

Load Rating Chart



Model 50110S



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NOTE: Additional copies of this Load Rating Chart can be purchased from your Manitex Distributor. When ordering, use the part number shown in the bottom left corner of this page.

LMI OPERATING CODES

CODE	CRANE CONFIGURATION	OUTRIGGER CONFIGURATION	AREA OF OPERATION
#1	— MAIN BOOM — — — — —	FULLY EXTENDED — — — — —	OVER REAR
#3	— MAIN BOOM — — — — —	FULLY EXTENDED — — — — —	FULL 360°
#4	— MAIN BOOM — — — — —	MID POSITION — — — — —	FULL 360°
#5	— MAIN BOOM — — — — —	RETRACTED — — — — —	FULL 360°
#6	— MAIN BOOM — — — — —	ON TIRES — — — — —	DIRECTLY OVER REAR
#7	— RETRACTED JIB 0° OFFSET — — — — —	FULLY EXTENDED — — — — —	OVER REAR
#8	— RETRACTED JIB 0° OFFSET — — — — —	FULLY EXTENDED — — — — —	FULL 360°
#9	— RETRACTED JIB 15° OFFSET — — — — —	FULLY EXTENDED — — — — —	OVER REAR
#10	— RETRACTED JIB 15° OFFSET — — — — —	FULLY EXTENDED — — — — —	FULL 360°
#11	— RETRACTED JIB 30° OFFSET — — — — —	FULLY EXTENDED — — — — —	OVER REAR
#12	— RETRACTED JIB 30° OFFSET — — — — —	FULLY EXTENDED — — — — —	FULL 360°
#13	— EXTENDED JIB 0° OFFSET — — — — —	FULLY EXTENDED — — — — —	OVER REAR
#14	— EXTENDED JIB 0° OFFSET — — — — —	FULLY EXTENDED — — — — —	FULL 360°
#15	— EXTENDED JIB 15° OFFSET — — — — —	FULLY EXTENDED — — — — —	OVER REAR
#16	— EXTENDED JIB 15° OFFSET — — — — —	FULLY EXTENDED — — — — —	FULL 360°
#17	— EXTENDED JIB 30° OFFSET — — — — —	FULLY EXTENDED — — — — —	OVER REAR
#18	— EXTENDED JIB 30° OFFSET — — — — —	FULLY EXTENDED — — — — —	FULL 360°
#19	— RETRACTED JIB 0° OFFSET — — — — —	MID POSITION — — — — —	FULL 360°
#20	— RETRACTED JIB 15° OFFSET — — — — —	MID POSITION — — — — —	FULL 360°
#21	— RETRACTED JIB 30° OFFSET — — — — —	MID POSITION — — — — —	FULL 360°
#22	— EXTENDED JIB 0° OFFSET — — — — —	MID POSITION — — — — —	FULL 360°
#23	— EXTENDED JIB 15° OFFSET — — — — —	MID POSITION — — — — —	FULL 360°
#24	— EXTENDED JIB 30° OFFSET — — — — —	MID POSITION — — — — —	FULL 360°
#25	— PERSONNEL LIFTING MAIN BOOM — — — — —	FULLY EXTENDED — — — — —	FULL 360°
#26	— PERSONNEL LIFTING RETR JIB 0° OFFSET — — — — —	FULLY EXTENDED — — — — —	FULL 360°
#27	— PERSONNEL LIFTING RETR JIB 15° OFFSET — — — — —	FULLY EXTENDED — — — — —	FULL 360°
#28	— PERSONNEL LIFTING RETR JIB 30° OFFSET — — — — —	FULLY EXTENDED — — — — —	FULL 360°
#29	— PERSONNEL LIFTING EXTENDED JIB 0° OFFSET — — — — —	FULLY EXTENDED — — — — —	FULL 360°
#30	— PERSONNEL LIFTING EXTENDED JIB 15° OFFSET — — — — —	FULLY EXTENDED — — — — —	FULL 360°
#31	— PERSONNEL LIFTING EXTENDED JIB 30° OFFSET — — — — —	FULLY EXTENDED — — — — —	FULL 360°

WARNING

1. THE OPERATOR MUST READ AND UNDERSTAND THE OWNER'S MANUAL BEFORE OPERATING THIS CRANE.
2. POSITIONING OR OPERATION OF CRANE BEYOND AREAS SHOWN ON THIS CHART IS NOT INTENDED OR APPROVED EXCEPT WHERE SPECIFIED IN OWNER'S MANUAL.
3. LOADED BOOM ANGLES AT SPECIFIED BOOM LENGTHS GIVE ONLY AN APPROXIMATION OF THE OPERATING RADIUS. THE BOOM ANGLE BEFORE LOADING SHOULD BE GREATER TO ACCOUNT FOR DEFLECTIONS. DO NOT EXCEED THE OPERATING RADIUS FOR RATED LOADS.
4. THE OPERATING RADIUS SHOWN IN THE JIB RATING CHART IS FOR FULLY EXTENDED BOOM ONLY. WHEN BOOM IS NOT FULLY EXTENDED, USE ONLY LOADED BOOM ANGLE TO DETERMINE LOAD RATING OF JIB.
5. FOR BOOM ANGLES NOT SHOWN ON JIB LOAD RATING CHART, USE RATING OF NEXT LOWER BOOM ANGLE.

