



# Load Rating Chart

## *Model 30102C & 30102T*

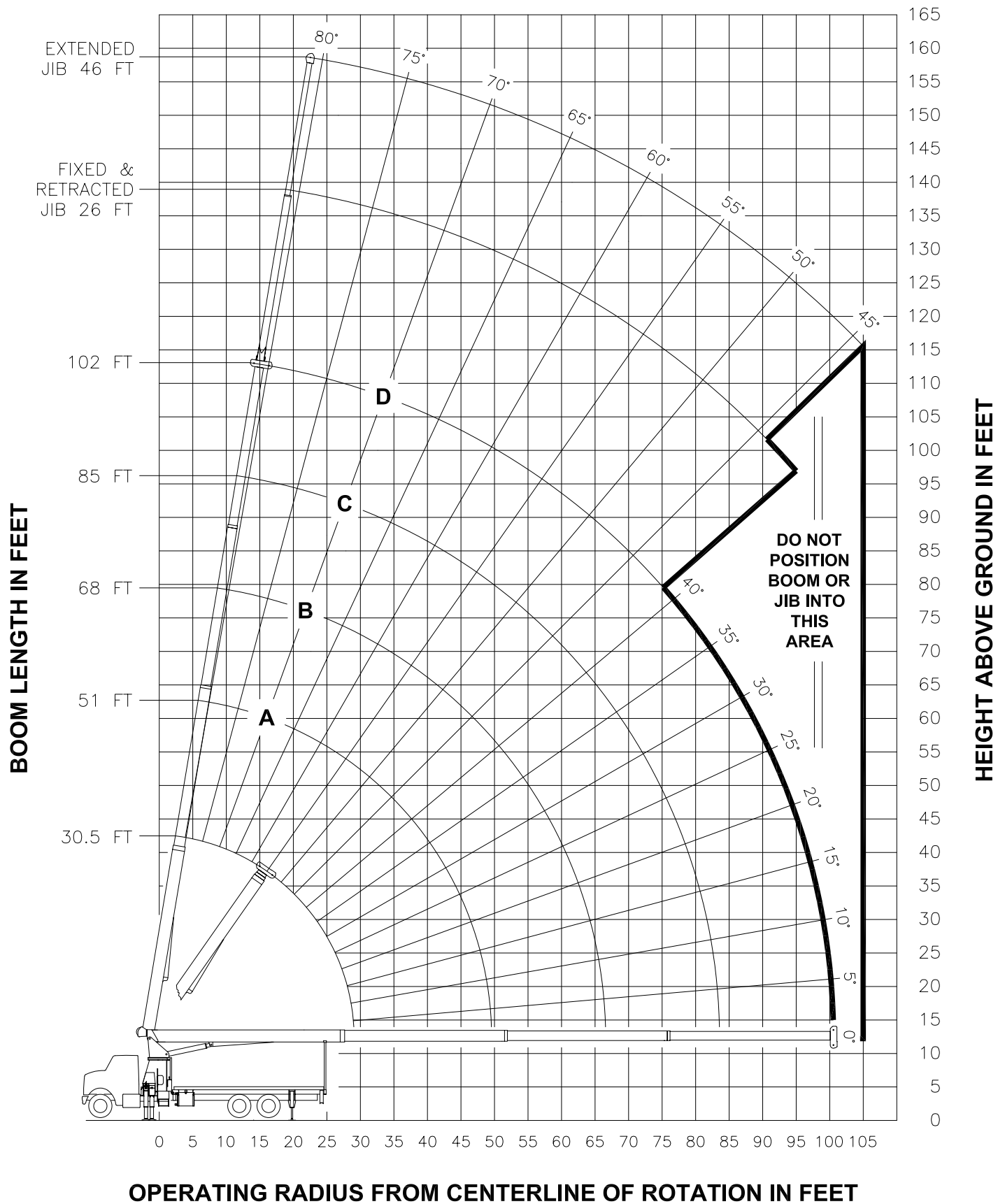


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**NOTE:** Additional copies of this Load Rating Chart can be purchased from your Manitex Distributor. When ordering, use the part number shown in the bottom left corner of this page.

