

Load Rating Chart

Model 50155S



© Manitex 2000

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

CODE	CRANE CONFIGURATION	OUTRIGGER CONFIGURATION	AREA OF OPERATION
#1	MAIN BOOM	FULLY EXTENDED	OVER REAR
#3	MAIN BOOM	FULLY EXTENDED	FULL 360°
#4	MAIN BOOM	MID POSITION	FULL 360°
#7	FIXED JIB 0° OFFSET	FULLY EXTENDED	OVER REAR
#8	FIXED JIB 0° OFFSET	FULLY EXTENDED	FULL 360°
#9	FIXED JIB 15° OFFSET	FULLY EXTENDED	OVER REAR
#10	FIXED JIB 15° OFFSET	FULLY EXTENDED	FULL 360°
#11	FIXED JIB 30° OFFSET	FULLY EXTENDED	OVER REAR
#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.

WARNING (CONTINUED)

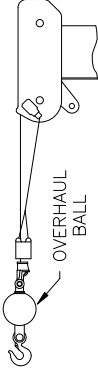
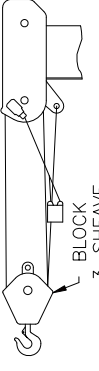
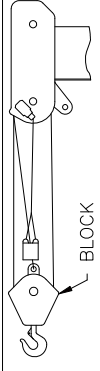
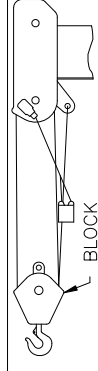
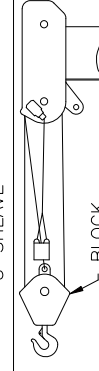
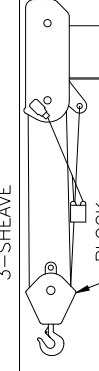
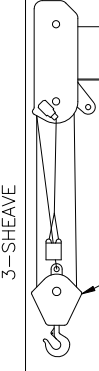
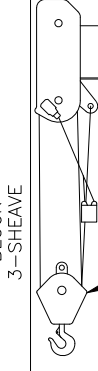


6. FOR BOOM LENGTHS NOT SHOWN, USE RATING OF NEXT SHORTER OR LONGER BOOM LENGTH, WHICHEVER IS LESS. FOR RADII NOT SHOWN, USE RATING OF NEXT LONGER RADIUS.
7. CRANE LOAD RATINGS ON OUTRIGGERS ARE BASED ON FREELY SUSPENDED LOADS WITH THE MACHINE LEVELED AND STANDING ON A FIRM UNIFORM SUPPORTING SURFACE. 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.
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

