

# Load Rating Chart

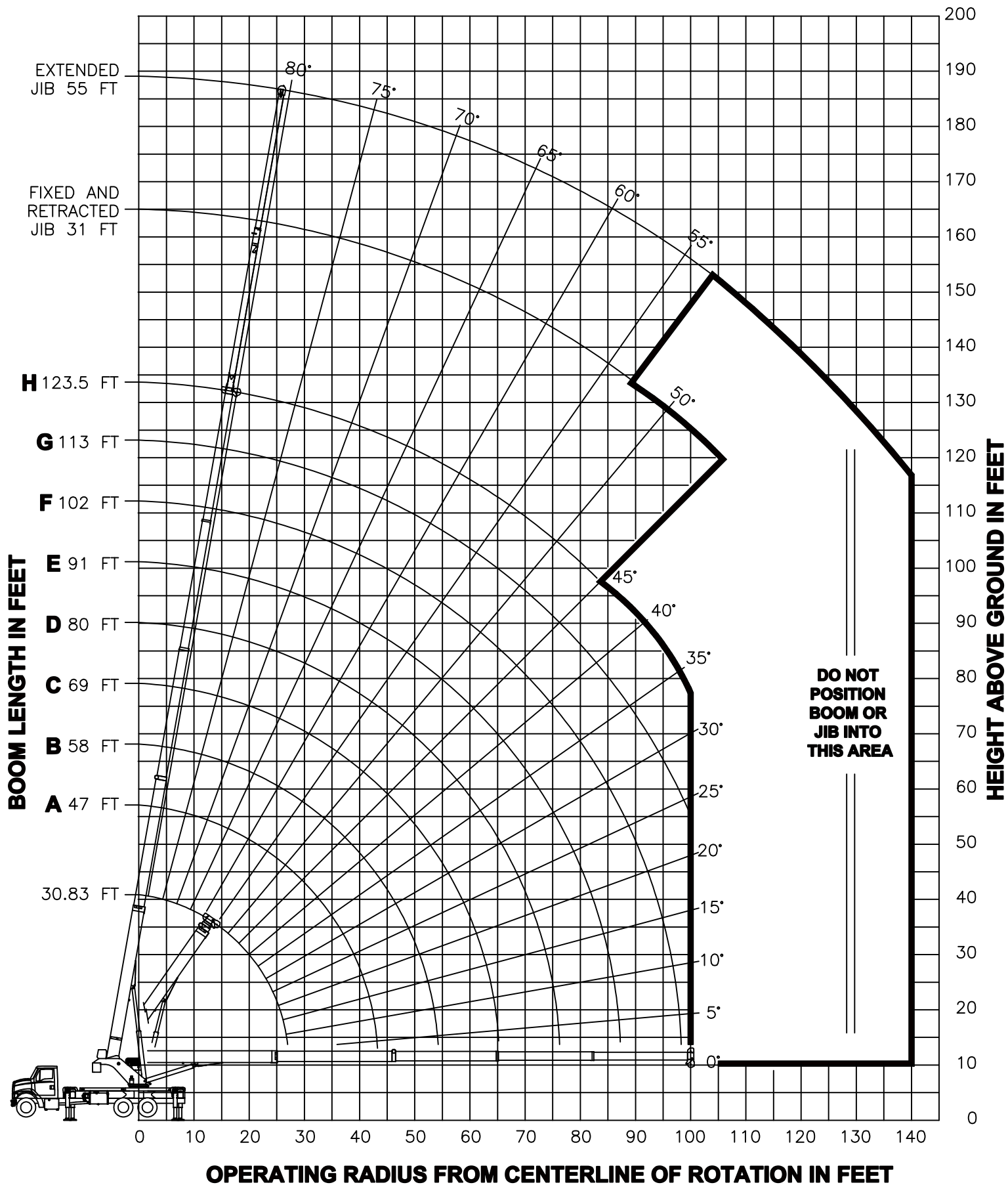
***Model 40124S***

***Manitex***

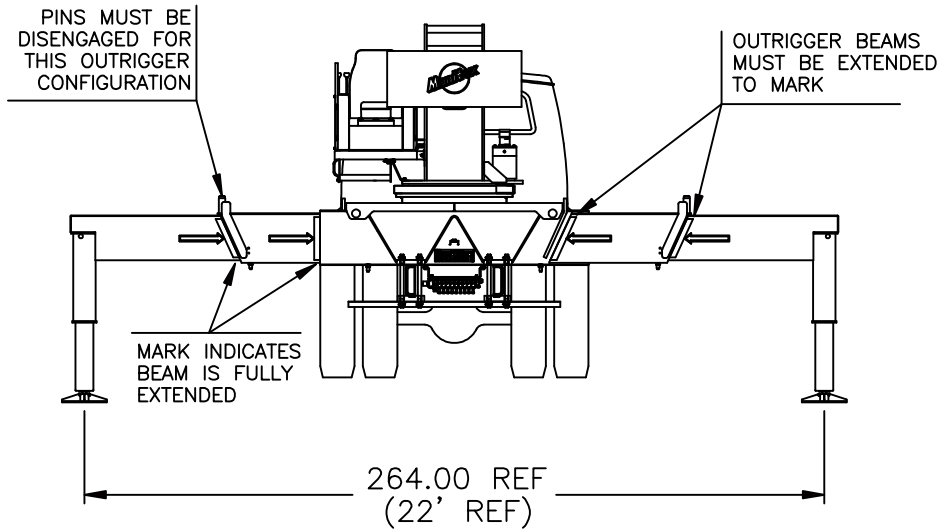
© Manitex 2000

**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**

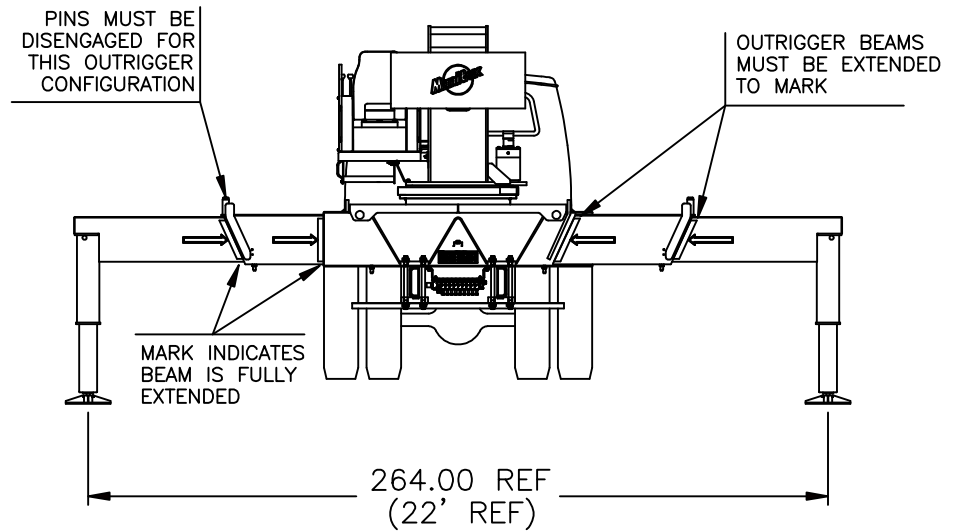


**- FULLY EXTENDED OUTRIGGER CONFIGURATION -**

MAIN BOOM LMI CODE 1																				
LOAD RADIUS (FT)	30.833 FT		47 FT (A)		58 FT (B)		69 FT (C)		80 FT (D)		91 FT (E)		102 FT (F)		113 FT (G)		123.5 FT (H)		LOAD RADIUS (FT)	
	∠	LOAD CAPACITY (LBS)	∠	LOAD CAPACITY (LBS)	∠	LOAD CAPACITY (LBS)	∠	LOAD CAPACITY (LBS)	∠	LOAD CAPACITY (LBS)	∠	LOAD CAPACITY (LBS)	∠	LOAD CAPACITY (LBS)	∠	LOAD CAPACITY (LBS)	∠	LOAD CAPACITY (LBS)		
5	75	80000																	5	
8	69	60500																	8	
10	64	52550	74	25000															10	
12	60	46600	72	25000	76	25000	79	25000											12	
15	53	39600	68	25000	73	25000	76	25000	79	21500									15	
20	40	30300	61	25000	67	25000	72	23900	75	19700	78	17100	79	14500					20	
25	22	23070	53	23760	62	22840	67	21650	71	18200	74	15850	77	13500	78	10910	80	8450	25	
30			45	18430	56	18670	63	18720	67	16250	71	14530	74	12820	76	10430	78	8150	30	
