*****	50.2	279.5	24,200*****	61.8	286.6	37,900*****	70
75	34.0	265.1	16,200*****	44.4	274.6	20,600*****	56.9	283.4	31,100*****	75
80	25.2	255.6	14,100*****	37.9	268.5	17,700*****	51.7	279.6	26,000*****	80
85	10.1	238.1	12,400*****	30.2	260.6	15,300*****	46.1	274.9	22,000*****	85
90				19.7	249.0	13,400*****	39.9	269.2	18,900*****	90
95							32.6	262.0	16,300*****	95
100							23.3	251.8	14,200*****	100

Manitowoc Cranes, Inc.
Manitowoc, Wisconsin 54220 U.S.A.

Liftcrane Luffing Jib Intermediate Fall Capacities

999 SERIES 3

New York City Code
Luffing Jib No. 149 On
Boom No. 82
219,600 Lb. Crane Counterweight
80,000 Lb. Carbody Counterweight
360 Degree Rating

Designed And Tested With The Intent To Be In The Scope of ANSI B30.5

CAUTION: ASSEMBLE-IN-AIR REQUIRED

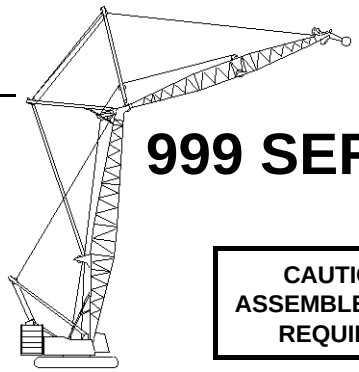
220 Ft. Boom, 150 Ft. Jib

Int. Fall Oper. Rad. Feet	88 Degree Boom Angle			86 Degree Boom Angle			83 Degree Boom Angle			Int. Fall Oper. Rad. Feet
	Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		
		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds	
40	74.1	303.9	51,300*							40
45	70.3	302.2	49,100*							45
50	66.3	300.0	45,800*	72.3	302.7	58,400*				50
55	62.3	297.4	37,700*	68.4	300.7	52,000*				55
60	58.1	294.4	31,600*	64.5	298.4	42,400*				60
65	53.6	290.8	26,900*	60.3	295.6	35,200*	69.6	300.1	55,000*	65
70	48.9	286.6	23,200*	56.0	292.3	29,800*	65.6	297.9	45,800*	70
75	43.8	281.5	20,100*	51.5	288.4	25,500*	61.6	295.2	37,900*	75
80	38.2	275.5	17,600*	46.6	283.9	22,000*	57.3	292.1	31,900*	80
85	31.6	267.9	15,500*	41.3	278.4	19,200*	52.8	288.4	27,200*	85
90	23.4	257.6	13,700*	35.3	271.7	16,800*	48.1	284.0	23,500*	90
95	9.3	238.8	12,300*	28.1	263.1	14,800*	42.9	278.9	20,400*	95
100				18.3	250.5	13,200*	37.1	272.6	17,800*	100
105							30.3	264.6	15,700*	105
110							21.6	253.6	13,900*	110

220 Ft. Boom, 160 Ft. Jib

Int. Fall Oper. Rad. Feet	88 Degree Boom Angle			86 Degree Boom Angle			83 Degree Boom Angle			Int. Fall Oper. Rad. Feet
	Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		
		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds	
40	75.9	314.3	47,900*							40
45	72.5	312.8	46,000*							45
50	69.1	310.9	44,000*							50
55	65.6	308.7	41,800*	71.0	311.5	51,500*				55
60	62.0	306.1	37,700*	67.5	309.4	47,600*				60
65	58.3	303.1	33,700*	64.0	307.0	43,500*				65
70	54.4	299.6	30,000*	60.3	304.3	38,200*	68.5	308.9	49,700*	70
75	50.3	295.5	26,200*	56.5	301.0	33,000*	65.0	306.6	46,700*	75
80	45.9	290.8	22,900*	52.5	297.3	28,600*	61.4	303.9	40,900*	80
85	41.1	285.3	20,300*	48.3	292.9	25,000*	57.6	300.8	35,300*	85
90	35.8	278.7	17,900*	43.7	287.9	22,000*	53.7	297.2	30,500*	90
95	29.7	270.5	16,000*	38.7	281.9	19,600*	49.5	293.0	26,700*	95
100	22.0	259.5	14,300*	33.1	274.6	17,300*	45.1	288.2	23,400*	100
105	8.7	239.4	13,000*	26.4	265.3	15,500*	40.2	282.5	20,700*	105
110				17.2	251.9	13,900*	34.8	275.7	18,500*	110
115							28.5	267.1	16,400*	115
120							20.3	255.3	14,600*	120

Manitowoc Cranes, Inc.
Manitowoc, Wisconsin 54220 U.S.A.