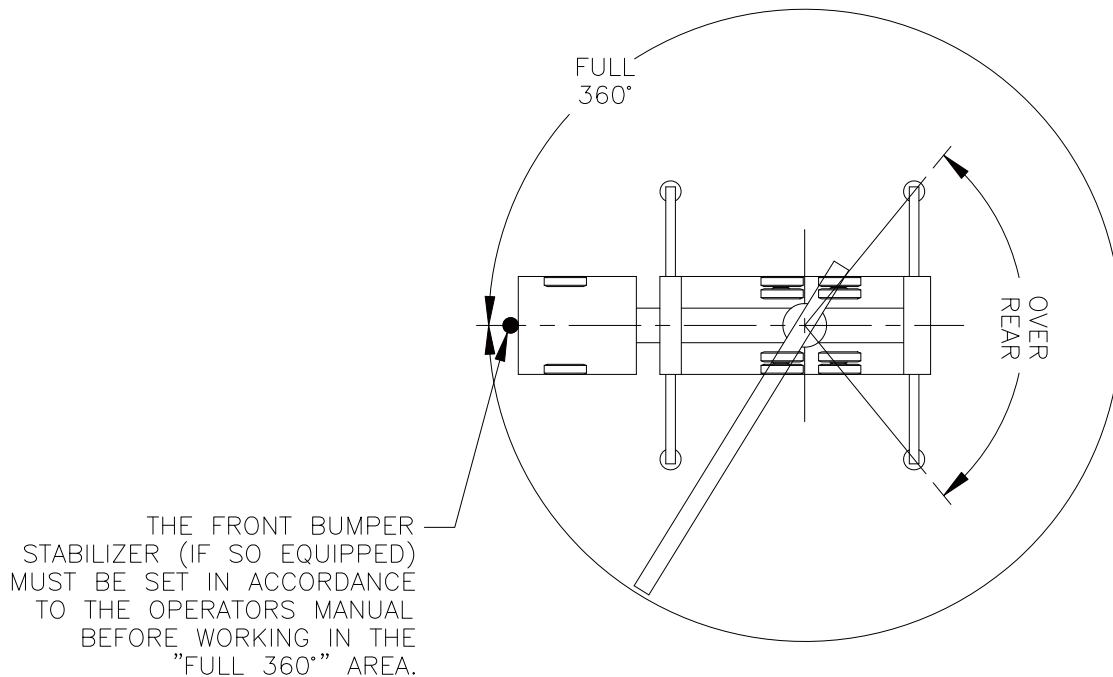
1. DEDUCTIONS MUST BE MADE FROM RATED LOADS FOR JIB, OPTIONAL ATTACHMENTS, HOOKS AND LOADBLOCKS (SEE DEDUCTION CHART). WEIGHTS OF SLINGS AND ALL OTHER LOAD HANDLING DEVICES SHALL BE CONSIDERED A PART OF THE LOAD.
2. LOAD RATINGS ABOVE THE HEAVY LINE ARE STRUCTURALLY LIMITED CAPACITIES. LOAD RATINGS BELOW 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										WARNING
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	
										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.
4,53 t	9,07 t	13,60 t	18,14 t	22,67 t	27,21 t	31,75 t	36,28 t	40,82 t	45,35 t	15,9 mm XLT4 LOW-TORQUE (3.5:1 SF) – 15 875 Kg MIN BREAKING STRENGTH

