

# Load Rating Chart

## *Model 3077C & 3077T*

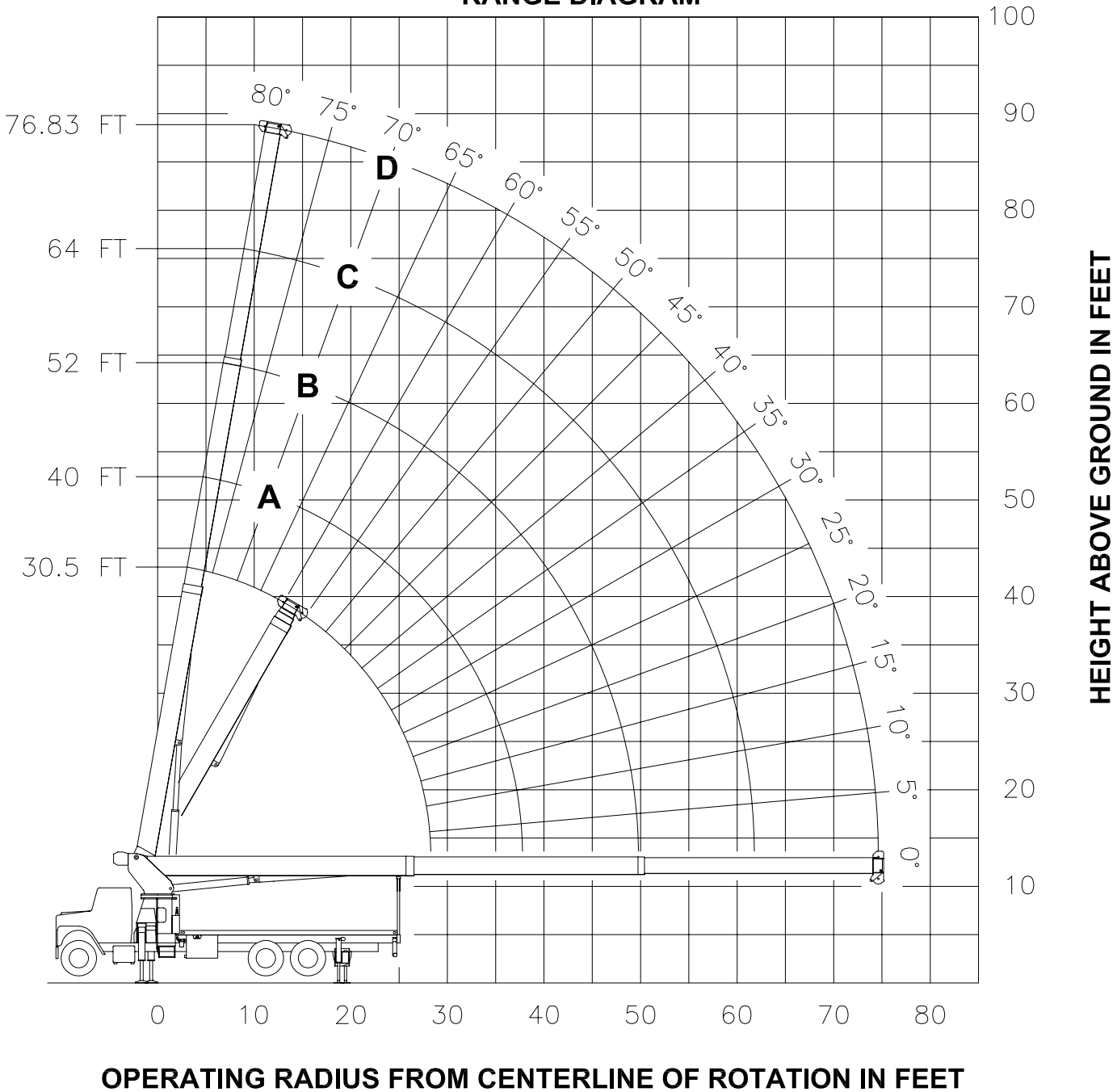


© Manitex

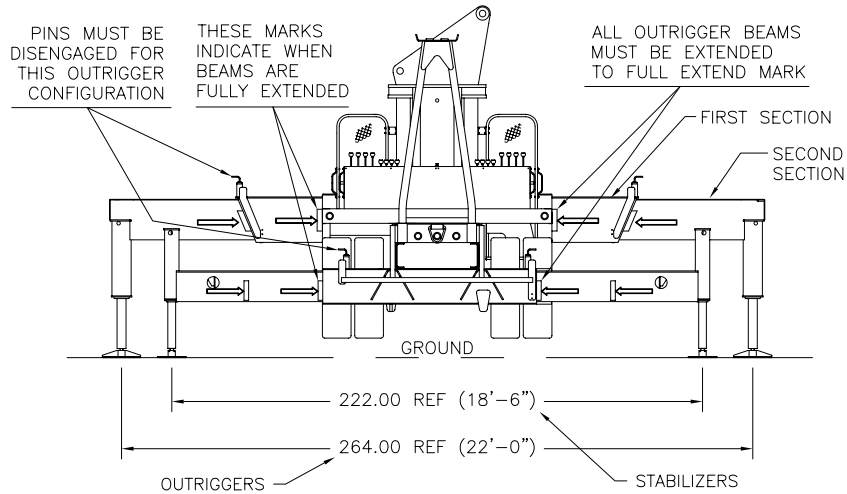
**NOTE:** Additional copies of this Load Rating Chart can be purchased from your Manitex Distributor. When ordering, use