

# Load Rating Chart

***Model 40100S***

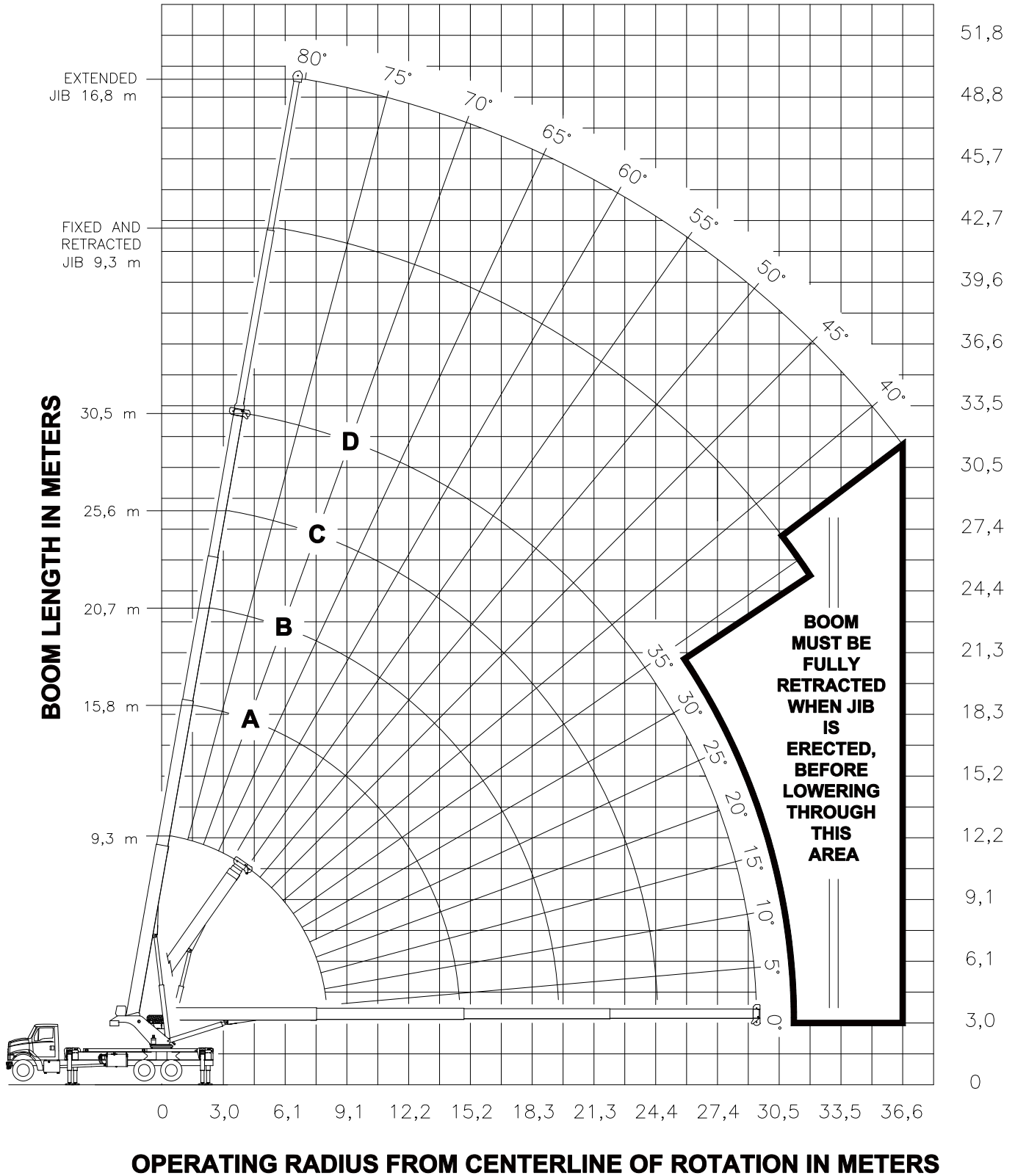


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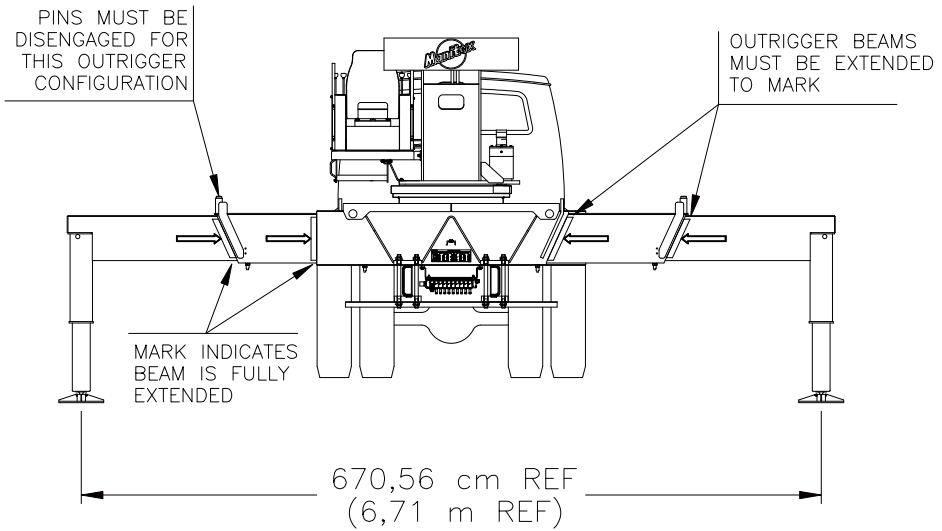
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**NOTE:** Additional copies of this Load Rating Chart can be purchased from your Manitex Distributor. When ordering, use the part number shown in the bottom left corner of this page.