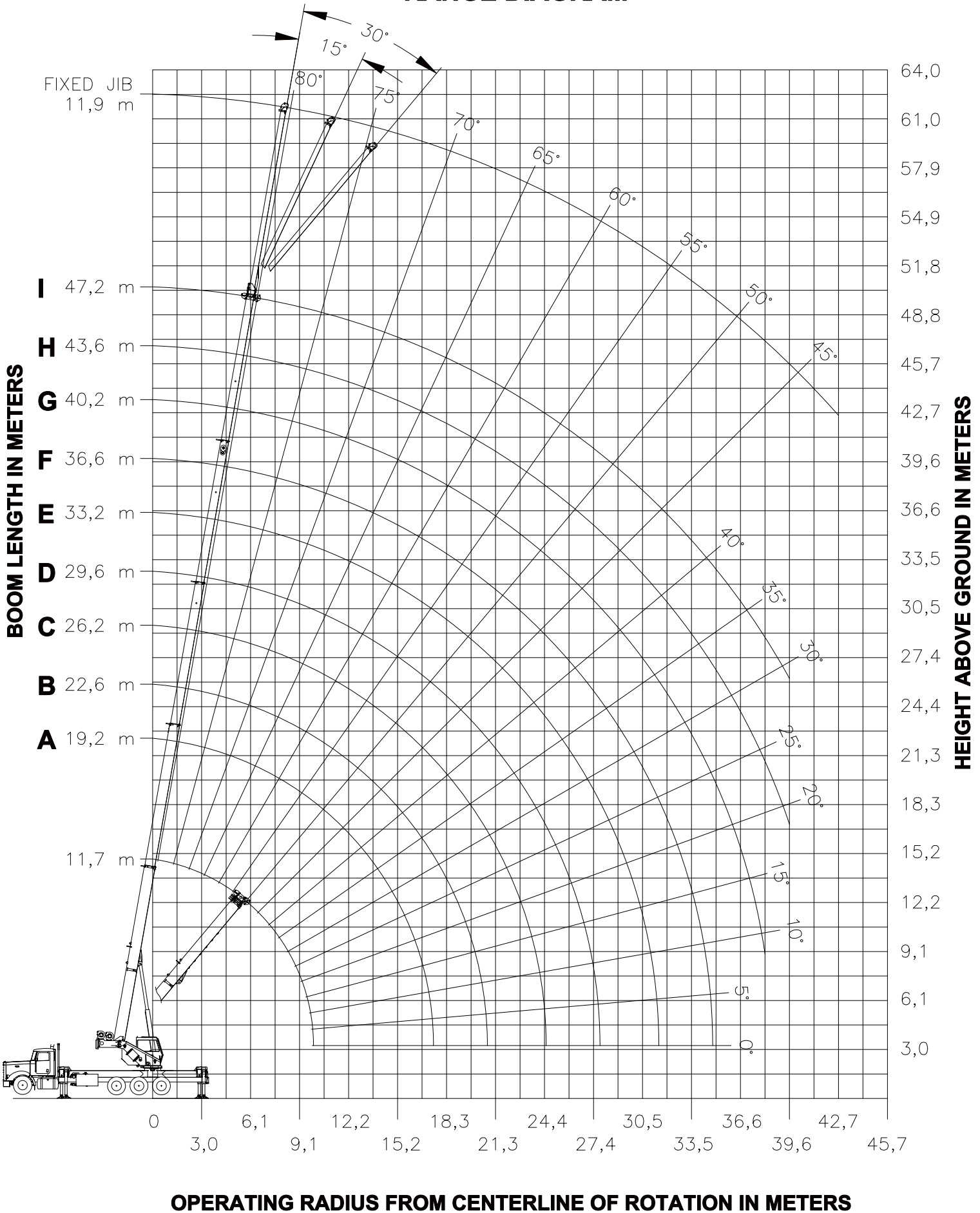
AREA OF OPERATION



DEDUCTIONS FROM RATED LOADS FOR LOAD HANDLING DEVICES SUPPLIED BY MANITEX

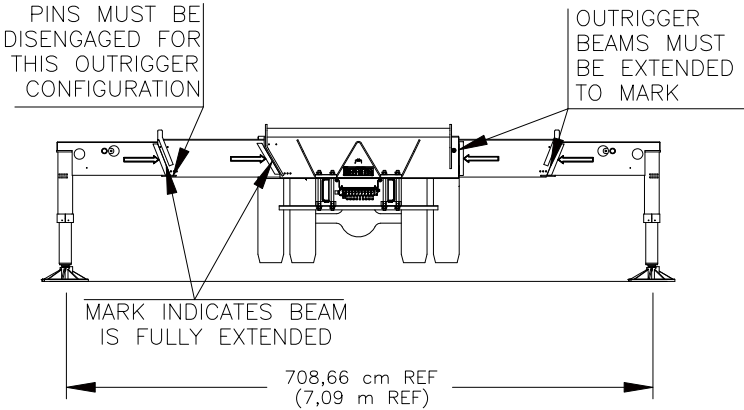
AUXILIARY BLOCK	-----	22 Kg
ROOSTER SHEAVE	-----	31 Kg
LIFTING FROM MAIN BOOM WITH JIB STOWED OR ERECTED	-----	SEE LOAD CHART
OVERHAUL BALL	-----	SEE MANUFACTURER NAMEPLATE
LOAD BLOCK	-----	SEE MANUFACTURER NAMEPLATE

