



# Load Rating Chart

## *Model 40124SHL*

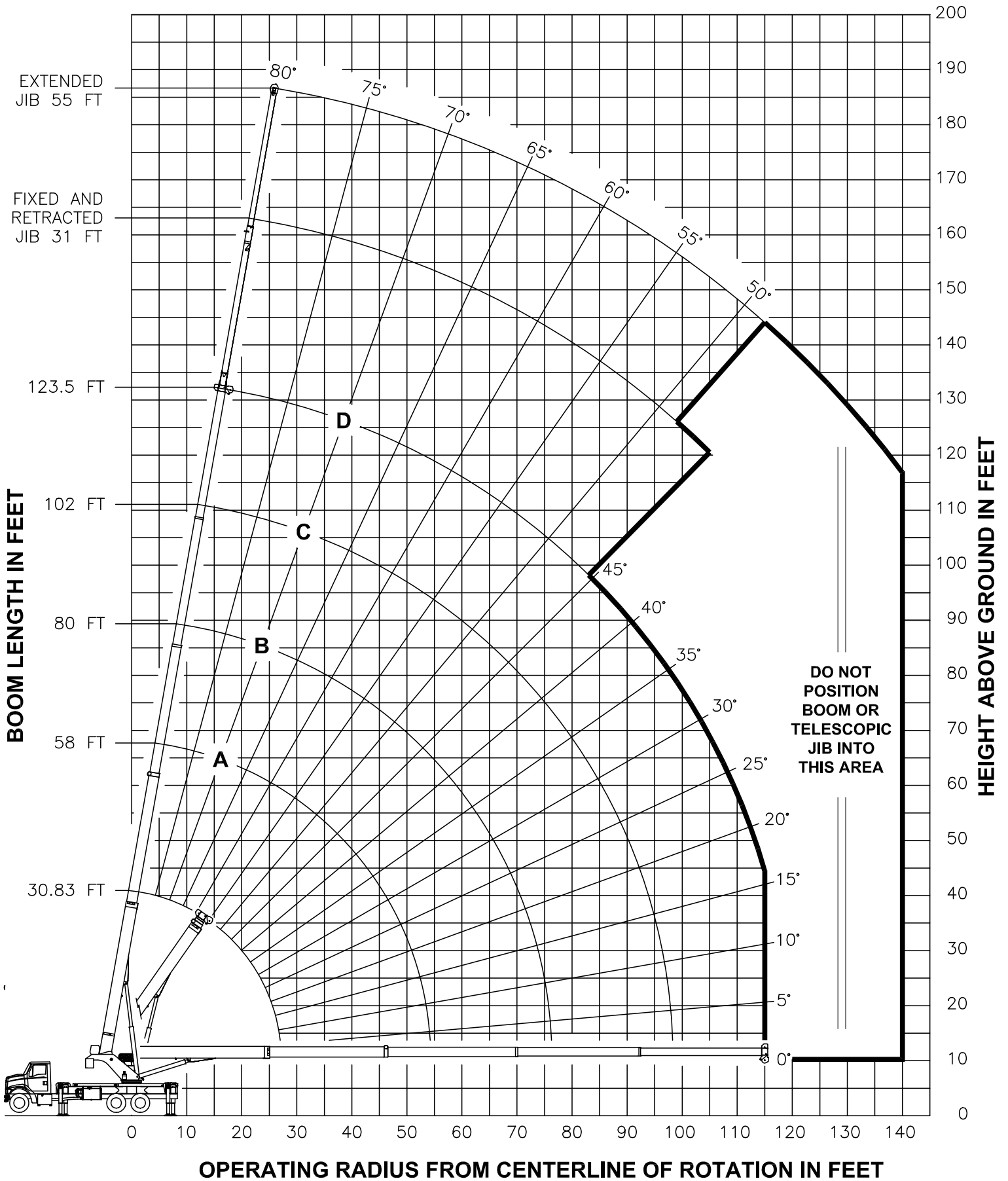


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**NOTE:** Additional copies of this Load Rating Chart can be purchased from your Manitex Distributor. When ordering, use the part number shown in the bottom left corner of this page.