35			36	14200	49	14450	58	14600	63	14540	68	12960	71	11380	73	9540	75	7800	35	
40			22	10880	42	11190	52	11370	59	11490	64	11570	68	10160	71	8680	72	7280	40	
45					34	8820	47	9000	55	9110	60	9190	65	9250	68	8040	70	6780	45	
50					23	7030	40	7230	50	7340	56	7420	61	7480	65	7260	67	6160	50	
55							34	5850	45	5970	52	6050	58	6110	62	6150	65	5540	55	
60							24	4750	39	4880	48	4960	54	5020	59	5060	62	5000	60	
65							6	3810	33	3980	43	4070	51	4130	56	4170	59	4200	65	
70									25	3230	38	3330	47	3390	53	3430	57	3460	70	
75									12	2580	32	2700	42	2760	49	2800	54	2830	75	
80											25	2150	37	2220	45	2270	51	2300	80	
85											15	1670	32	1750	41	1800	47	1840	85	
90													26	1340	37	1400	44	1430	90	
95													17	970	32	1030	40	1070	95	
100															26	710	36	750	100	
105																			105	
110																			110	
115																			115	
120																			120	
		450 LBS		300 LBS		240 LBS		200 LBS		180 LBS		160 LBS		140 LBS		130 LBS		120 LBS		STOWED FIXED JIB
		840 LBS		560 LBS		450 LBS		380 LBS		330 LBS		290 LBS		260 LBS		230 LBS		210 LBS		STOWED TELE JIB