- RANGE DIAGRAM -



OPERATING RADIUS FROM CENTERLINE OF ROTATION IN METERS

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

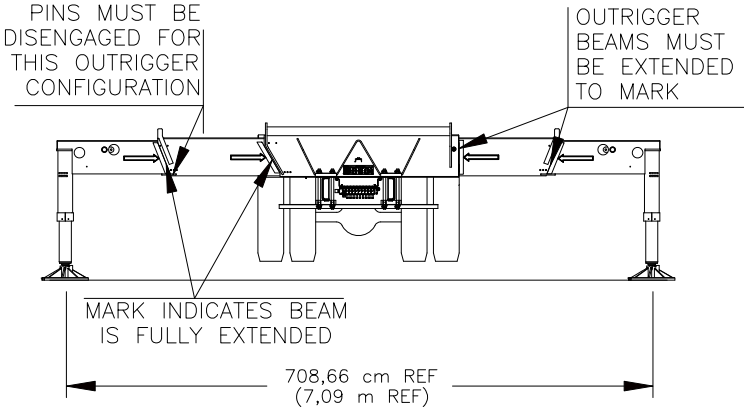


MAIN BOOM LIFTING CAPACITIES

LOAD RADIUS (m)	BOOM LENGTH 11,7 m			BOOM LENGTH 19,2 m (A)			BOOM LENGTH 22,6 m (B)			BOOM LENGTH 26,2 m (C)			BOOM LENGTH 29,6 m (D)			LOAD RADIUS (m)
	LOADED BOOM ANGLE (DEG)	CODE 1 OVER REAR (t)	CODE 3 FULL 360° (t)	LOADED BOOM ANGLE (DEG)	CODE 1 OVER REAR (t)	CODE 3 FULL 360° (t)	LOADED BOOM ANGLE (DEG)	CODE 1 OVER REAR (t)	CODE 3 FULL 360° (t)	LOADED BOOM ANGLE (DEG)	CODE 1 OVER REAR (t)	CODE 3 FULL 360° (t)	LOADED BOOM ANGLE (DEG)	CODE 1 OVER REAR (t)	CODE 3 FULL 360° (t)	
1,8	73,5	45,35	45,35													1,8
2,4	70,5	38,73	38,73													2,4
3,0	67	34,06	34,06	77	18,14	18,14										3,0
3,7	64	30,43	30,43	75	18,14	18,14	78	17,10	17,10							3,7
4,6	58,5	26,17	26,17	72,5	18,14	18,14	75,5	16,48	16,48	78,5	14,06	14,06				4,6
6,1	49	20,89	20,89	67,5	17,35	17,35	72	15,14	15,14	75	12,79	12,79	77,5	10,94	10,94	6,1
7,6	38	16,00	16,00	62,5	15,89	15,89	67,5	13,88	t3;13,88	71,5	11,77	11,77	74,5	10,06	t3;10,06	7,6
9,1	22,5	12,66	12,46	57	13,21	13,21	63	12,70	12,70	68	10,86	10,86	71	9,28	9,28	9,1
10,7				51,5	10,83	9,75	58,5	10,94	9,90	64	10,01	10,01	68	8,46	8,46	10,7
12,2				45	9,03	7,46	54	9,14	7,60	60,5	9,23	7,71	65	7,80	t4;7,78	12,2
13,7				38	7,62	5,85	48,5	7,73	5,99	56,5	7,82	t3;6,10	61,5	7,22	6,17	13,7
15,2				29,5	6,48	4,66	43	6,60	4,80	52	6,69	4,90	58	6,67	4,97	15,2
16,8				17	5,53	3,72	37	5,67	3,88	47,5	5,76	3,98	54	5,81	4,05	16,8
18,3							29	4,88	3,14	42,5	4,98	3,25	50	5,04	3,32	18,3
19,8							19	4,21	2,54	37	t1;4,32	2,65	46	4,38	2,72	19,8
21,3										30,5	3,75	2,15	41,5	3,81	2,23	21,3
22,9										22,5	3,25	1,73	36,5	3,32	1,80	22,9
24,4										7,5	1,97	1,35	30,5	2,88	1,45	24,4
25,9													23,5	2,50	1,13	25,9
27,4													12	1,87	0,85	27,4
29,0																29,0
STOWED JIB		0,43 t			0,26 t			t6;0,22 t			0,19 t			0,17 t		
ERECTED JIB		1,18 t			1,02 t			0,99 t			t6;0,96 t			t6;0,94 t		
DEDUCTIONS FOR JIB FROM MAIN BOOM CAPACITIES																

All load ratings in tonnes (t)