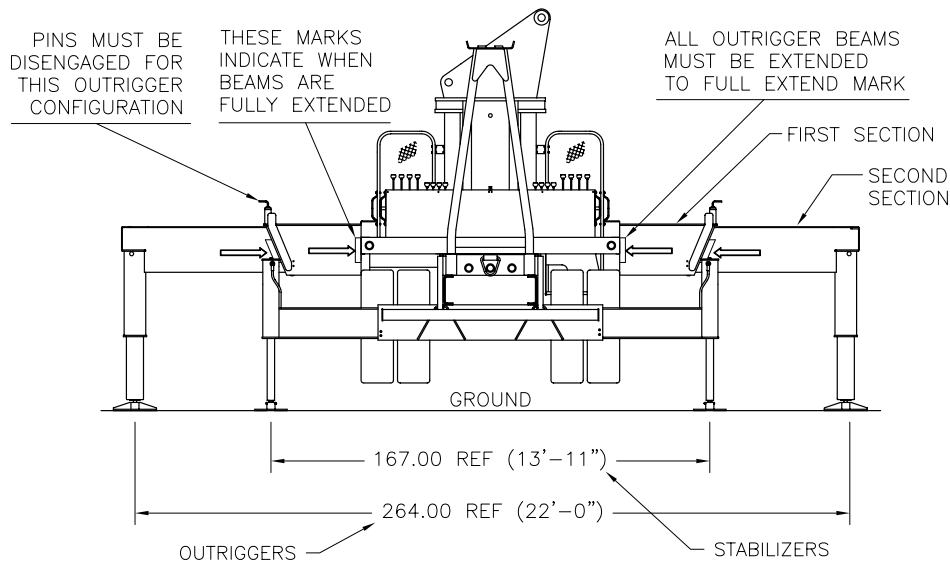


# RANGE DIAGRAM - FULL SPREAD CONFIGURATION -





**USE THIS CHART ONLY  
WHEN OUTRIGGERS  
AND STABILIZERS ARE  
FULLY EXTENDED**

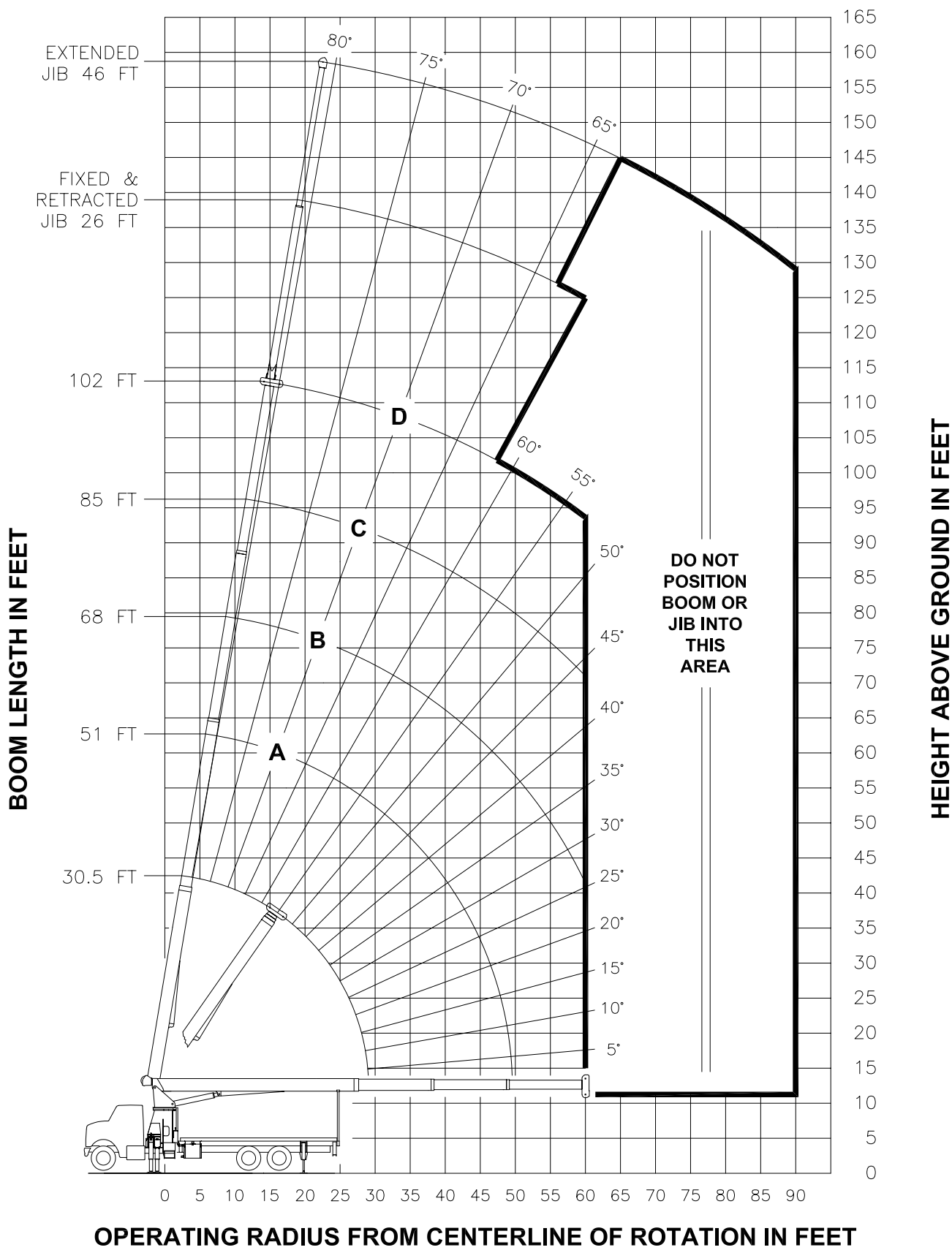


**- FULL SPREAD CONFIGURATION -**

MAIN BOOM LOAD RATINGS IN LBS WITH OUTRIGGERS AND STABILIZERS PLACED AS SHOWN AND THE CRANE LEVEL											JIB LOAD RATINGS IN LBS WITH OUTRIGGERS AND STABILIZERS PLACED AS SHOWN AND THE CRANE LEVEL									
LMI CODE #1											LMI CODE #2									
OPERATING RADIUS FT	LOADED BOOM ANGLE		BOOM LENGTH AND MARKER		LMI CODE #1						FIXED JIB		TELESCOPIC JIB							
					A		B		C		D		LMI CODE #3		LMI CODE #4					
	30.5 FT	51 FT	68 FT	85 FT	102 FT	BOOM LOADED ANGLE	JIB LENGTH FOR ALL BOOM LENGTHS SEE WARNING NOTE 4	BOOM LOADED ANGLE	JIB LENGTH FOR ALL BOOM LENGTHS SEE WARNING NOTE 4	BOOM LOADED ANGLE	JIB LENGTH FOR ALL BOOM LENGTHS SEE WARNING NOTE 4									
5	80	60000																		
8	75	39690																		
10	71	33510	79	22500																
12	67	29120	77	22500																
15	60	24440	73	21710	79	20590														
20	48	19280	67	16910	74	15830	78	14420	81	10500										