WARNING (CONTINUED)

6. FOR BOOM LENGTHS NOT SHOWN, USE RATING OF NEXT SHORTER OR LONGER BOOM LENGTH, WHICHEVER IS LESS. FOR RADII NOT SHOWN, USE RATING OF NEXT LONGER RADIUS.
7. CRANE LOAD RATINGS ON OUTRIGGERS ARE BASED ON FREELY SUSPENDED LOADS WITH THE MACHINE LEVELED AND STANDING ON A FIRM UNIFORM SUPPORTING SURFACE. NO ATTEMPT SHALL BE MADE TO MOVE A LOAD HORIZONTALLY ON THE GROUND IN ANY DIRECTION.
8. PRACTICAL WORKING LOADS DEPEND ON SUPPORTING SURFACE, WIND, AND OTHER FACTORS AFFECTING STABILITY SUCH AS HAZARDOUS SURROUNDINGS, EXPERIENCE OF PERSONNEL, AND PROPER HANDLING, ALL OF WHICH MUST BE TAKEN INTO ACCOUNT BY THE OPERATOR.
9. THE MAXIMUM LOAD WHICH MAY BE TELESCOPED IS LIMITED BY HYDRAULIC PRESSURE, BOOM ANGLE, AND BOOM LUBRICATION. IT IS SAFE TO ATTEMPT TO TELESCOPE ANY LOAD WITHIN THE LIMITS OF THE LOAD RATING CHART.
10. LIFTING OFF THE MAIN BOOM POINT WHILE THE SWING AROUND JIB IS ERECTED IS NOT INTENDED OR APPROVED.

INFORMATION

1. DEDUCTIONS MUST BE MADE FROM RATED LOADS FOR STOWED JIB, OPTIONAL ATTACHMENTS, HOOKS, AND LOADBLOCKS (SEE DEDUCTION CHART). WEIGHTS OF SLINGS AND ALL OTHER LOAD HANDLING DEVICES SHALL BE CONSIDERED A PART OF THE LOAD.
2. LOAD RATINGS ABOVE THE HEAVY LINE ARE STRUCTURALLY LIMITED CAPACITIES. LOAD RATINGS BELOW THE HEAVY LINE ARE STABILITY LIMITED CAPACITIES AND DO NOT EXCEED 85 % OF TIPPING.

DEFINITIONS

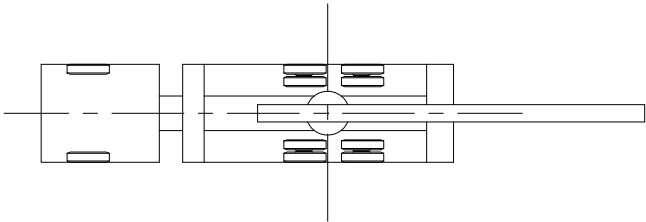
1. OPERATING RADIUS IS THE HORIZONTAL DISTANCE FROM THE AXIS OF ROTATION TO THE CENTER OF THE VERTICAL HOIST LINE OR TACKLE WITH LOAD APPLIED.
2. LOADED BOOM ANGLE IS THE INCLUDED ANGLE BETWEEN THE HORIZONTAL AND LONGITUDINAL AXES OF THE BOOM BASE AFTER LIFTING RATED LOAD AT RATED RADIUS.

ALLOWABLE LINE PULL										WARNING
1 PART LINE	2 PART LINE	3 PART LINE	4 PART LINE	5 PART LINE	6 PART LINE	7 PART LINE	8 PART LINE	9 PART LINE	10 PART LINE	
10000 LBS	20000 LBS	30000 LBS	40000 LBS	50000 LBS	60000 LBS	70000 LBS	80000 LBS	90000 LBS	100000 LBS	ANTI-TWO-BLOCK SYSTEM MUST BE IN GOOD OPERATING CONDITION BEFORE OPERATING CRANE. REFER TO THE OWNER'S MANUAL. KEEP AT LEAST 3 WRAPS OF LOAD LINE ON THE DRUM AT ALL TIMES.
										5/8" XLT4 LOW-TORQUE (3.5:1 SF) – 35000 LBS MIN BREAKING STRENGTH

