

# Load Rating Chart

***Model TC45127***

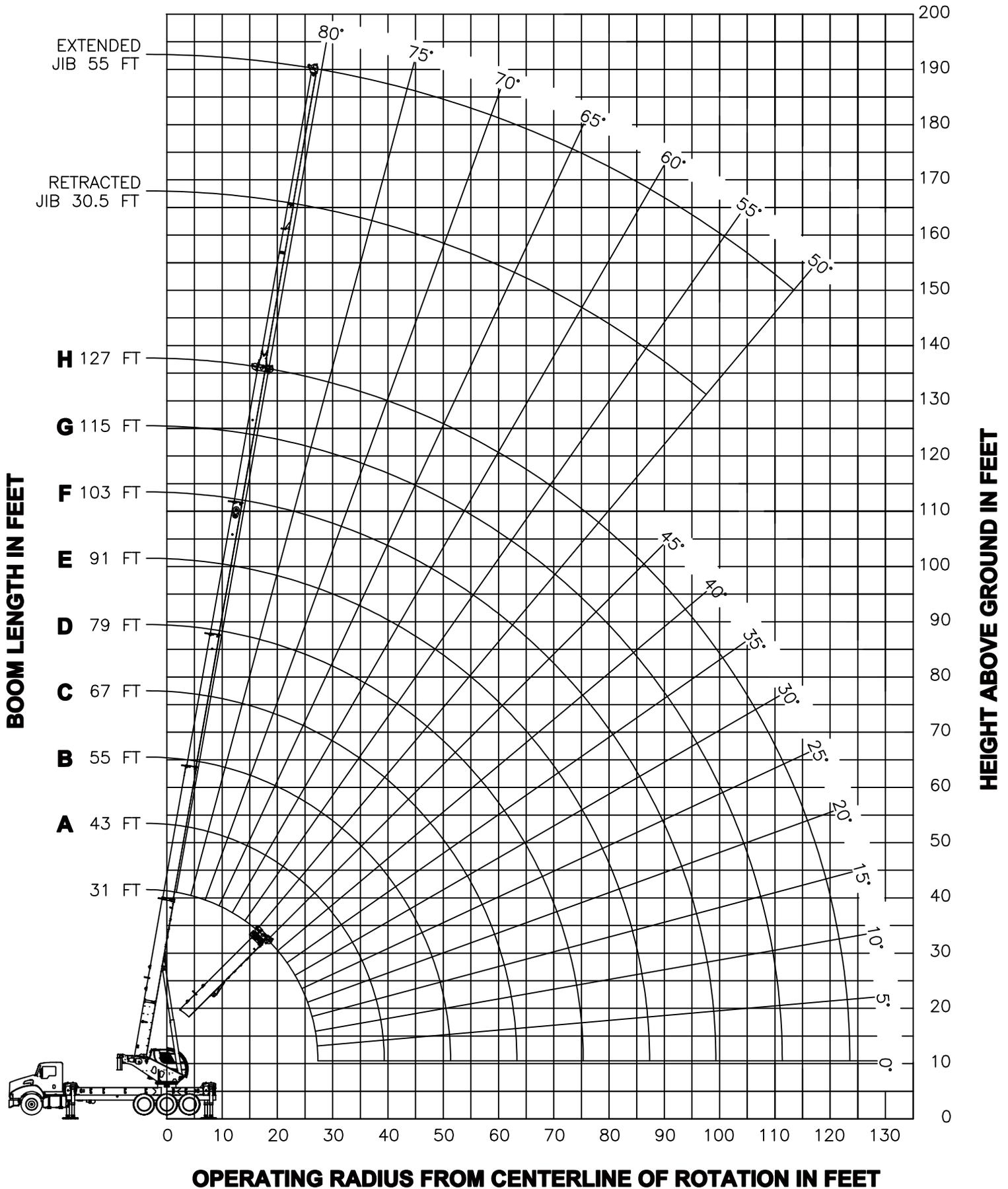
***Manitex***

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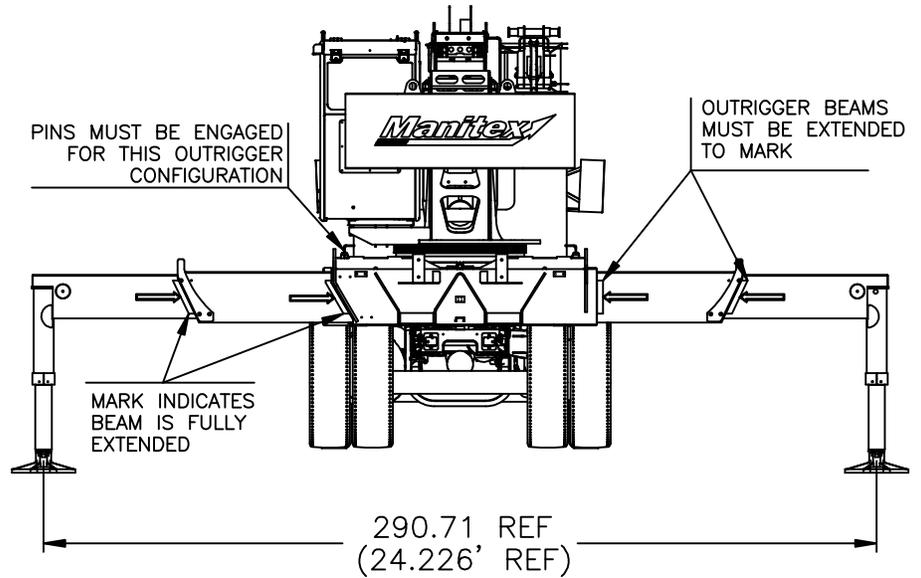
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**NOTE:** Additional copies of this Load Rating Chart can be purchased from your Manitex Distributor. When ordering, use the part number shown in the bottom left corner of this page.