# RANGE DIAGRAM - FULLY EXTENDED OUTRIGGER CONFIGURATION -



**USE THIS CHART ONLY  
WHEN ALL  
OUTRIGGERS ARE  
FULLY EXTENDED**

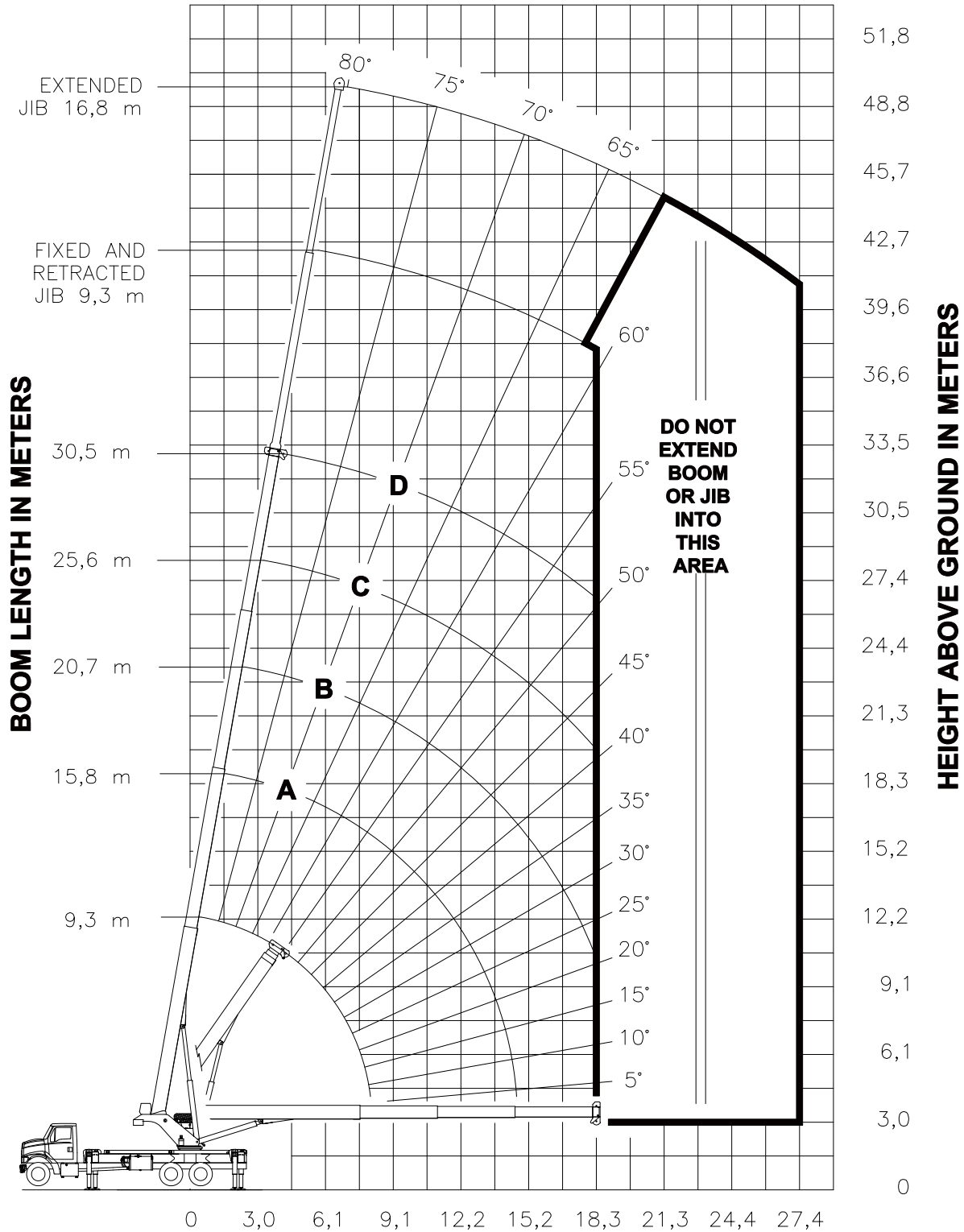


**- FULLY EXTENDED OUTRIGGER CONFIGURATION -**

LOAD RATINGS IN t WITH ALL OUTRIGGERS FULLY EXTENDED LMI CODE #1											JIB LOAD RATINGS IN t WITH ALL OUTRIGGERS FULLY EXTENDED							
OPERATING RADIUS	LOADED BOOM ANGLE		BOOM LENGTH AND MARKER								FIXED JIB		TELESCOPIC JIB					
					A		B		C		D		LMI CODE #2		LMI CODE #3		LMI CODE #4	
	°	9,3 m	°	15,8 m	°	20,7 m	°	25,6 m	°	30,5 m	°	JIB LENGTH FOR ALL BOOM LENGTHS SEE WARNING NOTE 4	°	JIB LENGTH FOR ALL BOOM LENGTHS SEE WARNING NOTE 4	°	JIB LENGTH FOR ALL BOOM LENGTHS SEE WARNING NOTE 4	°	JIB LENGTH FOR ALL BOOM LENGTHS SEE WARNING NOTE 4
1,5	74	36,28																
2,4	68	27,66																
3,0	64	23,97	76	14,28														
3,7	60	21,31	73	14,28	78	14,28												
4,6	53	18,27	70	14,28	76	14,28	79	10,75										
6,1	40	13,90	64	13,00	71	12,16	76	9,34	79	6,35	6,1							
7,6	20	10,15	58	10,53	67	10,05	72	8,30	76	6,12	7,6							
9,1			51	7,81	62	7,91	69	7,19	73	5,81	9,1	77	3,31	77	3,17			