AREA OF OPERATIONS

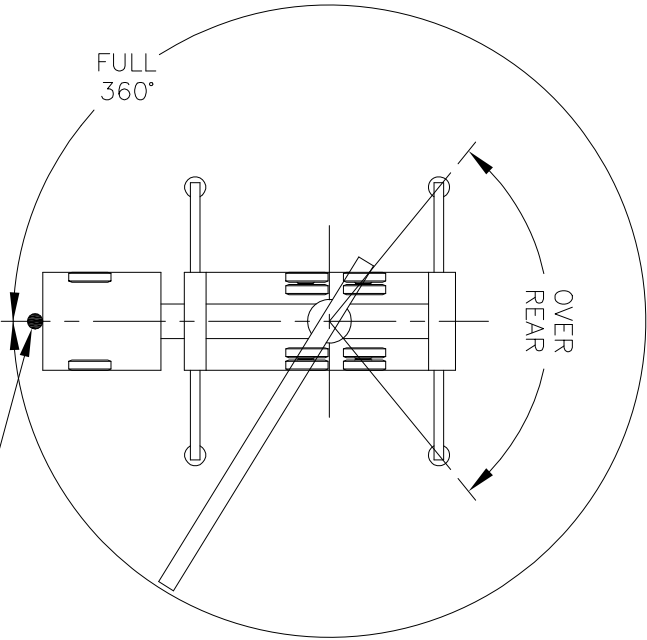
ON TIRES

WHEN LIFTING ON TIRES, THE BOOM MUST BE CENTERED OVER THE REAR OF THE CRANE WITH THE SWING BRAKE AND THE HOUSELOCK ENGAGED.



THE FRONT BUMPER STABILIZER MUST BE SET IN ACCORDANCE TO THE OPERATORS MANUAL BEFORE WORKING IN THE "FULL 360°" AREA.

