

# Load Rating Chart

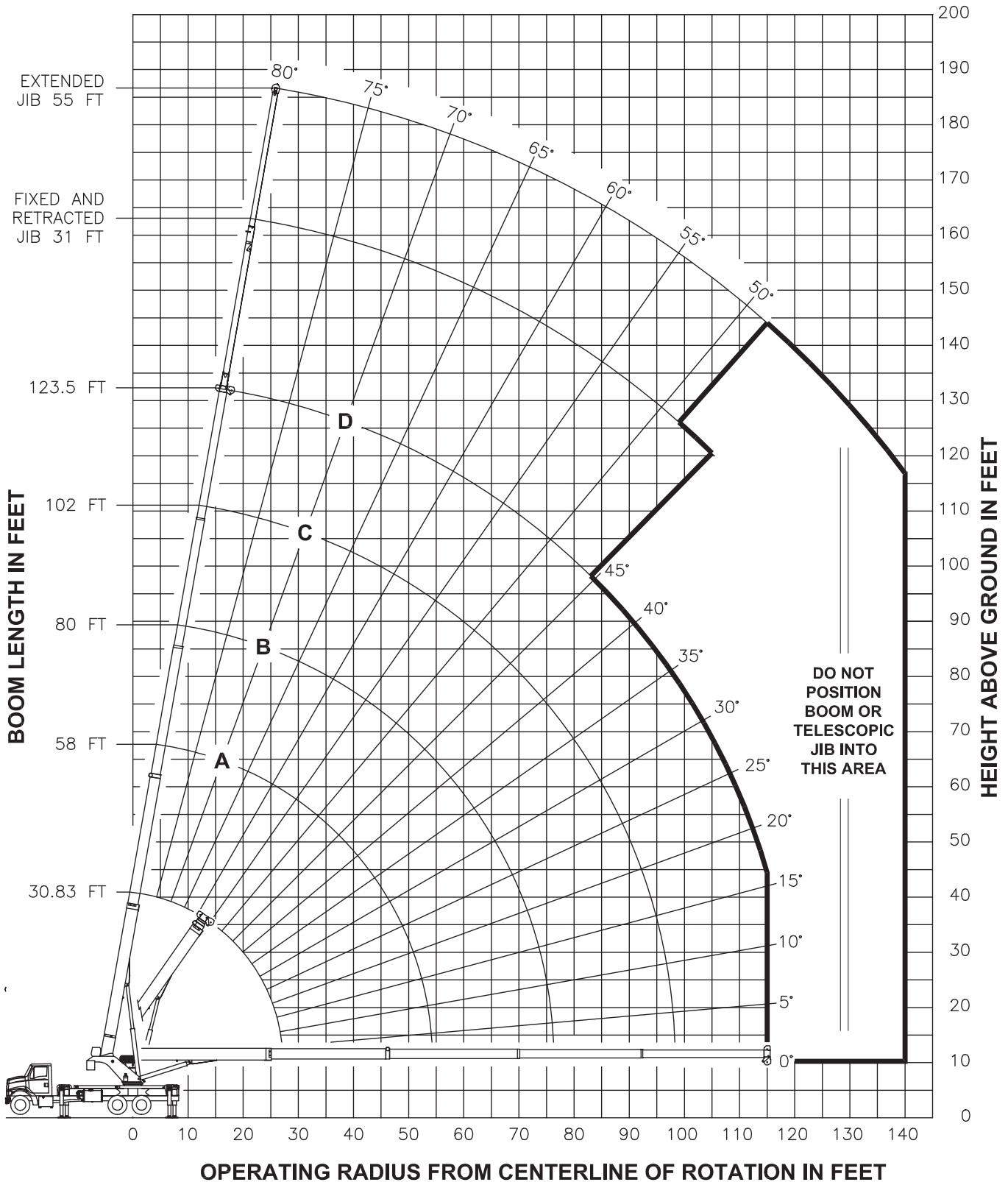
## *Model 40124SHL*



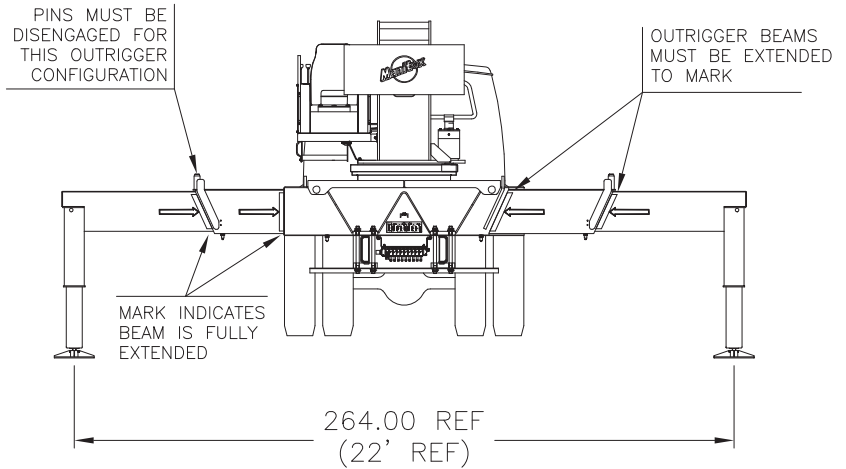
© Manitex 2000

**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.

