

# Load Rating Chart

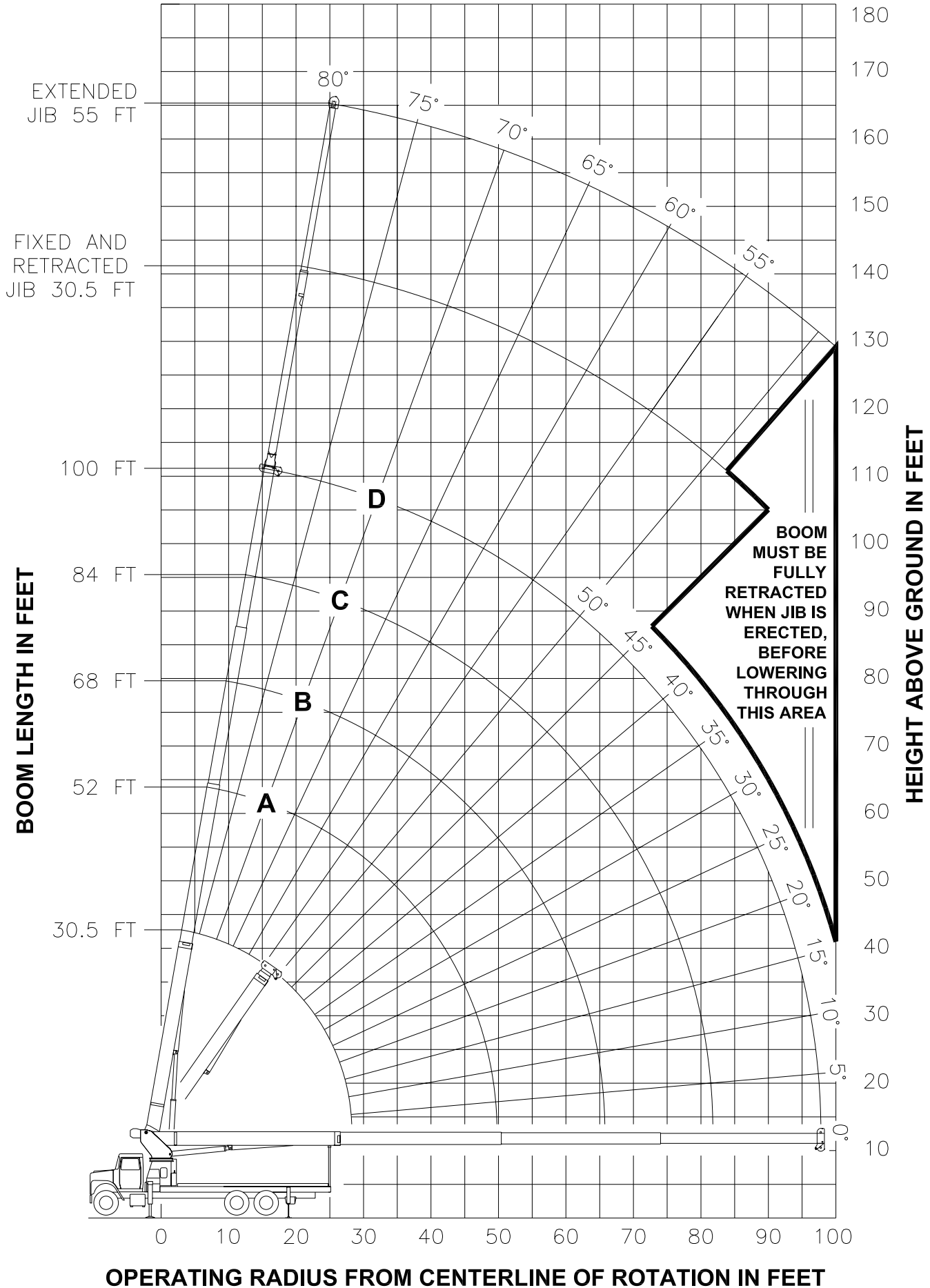
## *Model 30100C & 30100T*



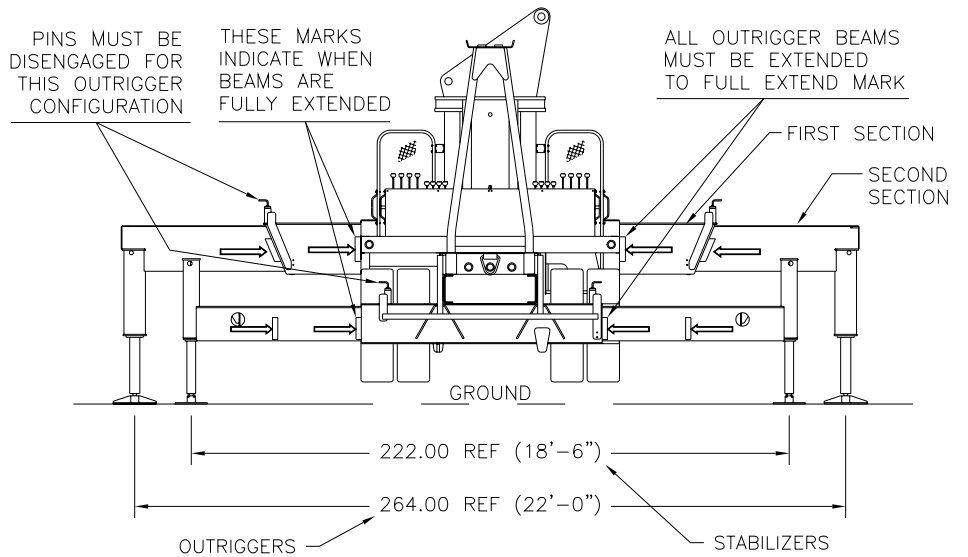
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**NOTE:** Additional copies of this Load Rating Chart can be purchased from your