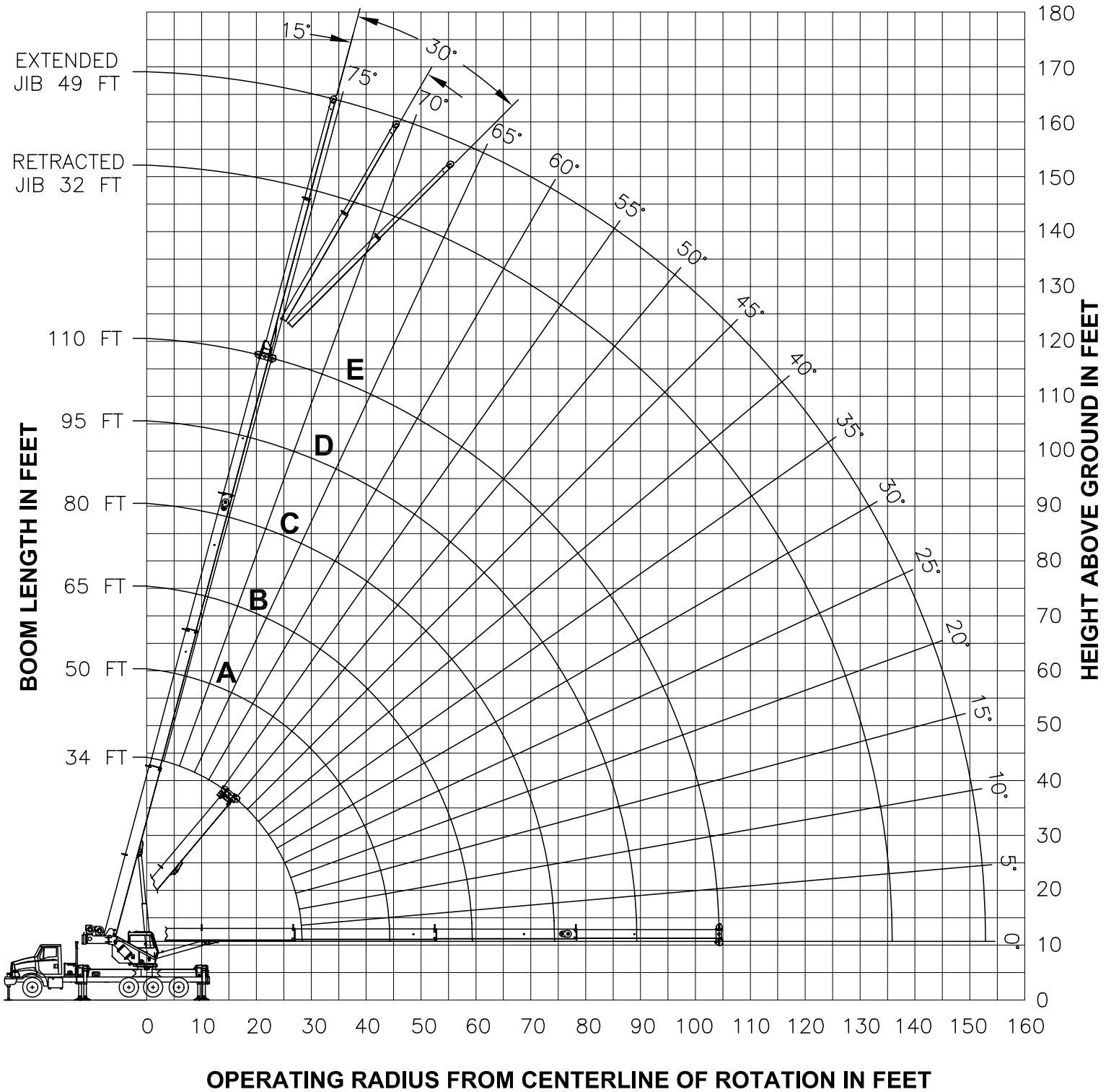
ON OUTRIGGERS



DEDUCTIONS FROM RATED LOADS FOR LOAD HANDLING DEVICES SUPPLIED BY MANITEX

AUXILIARY BLOCK	-----	50 LBS
ROOSTER SHEAVE	-----	70 LBS
LIFTING FROM MAIN BOOM WITH JIB STOWED OR ERECTED	-----	SEE LOAD CHART
OVERHAUL BALL	-----	SEE MANUFACTURER NAMEPLATE
LOAD BLOCK	-----	SEE MANUFACTURER NAMEPLATE

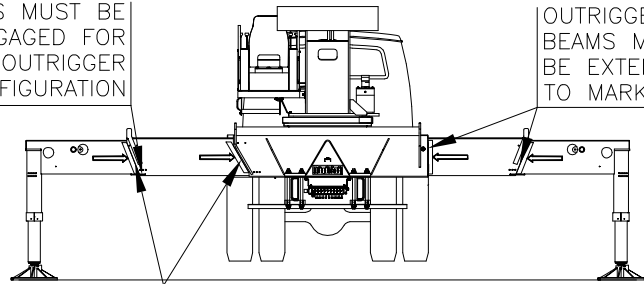
- RANGE DIAGRAM -



**USE THIS CHART ONLY WHEN
ALL OUTRIGGER BEAMS ARE
FULLY EXTENDED**

PINS MUST BE
DISENGAGED FOR
THIS OUTRIGGER
CONFIGURATION

OUTRIGGER
BEAMS MUST
BE EXTENDED
TO MARK



MARK INDICATES BEAM
IS FULLY EXTENDED

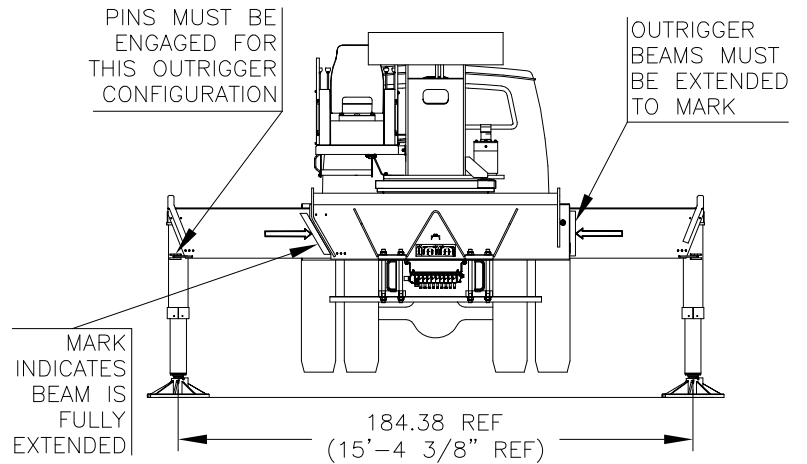
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MAIN BOOM LIFTING CAPACITIES

LOAD RADIUS (FT)	BOOM LENGTH 34 FT			BOOM LENGTH 50 FT (A)			BOOM LENGTH 65 FT (B)			
	LOADED BOOM ANGLE (DEG)	CODE 1	CODE 3	LOADED BOOM ANGLE (DEG)	CODE 1	CODE 3	LOADED BOOM ANGLE (DEG)	CODE 1	CODE 3	
		OVER REAR (LBS)	FULL 360° (LBS)		OVER REAR (LBS)	FULL 360° (LBS)		OVER REAR (LBS)	FULL 360° (LBS)	
6	71	100000	100000							
8	67.5	88100	88100							
10	63.5	77900	77900	73	51000	51000				
12	60	69900	69900	70.5	51000	51000				
15	53.5	60400	60400	67	51000	51000	73	40000	40000	
20	42	46100	46100	60.5	46400	46400	68.5	38810	38810	
25	26.5	35800	35670	53.5	36600	36600	63.5	33150	33150	
30				45.5	29670	25590	58.5	29000	26150	
35				36.5	23130	18980	53	23610	19500	
40				25	18360	14680	47	18850	15190	
45							40.5	15440	12160	
50							32.5	12870	9920	
55							22.5	10860	8170	
	1150 LBS			780 LBS			600 LBS			STOWED JIB
	2940 LBS			2650 LBS			2510 LBS			ERECTED JIB (RETRACTED)
	3320 LBS			2910 LBS			2710 LBS			ERECTED JIB (EXTENDED)