# RANGE DIAGRAM - FULLY EXTENDED OUTRIGGER CONFIGURATION -



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

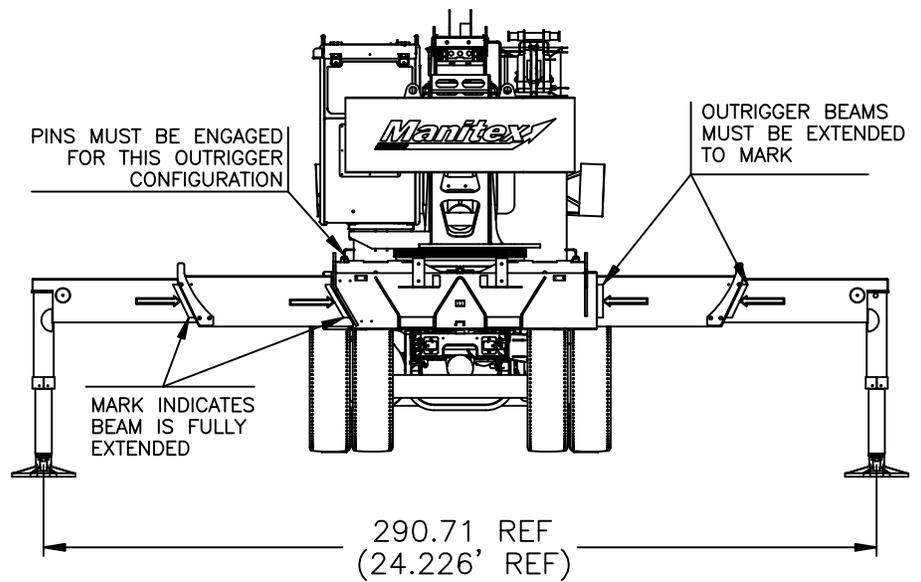


**- FULLY EXTENDED OUTRIGGER CONFIGURATION -**

MAIN BOOM LMI CODE 3																			
LOAD RADIUS (FT)	31 FT		43 FT (A)		55 FT (B)		67 FT (C)		79 FT (D)		91 FT (E)		103 FT (F)		115 FT (G)		127 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)	
7	70	90000																	7
8	68	80000	75	42000															8
10	64	71920	72	42000	76	42000													10
12	60	61860	69	42000	74	42000	77	34000											12
15	54	48680	65	42000	70	42000	74	32860	77	23430									15
20	41	35160	57	35810	65	36130	70	30970	73	21610	75	16510	77	17000	78	17000			20
25	23	26830	49	27560	59	27890	65	28090	69	19730	72	15160	74	13500	76	13500	77	10000	25
30			39	21970	53	22330	60	22520	65	18300	68	13960	71	12420	73	12420	75	10000	30
35			26	17920	46	18310	55	18520	61	17060	65	12860	68	11420	70	11420	72	9800	35
40					38	15270	50	15490	57	15630	61	11860	65	10540	68	10540	70	9300	40
45					28	12880	44	13120	52	13260	58	10990	62	9550	65	9550	68	8800	45
50					13	10870	37	11210	47	11360	54	10200	59	8870	62	8870	65	8300	50
55							29	9280	42	9470	50	9430	55	8260	59	8260	63	7800	55
60							18	7740	37	7950	46	8070	52	7680	57	7680	60	7450	60
65									30	6700	41	6830	48	6600	53	6980	57	7000	65
70									21	5670	36	5810	44	5520	50	5960	55	6000	70
75									5	4760	30	4940	40	4600	47	5090	52	5140	75
80											23	4180	36	3840	43	4360	49	4400	80
85											13	3470	31	3180	40	3670	46	3730	85
90													25	2610	36	3010	43	3140	90
95													17	2110	31	2500	39	2620	95
100															26	2050	35	2160	100
105															19	1650	31	1750	105
110															9	1280	27	1390	110
115																	21	1060	115
120																	13	760	120
	700 LBS		510 LBS		400 LBS		330 LBS		280 LBS		240 LBS		220 LBS		190 LBS		180 LBS		

