

# Load Rating Chart

## *Model 38124S*

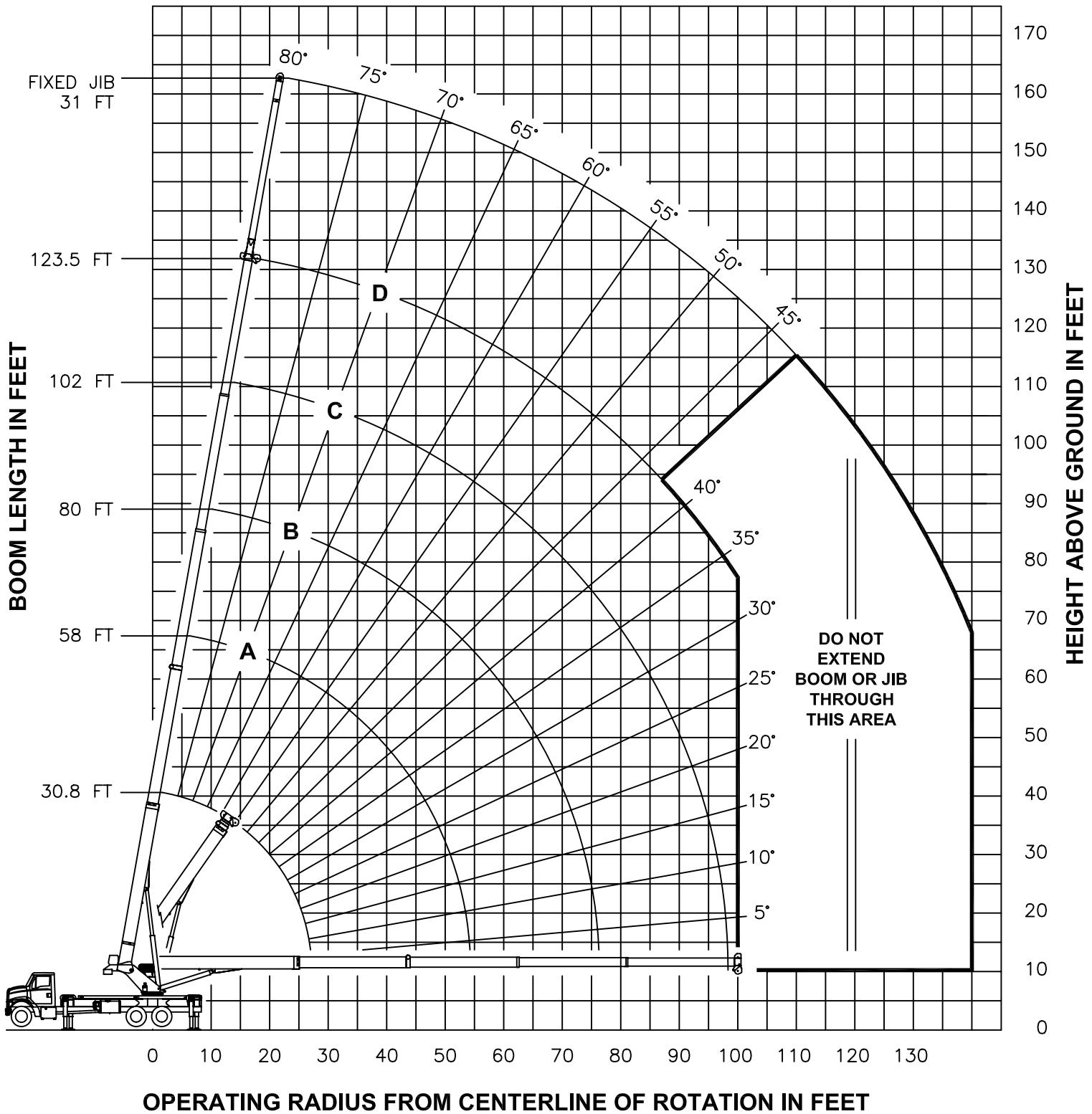


© Manitex 2000

---

**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-

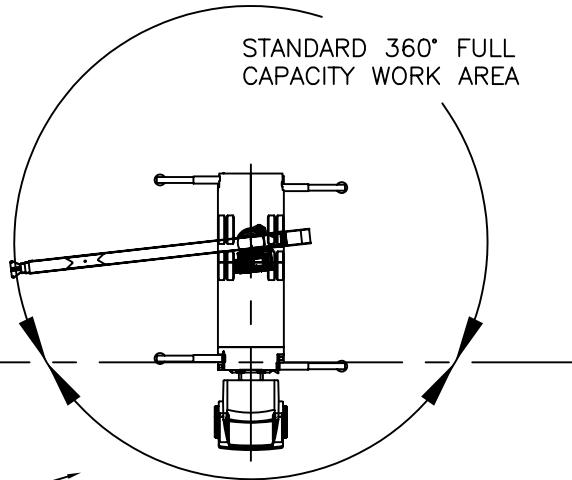


ALLOWABLE LINE PULL								WARNING
1 PART LINE	2 PART LINE	3 PART LINE	4 PART LINE	5 PART LINE	6 PART LINE	7 PART LINE	8 PART LINE	
								<p>ANTI-TWO-BLOCK SYSTEM MUST BE IN GOOD OPERATING CONDITION BEFORE OPERATING CRANE.</p> <p>REFER TO THE OWNER'S MANUAL.</p> <p>KEEP AT LEAST 3 WRAPS OF LOAD LINE ON THE DRUM AT ALL TIMES.</p>
9080 LBS	18160 LBS	27240 LBS	36320 LBS	45400 LBS	54480 LBS	63560 LBS	72640 LBS	5/8" ROT RESISTANT (5.0:1 SF) - 45400 LBS MIN BREAKING STRENGTH