LOAD RADIUS (FT)	BOOM LENGTH 80 FT (C)			BOOM LENGTH 95 FT (D)			BOOM LENGTH 110 FT (E)		
	LOADED BOOM ANGLE (DEG)	CODE 1 OVER REAR (LBS)	CODE 3 FULL 360° (LBS)	LOADED BOOM ANGLE (DEG)	CODE 1 OVER REAR (LBS)	CODE 3 FULL 360° (LBS)	LOADED BOOM ANGLE (DEG)	CODE 1 OVER REAR (LBS)	CODE 3 FULL 360° (LBS)
20	73.5	28230	28230						
25	69.5	24350	24350	73.5	20000	20000			
30	65.5	21280	21280	70.5	18680	18680	74	15500	15500
35	61.5	19000	19000	67.5	16580	16580	71.5	14660	14660
40	57.5	16870	15470	64	14820	14820	69	13270	13270
45	53	15120	12440	60.5	13330	12610	66	11960	11960
50	48	13130	10190	57	12050	10360	63	10850	10480
55	43	11140	8460	53	10920	8620	60	9950	8740
60	37	9540	7080	49	9700	7250	56.5	9210	7360
65	30	8220	5950	44.5	8390	6120	53.5	8410	6240
70	21	7110	5010	40	7290	5190	50	7400	5300
75				34.5	6360	4410	46	6470	4520
80				28	5560	3730	42	5670	3850
85				20	4860	3140	37.5	4980	3260
90							33	4380	2750
95							27	3840	2300
100							19	3350	1900
DEDUCTIONS FOR JIB FROM MAIN BOOM CAPACITIES									
STOWED JIB									
ERECTED JIB (RETRACTED)									
ERECTED JIB (EXTENDED)									

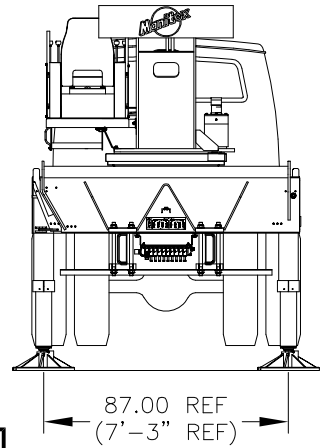
**USE THIS CHART ONLY WHEN
ALL OUTRIGGER BEAMS ARE
IN THE MID POSITION**



MAIN BOOM LIFTING CAPACITIES

LMI CODE 4													
LOAD RADIUS (FT)	BOOM LENGTH 34 FT		BOOM LENGTH 50 FT (A)		BOOM LENGTH 65 FT (B)		BOOM LENGTH 80 FT (C)		BOOM LENGTH 95 FT (D)		BOOM LENGTH 110 FT (E)		
	LOADED BOOM ANGLE (DEG)	FULL 360° (LBS)	LOADED BOOM ANGLE (DEG)	FULL 360° (LBS)	LOADED BOOM ANGLE (DEG)	FULL 360° (LBS)	LOADED BOOM ANGLE (DEG)	FULL 360° (LBS)	LOADED BOOM ANGLE (DEG)	FULL 360° (LBS)	LOADED BOOM ANGLE (DEG)	FULL 360° (LBS)	
6	71	100000											
8	67.5	88100											
10	63.5	77900	73	51000									
12	60	69900	70.5	51000									
15	53.5	45330	67	46850	73	40000							
20	42	24480	60.5	25660	68.5	26200	73.5	26540					
25	26.5	15600	53.5	16690	63.5	17170	69.5	17460	73.5	17650			
30			45.5	11730	58.5	12180	65.5	12440	70.5	12610	74	12740	
35			36.5	8570	53	9010	61.5	9250	67.5	9410	71.5	9530	
40			25	6370	47	6810	57.5	7050	64	7210	69	7310	
45					40.5	5200	53	5440	60.5	5590	66	5690	
50					32.5	3960	48	4200	57	4350	63	4450	
55					22.5	2970	43	3220	53	3370	60	3470	
60							37	2430	49	2580	56.5	2680	
65							30	1770	44.5	1920	53.5	2020	
70							21	1200	40	1370	50	1470	
75									34.5	900	46	1000	
80													
												DEDUCTIONS FOR JIB FROM MAIN BOOM CAPACITIES	
	1150 LBS		780 LBS		600 LBS		490 LBS		420 LBS		360 LBS		STOWED JIB
	2940 LBS		2650 LBS		2510 LBS		2420 LBS		2360 LBS		2320 LBS		ERECTED JIB (RETRACTED)
	3320 LBS		2910 LBS		2710 LBS		2580 LBS		2500 LBS		2430 LBS		ERECTED JIB (EXTENDED)