**RANGE DIAGRAM  
- FULLY EXTENDED OUTRIGGER CONFIGURATION -**



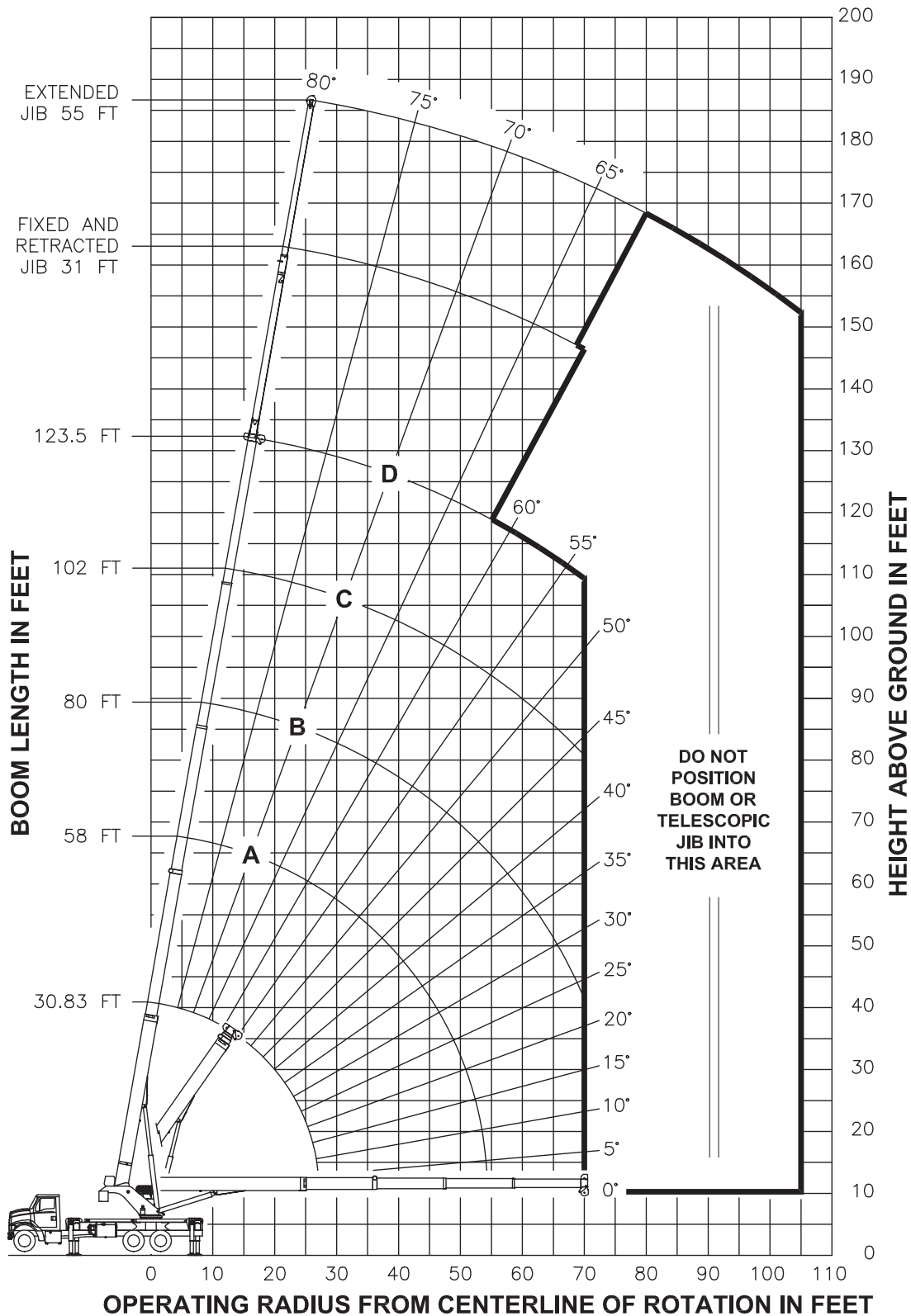
**USE THIS CHART ONLY  
WHEN ALL  
OUTRIGGERS ARE  
FULLY EXTENDED**