**DEDUCTIONS FROM MAIN BOOM  
CAPACITIES FOR STOWED JIBS**

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

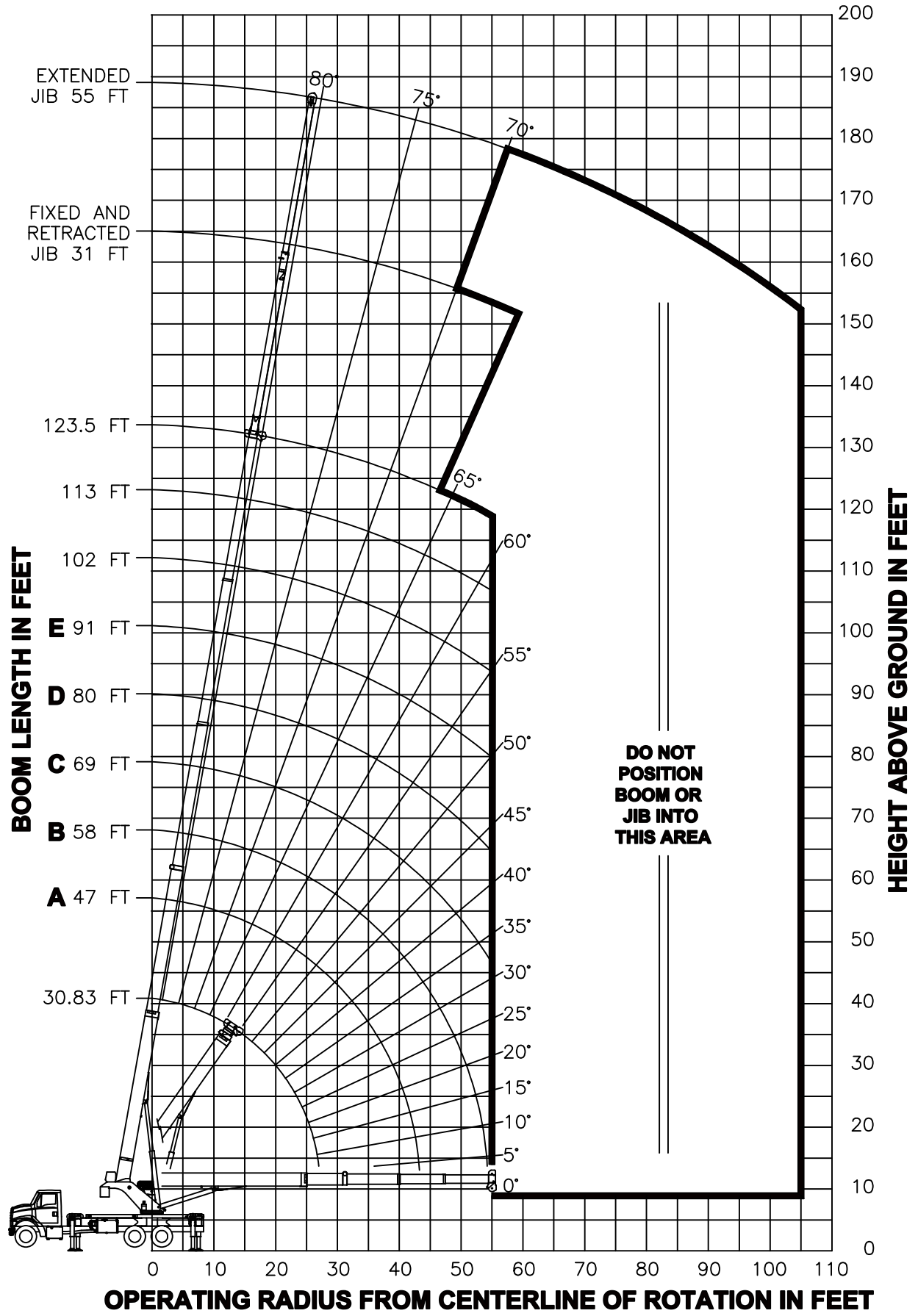


**- FULLY EXTENDED OUTRIGGER CONFIGURATION -**

**JIB LOAD CAPACITIES**

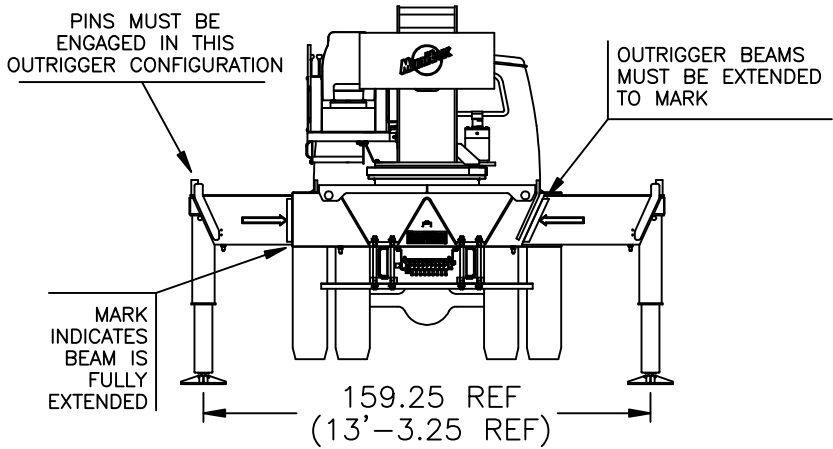
LOAD RADIUS (FT) REF	31 FT FIXED JIB LMI CODE 32		30.5 FT TELE JIB LMI CODE 7		55 FT TELE JIB LMI CODE 13		LOAD RADIUS (FT) REF
	LOADED BOOM ANGLE (DEG)	LOAD CAPACITY (LBS)	LOADED BOOM ANGLE (DEG)	LOAD CAPACITY (LBS)	LOADED BOOM ANGLE (DEG)	LOAD CAPACITY (LBS)	
30	80	4000	79.5	3300			30
35	78	3850	77.5	3300	79.5	2450	35
40	76	3700	76	3300	78	2450	40
45	74	3550	74	3300	76.5	2450	45
50	72	3400	72	3300	75	2450	50
55	70	3250	70.5	3300	73	2450	55
60	68	3080	68.5	3300	71.5	2450	60
65	66	2910	66.5	3070	70	2420	65
70	64	2750	64.5	2750	68	2260	70
75	62	2600	62	2380	66	2110	75
80	60	2460	60	2050	64.5	1940	80
85	58	2260	58	1660	63	1750	85
90	55	1850	55.5	1250	61	1580	90
95	53	1490	53	890	59	1440	95
100	51	1170	50.5	570	57	1260	100
105	48	880			55	970	105
110	45	620			53	710	110
115							115
120							120
125							125
130							130