9500 LBS	19000 LBS	28500 LBS	38000 LBS	47500 LBS	57000 LBS	66500 LBS	76000 LBS	5/8" 6 X 25 IWRC (3.5:1 SF) - 33250 LBS MIN BREAKING STRENGTH

### AREA OF OPERATION

#### WARNING:

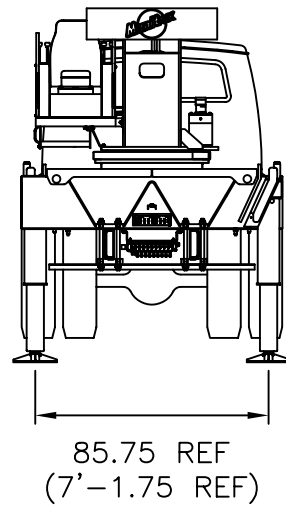
THE FRONT TIRES MUST BE IN CONTACT WITH THE GROUND, AND THE MACHINE LEVEL, WHEN OPERATING IN THIS AREA.



#### DEDUCTIONS FROM RATED LOADS FOR LOAD HANDLING DEVICES SUPPLIED BY MANITOWOC BOOM TRUCKS, INC.

AUXILIARY BLOCK ----- 50 LBS  
 OVERHAUL BALL ----- SEE OVERHAUL BALL MANUFACTURER NAMEPLATE  
 LOAD BLOCK ----- SEE BLOCK MANUFACTURER NAMEPLATE  
 HOSE REEL ----- 260 LBS  
 SWING AROUND JIB (STOWED) ----- SEE LOAD CHART