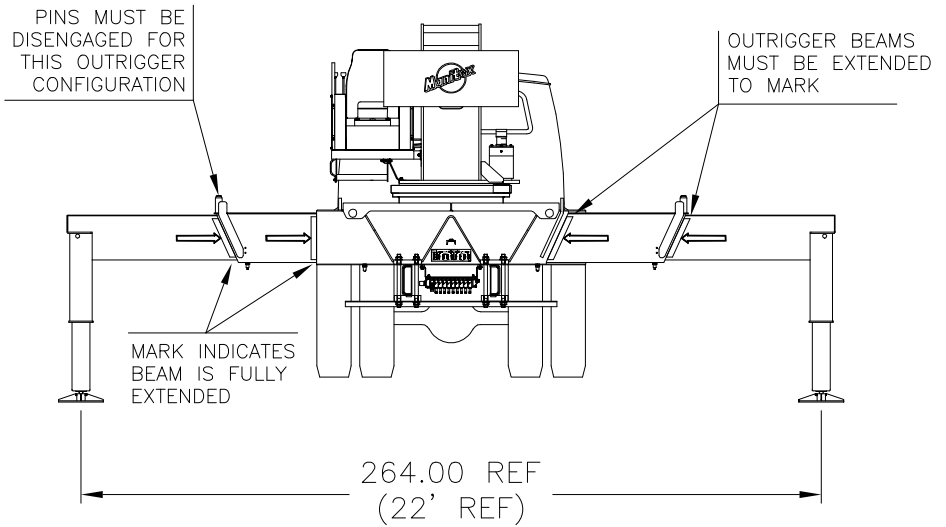


# RANGE DIAGRAM - FULLY EXTENDED OUTRIGGER CONFIGURATION -





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

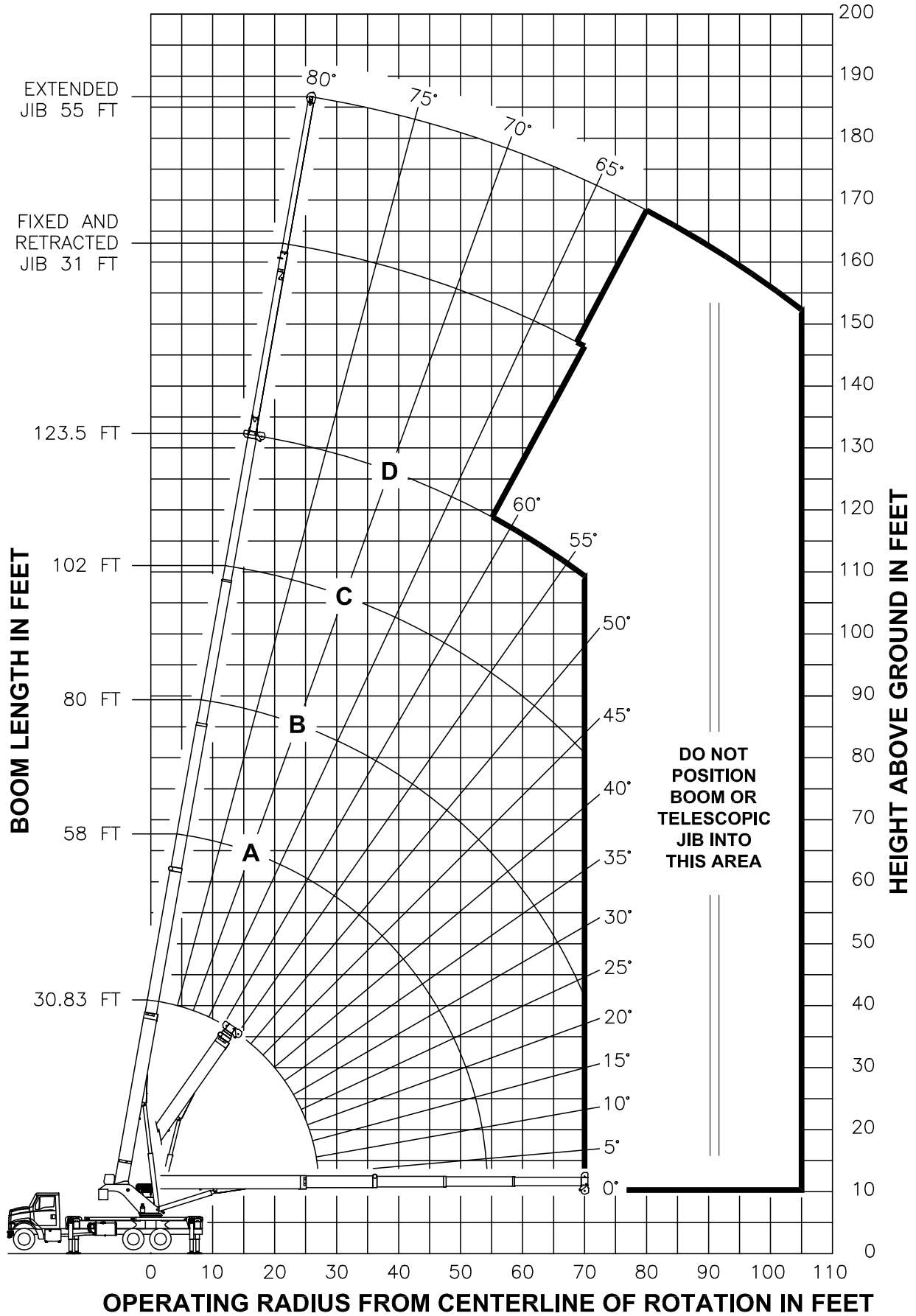


**- FULLY EXTENDED OUTRIGGER CONFIGURATION -**

LOAD RATINGS IN LBS WITH ALL OUTRIGGERS FULLY EXTENDED LMI CODE #1										JIB LOAD RATINGS IN LBS WITH ALL OUTRIGGERS FULLY EXTENDED									