25	33	15480	61	13850	70	12840	75	12180	78	9650	81	5300	81	5100						
30			54	11700	65	10770	72	10140	76	8670	79	5300	79	5100	81	3050				
35			47	9680	60	9240	68	8640	73	7670	77	4990	77	4730	79	3050				
40			38	7460	55	7660	64	7490	70	6490	75	4580	75	4310	77	3050				
45			27	5880	50	6090	60	6190	66	5590	72	4190	72	3910	76	3050				
50					43	4900	56	5010	63	4860	70	3830	70	3550	74	2910				
55					36	3980	51	4090	60	4160	68	3480	68	3110	72	2740				
60					28	3250	47	3360	56	3420	65	3020	65	2670	70	2590				
65					15	2630	41	2760	53	2820	63	2630	63	2280	68	2410				
70							36	2260	49	2320	60	2310	60	1950	66	2130				
75							29	1830	45	1900	57	2010	57	1670	63	1880				
80							19	1460	40	1530	54	1650	54	1350	61	1610				
85									36	1220	51	1330	51	1030	59	1400				
90									29	940	48	1050	48	750	56	1200				
95									22	690	45	810	45	510	54	970				
100											42	590			51	750				
105															48	560				
		490 LBS	290 LBS	220 LBS	180 LBS	150 LBS	DEDUCTIONS FOR STOWED FIXED JIB													
		730 LBS	440 LBS	330 LBS	260 LBS	220 LBS	DEDUCTIONS FOR STOWED TELESCOPIC JIB													