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

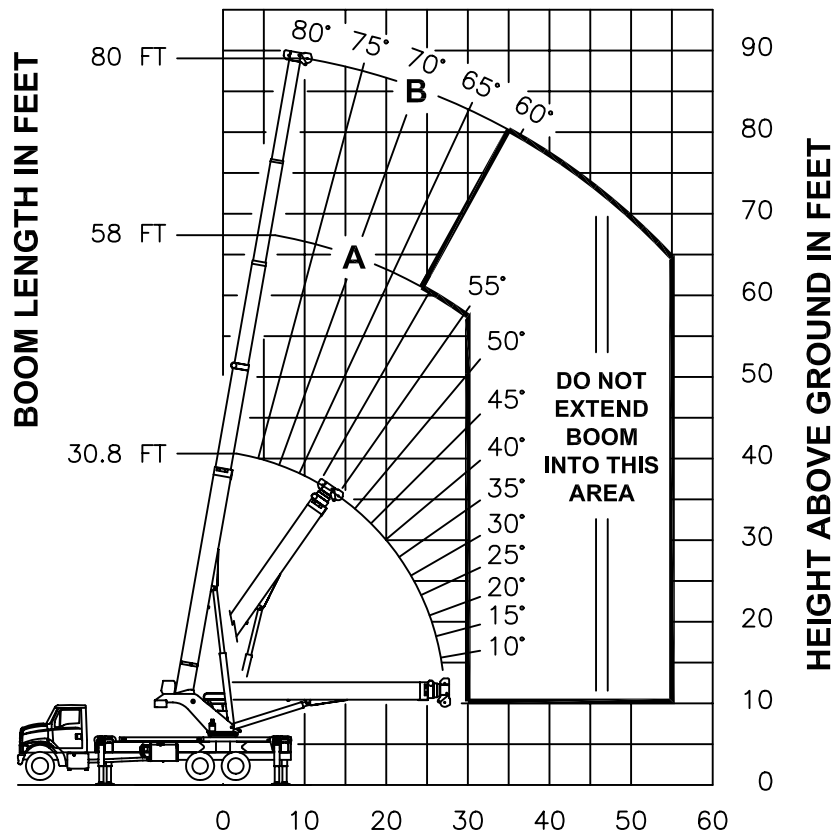


**-FULLY RETRACTED OUTRIGGER CONFIGURATION-**

LOAD RATINGS IN LBS WITH ALL OUTRIGGERS FULLY RETRACTED LMI CODE #13						
OPERATING RADIUS FT	LOADED BOOM ANGLE	BOOM LENGTH AND MARKER	A		B	
				58 FT		80 FT
	5	75	76000			
8	69	33420				
10	64	21320				
12	60	14960	75	15960		
15	53	9570	73	10480	79	10740
20	40	4930	67	5800	75	6030
25	22	2390	62	3290	71	3510
30			56	1730	67	1950
35					63	870
		450 LBS	240 LBS		180 LBS	
DEDUCTIONS FOR STOWED JIBS						

**NO JIBS ARE TO  
BE ERCTED IN  
THIS OUTRIGGER  
CONFIGURATION**

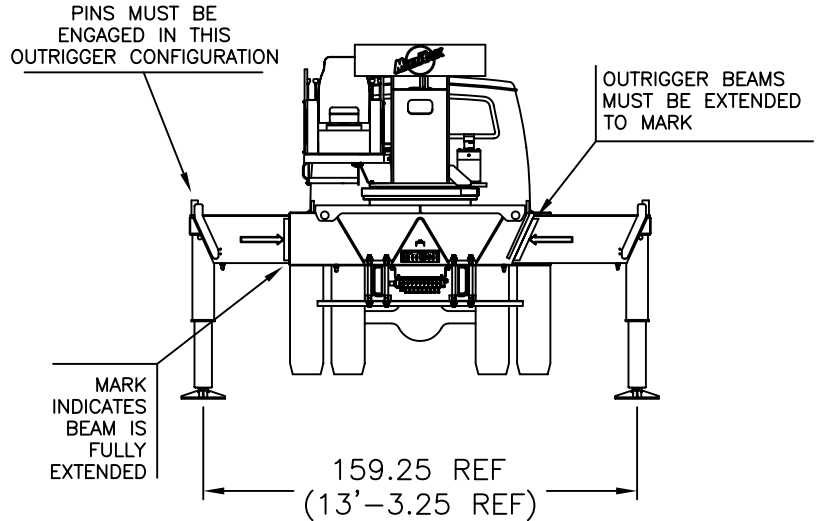
## RANGE DIAGRAM - FULLY RETRACTED OUTRIGGER CONFIGURATION -