OPERATING RADIUS FT	LOADED BOOM ANGLE BOOM LENGTH AND MARKER		LMI CODE #1				FIXED JIB		TELESCOPIC JIB										
			A	B	C	D	LMI CODE #2	LMI CODE #3	LMI CODE #4										
	30.83 FT	58 FT	80 FT	102 FT	123.5 FT	BOOM ANGLE SEE WARNING NOTE 4	BOOM ANGLE SEE WARNING NOTE 4	BOOM ANGLE SEE WARNING NOTE 4	BOOM ANGLE SEE WARNING NOTE 4										
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							



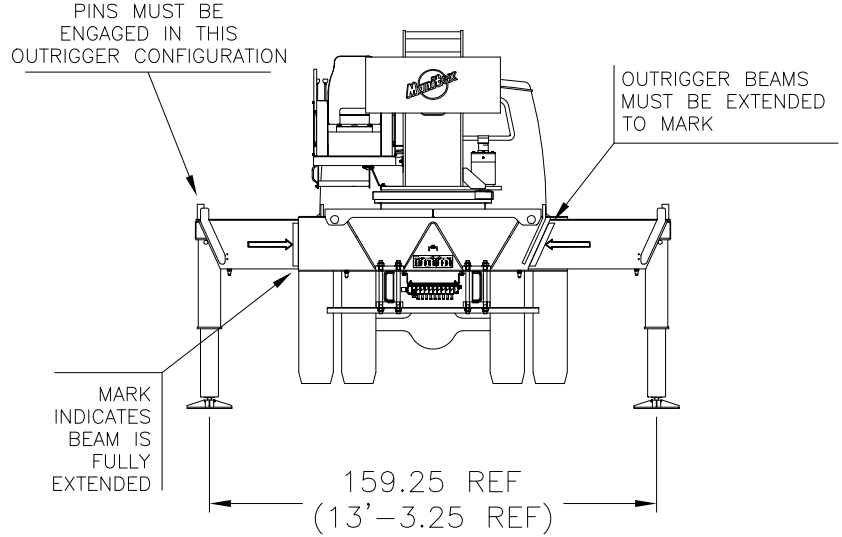
# RANGE DIAGRAM - INTERMEDIATE OUTRIGGER CONFIGURATION -



