

# Load Rating Chart

## *Model 50155GT*



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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.

## LMI OPERATING CODES

<u>CODE</u>	<u>CRANE CONFIGURATION</u>	<u>OUTRIGGER CONFIGURATION</u>	<u>AREA OF OPERATION</u>
#3	MAIN BOOM	FULLY EXTENDED	FULL 360°
#8	FIXED JIB 0° OFFSET	FULLY EXTENDED	FULL 360°
#10	FIXED JIB 15° OFFSET	FULLY EXTENDED	FULL 360°
#12	FIXED JIB 30° OFFSET	FULLY EXTENDED	FULL 360°
#25	PERSONNEL LIFTING MAIN BOOM	FULLY EXTENDED	FULL 360°
#26	PERSONNEL LIFTING FIXED JIB 0° OFFSET	FULLY EXTENDED	FULL 360°
#27	PERSONNEL LIFTING FIXED JIB 15° OFFSET	FULLY EXTENDED	FULL 360°
#28	PERSONNEL LIFTING FIXED JIB 30° OFFSET	FULLY EXTENDED	FULL 360°

### **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 THE LOAD 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.
  
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.

## **WARNING (CONTINUED)**

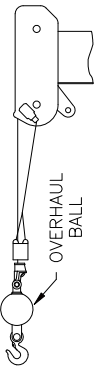
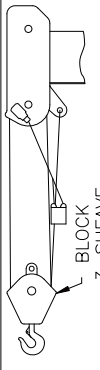
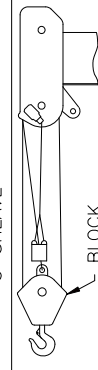
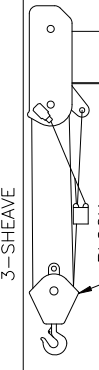

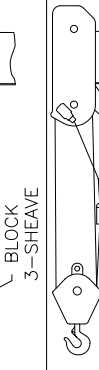
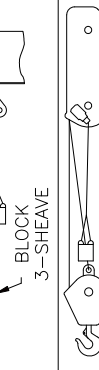


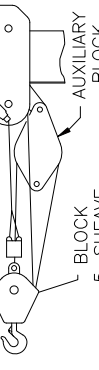
- THE MAXIMUM LOAD WHICH MAY BE TELESCOPED IS LIMITED BY HYDRAULIC PRESSURE, BOOM ANGLE, AND BOOM LUBRICATION. IT IS SAFE TO ATTEMPT TO TELESCOPE ANY LOAD WITHIN THE LIMITS OF THE LOAD RATING CHART.
9. LIFTING OFF THE MAIN BOOM POINT WHILE THE SWING AROUND JIB IS ERECTED IS NOT INTENDED OR APPROVED.

## **INFORMATION**

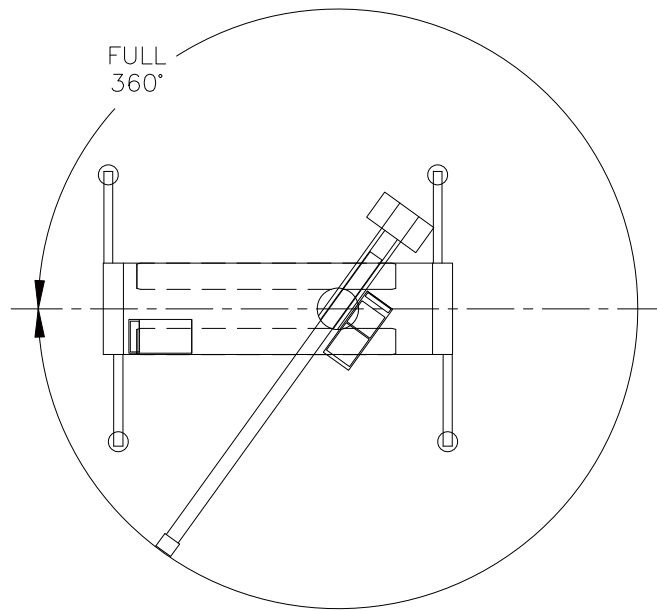
1. DEDUCTIONS MUST BE MADE FROM RATED LOADS FOR JIB, OPTIONAL ATTACHMENTS, HOOKS AND LOADBLOCKS (SEE DEDUCTION CHART). WEIGHTS OF SLINGS AND ALL OTHER LOAD HANDLING DEVICES SHALL BE CONSIDERED A PART OF THE LOAD.
2. LOAD RATINGS ABOVE THE HEAVY LINE ARE STRUCTURALLY LIMITED CAPACITIES. LOAD RATINGS BELOW 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 IS THE INCLUDED ANGLE BETWEEN THE HORIZONTAL AND LONGITUDINAL AXES OF THE BOOM BASE AFTER LIFTING RATED LOAD AT RATED RADIUS.