**DEDUCTIONS FROM MAIN BOOM CAPACITIES FOR STOWED TELESCOPIC JIB**

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

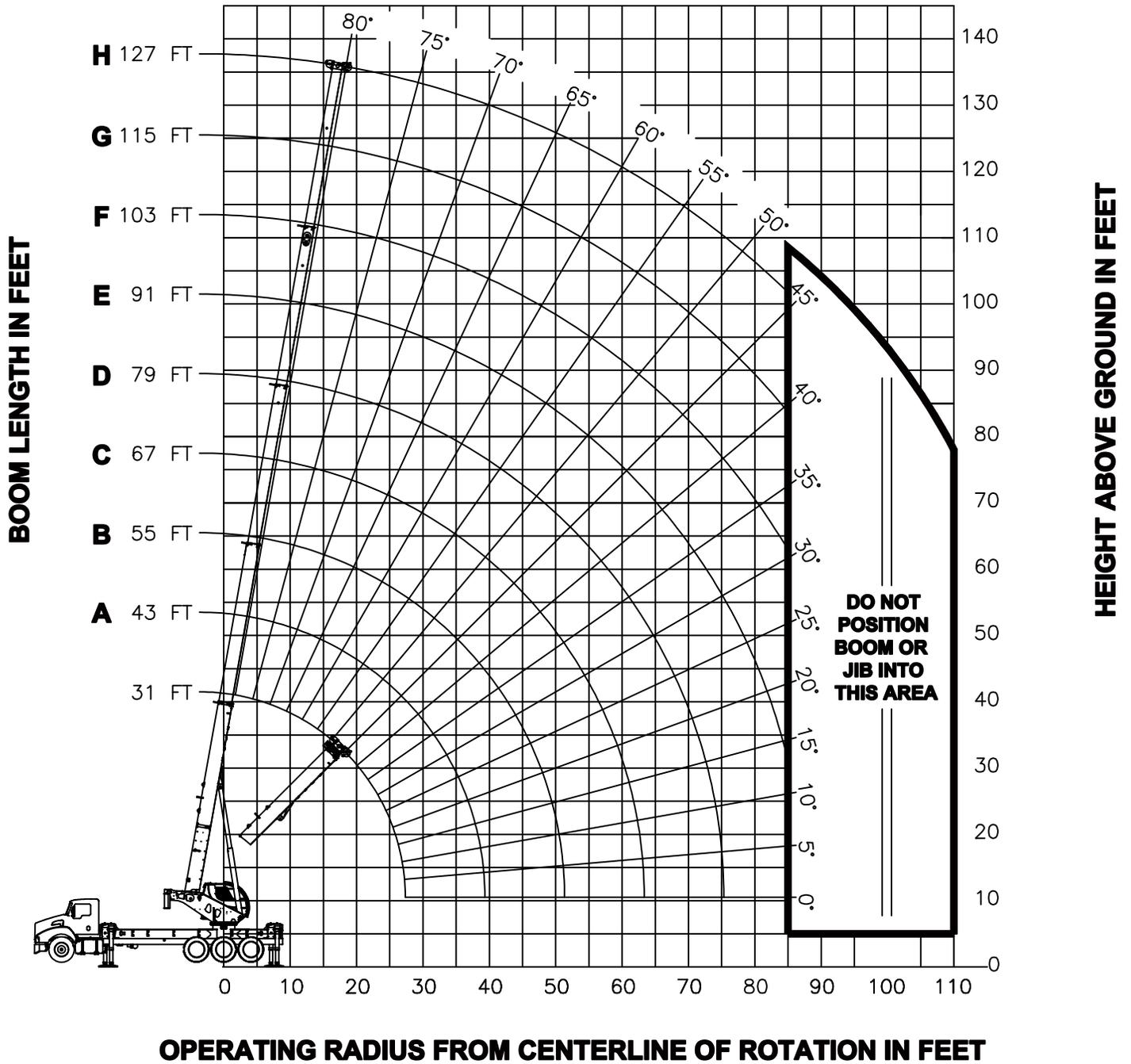


**- FULLY EXTENDED OUTRIGGER CONFIGURATION -**

**JIB LOAD CAPACITIES**

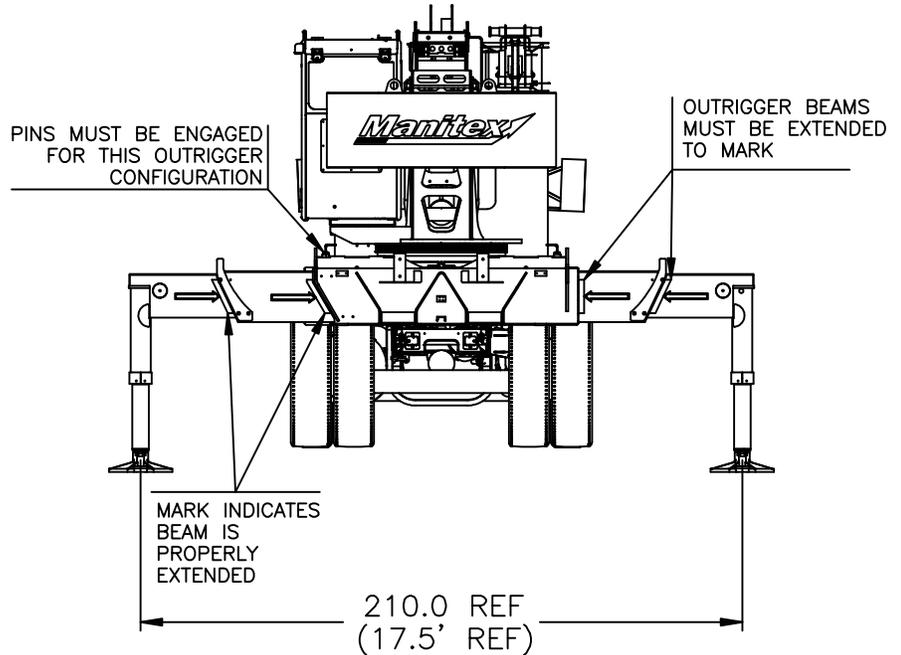
LOAD RADIUS (FT) REF	30.5 FT TELE JIB LMI CODE 7		55 FT TELE JIB LMI CODE 13		LOAD RADIUS (FT) REF
	LOADED BOOM ANGLE (DEG)	LOAD CAPACITY (LBS)	LOADED BOOM ANGLE (DEG)	LOAD CAPACITY (LBS)	
15					15
20	79.0	3450			20
25	77.1	3400			25
30	75.3	3320	78.9	2500	30
35	73.4	3190	77.3	2500	35
40	71.5	2910	75.7	2500	40
45	69.5	2770	74.1	2200	45
50	67.6	2570	72.4	2010	50
55	65.6	2420	70.8	1870	55
60	63.6	2270	69.1	1780	60
65	61.6	2130	67.4	1680	65
70	59.5	2010	65.7	1570	70
75	57.3	1910	64.0	1500	75
80	55.2	1630	62.2	1430	80
85	52.9	1230	60.4	1350	85
90			58.6	1250	90
95					95