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

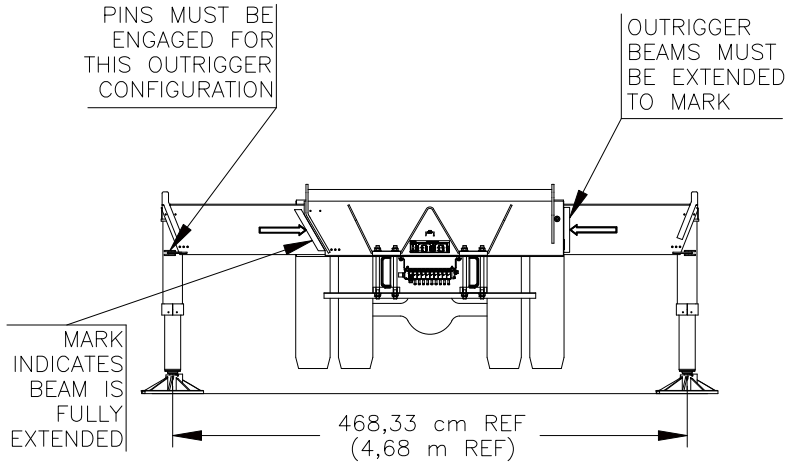


MAIN BOOM LIFTING CAPACITIES

LOAD RADIUS (m)	BOOM LENGTH 33,2 m (E)			BOOM LENGTH 36,6 m (F)			BOOM LENGTH 40,2 m (G)			BOOM LENGTH 43,6 m (H)			BOOM LENGTH 47,2 m (I)			LOAD RADIUS (m)
	LOADED BOOM ANGLE (DEG)	CODE 1 OVER REAR (t)	CODE 3 FULL 360° (t)	LOADED BOOM ANGLE (DEG)	CODE 1 OVER REAR (t)	CODE 3 FULL 360° (t)	LOADED BOOM ANGLE (DEG)	CODE 1 OVER REAR (t)	CODE 3 FULL 360° (t)	LOADED BOOM ANGLE (DEG)	CODE 1 OVER REAR (t)	CODE 3 FULL 360° (t)	LOADED BOOM ANGLE (DEG)	CODE 1 OVER REAR (t)	CODE 3 FULL 360° (t)	
7,6	77	8,16	8,16	79	7,37	7,37										7,6
9,1	74	7,71	7,71	76,5	6,93	6,93	78	6,12	6,12	79,5	5,21	5,21				9,1
10,7	71,5	7,22	7,22	74	6,47	6,47	76	5,85	5,85	77,5	5,12	5,12	79	4,08	4,08	10,7
12,2	68,5	6,66	6,66	71,5	6,03	6,03	74	5,44	5,44	75,5	4,98	4,98	77	4,08	4,08	12,2
13,7	65,5	6,15	6,15	69	5,62	5,62	71,5	5,12	5,12	73,5	4,74	4,74	75,5	4,08	4,08	13,7
15,2	62,5	5,68	5,03	66	5,26	5,07	69	4,78	4,78	71,5	4,29	4,29	73,5	3,99	3,99	15,2
16,8	59,5	5,25	4,10	63,5	4,91	4,15	67	4,35	4,18	69,5	4,02	4,02	71,5	3,77	3,77	16,8
18,3	56	4,84	3,37	60,5	4,51	3,41	64,5	4,08	3,44	67,5	3,77	3,47	69,5	3,54	3,49	18,3
19,8	53	4,43	2,78	57,5	4,18	2,81	62	3,82	2,84	65	3,53	2,87	67,5	3,32	2,89	19,8
21,3	49	3,86	2,28	54,5	3,87	2,32	59	3,57	2,35	62,5	3,31	2,37	65,5	3,12	2,39	21,3
22,9	45,5	3,37	1,86	51,5	3,41	1,90	56,5	3,35	1,93	60,5	3,09	1,95	63,5	2,90	1,97	22,9
24,4	41,5	2,94	1,51	48	2,98	1,54	53,5	3,00	1,57	58	2,88	1,60	61,5	2,71	1,61	24,4
25,9	37	2,56	1,19	44,5	2,59	1,23	50,5	2,62	1,27	55,5	2,64	1,29	59	2,52	1,31	25,9
27,4	32	2,21	0,92	41	2,25	0,96	47,5	2,28	0,99	52,5	2,30	1,02	57	2,32	1,04	27,4
29,0	25,5	1,90	0,68	36,5	1,95	0,73	44,5	1,98	0,76	50	2,00	0,78	54,5	2,02	0,80	29,0
30,5	17	1,62	0,46	32	1,67	0,51	41	1,71	0,54	47	1,73	0,57	52	1,74	0,59	30,5
32,0				26	1,42		37	1,46		44	1,48	0,38	49,5	1,50	0,40	32,0
33,5				19	1,19		33	1,23		40,5	1,25		47	1,27		33,5
35,1							28	1,02		37	1,04		44	1,07		35,1
36,6							22	0,83		33	0,85		41	0,87		36,6
38,1							12	0,39		28,5	0,68		37,5	0,70		38,1
39,6										23	0,51		34	0,53		39,6
41,1																41,1
STOWED JIB		0,15 t			0,14 t			0,12 t			0,11 t			0,10 t		
ERECTED JIB		0,92 t			0,91 t			0,90 t			0,89 t			0,88 t		
DEDUCTIONS FOR JIB FROM MAIN BOOM CAPACITIES																