# 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 -**

**MAIN BOOM LMI CODE 4**

LOAD RADIUS (FT)	30.833 FT		47 FT (A)		58 FT (B)		69 FT (C)		80 FT (D)		91 FT (E)		102 FT (F)		113 FT (G)		123.5 FT (H)		LOAD RADIUS (FT)
	∠	LOAD CAPACITY (LBS)	∠	LOAD CAPACITY (LBS)	∠	LOAD CAPACITY (LBS)	∠	LOAD CAPACITY (LBS)	∠	LOAD CAPACITY (LBS)	∠	LOAD CAPACITY (LBS)	∠	LOAD CAPACITY (LBS)	∠	LOAD CAPACITY (LBS)	∠	LOAD CAPACITY (LBS)	
5	75	80000																	5
8	69	60500																	8
10	64	52550	74	25000															10
12	60	46340	72	25000	76	25000	79	25000											12
15	53	27730	68	25000	73	25000	76	25000	79	21500									15
20	40	15230	61	16040	67	16300	72	16470	75	16590	78	16680	79	14500					20
25	22	9460	53	10280	62	10520	67	10670	71	10780	74	10860	77	10920	78	10910	80	8450	25
30			45	6970	56	7210	63	7350	67	7450	71	7520	74	7580	76	7620	78	7650	30
35			36	4810	49	5050	58	5200	63	5300	68	5360	71	5420	73	5450	75	5480	35
40			22	3270	42	3540	52	3690	59	3780	64	3850	68	3900	71	3940	72	3960	40
45					34	2410	47	2560	55	2660	60	2730	65	2780	68	2810	70	2840	45
50					23	1530	40	1700	50	1800	56	1870	61	1910	65	1950	67	1980	50
55							34	1000	45	1110	52	1180	58	1230	62	1260	65	1290	55
60																			60
65																			65
70																			70
75																			75
		450 LBS		300 LBS		240 LBS		200 LBS		180 LBS		160 LBS		140 LBS		130 LBS		120 LBS	STOWED FIXED JIB
		840 LBS		560 LBS		450 LBS		380 LBS		330 LBS		290 LBS		260 LBS		230 LBS		210 LBS	STOWED TELE JIB