**- FULLY EXTENDED OUTRIGGER CONFIGURATION -**

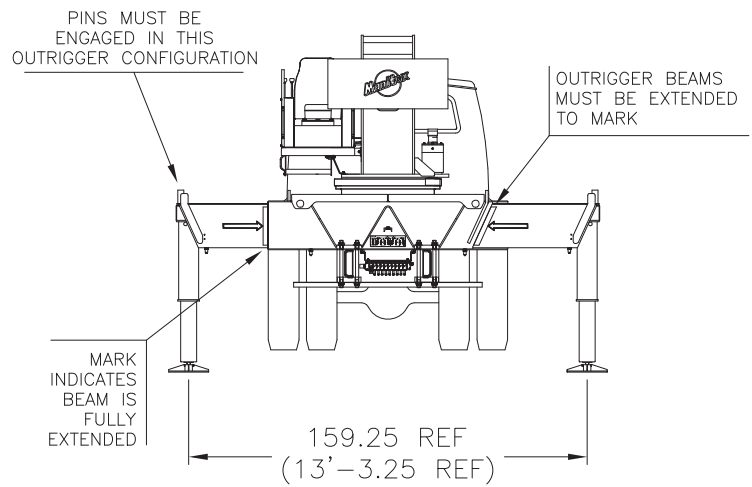
LOAD RATINGS IN LBS WITH ALL OUTRIGGERS FULLY EXTENDED LMI CODE #1										JIB LOAD RATINGS IN LBS WITH ALL OUTRIGGERS FULLY EXTENDED											
OPERATING RADIUS IN FT	LOADED BOOM ANGLE BOOM LENGTH AND MARKER		A				B		C		D		FIXED JIB		TELESCOPIC JIB						
			30.83 FT		58 FT		80 FT		102 FT		123.5 FT		LMI CODE #2		LMI CODE #3		LMI CODE #4				
			BOOM ANGLE	BOOM LENGTH	BOOM ANGLE	BOOM LENGTH	BOOM ANGLE	BOOM LENGTH	BOOM ANGLE	BOOM LENGTH	BOOM ANGLE	BOOM LENGTH	BOOM ANGLE	JIB LENGTH FOR ALL BOOM LENGTHS	BOOM ANGLE	JIB LENGTH FOR ALL BOOM LENGTHS	BOOM ANGLE	JIB LENGTH FOR ALL BOOM LENGTHS			
5	75	80000																			
8	69	60500																			
10	64	52550																			
12	60	46600	75	25000																	
15	53	39600	73	25000	79	21500															
20	40	31330	67	25000	75	19700	80	14500													
25	22	24100	62	22840	71	18200	77	13500	80	8450											
30			56	19550	67	16250	74	12820	78	8150	30	80	4000	79.5	3300						
35			49	16100	63	14540	71	11380	75	7800	35	78	3850	77.5	3300	79.5	2450				
40			42	12900	59	13070	68	10160	72	7280	40	76	3700	76	3300	78	2450				
45			34	10540	54	10800	65	9370	70	6780	45	74	3550	74	3300	76.5	2450				
50			23	8720	50	9000	61	8430	67	6160	50	72	3400	72	3300	75	2450				
55					44	7570	58	7620	65	5540	55	70	3250	70.5	3300	73	2450				
60					39	6400	54	6530	62	5000	60	68	3080	68.5	3300	71.5	2450				
65					32	5430	50	5570	59	4520	65	66	2910	66.5	3070	70	2420				
70					24	4610	46	4760	56	4090	70	64	2750	64.5	2750	68	2260				
75					12	3900	42	4060	53	3700	75	62	2600	62	2380	66	2110				
80							37	3470	50	3350	80	60	2460	60	2050	64.5	1940				
85							32	2940	47	3020	85	58	2320	58	1760	63	1750				
90							25	2480	43	2560	90	55	2170	55.5	1500	61	1580				
95								17	2060	40	2150	95	53	1930	53	1260	59	1440			
100										35	1790	100	51	1720	50.5	1050	57	1280			
105											31	1460	105	48	1530	48	850	55	1100		
110											25	1160	110	45	1350			53	930		
115											18	880	115	43	1200			51	770		
120													120	40	1020						
125													125	36	800						
			450 LBS	240 LBS	180 LBS	140 LBS	120 LBS			FIXED		DEDUCTIONS FOR STOWED JIB									
			840 LBS	450 LBS	330 LBS	260 LBS	210 LBS			TELESCOPIC											