All load ratings in tonnes (t)

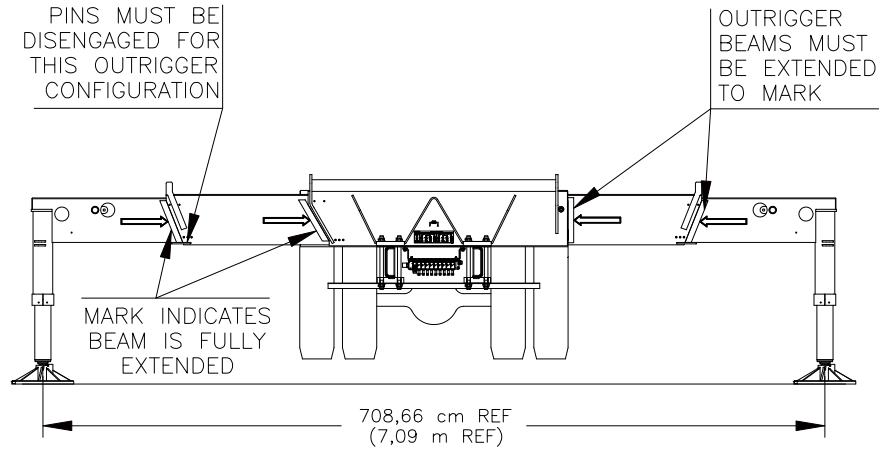
**USE THIS CHART ONLY
WHEN ALL OUTRIGGER
BEAMS ARE IN THE MID
POSITION**



MAIN BOOM LIFTING CAPACITIES

LMI OPERATING CODE 4																					
BOOM LENGTH																					
		11,7 m		19,2 m		22,6 m		26,2 m		29,6 m		33,2 m		36,6 m		40,2 m		43,6 m		47,2 m	
RAD (m)	BOOM ANGLE (DEG)	FULL 360° (t)	BOOM ANGLE (DEG)	FULL 360° (t)	BOOM ANGLE (DEG)	FULL 360° (t)	BOOM ANGLE (DEG)	FULL 360° (t)	BOOM ANGLE (DEG)	FULL 360° (t)	BOOM ANGLE (DEG)	FULL 360° (t)	BOOM ANGLE (DEG)	FULL 360° (t)	BOOM ANGLE (DEG)	FULL 360° (t)	BOOM ANGLE (DEG)	FULL 360° (t)	BOOM ANGLE (DEG)	FULL 360° (t)	RAD (m)
1,8	73,5	45,35																			1,8
2,4	70,5	38,73																			2,4
3,0	67	34,06	77	18,14																	3,0
3,7	64	30,43	75	18,14	78	17,10															3,7
4,6	58,5	23,76	72,5	18,14	75,5	16,48	78,5	14,06													4,6
6,1	49	12,61	67,5	13,35	72	13,52	75	12,79	77,5	10,94											6,1
7,6	38	7,88	62,5	8,54	67,5	8,68	71,5	8,79	74,5	8,87	77	8,16	79	7,37							7,6
9,1	22,5	5,23	57	5,88	63	6,01	68	6,11	71	6,19	74	6,25	76,5	6,29	78	6,12	79,5	5,21			9,1
10,7			51,5	4,20	58,5	4,32	64	4,41	68	4,48	71,5	4,54	74	4,58	76	4,61	77,5	4,64	79	4,08	10,7
12,2			45	3,03	54	3,15	60,5	3,24	65	3,30	68,5	3,35	71,5	3,39	74	3,42	75,5	3,45	77	3,47	12,2
13,7			38	2,16	48,5	2,29	56,5	2,38	61,5	2,44	65,5	2,49	69	2,52	71,5	2,55	73,5	2,58	75,5	2,60	13,7
15,2			29,5	1,50	43	1,63	52	1,72	58	1,78	62,5	1,83	66	1,86	69	1,89	71,5	1,91	73,5	1,93	15,2
16,8			17	0,96	37	1,10	47,5	1,20	54	1,26	59,5	1,31	63,5	1,34	67	1,36	69,5	1,39	71,5	1,41	16,8