10,7			43	6,06	57	6,16	65	6,22	70	5,16	10,7	75	3,22	75	3,08	78	1,81	
12,2			34	4,83	52	4,94	61	5,00	67	4,60	12,2	73	3,00	73	2,83	76	1,74	
13,7			22	3,82	46	3,95	57	4,01	64	4,05	13,7	71	2,74	71	2,57	74	1,67	
15,2					39	3,20	52	3,26	60	3,30	15,2	69	2,51	69	2,33	73	1,61	
16,8					32	2,62	48	2,68	57	2,72	16,8	66	2,31	66	2,12	71	1,50	
18,3					22	2,15	43	2,22	53	2,26	18,3	64	2,12	64	1,90	69	1,40	
19,8							37	1,85	49	1,88	19,8	61	1,90	61	1,69	67	1,31	
21,3							31	1,53	45	1,57	21,3	59	1,72	59	1,51	65	1,22	
22,9							22	1,27	40	1,31	22,9	56	1,45	56	1,27	63	1,15	
24,4							7	1,03	35	1,08	24,4	53	1,22	53	1,03	61	1,08	
25,9									30	0,88	25,9	50	1,02	50	0,83	59	1,02	
27,4									22	0,71	27,4	47	0,84	47	0,66	56	0,94	
29,0									11	0,55	29,0	43	0,69	43	0,50	54	0,82	
30,5											30,5	40	0,55	40	0,37	52	0,68	
32,0											32,0	36	0,43	36	0,24	49	0,56	
33,5											33,5					46	0,44	
35,1											35,1					43	0,34	
36,6											36,6					40	0,25	
		0,26 t	0,15 t	0,12 t	0,09 t	0,08 t	FIXED		DEDUCTIONS FOR STOWED JIBS									
		0,40 t	0,24 t	0,18 t	0,14 t	0,12 t	TELESCOPIC											