**RANGE DIAGRAM  
- INTERMEDIATE OUTRIGGER CONFIGURATION -**



**NOTE :** LIFTING PERSONNEL WITH CRANE IN THIS OUTRIGGER CONFIGURATION IS STRICTLY PROHIBITED. USE ONLY FULLY EXTENDED OUTRIGGER CONFIGURATION WHEN LIFTING PERSONNEL.

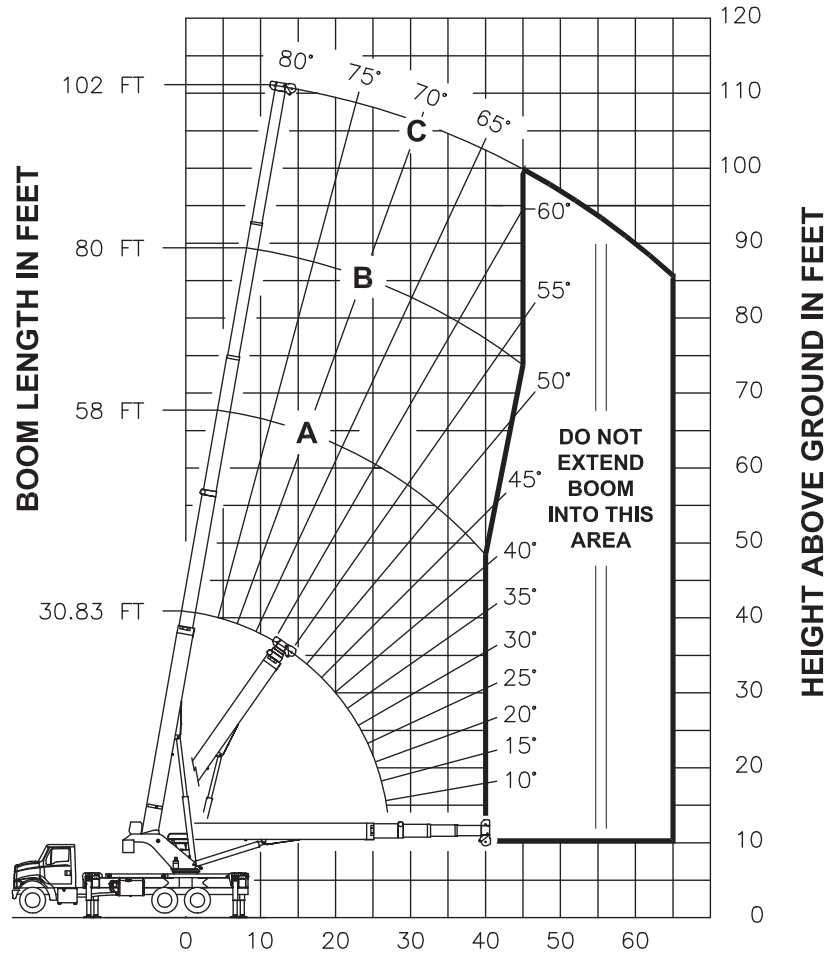
**USE THIS CHART ONLY  
WHEN ALL  
OUTRIGGERS ARE IN  
THE INTERMEDIATE  
POSITION**