**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.

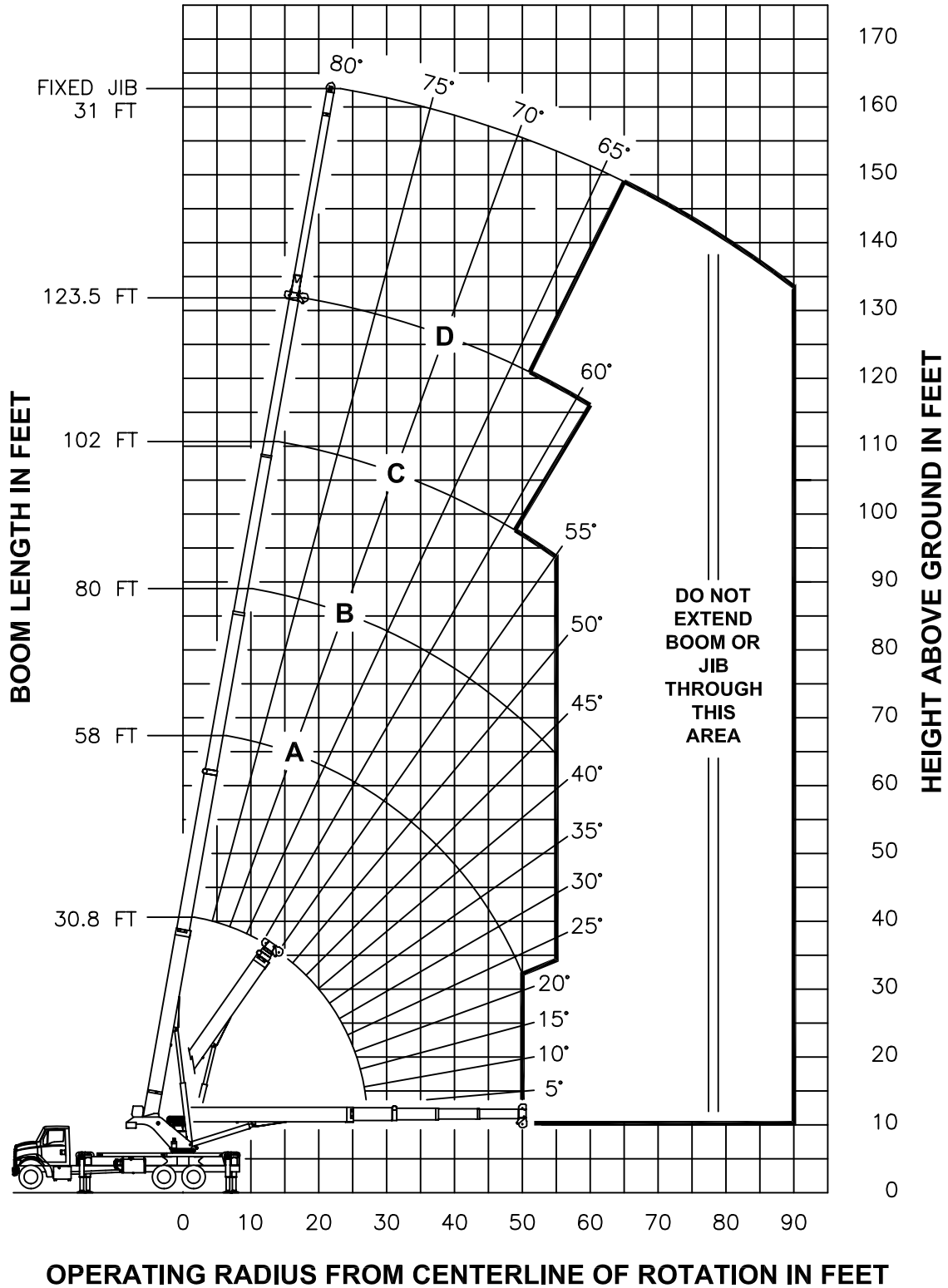
**USE THIS CHART ONLY WHEN ALL OUTRIGGERS ARE IN THE INTERMEDIATE POSITION**



**- INTERMEDIATE OUTRIGGER CONFIGURATION -**

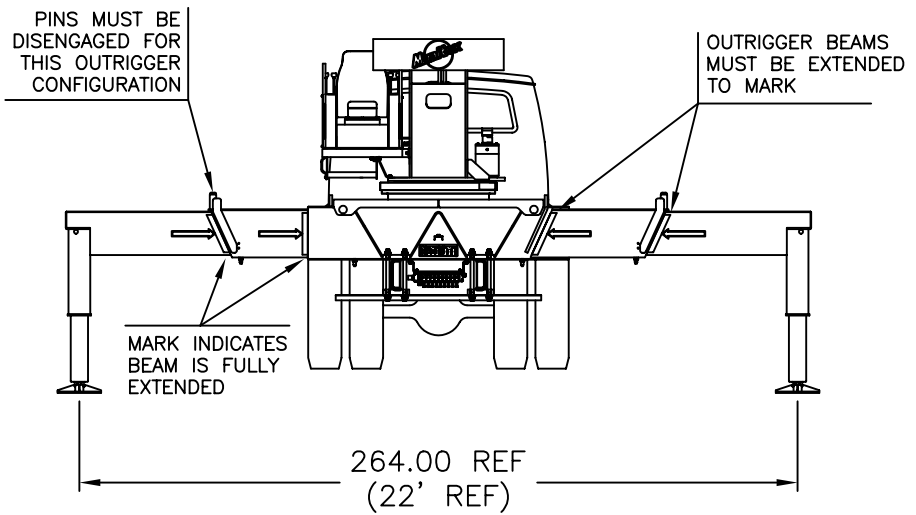
LOAD RATINGS IN LBS WITH ALL OUTRIGGERS IN THE INTERMEDIATE POSITION										JIB LOAD RATINGS IN LBS WITH ALL OUTRIGGERS IN THE INTERMEDIATE POSITION				
LMI CODE #9										LMI CODE #10				
OPERATING RADIUS FT	LOADED BOOM ANGLE		BOOM LENGTH AND MARKER	A		B		C		D		OPERATING RADIUS FT	BOOM ANGLE	31 FT JIB FOR ALL BOOM LENGTHS SEE WARNING NOTE 4
	°	30.8 FT		°	58 FT	°	80 FT	°	102 FT	°	123.5 FT			
5	75	76000												
8	69	60500												
10	64	52550												
12	60	46340	75	25000										
15	53	27730	73	25000	79	21500								
20	40	15230	67	16300	75	16590	80	14500						
25	22	9460	62	10520	71	10780	77	10920	80	8450				
30			56	7210	67	7450	74	7580	78	7650	30	80		4000
35			49	5050	63	5300	71	5420	75	5480	35	78		3850
40			42	3540	59	3780	68	3900	72	3960	40	76		3700
45			34	2410	54	2660	65	2780	70	2840	45	74		3250
50			23	1530	50	1800	61	1910	67	1980	50	72		2370
55					44	1110	58	1230	65	1290	55	70		1680
60									62	730	60	68		1110
65											65	66		640
				450 LBS	240 LBS	180 LBS	140 LBS	120 LBS	DEDUCTIONS FOR STOWED JIB					

# 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 FULLY EXTENDED**



**- FULLY EXTENDED OUTRIGGER CONFIGURATION -**

LOAD RATINGS IN LBS WITH ALL OUTRIGGERS FULLY EXTENDED										JIB LOAD RATINGS IN LBS WITH ALL OUTRIGGERS FULLY EXTENDED			
LMI CODE #1										LMI CODE #2			