**USE THIS CHART WHEN ALL
OUTRIGGER BEAMS ARE NOT IN
EITHER THE MID OR FULLY
EXTENDED POSITION**



MAIN BOOM LIFTING CAPACITIES

LMI CODE 5												
LOAD RADIUS (FT)	BOOM LENGTH 34 FT		BOOM LENGTH 50 FT (A)		BOOM LENGTH 65 FT (B)		BOOM LENGTH 80 FT (C)		BOOM LENGTH 95 FT (D)		BOOM LENGTH 110 FT (E)	
	LOADED BOOM ANGLE (DEG)	FULL 360° (LBS)	LOADED BOOM ANGLE (DEG)	FULL 360° (LBS)	LOADED BOOM ANGLE (DEG)	FULL 360° (LBS)	LOADED BOOM ANGLE (DEG)	FULL 360° (LBS)	LOADED BOOM ANGLE (DEG)	FULL 360° (LBS)	LOADED BOOM ANGLE (DEG)	FULL 360° (LBS)
6	71	85130										
8	67.5	43550										
10	63.5	28050	73	29310								
12	60	19950	70.5	21050								
15	53.5	13120	67	14090	73	14550						
20	42	7270	60.5	8160	68.5	8560	73.5	8800				
25	26.5	4100	53.5	4990	63.5	5360	69.5	5590	73.5	5740		
30			45.5	3010	58.5	3380	65.5	3590	70.5	3730	74	3830
35			36.5	1650	53	2020	61.5	2230	67.5	2370	71.5	2460
40					47	1030	57.5	1240	64	1370	69	1460
	1150 LBS		780 LBS		600 LBS		490 LBS		420 LBS		360 LBS	
	STOWED JIB											

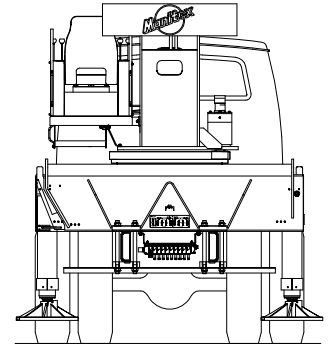
DEDUCTIONS FOR JIB FROM
MAIN BOOM CAPACITIES

DEDUCTIONS FOR JIB FROM
MAIN BOOM CAPACITIES

WARNINGS

1. THE JIB MUST BE IN THE STOWED POSITION, IF SO EQUIPPED, WHEN USING THIS OUTRIGGER CONFIGURATION.

**USE THIS CHART
WHEN PICKING
LOADS ON TIRES**



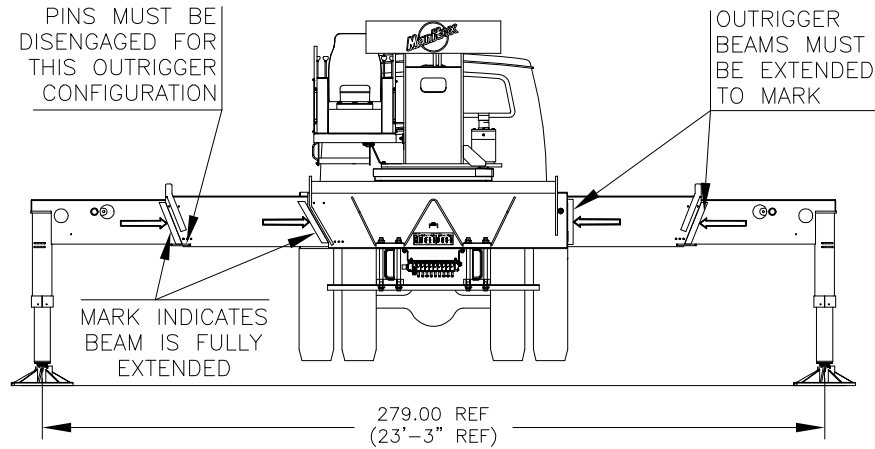
ON TIRE CAPACITIES

WARNINGS

LMI CODE 6			
LOAD RADIUS (FT)	MAX BOOM LENGTH (FT)	BOOM DIRECTLY OVER REAR (LBS)	STOWED JIB DEDUCTION (LBS)
10	34	10000	1150
12	34	9000	1150
15	34	7600	1150
20	34	4650	1150
25	50 (A)	2800	780
30	50 (A)	1550	780