**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**

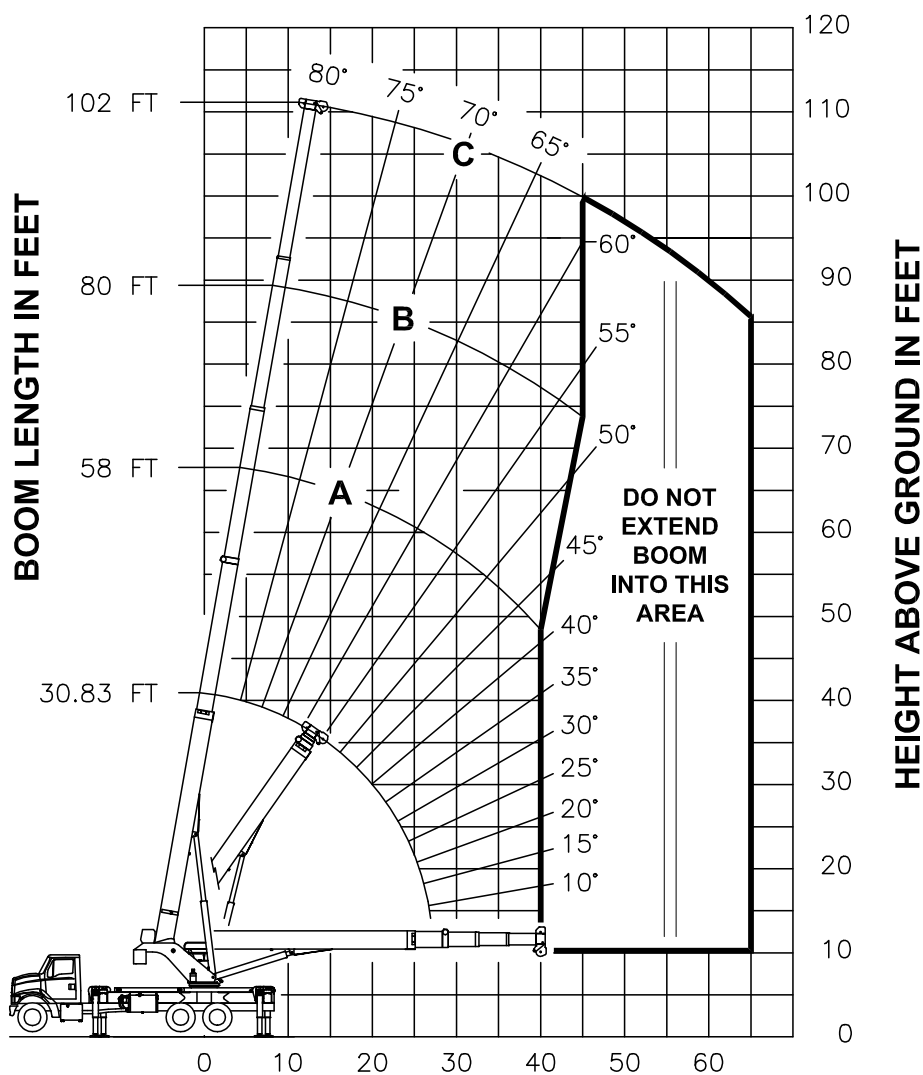


**- INTERMEDIATE OUTRIGGER CONFIGURATION -**

LOAD RATINGS IN LBS WITH ALL OUTRIGGERS FULLY EXTENDED LMI CODE #9										JIB LOAD RATINGS IN LBS WITH ALL OUTRIGGERS FULLY EXTENDED																												
O P E R A T I N G H E I G H T	LOADED BOOM ANGLE		BOOM LENGTH AND MARKER		A		B		C		D		O P E R A T I N G H E I G H T	FIXED JIB		TELESCOPIC JIB		O P E R A T I N G H E I G H T	B O O M L O A D E D A N G L E	JIB LENGTH FOR ALL BOOM LENGTHS	B O O M L O A D E D A N G L E	JIB LENGTH FOR ALL BOOM LENGTHS	B O O M L O A D E D A N G L E	JIB LENGTH FOR ALL BOOM LENGTHS														
	BOOM ANGLE	BOOM LENGTH	MARKER	MARKER	MARKER	MARKER	MARKER	MARKER	MARKER	MARKER	MARKER	MARKER		LMI CODE #10	LMI CODE #11	LMI CODE #12																						
	30°	30.83 FT	30°	58 FT	30°	80 FT	30°	102 FT	30°	123.5 FT	30°	123.5 FT	30°	31 FT	30°	30.5 FT	30°	55 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	79.5	2450																					
40			42	5610	59	5860	68	5980	72	6040	40	76	3700	76	3300	78	2450																					
45			34	4220	54	4470	65	4580	70	4650	45	74	3550	74	3300	76.5	2450																					
50			23	3120	50	3390	61	3510	67	3570	50	72	3400	72	3300	75	2450																					
55					44	2540	58	2660	65	2720	55	70	3110	70.5	2490	73	2450																					
60					39	1840	54	1970	62	2030	60	68	2410	68.5	1790	71.5	2450																					
65					32	1260	50	1390	59	1450	65	66	1830	66.5	1210	70	1930																					
70					24	770	46	900	56	970	70	64	1340	64.5	720	68	1430																					
75											75	62	920			66	1010																					
80											80	60	560			64.5	640																					
		450 LBS		240 LBS		180 LBS		140 LBS		120 LBS																												
		840 LBS		450 LBS		330 LBS		260 LBS		210 LBS																												