All load ratings in tonnes (t)

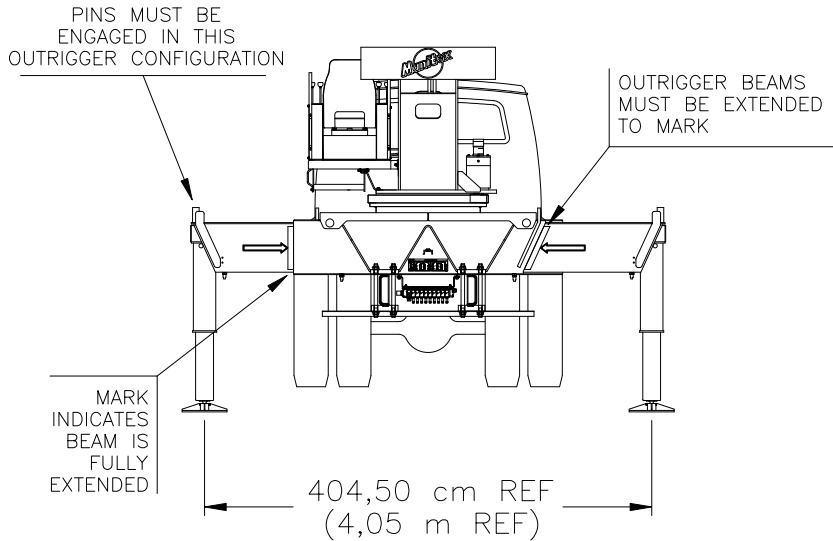
# RANGE DIAGRAM - INTERMEDIATE OUTRIGGER CONFIGURATION -