1. CRANE LOAD RATINGS ON TIRES ARE BASED ON THE CRANE BEING LEVEL AND TRAVELING ON A FIRM UNIFORM SURFACE (BLACK TOP, CONCRETE OR SIMILAR SURFACE).
2. TIRES MUST BE INFLATED TO 120 PSI FOR PICKING ON TIRES. CONSULT TRUCK MANUAL FOR PROPER INFLATION PROCEDURE.
3. THE JIB MUST BE IN THE STOWED POSITION, IF SO EQUIPPED, WHEN PICKING ON TIRES.
4. WHEN LIFTING ON TIRES, THE BOOM MUST BE CENTERED OVER THE REAR OF THE CRANE WITH THE SWING BRAKE AND THE HOUSELOCK ENGAGED.
5. KEEP THE LOAD CLOSE TO THE GROUND AND RESTRAINED FROM SWINGING.
6. WHEN THE RADIUS IS BETWEEN LISTED VALUES, USE THE SMALLER OF THE TWO LOAD RATINGS.
7. DO NOT OPERATE AT LONGER RADII THAN THOSE LISTED ON THE LOAD CHART.

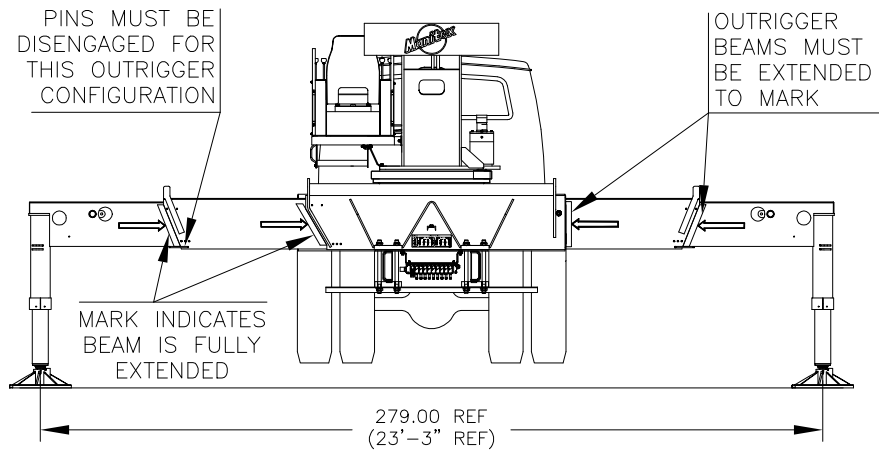
**USE THIS CHART ONLY WHEN
ALL OUTRIGGER BEAMS ARE
FULLY EXTENDED**



32 FT RETRACTED JIB LIFTING CAPACITIES

LOAD RADIUS (FT)	LOADED BOOM ANGLE (DEG)	0° OFFSET		15° OFFSET			30° OFFSET		
		CODE 7 OVER REAR (LBS)	CODE 8 FULL 360° (LBS)	LOADED BOOM ANGLE (DEG)	CODE 9 OVER REAR (LBS)	CODE 10 FULL 360° (LBS)	LOADED BOOM ANGLE (DEG)	CODE 11 OVER REAR (LBS)	CODE 12 FULL 360° (LBS)
40	74.5	7300	7300						
45	72.5	7300	7300						
50	70.5	7300	7300	73.5	6500	6500			
55	68.5	6980	6980	71.5	6500	6500	74	5800	5800
60	66.5	6600	6600	69.5	6120	6120	72	5750	5750
65	64	6230	6230	67	5780	5780	69.5	5450	5450
70	62	5870	5280	65	5450	5450	67	5160	5160
75	59.5	5530	4480	62.5	5160	4890	64.5	4900	4900
80	57	5110	3800	60	4880	4170	62	4670	4470
85	54.5	4690	3200	57.5	4630	3530	59.5	4450	3800
90	52	4280	2690	54.5	4400	2980	56.5	4250	3210
95	49	3740	2230	51.5	4000	2500	53.5	4070	2700
100	46	3260	1830	48.5	3490	2060	50.5	3660	2230
105	43	2830	1470	45.5	3030	1670	47	3170	1810
110	39.5	2440	1140	42	2620	1320	43.5	2730	1440
115	35.5	2090	850	38	2240	1000	39	2330	1090
120	31.5	1770		34	1890		34.5	1950	760
125	26.5	1480		29	1570		29	1600	
130	20.5	1210		22	1270		20	1250	
135	10	950							