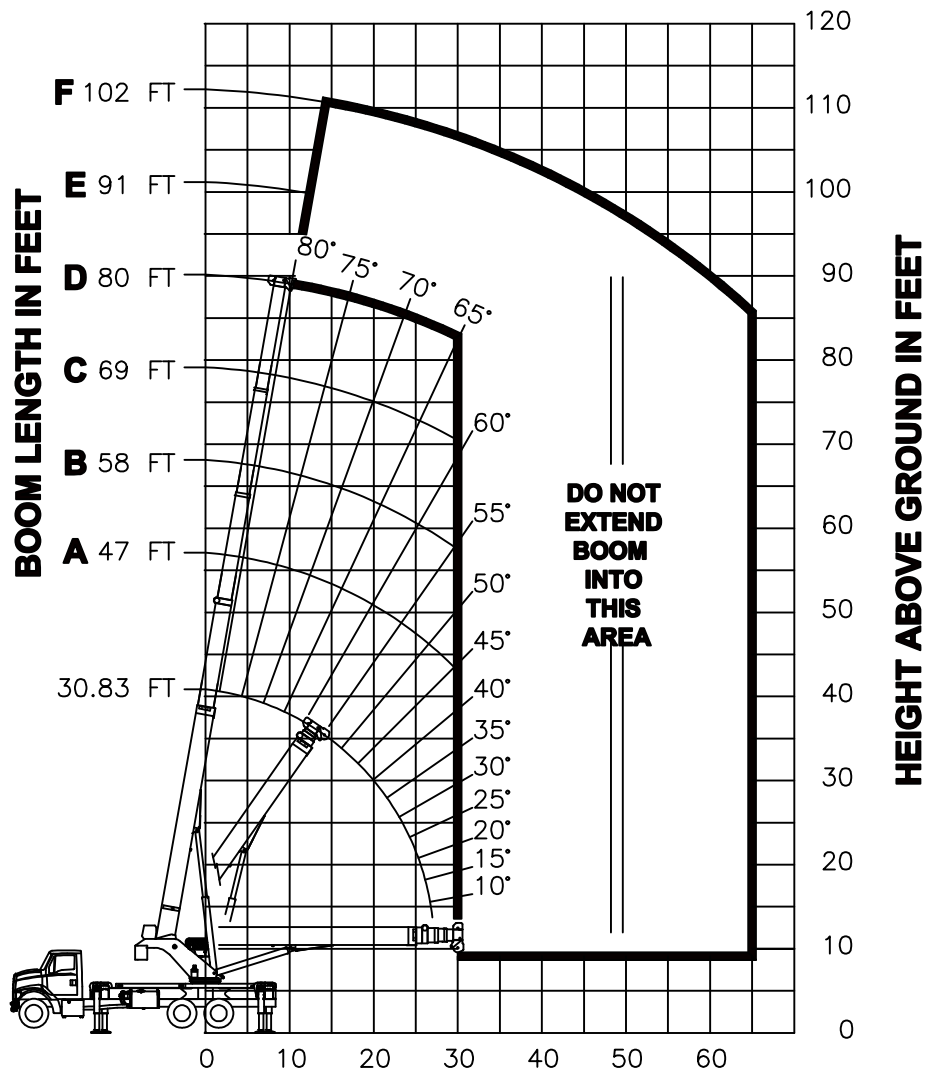
**DEDUCTIONS FROM MAIN BOOM CAPACITIES FOR STOWED JIBS**

**JIB LOAD CAPACITIES**

LOAD RADIUS (FT) REF	31 FT FIXED JIB LMI CODE 34		30.5 FT TELE JIB LMI CODE 19		55 FT TELE JIB LMI CODE 22		LOAD RADIUS (FT) REF
	LOADED BOOM ANGLE (DEG)	LOAD CAPACITY (LBS)	LOADED BOOM ANGLE (DEG)	LOAD CAPACITY (LBS)	LOADED BOOM ANGLE (DEG)	LOAD CAPACITY (LBS)	
30	80	4000	79.5	3300			30
35	78	3850	77.5	3300	79.5	2450	35
40	76	3700	76	3300	78	2450	40
45	74	3250	74	2630	76.5	2450	45
50	72	2370	72	1750	75	2450	50
55	70	1680	70.5	1060	73	1800	55
60	68	1110			71.5	1220	60
65	66	640			70	740	65
70							70
75							75
80							80
85							85

# RANGE DIAGRAM

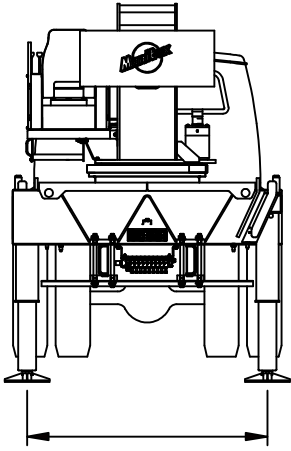
## - FULLY RETRACTED OUTRIGGER CONFIGURATION -