OPERATING RADIUS FT	LOADED BOOM ANGLE		BOOM LENGTH AND MARKER							OPERATING RADIUS FT	BOOM ANGLE	31 FT JIB FOR ALL BOOM LENGTHS SEE WARNING NOTE 4	
	30.8 FT	58 FT	80 FT	102 FT	123.5 FT	RATED LOAD IN POUNDS							
	A	B	C	D									
5	75	76000											
8	69	60500											
10	64	52550								10			
12	60	46600	75	25000						12			
15	53	39600	73	25000	79	21500				15			
20	40	30300	67	25000	75	19700	80	14500		20			
25	22	23070	62	22840	71	18200	77	13500	80	8450	25		
30			56	18670	67	16250	74	12820	78	8150	30	80	4000
35			49	14450	63	14540	71	11380	75	7800	35	78	3850
40			42	11190	59	11490	68	10160	72	7280	40	76	3700
45			34	8820	54	9110	65	9250	70	6780	45	74	3550
50			23	7030	50	7340	61	7480	67	6160	50	72	3400
55					44	5970	58	6110	65	5540	55	70	3250
60					39	4880	54	5020	62	5000	60	68	3080
65					32	3980	50	4130	59	4200	65	66	2910
70					24	3230	46	3390	56	3460	70	64	2750
75					12	2580	42	2760	53	2830	75	62	2600
80							37	2220	50	2300	80	60	2460
85							32	1750	47	1840	85	58	2260
90							25	1340	43	1430	90	55	1850
95							17	970	40	1070	95	53	1490
100									35	750	100	51	1170
105											105	48	880
110											110	45	620
450 LBS		240 LBS		180 LBS		140 LBS		120 LBS		DEDUCTIONS FOR STOWED JIB			



# LMI OPERATING CODES

<u>SETTING</u>	<u>CRANE CONFIGURATION</u>	<u>OUTRIGGER CONFIGURATION</u>
#1	— MAIN BOOM —————	FULLY EXTENDED
#2	— FIXED JIB —————	FULLY EXTENDED
#5	— PERSONNEL LIFTING PLATFORM ON MAIN BOOM —————	FULLY EXTENDED
#6	— PERSONNEL LIFTING PLATFORM ON FIXED JIB —————	FULLY EXTENDED
#9	— MAIN BOOM —————	INTERMEDIATE
#10	— FIXED JIB —————	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 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 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.