# 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.

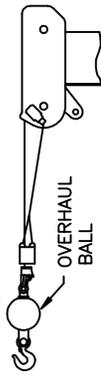
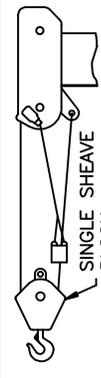
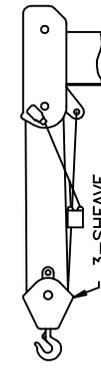
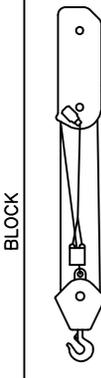
**USE THIS CHART ONLY  
WHEN ALL  
OUTRIGGERS ARE IN  
THE INTERMEDIATE  
POSITION**



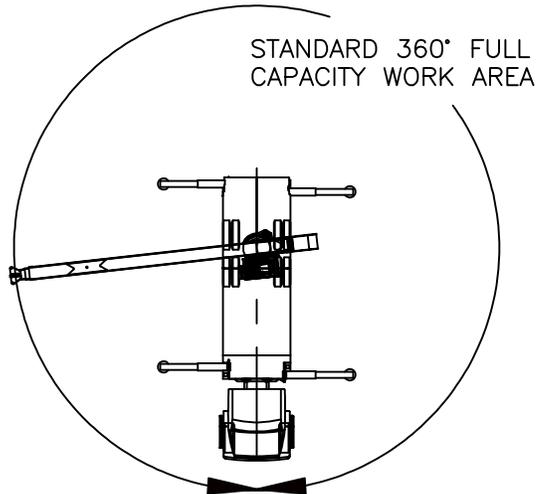
**- INTERMEDIATE OUTRIGGER CONFIGURATION -**

MAIN BOOM LMI CODE 4																			
LOAD RADIUS (F)	31 FT		43 FT (A)		55 FT (B)		67 FT (C)		79 FT (D)		91 FT (E)		103 FT (F)		115 FT (G)		127 FT (H)		LOAD RADIUS (F)
	∠	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)	
7	70	90000																	7
8	68	80000	75	42000															8
10	64	71920	72	42000	76	42000													10
12	60	61860	69	42000	74	42000	77	34000											12
15	54	48680	65	42000	70	42000	74	32860	77	23430									15
20	41	32290	57	33310	65	33850	70	30970	73	21610	75	16510	77	17000	78	17000			20
25	23	20310	49	21290	59	21750	65	22040	69	19730	72	15160	74	13500	76	13500	77	10000	25
30			39	14900	53	15340	60	15600	65	15780	68	13960	71	12420	73	12420	75	10000	30
35			26	10910	46	11360	55	11620	61	11780	65	11900	68	11420	70	11420	72	9800	35
40					38	8650	50	8900	57	9060	61	9170	65	9250	68	9320	70	9300	40
45					28	6660	44	6930	52	7090	58	7200	62	7270	65	7330	68	7380	45
50					13	5120	37	5430	47	5590	54	5700	59	5770	62	5830	65	5870	50
55							29	4240	42	4410	50	4520	55	4600	59	4650	63	4690	55
60							18	3270	37	3460	46	3570	52	3650	57	3700	60	3740	60
65									30	2670	41	2790	48	2870	53	2920	57	2960	65
70									21	2000	36	2130	45	2210	50	2270	55	2310	70
75									5	1410	30	1570	40	1650	47	1710	52	1750	75
80											23	1080	36	1170	43	1230	49	1270	80
85													31	750	40	810	46	850	85
90																			90
	700 LBS		510 LBS		400 LBS		330 LBS		280 LBS		240 LBS		220 LBS		190 LBS		180 LBS		

**DEDUCTIONS FROM MAIN BOOM CAPACITIES FOR STOWED TELESCOPIC JIB**

<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	9 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	85500 LBS	
10000 LBS	20000 LBS	30000 LBS	40000 LBS	50000 LBS	60000 LBS	70000 LBS	80000 LBS	90000 LBS	5/8" 6 X 25 IWRC (3.5:1 SF) - 35000 LBS MIN BREAKING STRENGTH

**AREA OF OPERATION**



**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
- SWING AROUND JIBS (STOWED) ----- SEE LOAD CHART



## **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.