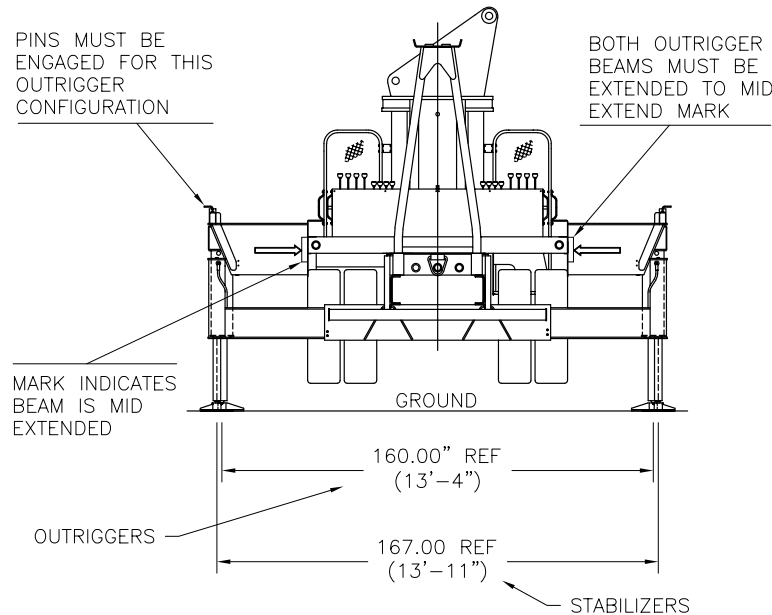
### RANGE DIAGRAM - INTERMEDIATE SPREAD CONFIGURATION - (MID EXTEND)



**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 FRONT OUTRIGGERS ARE IN THE INTERMEDIATE POSITION AND STABILIZERS ARE FULLY EXTENDED**