Liftcrane Luffing Jib Intermediate Fall Capacities

999 SERIES 3

New York City Code
Luffing Jib No. 149 On
Boom No. 82
219,600 Lb. Crane Counterweight
80,000 Lb. Carbody Counterweight
360 Degree Rating

Designed And Tested With The Intent To Be In The Scope of ANSI B30.5

CAUTION: ASSEMBLE-IN-AIR REQUIRED

220 Ft. Boom, 170 Ft. Jib

Int. Fall Oper. Rad. Feet	88 Degree Boom Angle			86 Degree Boom Angle			83 Degree Boom Angle			Int. Fall Oper. Rad. Feet
	Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		
		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds	
40	74.1	303.9	49,500*							40
45	70.3	302.2	47,300*							45
50	66.3	300.0	42,200*	72.3	302.7	55,200*				50
55	62.3	297.4	34,800*	68.4	300.7	48,000*				55
60	58.1	294.4	29,200*	64.5	298.4	39,100*				60
65	53.6	290.8	24,800*	60.3	295.6	32,500*	69.6	300.1	52,100*	65
70	48.9	286.6	21,300*	56.0	292.3	27,500*	65.6	297.9	42,300*	70
75	43.8	281.5	18,500*	51.5	288.4	23,500*	61.6	295.2	35,000*	75
80	38.2	275.5	16,100*	46.6	283.9	20,300*	57.3	292.1	29,500*	80
85	31.6	267.9	14,100*	41.3	278.4	17,600*	52.8	288.4	25,100*	85
90	23.4	257.6	12,500*	35.3	271.7	15,400*	48.1	284.0	21,600*	90
95	9.3	238.8	11,200*	28.1	263.1	13,600*	42.9	278.9	18,800*	95
100				18.3	250.5	12,000*	37.1	272.6	16,400*	100
105							30.3	264.6	14,400*	105
110							21.6	253.6	12,700*	110

Manitowoc Cranes, Inc.
Manitowoc, Wisconsin 54220 U.S.A.

Liftcrane Luffing Jib Intermediate Fall Capacities

999 SERIES 3

New York City Code
Luffing Jib No. 149 On
Boom No. 82
219,600 Lb. Crane Counterweight
80,000 Lb. Carbody Counterweight
360 Degree Rating

Designed And Tested With The Intent To Be In The Scope of ANSI B30.5

CAUTION: ASSEMBLE-IN-AIR REQUIRED

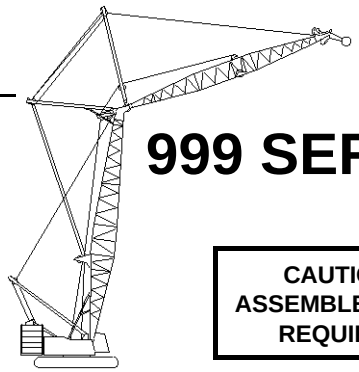
230 Ft. Boom, 150 Ft. Jib

Int. Fall Oper. Rad. Feet	88 Degree Boom Angle			86 Degree Boom Angle			83 Degree Boom Angle			Int. Fall Oper. Rad. Feet
	Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		
		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds	
40	74.3	314.0	46,500*							40
45	70.5	312.3	44,400*							45
50	66.6	310.2	42,400*	72.8	312.9	52,900*				50
55	62.6	307.6	38,200*	69.0	311.0	49,700*				55
60	58.4	304.6	32,000*	65.0	308.7	43,700*				60
65	54.0	301.1	27,200*	60.9	306.0	36,200*	70.5	310.5	50,900*	65
70	49.3	296.9	23,400*	56.7	302.8	30,500*	66.6	308.4	47,900*	70
75	44.2	291.9	20,300*	52.1	299.0	26,100*	62.6	305.8	39,800*	75
80	38.6	285.9	17,700*	47.3	294.5	22,500*	58.4	302.8	33,400*	80
85	32.1	278.5	15,600*	42.1	289.2	19,600*	54.0	299.3	28,400*	85
90	24.1	268.5	13,800*	36.1	282.7	17,100*	49.3	295.1	24,400*	90
95	11.0	251.0	12,400*	29.2	274.4	15,100*	44.2	290.1	21,200*	95
100				20.0	262.7	13,400*	38.6	284.1	18,500*	100
105							32.1	276.7	16,200*	105
110							24.1	266.7	14,300*	110
115							11.0	249.2	12,800*	115