18,3					29	0,68	42,5	0,77	50	0,83	56	0,88	60,5	0,92	64,5	0,94	67,5	0,97	69,5	0,98	18,3
19,8									46	0,48	53	0,53	57,5	0,56	62	0,59	65	0,61	67,5	0,63	19,8
21,3																					21,3
STOWED	0,43		0,26		0,22		0,19		0,17		0,15		0,14		0,12		0,11		0,10		
ERECTED	1,18		1,02		0,99		0,96		0,94		0,92		0,91		0,90		0,89		0,88		
DEDUCTIONS FOR JIB FROM MAIN BOOM CAPACITIES (t)																					

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



11,9 m FIXED JIB LIFTING CAPACITIES

LOAD RADIUS (m)	LOADED BOOM ANGLE (DEG)	0° OFFSET		15° OFFSET			30° OFFSET		
		CODE 7	CODE 8	LOADED BOOM ANGLE (DEG)	CODE 9	CODE 10	LOADED BOOM ANGLE (DEG)	CODE 11	CODE 12
		OVER REAR (t)	FULL 360° (t)		OVER REAR (t)	FULL 360° (t)		OVER REAR (t)	FULL 360° (t)
12,2	80	1,81	1,81						
13,7	78	1,81	1,81						
15,2	77,5	1,81	1,81	80	1,81	1,81			
16,8	75,5	1,81	1,81	78	1,81	1,81			
18,3	74	1,81	1,81	76,5	1,81	1,81	80	1,81	1,81
19,8	72,5	1,81	1,81	75	1,81	1,81	78	1,81	1,81
21,3	71	1,81	1,81	73,5	1,81	1,81	76	1,81	1,81
22,9	69,5	1,81	1,81	72	1,81	1,81	74,5	1,75	1,75
24,4	68	1,81	1,81	71	1,78	1,78	73	1,69	1,69
25,9	66,5	1,75	1,52	69,5	1,71	1,71	71,5	1,61	1,61
27,4	65	1,68	1,24	67,5	1,64	1,51	70	1,55	1,55
29,0	63,5	1,55	1,00	66	1,57	1,25	68	1,49	1,46
30,5	61,5	1,42	0,78	64,5	1,51	1,02	66,5	1,43	1,21
32,0	60	1,30	0,59	62,5	1,44	0,80	65	1,37	0,98
33,5	58	1,18	0,42	61	1,30	0,62	63	1,32	0,78
35,1	56	1,07		59	1,18	0,44	61	1,27	0,59
36,6	54,5	0,96		57	1,06		59	1,16	0,42
38,1	52,5	0,83		55	0,95		57	1,03	
39,6	50,5	0,67		53	0,83		55	0,92	
41,1	48,5	0,52		51	0,67		53	0,77	
42,7	46	0,39		48,5	0,52		50,5	0,61	
44,2				46,5	0,38		48	0,46	
45,7									

All load ratings in tonnes (t)