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

**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 ALL OUTRIGGERS ARE IN THE INTERMEDIATE POSITION**

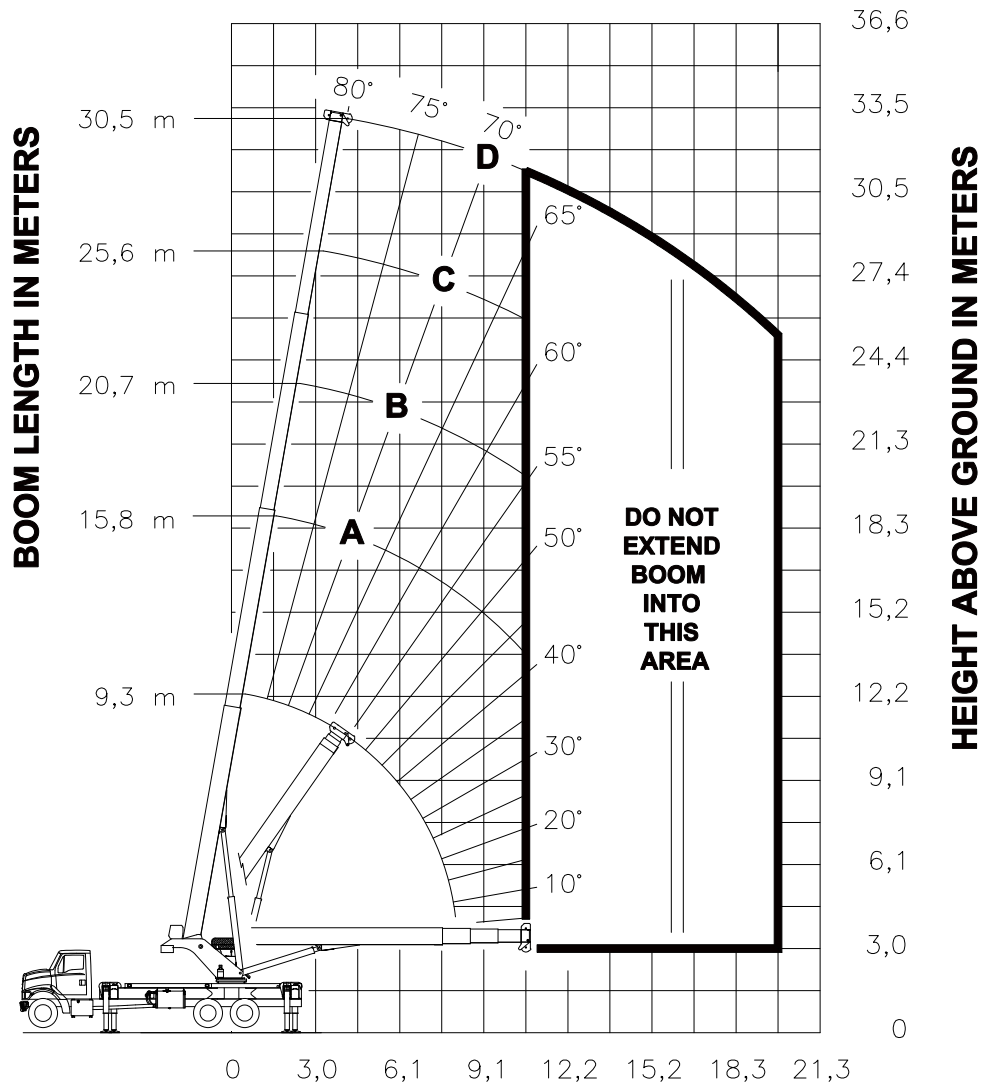


**- INTERMEDIATE OUTRIGGER CONFIGURATION -**

LOAD RATINGS IN t WITH ALL OUTRIGGERS IN THE INTERMEDIATE POSITION LMI CODE #9										JIB LOAD RATINGS IN t WITH ALL OUTRIGGERS IN THE INTERMEDIATE POSITION							
CAPACIDADE CARGA	CARGA BOOM ANGLE		CARGA BOOM LENGTH AND MARKER		CARGA					OPERATING BOOMING	FIXED JIB		TELESCOPIC JIB				
					A	B	C	D	LMI CODE #10		LMI CODE #11	LMI CODE #12					
	BOOM ANGLE	BOOM LENGTH	BOOM ANGLE	BOOM LENGTH	BOOM ANGLE	BOOM LENGTH	BOOM ANGLE	BOOM LENGTH	BOOM ANGLE		BOOM LENGTH	BOOM ANGLE	BOOM LENGTH	BOOM ANGLE	BOOM LENGTH		
1,5	74	36,28	76	15,8 m	78	20,7 m	79	25,6 m	80	30,5 m	9,3 m	9,3 m	16,8 m				
2,4	68	27,66															
3,0	64	23,97	76	14,28													
3,7	60	19,83	73	14,28	78	14,28											
4,6	53	11,92	70	12,39	76	12,54	79	10,75									
6,1	40	6,63	64	7,01	71	7,13	76	7,20	79	6,35							
7,6	20	4,19	58	4,56	67	4,66	72	4,73	76	4,77							
9,1			51	3,15	62	3,25	69	3,31	73	3,35	9,1	77	3,31	77	3,17		
10,7			43	2,24	57	2,34	65	2,39	70	2,43	10,7	75	2,59	75	2,39	78	1,81
12,2			34	1,60	52	1,70	61	1,75	67	1,79	12,2	73	1,92	73	1,73	76	1,74
13,7			22	1,12	46	1,22	57	1,27	64	1,31	13,7	71	1,44	71	1,25	74	1,60
15,2					39	0,85	52	0,91	60	0,94	15,2	69	1,07	69	0,87	73	1,22
16,8					32	0,56	48	0,62	57	0,65	16,8	66	0,77	66	0,57	71	0,91
18,3					22	0,32	43	0,38	53	0,41	18,3	64	0,53	64	0,33	69	0,66
19,8											19,8					67	0,46
21,3											21,3					65	0,29
		0,26 t	0,15 t	0,12 t	0,09 t	0,08 t			FIXED		DEDUCTIONS FOR STOWED JIBS						
		0,40 t	0,24 t	0,18 t	0,14 t	0,12 t			TELESCOPIC								

All load ratings in tonnes (t)

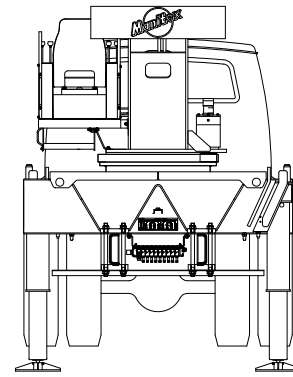
## RANGE DIAGRAM - FULLY RETRACTED OUTRIGGER CONFIGURATION -