230 Ft. Boom, 160 Ft. Jib

Int. Fall Oper. Rad. Feet	88 Degree Boom Angle			86 Degree Boom Angle			83 Degree Boom Angle			Int. Fall Oper. Rad. Feet
	Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		
		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds	
45	72.8	322.9	41,700*							45
50	69.4	321.1	40,000*							50
55	65.9	318.9	38,200*	71.4	321.7	46,800*				55
60	62.3	316.3	34,400*	68.0	319.7	43,400*				60
65	58.6	313.3	30,800*	64.5	317.4	39,800*				65
70	54.7	309.8	27,600*	60.8	314.6	36,200*	69.4	319.3	45,900*	70
75	50.6	305.8	24,600*	57.0	311.5	32,700*	65.9	317.1	43,200*	75
80	46.2	301.1	21,900*	53.1	307.8	29,200*	62.3	314.5	40,500*	80
85	41.5	295.7	19,600*	48.9	303.5	25,500*	58.6	311.5	36,600*	85
90	36.2	289.2	17,600*	44.4	298.6	22,400*	54.7	308.0	31,600*	90
95	30.2	281.1	16,000*	39.5	292.7	19,800*	50.6	304.0	27,600*	95
100	22.6	270.4	14,400*	33.9	285.7	17,600*	46.2	299.4	24,200*	100
105	10.3	251.8	13,100*	27.4	276.8	15,700*	41.5	293.9	21,300*	105
110				18.7	264.2	14,000*	36.2	287.4	18,900*	110
115							30.1	279.3	16,800*	115
120							22.6	268.6	15,000*	120
125							10.2	250.0	13,600*	125

Manitowoc Cranes, Inc.
Manitowoc, Wisconsin 54220 U.S.A.



Liftcrane Luffing Jib Intermediate Fall Capacities

999 SERIES 3

New York City Code
Luffing Jib No. 149 On
Boom No. 82
219,600 Lb. Crane Counterweight
80,000 Lb. Carbody Counterweight
360 Degree Rating

Designed And Tested With The Intent To Be In The Scope of ANSI B30.5

CAUTION: ASSEMBLE-IN-AIR REQUIRED

230 Ft. Boom, 170 Ft. Jib

Int. Fall Oper. Rad. Feet	88 Degree Boom Angle			86 Degree Boom Angle			83 Degree Boom Angle			Int. Fall Oper. Rad. Feet
	Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		Jib Angle Degrees	Intermediate Fall		
		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds		Elev. Feet	Capacity Pounds	
40	74.3	314.0	44,800*							40
45	70.5	312.3	42,700*							45
50	66.6	310.2	40,500*	72.8	312.9	50,000*				50
55	62.6	307.6	35,300*	69.0	311.0	46,100*				55
60	58.4	304.6	29,500*	65.0	308.7	40,300*				60
65	54.0	301.1	25,100*	60.9	306.0	33,400*	70.5	310.5	48,200*	65
70	49.3	296.9	21,500*	56.7	302.8	28,100*	66.6	308.4	44,600*	70
75	44.2	291.9	18,600*	52.1	299.0	24,000*	62.6	305.8	36,800*	75
80	38.6	285.9	16,300*	47.3	294.5	20,700*	58.4	302.8	30,800*	80
85	32.1	278.5	14,200*	42.1	289.2	17,900*	54.0	299.3	26,200*	85
90	24.1	268.5	12,600*	36.1	282.7	15,700*	49.3	295.1	22,500*	90
95	11.0	251.0	11,300*	29.2	274.4	13,800*	44.2	290.1	19,500*	95
100				20.0	262.7	12,200*	38.6	284.1	17,000*	100
105							32.1	276.7	14,900*	105
110							24.1	266.7	13,100*	110
115							11.0	249.2	11,700*	115