Manitex Distributor. When ordering, use the part number shown in the bottom left corner of this page.

# RANGE DIAGRAM - FULL SPREAD CONFIGURATION -



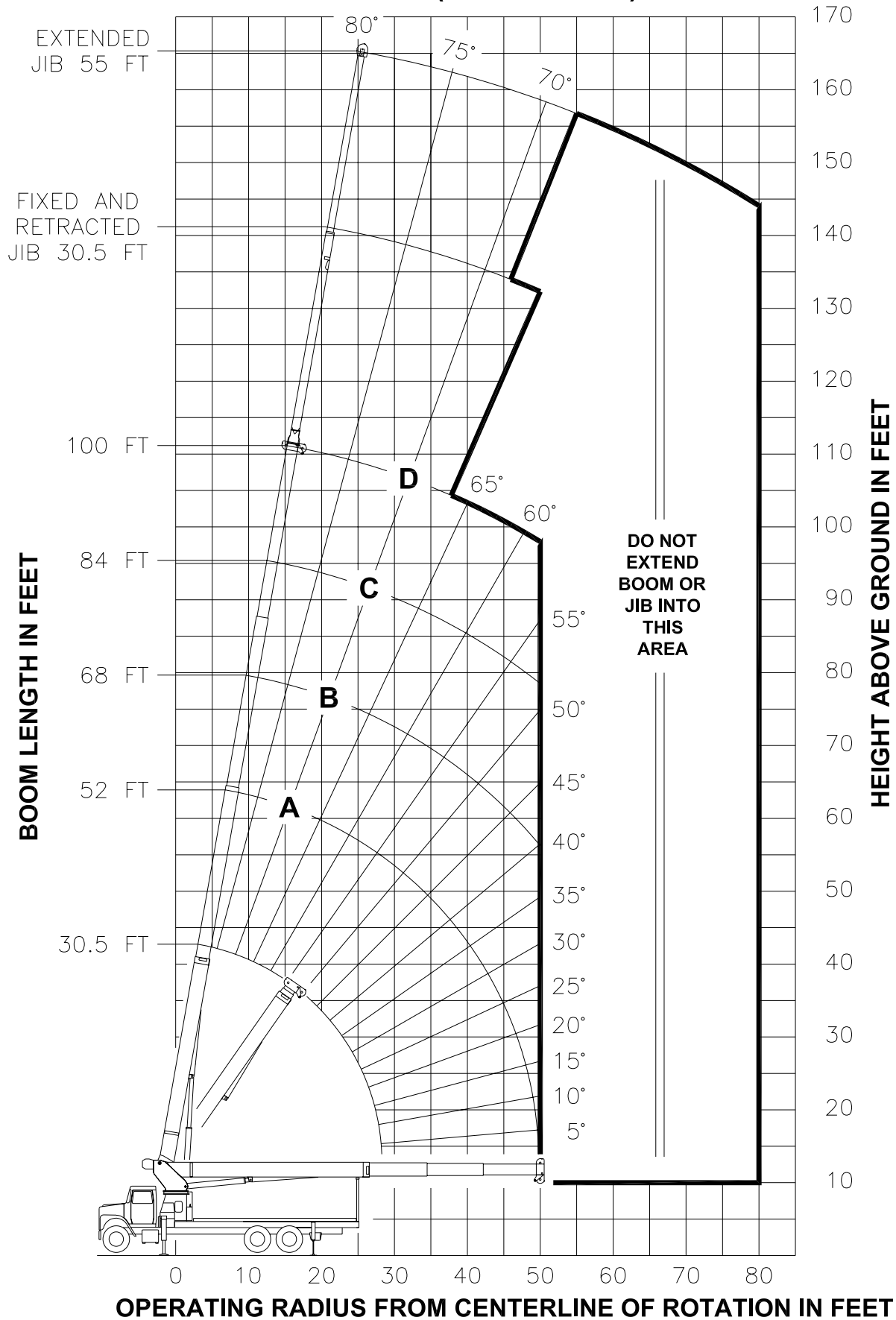
**USE THIS CHART ONLY  
WHEN OUTRIGGERS  
AND STABILIZERS ARE  
FULLY EXTENDED**