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

**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 ALL OUTRIGGERS  
ARE FULLY RETRACTED**



217,81 cm REF  
(2,18 m REF)

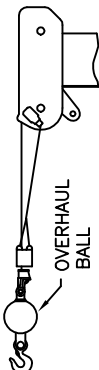
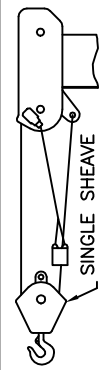


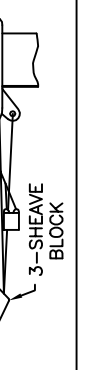

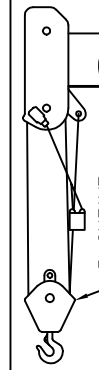

**- FULLY RETRACTED OUTRIGGER CONFIGURATION -**

LOAD RATINGS IN t WITH ALL OUTRIGGERS FULLY RETRACTED LMI CODE #13										
OUTRIGGER RADII m	LOADED BOOM ANGLE		BOOM LENGTH AND MARKER							
					A		B		D	
	°	m	°	m	°	m	°	m	°	m
1,5	74	36,28								
2,4	68	14,12								
3,0	64	9,05	76	9,47						
3,7	60	6,38	73	6,75	78	6,88				
4,6	53	4,13	70	4,46	76	4,57	79	4,64		
6,1	40	2,19	64	2,50	71	2,59	76	2,65	79	2,69
7,6	20	1,13	58	1,45	67	1,54	72	1,59	76	1,62
9,1			51	0,80	62	0,88	69	0,93	73	0,97
10,7			43	0,35	57	0,43	65	0,48	70	0,51
	0,26 t		0,15 t		0,12 t		0,09 t		0,08 t	
	0,40 t		0,24 t		0,18 t		0,14 t		0,12 t	

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

FIXED	DEDUCTIONS FOR STOWED JIBS
TELESCOPIC	

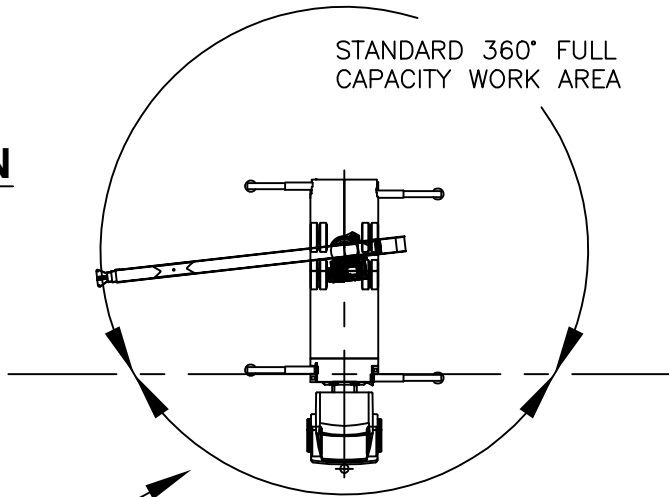
All load ratings  
in tonnes (t)

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	
								<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>
4,11 t	8,23 t	12,35 t	16,47 t	20,59 t	24,71 t	28,83 t	32,94 t	
4,53 t	9,07 t	13,60 t	18,14 t	22,67 t	27,21 t	31,75 t	36,28 t	15,9 mm 6 X 25 IWRC (3.5:1 SF) – 15 875 Kg MIN BREAKING STRENGTH

## AREA OF OPERATION

### WARNING:

THE MACHINE MUST BE LEVEL AND THE FRONT TIRES IN CONTACT WITH THE GROUND OR THE OPTIONAL FRONT BUMPER STABILIZER MUST BE SET WHEN OPERATING IN THIS AREA.



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

AUXILIARY BLOCK ----- 22 Kg  
 OVERHAUL BALL ----- SEE OVERHAUL BALL MANUFACTURER NAMEPLATE  
 LOAD BLOCK ----- SEE BLOCK MANUFACTURER NAMEPLATE  
 HOSE REEL ----- 117 Kg  
 SWING AROUND JIB (STOWED) ----- 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 LOAD BLOCKS (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.