**- INTERMEDIATE OUTRIGGER CONFIGURATION -**

LOAD RATINGS IN LBS WITH ALL OUTRIGGERS FULLY EXTENDED LMI CODE #9										JIB LOAD RATINGS IN LBS WITH ALL OUTRIGGERS FULLY EXTENDED						
OPERATING HEIGHT	LOADED BOOM ANGLE		BOOM LENGTH AND MARKER		LMI CODE #9				FIXED JIB		TELESCOPIC JIB					
					A	B	C	D	LMI CODE #10	LMI CODE #11	LMI CODE #12					
	BOOM ANGLE	BOOM LENGTH	BOOM ANGLE	BOOM LENGTH	BOOM ANGLE	BOOM LENGTH	BOOM ANGLE	BOOM LENGTH	BOOM ANGLE	BOOM LENGTH	BOOM ANGLE	BOOM LENGTH	BOOM ANGLE	BOOM LENGTH		
	30.83 FT		58 FT	80 FT	102 FT	123.5 FT										
5	75	80000														
8	69	60500														
10	64	52550														
12	60	46600	75	25000												
15	53	36000	73	25000	79	21500										
20	40	20410	67	21480	75	19700	80	14500								
25	22	13230	62	14290	71	14550	77	13500	80	8450						
30			56	10170	67	10420	74	10540	78	8150	30	80	4000	79.5	3300	
35			49	7490	63	7740	71	7860	75	7800	35	78	3850	77.5	3300	
40			42	5610	59	5860	68	5980	72	6040	40	76	3700	76	3300	
45			34	4220	54	4470	65	4580	70	4650	45	74	3550	74	3300	
50			23	3120	50	3390	61	3510	67	3570	50	72	3400	72	3300	
55					44	2540	58	2660	65	2720	55	70	3110	70.5	2490	
60					39	1840	54	1970	62	2030	60	68	2410	68.5	1790	
65					32	1260	50	1390	59	1450	65	66	1830	66.5	1210	
70					24	770	46	900	56	970	70	64	1340	64.5	720	
75											75	62	920			
80											80	60	560			
	450 LBS	240 LBS	180 LBS	140 LBS	120 LBS						FIXED		DEDUCTIONS FOR STOWED JIB			
	840 LBS	450 LBS	330 LBS	260 LBS	210 LBS						TELESCOPIC					

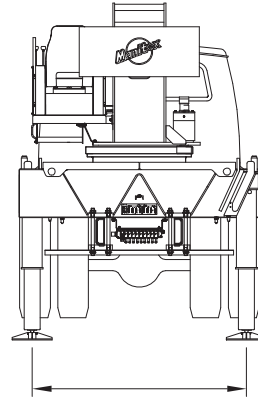
**RANGE DIAGRAM  
- FULLY RETRACTED OUTRIGGER CONFIGURATION -**



**OPERATING RADIUS FROM CENTERLINE OF ROTATION IN FEET**

**NOTE :** LIFTING PERSONNEL WITH CRANE IN THIS OUTRIGGER CONFIGURATION IS STRICTLY PROHIBITED. USE ONLY FULLY EXTENDED OUTRIGGER CONFIGURATION WHEN LIFTING PERSONNEL.