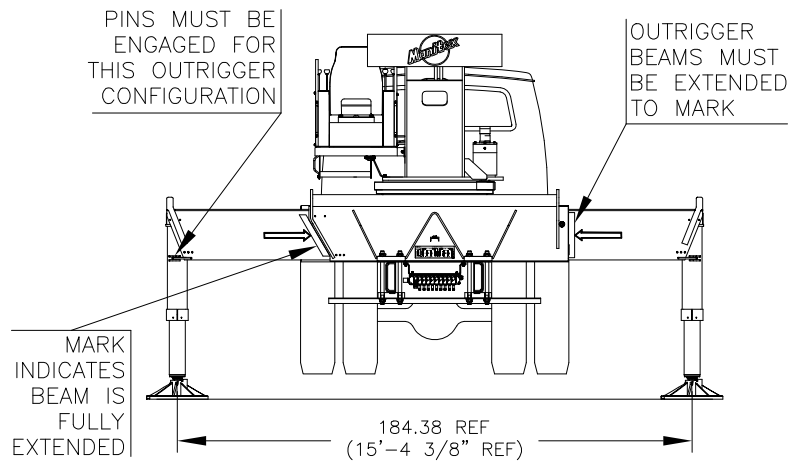
**USE THIS CHART ONLY WHEN
ALL OUTRIGGER BEAMS ARE
FULLY EXTENDED**



49 FT EXTENDED JIB LIFTING CAPACITIES

LOAD RADIUS (FT)	LOADED BOOM ANGLE (DEG)	0° OFFSET		15° OFFSET			30° OFFSET		
		CODE 13 OVER REAR (LBS)	CODE 14 FULL 360° (LBS)	LOADED BOOM ANGLE (DEG)	CODE 15 OVER REAR (LBS)	CODE 16 FULL 360° (LBS)	LOADED BOOM ANGLE (DEG)	CODE 17 OVER REAR (LBS)	CODE 18 FULL 360° (LBS)
45	75	5400	5400						
50	73.5	5400	5400						
55	71.5	5400	5400	75	4700	4700			
60	69.5	5400	5400	73.5	4480	4480			
65	68	5230	5230	71.5	4280	4280	75	3520	3520
70	66	4930	4930	69.5	4100	4100	73.5	3410	3410
75	64	4660	4660	67.5	3940	3940	71	3310	3310
80	62	4410	4410	65.5	3790	3790	69	3210	3210
85	60	4170	3810	63.5	3650	3650	67	3130	3130
90	57.5	3950	3290	61.5	3520	3520	64.5	3050	3050
95	55.5	3750	2820	59	3400	3250	62	2980	2980
100	53	3560	2420	57	3290	2800	59.5	2910	2910
105	50.5	3380	2050	54.5	3190	2400	57	2860	2680
110	48	3010	1720	52	3050	2030	54.5	2810	2280
115	45.5	2660	1420	49	2920	1700	51.5	2760	1920
120	42.5	2330	1150	46	2580	1400	48.5	2730	1580
125	39.5	2040	910	43	2260	1130	45	2400	1280
130	36	1770		39.5	1960	870	41	2070	990
135	32	1520		35.5	1680		36.5	1760	
140	28	1290		31	1410		31	1460	
145	22.5	1070		25	1160				
150	15	870		15.5	910				

**USE THIS CHART ONLY WHEN
ALL OUTRIGGER BEAMS ARE
IN THE MID POSITION**



32 FT RETRACTED JIB LIFTING CAPACITIES

LOAD RADIUS (FT)	0° OFFSET		15° OFFSET		30° OFFSET	
	LOADED BOOM ANGLE (DEG)	CODE 19 FULL 360° (LBS)	LOADED BOOM ANGLE (DEG)	CODE 20 FULL 360° (LBS)	LOADED BOOM ANGLE (DEG)	CODE 21 FULL 360° (LBS)
40	74.5	7300				
45	72.5	5640				
50	70.5	4370	73.5	5040		
55	68.5	3370	71.5	3960	74	4460
60	66.5	2560	69.5	3080	72	3520
65	64	1890	67	2350	69.5	2740
70	62	1330	65	1740	67	2080
75	59.5	850	62.5	1220	64.5	1520
80			60	770	62	1040

49 FT EXTENDED JIB LIFTING CAPACITIES

LOAD RADIUS (FT)	0° OFFSET		15° OFFSET		30° OFFSET	
	LOADED BOOM ANGLE (DEG)	CODE 22 FULL 360° (LBS)	LOADED BOOM ANGLE (DEG)	CODE 23 FULL 360° (LBS)	LOADED BOOM ANGLE (DEG)	CODE 24 FULL 360° (LBS)
45	75	5400				
50	73.5	5040				
55	71.5	4020	75	4700		
60	69.5	3200	73.5	3960		
65	68	2520	71.5	3200	75	3520
70	66	1950	69.5	2560	73.5	3100
75	64	1460	67.5	2010	71	2500
80	62	1040	65.5	1540	69	1980
85			63.5	1130	67	1520
90			61.5	770	64.5	1120
95					62	760