the part number shown in the bottom left corner of this page.

# RANGE DIAGRAM - FULL SPREAD CONFIGURATION -

## RANGE DIAGRAM



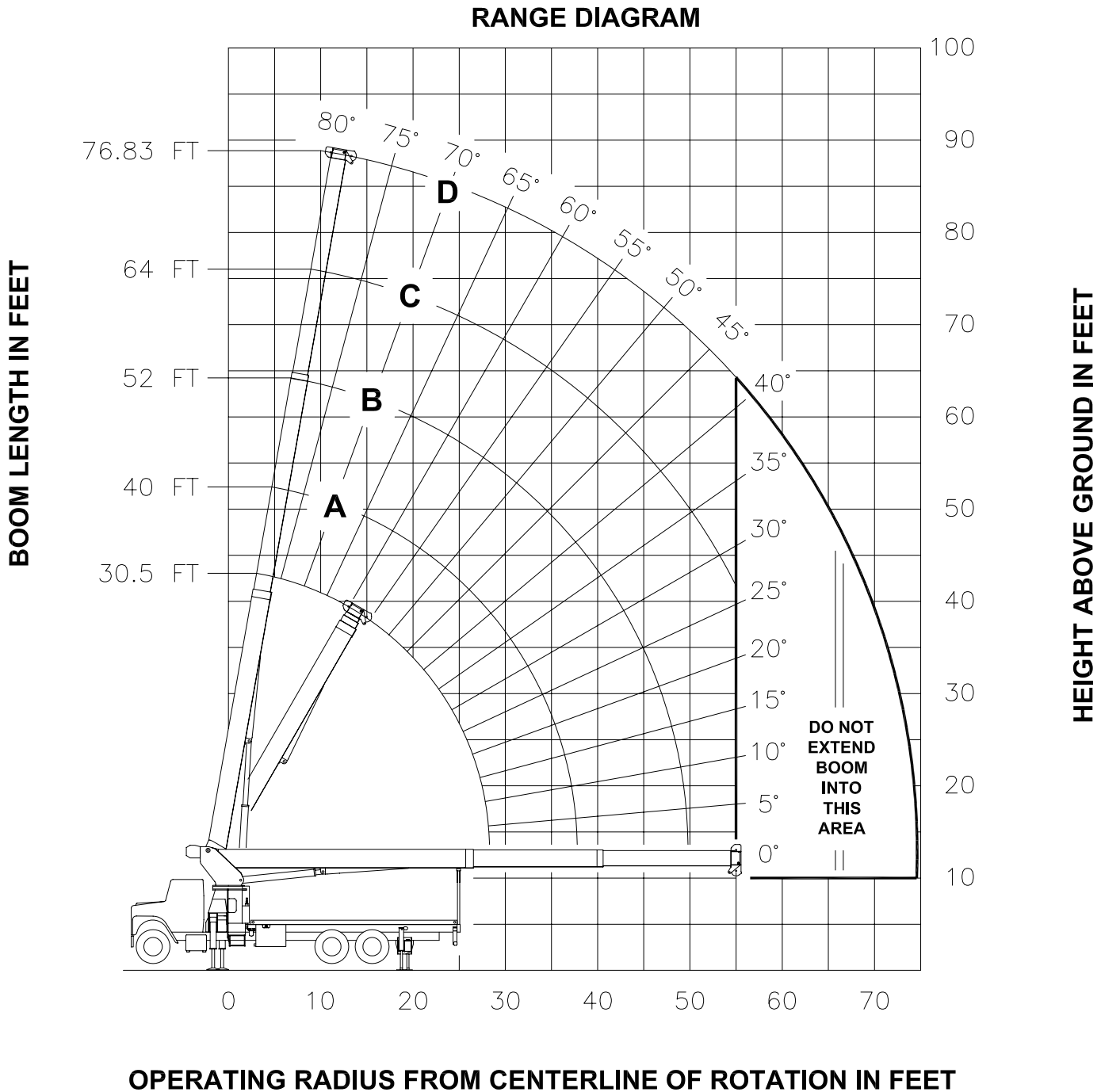
**USE THIS CHART ONLY  
WHEN OUTRIGGERS  
AND STABILIZERS ARE  
FULLY EXTENDED**