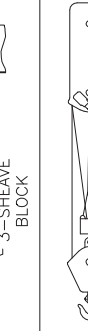



**USE THIS CHART  
ONLY WHEN ALL  
OUTRIGGERS ARE  
FULLY RETRACTED**



85.75 REF  
(7'-1.75 REF)

**- FULLY RETRACTED OUTRIGGER CONFIGURATION -**

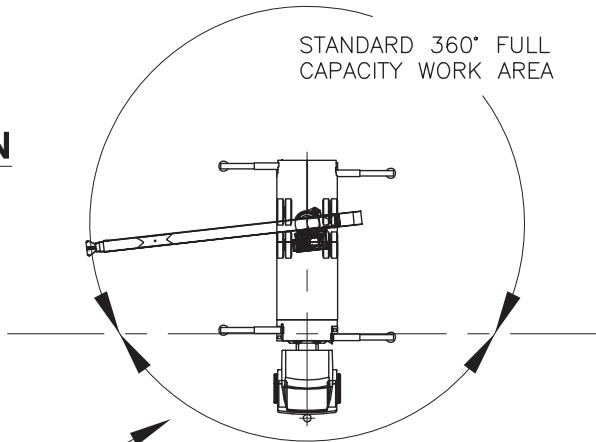
LOAD RATINGS IN LBS WITH ALL OUTRIGGERS FULLY RETRACTED LMI CODE #13								
OPERATING RADIUS FT	LOADED BOOM ANGLE	BOOM LENGTH AND MARKER						
			A	B	C			
	30.83 FT		58 FT	80 FT	102 FT			
5	75	80000						
8	69	45710						
10	64	29790						
12	60	21410	75	22420				
15	53	14330	73	15250	79	15500		
20	40	8240	67	9110	75	9340	80	9460
25	22	4930	62	5830	71	6050	77	6160
30			56	3790	67	4000	74	4110
35			49	2390	63	2610	71	2710
40			42	1370	59	1590	68	1690
45					54	820	65	920
	450 LBS	240 LBS	180 LBS	140 LBS	NO JIBS ARE TO BE ERECTED IN THIS OUTRIGGER CONFIGURATION			
	840 LBS	450 LBS	330 LBS	260 LBS				
					FIXED	DEDUCTIONS FOR		
					TELESCOPIC	STOWED JIB		

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	
								<p>ANTI-TWO-BLOCK SYSTEM MUST BE IN GOOD OPERATING CONDITION BEFORE OPERATING CRANE.</p> <p>REFER TO THE OWNER'S MANUAL.</p> <p>KEEP AT LEAST 3 WRAPS OF LOAD LINE ON THE DRUM AT ALL TIMES.</p>
9500 LBS	19000 LBS	28500 LBS	38000 LBS	47500 LBS	57000 LBS	66500 LBS	76000 LBS	
10000 LBS	20000 LBS	30000 LBS	40000 LBS	50000 LBS	60000 LBS	70000 LBS	80000 LBS	

**AREA OF OPERATION**

**WARNING:**

THE MACHINE MUST BE LEVEL AND THE FRONT BUMPER STABILIZER MUST BE SET WHEN OPERATING IN THIS AREA.



**DEDUCTIONS FROM RATED LOADS FOR LOAD HANDLING DEVICES SUPPLIED BY MANITEX**

- AUXILIARY BLOCK ----- 50 LBS
- OVERHAUL BALL ----- SEE OVERHAUL BALL MFRG. NAMEPLATE
- LOAD BLOCK ----- SEE LOADBLOCK MFRG. NAMEPLATE
- HOSE REEL ----- 260 LBS
- SWING AROUND JIBS (STOWED) ----- SEE LOAD CHART



## LMI OPERATING CODES

SETTING	CRANE CONFIGURATION	OUTRIGGER CONFIGURATION
#1	— MAIN BOOM	FULLY EXTENDED
#2	— FIXED JIB	FULLY EXTENDED
#3	— TELESCOPIC JIB—RETRACTED	FULLY EXTENDED
#4	— TELESCOPIC JIB—EXTENDED	FULLY EXTENDED
#5	— PERSONNEL LIFTING PLATFORM ON MAIN BOOM	FULLY EXTENDED
#6	— PERSONNEL LIFTING PLATFORM ON FIXED JIB	FULLY EXTENDED
#7	— PERSONNEL LIFTING PLATFORM ON TELESCOPIC JIB—RETRACTED	FULLY EXTENDED
#8	— PERSONNEL LIFTING PLATFORM ON TELESCOPIC JIB—EXTENDED	FULLY EXTENDED
#9	— MAIN BOOM	INTERMEDIATE
#10	— FIXED JIB	INTERMEDIATE
#11	— TELESCOPIC JIB—RETRACTED	INTERMEDIATE
#12	— TELESCOPIC JIB—EXTENDED	INTERMEDIATE
#13	— MAIN BOOM	FULLY RETRACTED

## 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.
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.


## **WARNING (CONTINUED)**

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 LOAD BLOCKS (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 AS SHOWN IN THE COLUMN HEADED BY , IS THE INCLUDED ANGLE BETWEEN THE HORIZONTAL AND LONGITUDINAL AXES OF THE BOOM BASE AFTER LIFTING RATED LOAD AT RATED RADIUS.