## RANGE DIAGRAM - FULLY RETRACTED OUTRIGGER CONFIGURATION -

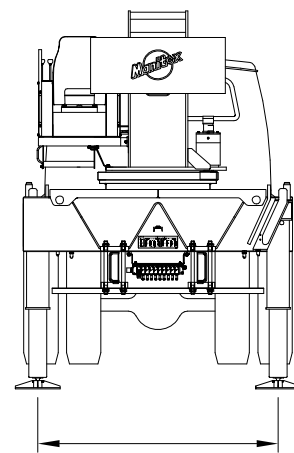


**OPERATING RADIUS FROM CENTERLINE OF ROTATION IN FEET**

**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	
									<b>NO JIBS ARE TO BE ERECTED IN THIS OUTRIGGER CONFIGURATION</b>
			450 LBS	240 LBS	180 LBS	140 LBS	FIXED		
			840 LBS	450 LBS	330 LBS	260 LBS	TELESCOPIC		
									DEDUCTIONS FOR STOWED JIB

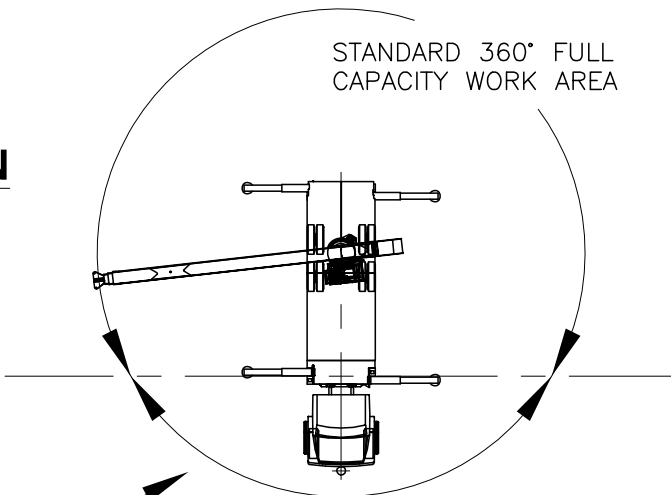


ALLOWABLE LINE PULL								WARNING
1 PART LINE	2 PART LINE	3 PART LINE	4 PART LINE	5 PART LINE	6 PART LINE	7 PART LINE	8 PART LINE	
								<p>ANTI-TWO-BLOCK SYSTEM MUST BE IN GOOD OPERATING CONDITION BEFORE OPERATING CRANE.</p> <p>REFER TO THE OWNER'S MANUAL.</p> <p>KEEP AT LEAST 3 WRAPS OF LOAD LINE ON THE DRUM AT ALL TIMES.</p>
9500 LBS	19000 LBS	28500 LBS	38000 LBS	47500 LBS	57000 LBS	66500 LBS	76000 LBS	5/8" ROT RESISTANT (5.0:1 SF) - 47500 LBS MIN BREAKING STRENGTH
10000 LBS	20000 LBS	30000 LBS	40000 LBS	50000 LBS	60000 LBS	70000 LBS	80000 LBS	5/8" 6 X 25 IWRC (3.5:1 SF) - 35000 LBS MIN BREAKING STRENGTH

### 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  $\angle$ , IS THE INCLUDED ANGLE BETWEEN THE HORIZONTAL AND LONGITUDINAL AXES OF THE BOOM BASE AFTER LIFTING RATED LOAD AT RATED RADIUS.