**- FULL SPREAD CONFIGURATION -**

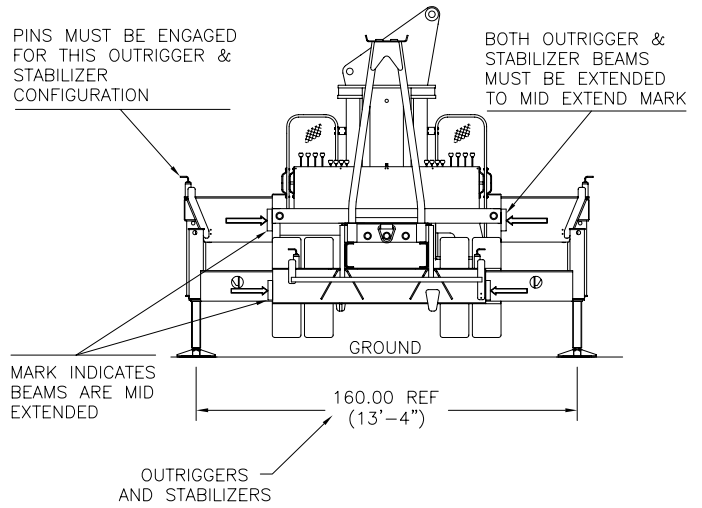
LOAD RATINGS IN LBS WITH OUTRIGGERS AND STABILIZERS EXTENDED											
LMI CODE #1											
OPERATING HEIGHT	LOADED BOOM ANGLE		BOOM LENGTH AND MARKER								
	°	30.5 FT	°	A		B		C		D	
				40 FT	°	52 FT	°	64 FT	°	76.83 FT	
5.5	80	60000									
8	75	46360	79	43960							
10	71	39810	76	37550	80	35150					
12	67	34930	73	32800	78	30650	80	28910			
15	61	29690	69	27740	74	25940	78	24250	80	22440	
20	48	23400	60	22080	68	20500	73	19250	77	18080	
25	32	17930	51	18170	62	17040	68	15890	73	14900	
30			40	14500	55	14500	63	13510	69	12640	
35			26	11020	48	11170	58	11260	65	10950	
40					39	8680	52	8760	60	8820	
45					28	6920	46	7000	56	7040	
50							39	5680	51	5720	
55							30	4660	45	4700	
60							17	3850	39	3890	
65									32	3220	
70									23	2670	