**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 -**

<b>MAIN BOOM LMI CODE 5</b>											
LOAD RADIUS (FT)	30.833 FT		47 FT (A)		58 FT (B)		69 FT (C)		80 FT (D)		LOAD RADIUS (FT)
	∠	LOAD CAPACITY (LBS)	∠	LOAD CAPACITY (LBS)	∠	LOAD CAPACITY (LBS)	∠	LOAD CAPACITY (LBS)	∠	LOAD CAPACITY (LBS)	
5	75	80000									5
8	69	33420									8
10	64	21320	74	22150							10
12	60	14960	72	15700	76	15960	79	16130			12
15	53	9570	68	10260	73	10480	76	10640	79	10740	15
20	40	4930	61	5590	67	5800	72	5930	75	6030	20
25	22	2390	53	3090	62	3290	67	3420	71	3510	25
30			45	1520	56	1730	63	1860	67	1950	30
35											35
40											40
45											45
50											50
55											55
60											60
65											65
70											70
75											75
		450 LBS		300 LBS		240 LBS		200 LBS		180 LBS	STOWED FIXED JIB
		840 LBS		560 LBS		450 LBS		380 LBS		330 LBS	STOWED TELE JIB

**NOTES :**

**DEDUCTIONS FROM MAIN BOOM  
CAPACITIES FOR STOWED JIBS**

- 1. LIFTING PERSONNEL WITH CRANE IN THIS OUTRIGGER CONFIGURATION IS STRICTLY PROHIBITED. USE ONLY THE FULLY EXTENDED OUTRIGGER CONFIGURATION WHEN LIFTING PERSONNEL.**
- 2. NO JIBS ARE TO BE ERECTED OR USED IN THIS OUTRIGGER CONFIGURATION.**

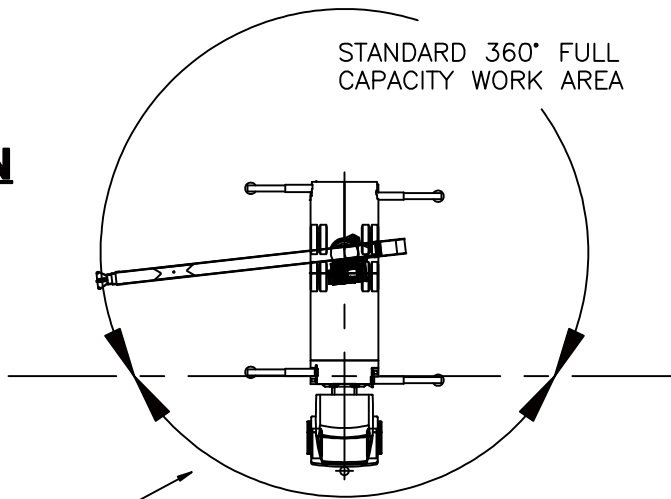


<b>ALLOWABLE LINE PULL</b>								<b>WARNING</b>
1 PART LINE	2 PART LINE	3 PART LINE	4 PART LINE	5 PART LINE	6 PART LINE	7 PART LINE	8 PART LINE	
9500 LBS	19000 LBS	28500 LBS	38000 LBS	47500 LBS	57000 LBS	66500 LBS	76000 LBS	5/8" ROT RESISTANT (5.0:1 SF) - 47500 LBS MIN BREAKING STRENGTH
10000 LBS	20000 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
#32	— FIXED JIB —————	FULLY EXTENDED
#7	— TELESCOPIC JIB—RETRACTED —————	FULLY EXTENDED
#13	— TELESCOPIC JIB—EXTENDED —————	FULLY EXTENDED
#25	— PERSONNEL LIFTING PLATFORM ON MAIN BOOM —————	FULLY EXTENDED
#33	— PERSONNEL LIFTING PLATFORM ON FIXED JIB —————	FULLY EXTENDED
#26	— PERSONNEL LIFTING PLATFORM ON TELESCOPIC JIB—RETRACTED ———	FULLY EXTENDED
#29	— PERSONNEL LIFTING PLATFORM ON TELESCOPIC JIB—EXTENDED ———	FULLY EXTENDED
#4	— MAIN BOOM —————	INTERMEDIATE
#34	— FIXED JIB —————	INTERMEDIATE
#19	— TELESCOPIC JIB—RETRACTED —————	INTERMEDIATE
#22	— TELESCOPIC JIB—EXTENDED —————	INTERMEDIATE
#5	— 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.