ALLOWABLE LINE PULL										<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	10 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>
10000 LBS	20000 LBS	30000 LBS	40000 LBS	50000 LBS	60000 LBS	70000 LBS	80000 LBS	90000 LBS	100000 LBS	
5/8" XLT4 LOW-TORQUE (3.5:1 SF) - 35000 LBS MIN BREAKING STRENGTH										

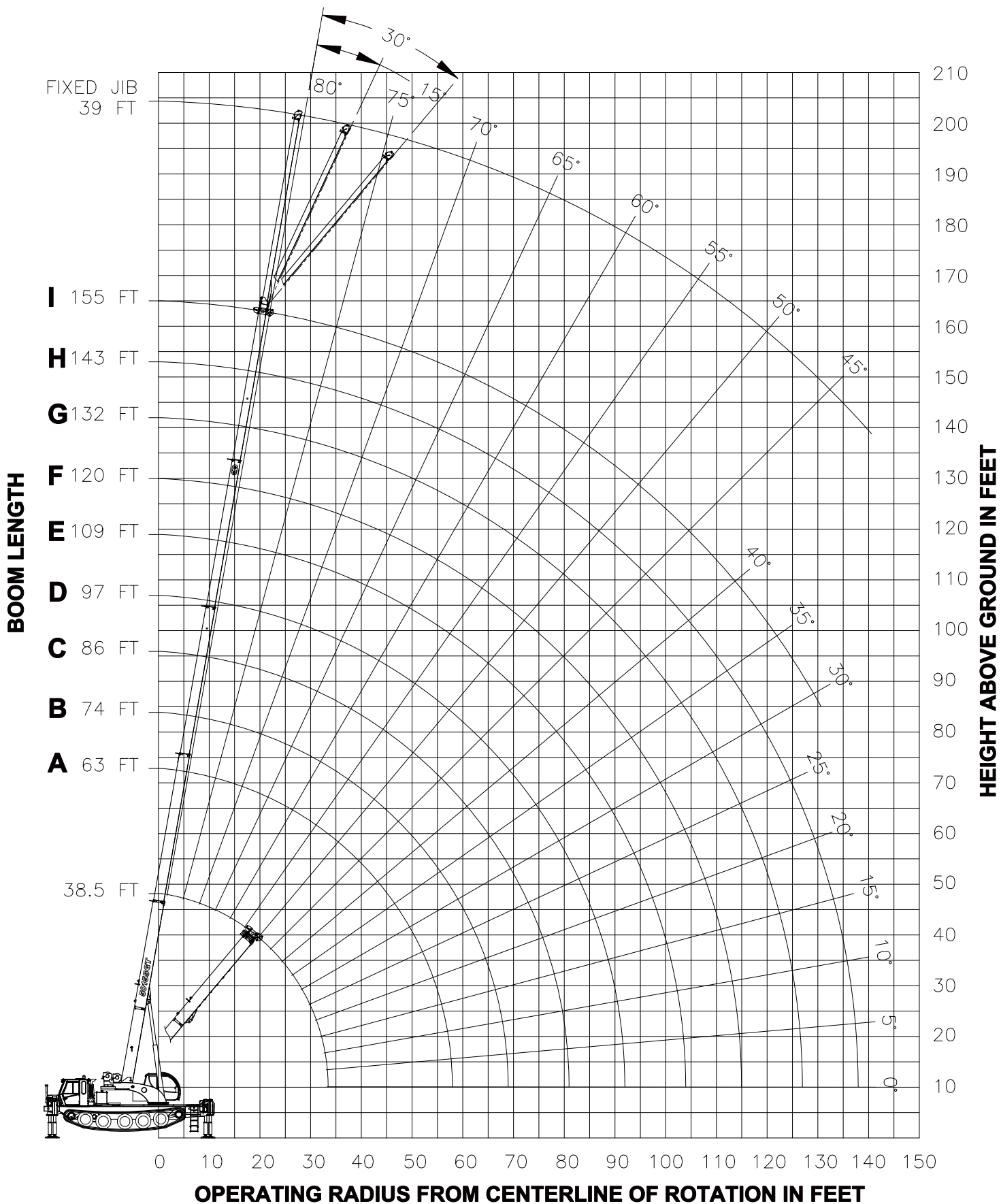
## AREA OF OPERATION



### DEDUCTIONS FROM RATED LOADS FOR LOAD HANDLING DEVICES SUPPLIED BY MANITEX

AUXILIARY BLOCK	-----	50 LBS
ROOSTER SHEAVE	-----	70 LBS
LIFTING FROM MAIN BOOM WITH JIB STOWED OR ERECTED	-----	SEE LOAD CHART
OVERHAUL BALL	-----	SEE MANUFACTURER NAMEPLATE
LOAD BLOCK	-----	SEE MANUFACTURER NAMEPLATE