**- FULL SPREAD CONFIGURATION -**

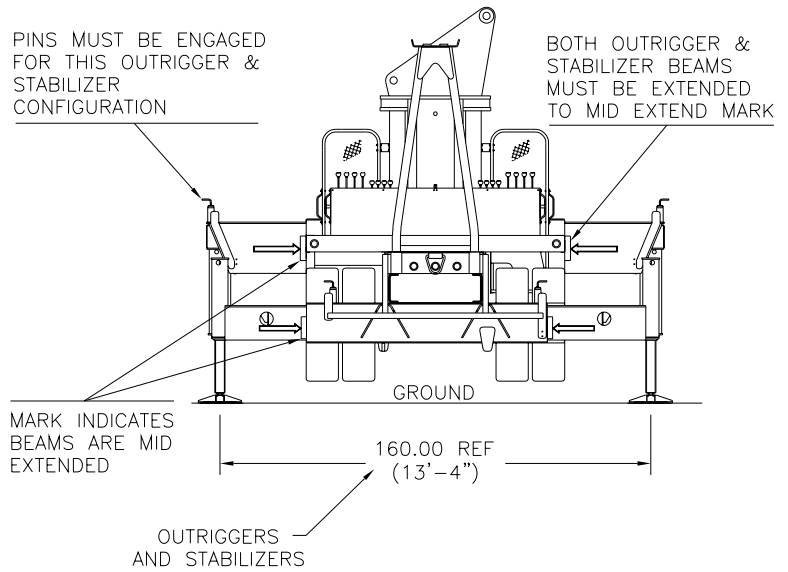
MAIN BOOM LOAD RATINGS IN LBS										JIB LOAD RATINGS IN LBS							
LMI CODE #1										FIXED JIB		TELESCOPIC JIB					
OPERATING RADIUS FT	LOADED BOOM ANGLE BOOM LENGTH AND MARKER		A		B		C		D		LMI CODE #2	LMI CODE #3		LMI CODE #4			
	BOOM ANGLE	BOOM LENGTH	BOOM ANGLE	BOOM LENGTH	BOOM ANGLE	BOOM LENGTH	BOOM ANGLE	BOOM LENGTH	BOOM ANGLE	BOOM LENGTH	BOOM ANGLE	JIB LENGTH FOR ALL BOOM LENGTHS SEE WARNING NOTE 4	BOOM ANGLE	JIB LENGTH FOR ALL BOOM LENGTHS SEE WARNING NOTE 4	BOOM ANGLE	JIB LENGTH FOR ALL BOOM LENGTHS SEE WARNING NOTE 4	
	30.5FT		52 FT		68FT		84 FT		100 FT		30.5FT	30.5 FT		55 FT			
5.5	80	60000															
8	75	45200															
10	71	38700															
12	67	33800	78	27100													
15	61	28600	74	25200	79	23300											
20	48	22500	68	19800	74	18320	78	17040	80	14000							
25	32	16970	62	16220	70	14940	74	13940	78	12260							
30			55	13660	65	12580	71	11650	75	10680	30	79	6700	79	6400		
35			48	11140	60	10850	67	10050	72	9280	35	76	6200	76	5850	80	4000
40			39	8650	55	8790	63	8700	69	8110	40	74	5630	74	5250	78	3850
45			28	6750	49	6910	59	7030	65	7080	45	72	5060	72	4670	76	3700
50					43	5500	55	5630	62	5700	50	70	4560	70	4160	74	3550
55					36	4400	50	4530	59	4610	55	67	4130	67	3710	72	3310
60					27	3530	46	3650	55	3740	60	65	3730	65	3300	70	3020
65					12	2790	40	2950	51	3030	65	63	3300	63	2860	68	2730
70							34	2350	47	2440	70	60	2710	60	2300	66	2480
75							27	1850	43	1940	75	57	2200	57	1800	64	2240
80							15	1410	38	1510	80	55	1760	55	1370	62	2030
85									33	1130	85	52	1390	52	990	60	1670
90									26	800	90	49	1060	49	660	57	1340
95											95	46	770			55	1040
100											100					53	780
	600 LBS.	350 LBS.	270 LBS.	220 LBS.	180 LBS.	DEDUCTIONS FOR STOWED FIXED JIB											
	900 LBS.	530 LBS.	400 LBS.	330 LBS.	290 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 AND REAR  
STABILIZERS ARE IN THE  
INTERMEDIATE POSITION**