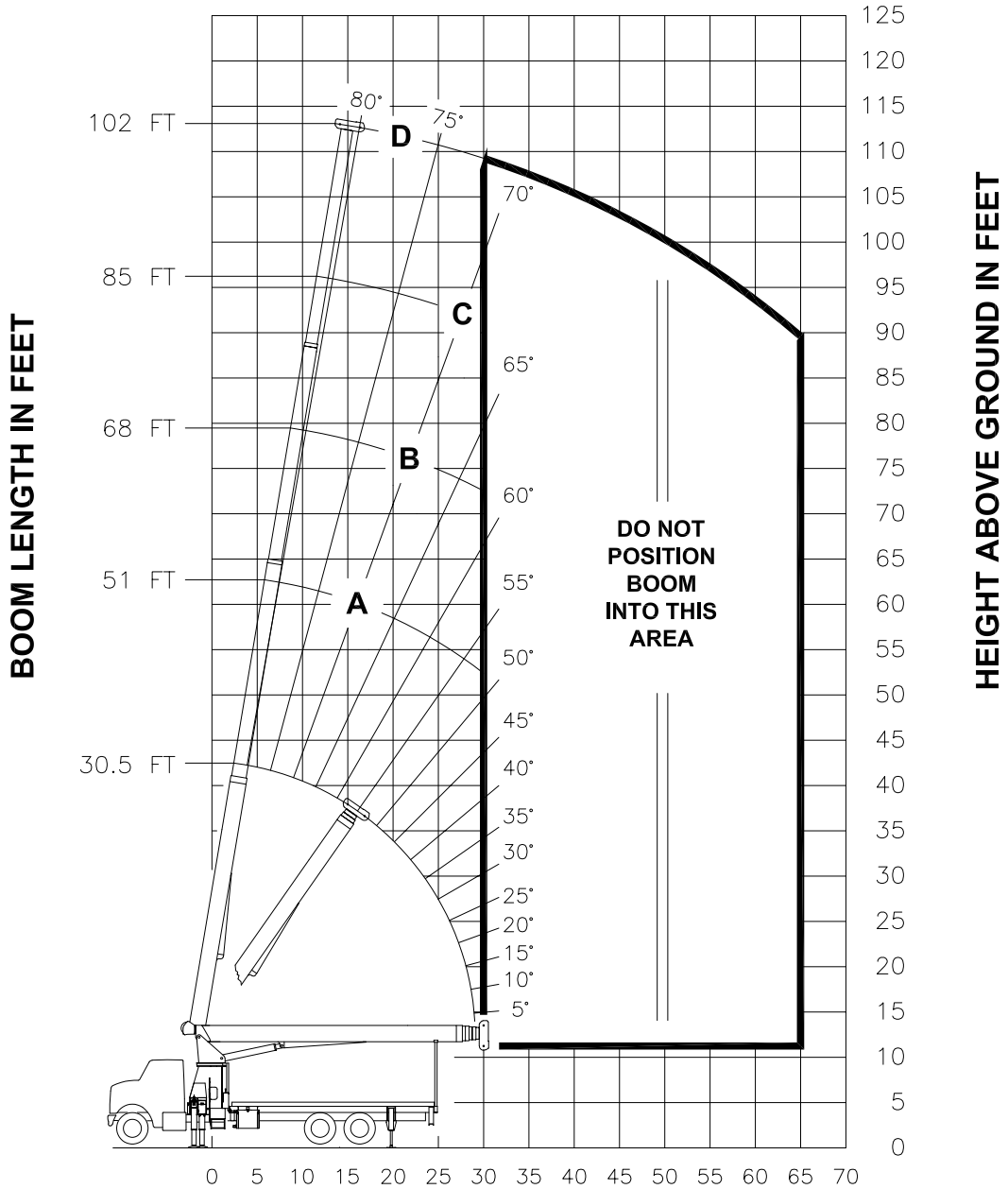


**- INTERMEDIATE SPREAD CONFIGURATION - (MID EXTEND)**

MAIN BOOM LOAD RATINGS IN LBS WITH OUTRIGGERS AND STABILIZERS PLACED AS SHOWN AND THE CRANE LEVEL										JIB LOAD RATINGS IN LBS WITH OUTRIGGERS AND STABILIZERS PLACED AS SHOWN AND THE CRANE LEVEL							
LMI CODE #9										FIXED JIB		TELESCOPIC JIB					
OPERATING HEIGHT	LOADED BOOM ANGLE	BOOM LENGTH AND MARKER								LMI CODE #10	JIB LENGTH FOR ALL BOOM LENGTHS SEE WARNING NOTE 4	LMI CODE #11	LMI CODE #12				
			A	B	C	D	BOOM ANGLE	JIB LENGTH FOR ALL BOOM LENGTHS SEE WARNING NOTE 4	BOOM ANGLE					JIB LENGTH FOR ALL BOOM LENGTHS SEE WARNING NOTE 4			
			51 FT	68 FT	85 FT	102 FT											
5	80	60000															
8	75	39690															
10	71	33510	79	22500													
12	67	29120	77	22500													
15	60	21160	73	21710	79	20590											
20	48	11760	67	12330	74	12520	78	12640	81	10500							
25	33	7460	61	8020	70	8200	75	8300	78	8370	25	81	5300	81	5100		
30			54	5550	65	5720	72	5820	76	5880	30	79	5300	79	5100	81	3050
35			47	3950	60	4120	68	4220	73	4280	35	77	4360	77	4060	79	3050
40			38	2830	55	3000	64	3090	70	3150	40	75	3230	75	2920	77	3050
45			27	1990	50	2170	60	2260	66	2320	45	72	2390	72	2090	76	2590
50					43	1530	56	1620	63	1680	50	70	1750	70	1440	74	1940
55					36	1020	51	1120	60	1170	55	68	1240	68	930	72	1420
60					28	600	47	700	56	760	60	65	830	65	520	70	1000
65											65					68	650
70											70						
		490 LBS	290 LBS	220 LBS	180 LBS	150 LBS	DEDUCTIONS FOR STOWED FIXED JIB										
		730 LBS	440 LBS	330 LBS	260 LBS	220 LBS	DEDUCTIONS FOR STOWED TELESCOPIC JIB										