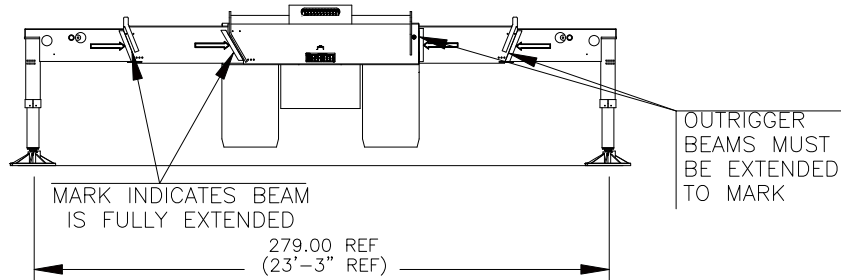
**- RANGE DIAGRAM -**



# **360° LOAD CHART**

## **OUTRIGGER BEAMS FULLY EXTENDED ONLY**

**TRACKS MUST NOT TOUCH GROUND**

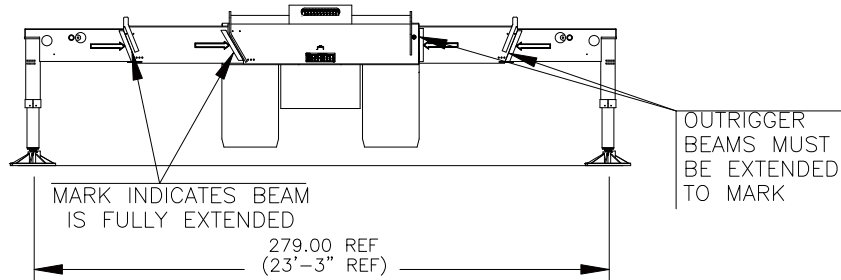


### **MAIN BOOM LIFTING CAPACITIES**

LMI OPERATING CODE 3											
LOAD RADIUS (FT)	BOOM LENGTH 38.5 FT		BOOM LENGTH 63 FT (A)		BOOM LENGTH 74 FT (B)		BOOM LENGTH 86 FT (C)		BOOM LENGTH 97 FT (D)		LOAD RADIUS (FT)
	LOADED BOOM ANGLE (DEG)	FULL 360° (LBS)	LOADED BOOM ANGLE (DEG)	FULL 360° (LBS)	LOADED BOOM ANGLE (DEG)	FULL 360° (LBS)	LOADED BOOM ANGLE (DEG)	FULL 360° (LBS)	LOADED BOOM ANGLE (DEG)	FULL 360° (LBS)	
6	74.5	100000									6
8	71	85500									8
10	68	74200	77.5	40000							10
12	64.5	65500	75.5	40000	78.5	37700					12
15	59.5	55400	73	40000	76	36340	78.5	31000			15
20	50	43200	68	38250	72	33380	75	28200	77.5	24120	20
25	39.5	33800	63	34200	68	30620	72	25970	74.5	22200	25
30	25	24510	57.5	26940	63.5	27220	68	23950	71.5	20480	30
35			51.5	20820	59	21080	64.5	21290	68.5	18670	35
40			45.5	16560	54	16820	60.5	17010	65	17150	40
45			38.5	13410	49	13680	56	13870	61.5	14000	45
50			30	10990	43	11270	52	11460	58	11590	50
55			18.5	9050	37	9350	47.5	9550	54	9680	55
60					29.5	7790	42.5	8000	50	8130	60
65					20	6480	37	6710	46	6840	65
70							30.5	5620	41.5	5760	70
75							23	4690	36.5	4840	75
80							10	2570	30.5	4030	80
85									23.5	3330	85
90									13	2190	90
	960 LBS		590 LBS		500 LBS		430 LBS		390 LBS		STOWED JIB
	2620 LBS		2270 LBS		2190 LBS		2130 LBS		2080 LBS		ERECTED JIB
DEDUCTIONS FOR MAIN BOOM CAPACITIES											