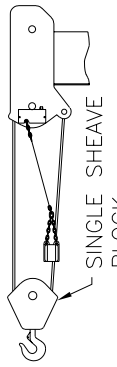
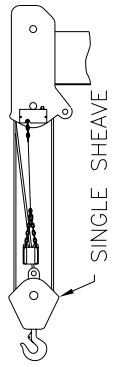
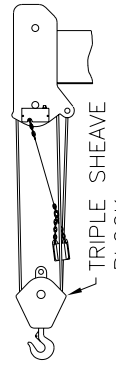

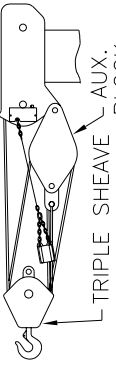


**- INTERMEDIATE SPREAD CONFIGURATION -  
(MID EXTEND)**

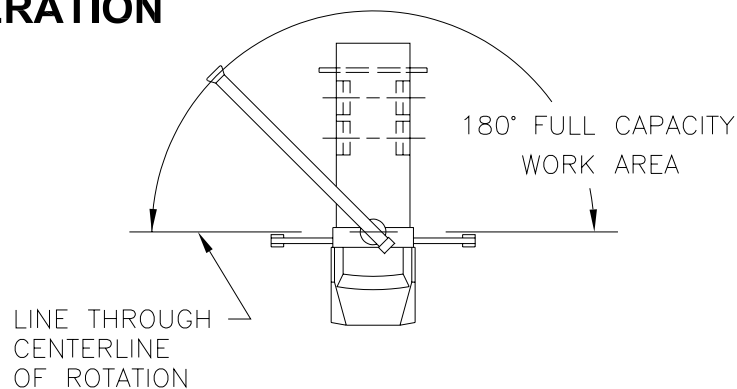
MAIN BOOM LOAD RATINGS IN LBS											JIB LOAD RATINGS IN LBS						
LMI CODE #9											FIXED JIB		TELESCOPIC JIB				
OPERATING RADIUS FT	LOADED BOOM ANGLE		BOOM LENGTH AND MARKER								LMI CODE #10	LMI CODE #11		LMI CODE #12			
	BOOM ANGLE	JIB LENGTH FOR ALL BOOM LENGTHS SEE WARNING NOTE 4	BOOM ANGLE	JIB LENGTH FOR ALL BOOM LENGTHS SEE WARNING NOTE 4	BOOM ANGLE	JIB LENGTH FOR ALL BOOM LENGTHS SEE WARNING NOTE 4	BOOM ANGLE	JIB LENGTH FOR ALL BOOM LENGTHS SEE WARNING NOTE 4	BOOM ANGLE	JIB LENGTH FOR ALL BOOM LENGTHS SEE WARNING NOTE 4	BOOM ANGLE	JIB LENGTH FOR ALL BOOM LENGTHS SEE WARNING NOTE 4	BOOM ANGLE	JIB LENGTH FOR ALL BOOM LENGTHS SEE WARNING NOTE 4			
	30.5FT	52 FT	68FT	84 FT	100 FT	30.5FT	30.5 FT	55 FT									
5.5	80	60000									10						
8	75	45200									12						
10	71	38700									15						
12	67	33800	78	27100							20						
15	61	21900	74	22640	79	22880					25						
20	48	11910	68	12530	74	12730	78	12860	80	12940	30	79	5830	79	5410		
25	32	7360	62	7940	70	8120	74	8230	78	8300	35	76	4110	76	3680	80	4000
30			55	5310	65	5480	71	5580	75	5650	40	74	2900	74	2470	78	3210
35			48	3610	60	3770	67	3870	72	3930	45	72	2000	72	1580	76	2300
40			39	2420	55	2580	63	2670	69	2730	50	70	1320	70	890	74	1600
45			28	1540	49	1690	59	1780	65	1840	55					72	1040
50					43	1010	55	1100	62	1160							
55																	
	600 LBS.	350 LBS.	270 LBS.	220 LBS.	180 LBS.	DEDUCTIONS FOR STOWED FIXED JIB											
	900 LBS.	530 LBS.	400 LBS.	330 LBS.	290 LBS.	DEDUCTIONS FOR STOWED TELESCOPIC JIB											

## 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
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

## 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.