# 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 AND REAR  
STABILIZERS ARE IN THE  
INTERMEDIATE POSITION**

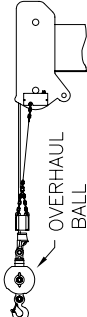



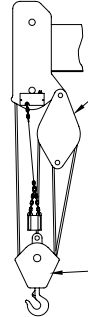
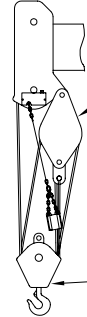


**- INTERMEDIATE SPREAD CONFIGURATION -  
(MID EXTEND)**

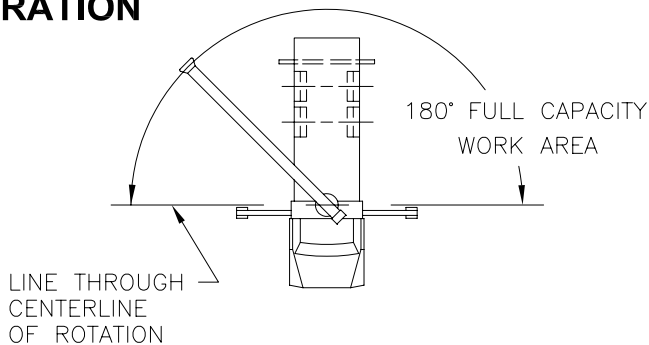
MAIN BOOM LOAD RATINGS IN LBS										
LMI CODE #9										
OPERATING RADIUS FT	LOADED BOOM ANGLE BOOM LENGTH AND MARKER									
	°	30.5FT	°	A	°	B	°	C	°	D
				40 FT		52 FT		64 FT		76.83FT
5.5	80	60000								
8	75	46360	79	43960						
10	71	39810	76	37550	80	35150				
12	67	34930	73	32800	78	30650	80	28910		
15	61	21840	69	22110	74	22310	78	22440	80	22440
20	48	12240	60	12470	68	12620	73	12720	77	12780
25	32	7870	51	8080	62	8220	68	8300	73	8350
30			40	5570	55	5700	63	5780	69	5820
35			26	3950	48	4070	58	4140	65	4180
40					39	2930	52	3000	60	3040
45					28	2090	46	2150	56	2190
50							39	1500	51	1540
55							30	990	45	1020

## ALLOWABLE LINE PULL

## WARNING

1 PART LINE	2 PART LINE	3 PART LINE	4 PART LINE	5 PART LINE	6 PART LINE	<p>ANTI-TWO-BLOCK SYSTEM MUST BE IN GOOD OPERATING CONDITION BEFORE OPERATING CRANE.</p> <p>REFER TO OWNER'S MANUAL.</p> <p>KEEP AT LEAST 3 WRAPS OF LOAD LINE ON DRUM AT ALL TIMES.</p>
						
9080 LBS	18160 LBS	27240 LBS	36320 LBS	45400 LBS	54480 LBS	
10000 LBS	20000 LBS	30000 LBS	40000 LBS	50000 LBS	60000 LBS	<p>5/8" ROT RESISTANT (5.0:1 S.F.) 45400 LBS. MIN BREAKING STRENGTH</p> <p>5/8" - 6 X 25 IWRC (3.5:1 S.F.) 35000 LBS. MIN BREAKING STRENGTH</p>

### AREA OF OPERATION



#### 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

## LMI OPERATING CODES

SETTING	CRANE CONFIGURATION	OUTRIGGER CONFIGURATION
#1	— MAIN BOOM	— FULLY EXTENDED
#5	— PERSONNEL LIFTING PLATFORM ON MAIN BOOM	— FULLY EXTENDED
#9	— MAIN BOOM	— INTERMEDIATE

### **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. 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.
  
5. 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.
  
6. 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.
  
7. 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.

## **INFORMATION**

1. DEDUCTIONS MUST BE MADE FROM RATED LOADS FOR 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.