### RANGE DIAGRAM - FULLY RETRACTED SPREAD CONFIGURATION -

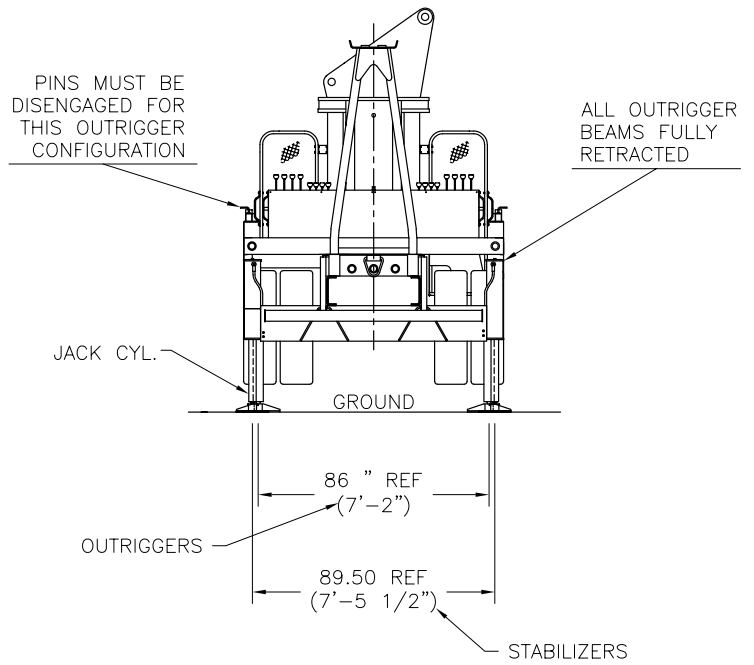


**OPERATING RADIUS FROM CENTERLINE OF ROTATION IN FEET**

**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  
OUTRIGGERS AND  
STABILIZERS ARE  
FULLY RETRACTED**



**- FULLY RETRACTED SPREAD CONFIGURATION -**

MAIN BOOM LOAD RATINGS IN LBS WITH OUTRIGGERS AND STABILIZERS PLACED AS SHOWN AND THE CRANE LEVEL										
LMI CODE #13										
OPERATING RADIUS FT	LOADED BOOM ANGLE		BOOM LENGTH AND MARKER							
	∠	30.5 FT	∠	51 FT	∠	68 FT	∠	85 FT	∠	102 FT
5	80	60000								
8	75	22630								
10	71	14380	79	14940						
12	67	10060	77	10570						
15	60	6410	73	6890	79	7050				
20	48	3280	67	3740	74	3890	78	3980	81	4040
25	33	1590	61	2060	70	2210	75	2290	78	2350
30			54	1010	65	1160	72	1240	76	1300
		490 LBS		290 LBS		220 LBS		180 LBS		150 LBS
		730 LBS		440 LBS		330 LBS		260 LBS		220 LBS
										DEDUCTIONS FOR STOWED FIXED JIB
										DEDUCTIONS FOR STOWED TELESCOPIC JIB

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



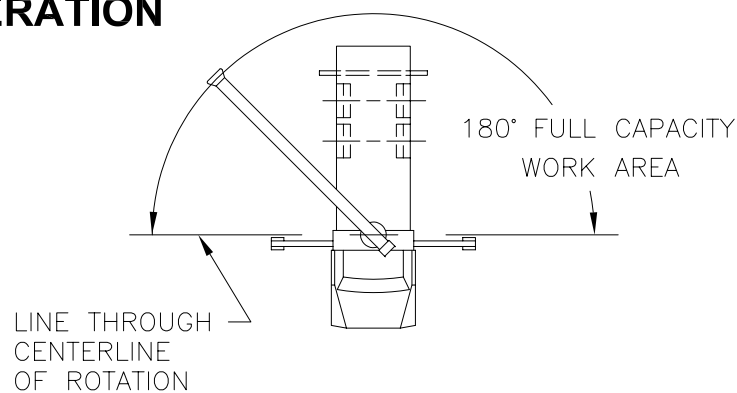
<b>ALLOWABLE LINE PULL</b>							<b>WARNING</b>
1 PART LINE	2 PART LINE	3 PART LINE	4 PART LINE	5 PART LINE	6 PART LINE	7 PART LINE	
8500 LBS	17000 LBS	25500 LBS	34000 LBS	42500 LBS	51000 LBS	60000 LBS	
7400 LBS	14800 LBS	22200 LBS	29600 LBS	37000 LBS	44400 LBS	51800 LBS	
							9/16" 6X25 IWRC (3.5:1 SF) – 29750 LBS MIN BREAKING STRENGTH
							9/16" ROT RESISTANT (5.0:1 SF) – 37000 LBS MIN BREAKING STRENGTH

**WARNING**

ANTI-TWO-BLOCK SYSTEM MUST BE IN GOOD OPERATING CONDITION BEFORE OPERATING CRANE.

REFER TO THE OWNER'S MANUAL.

KEEP AT LEAST 3 WRAPS OF LOAD LINE ON THE DRUM AT ALL TIMES.

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

AUXILIARY BLOCK	—	—	—	—	—	—	—	—	—	—	50 LBS
AUXILIARY SHEAVE	—	—	—	—	—	—	—	—	—	—	50 LBS
OVERHAUL BALL	—	—	—	—	—	—	—	—	—	—	SEE OVERHAUL BALL MANUFACTURER NAMEPLATE
LOAD BLOCK	—	—	—	—	—	—	—	—	—	—	SEE BLOCK MANUFACTURER NAMEPLATE
HOSE REEL	—	—	—	—	—	—	—	—	—	—	140 LBS
SWING AROUND JIB	—	—	—	—	—	—	—	—	—	—	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 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 , IS THE INCLUDED ANGLE BETWEEN THE HORIZONTAL AND LONGITUDINAL AXES OF THE BOOM BASE AFTER LIFTING RATED LOAD AT RATED RADIUS.