# 360° LOAD CHART OUTRIGGER BEAMS FULLY EXTENDED ONLY

**TRACKS MUST NOT TOUCH GROUND**

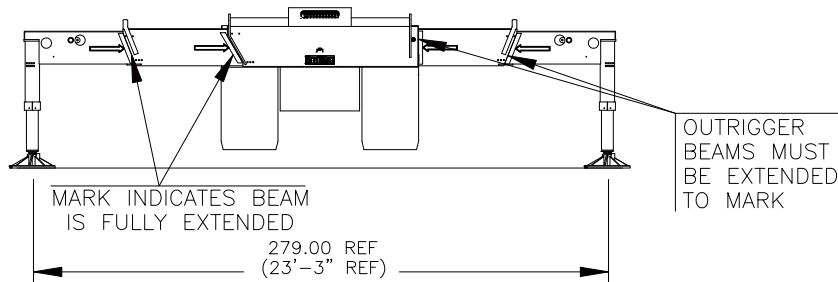


## MAIN BOOM LIFTING CAPACITIES

LMI OPERATING CODE 3											
LOAD RADIUS (FT)	BOOM LENGTH 109 FT (E)		BOOM LENGTH 120 FT (F)		BOOM LENGTH 132 FT (G)		BOOM LENGTH 143 FT (H)		BOOM LENGTH 155 FT (I)		LOAD RADIUS (FT)
	LOADED BOOM ANGLE (DEG)	FULL 360° (LBS)	LOADED BOOM ANGLE (DEG)	FULL 360° (LBS)	LOADED BOOM ANGLE (DEG)	FULL 360° (LBS)	LOADED BOOM ANGLE (DEG)	FULL 360° (LBS)	LOADED BOOM ANGLE (DEG)	FULL 360° (LBS)	
25	77.5	18000	79	16260							25
30	74.5	17000	76.5	15280	78.5	13500	80	11500			30
35	71.5	15920	74	14270	76.5	12900	78	11300	79	9000	35
40	68.5	14700	71.5	13310	74	12000	76	11000	77	9000	40
45	65.5	13570	69	12410	71.5	11300	74	10460	75.5	9000	45
50	62.5	11690	66.5	11600	69.5	10550	71.5	9460	73.5	8800	50
55	59.5	9780	63.5	9850	67	9610	69.5	8880	72	8320	55
60	56.5	8230	60.5	8300	64.5	8360	67.5	8330	70	7820	60
65	53	6950	57.5	7020	62	7080	65.5	7120	68	7160	65
70	49.5	5870	54	5940	59	6000	62.5	6040	65.5	6080	70
75	46	4940	51	5020	56	5080	60	5120	63.5	5160	75
80	42	4150	47.5	4220	53	4280	57	4330	61	4360	80
85	37.5	3450	44	3530	50	3590	54.5	3630	58.5	3670	85
90	32.5	2830	40	2910	47	2980	52	3020	56	3060	90
95	26.5	2280	36	2370	43.5	2430	49	2480	53.5	2520	95
100	18.5	1780	31.5	1880	40	1950	46	1990	51	2030	100
105			26.5	1440	36	1510	43	1560	48.5	1600	105
110			19	1030	32	1110	39.5	1160	45.5	1210	110
115					27	750	36	810	43	850	115
	340 LBS		310 LBS		280 LBS		260 LBS		240 LBS		STOWED JIB
	2050 LBS		2020 LBS		1990 LBS		1970 LBS		1950 LBS		ERECTED JIB
DEDUCTIONS FROM MAIN BOOM CAPACITIES											

**USE THIS CHART ONLY  
WHEN ALL OUTRIGGER  
BEAMS ARE FULLY  
EXTENDED**

**TRACKS MUST NOT TOUCH GROUND**



**39 FT FIXED JIB LIFTING CAPACITIES**

LOAD RADIUS (FT)	LMI CODE 8		LMI CODE 10		LMI CODE 12	
	LOADED BOOM ANGLE (DEG)	FULL 360° (LBS)	LOADED BOOM ANGLE (DEG)	FULL 360° (LBS)	LOADED BOOM ANGLE (DEG)	FULL 360° (LBS)
40	79.5	4000				
45	78	4000				
50	77	4000	79.5	4000		
55	75.5	4000	78	4000		
60	74	4000	76.5	4000	79.5	4000
65	72.5	4000	75	4000	77.5	4000
70	71	4000	73.5	4000	76	4000
75	69.5	4000	72	4000	74.5	3880
80	68	4000	71	3940	73	3730
85	66.5	3360	69.5	3780	71.5	3570
90	64.5	2750	67.5	3350	70	3430
95	63	2210	66	2760	68	3230
100	61	1740	64.5	2250	66	2670
105	59	1310	62	1780	64.5	2170
110	57	930	60	1370	62.5	1720
115			58	990	60.5	1310
120					58	940
125						