



Load Rating Chart

Model 102SX

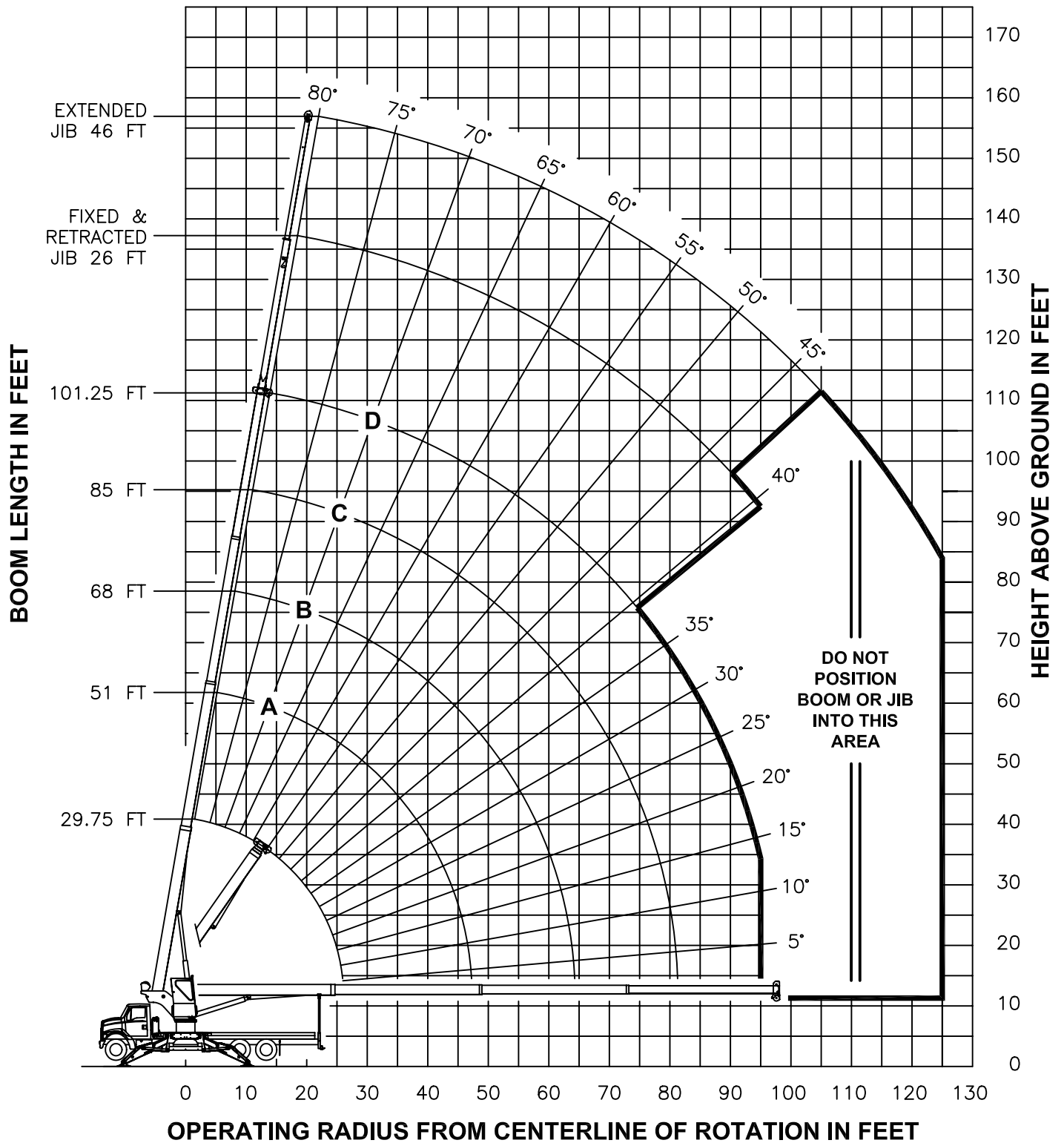


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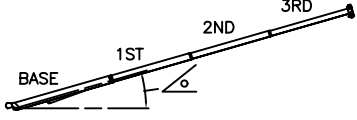
NOTE: Additional copies of this Load Rating Chart can be purchased from your Manitex Distributor. When ordering, use the part number shown in the bottom left corner of this page.



- RANGE DIAGRAM -



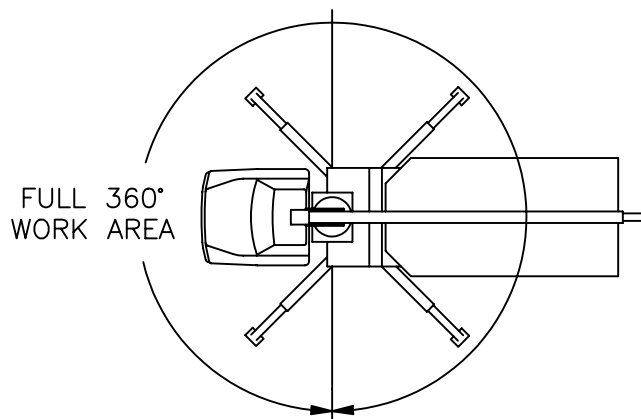
**- 102SX LOAD CHART ON OUTRIGGERS -**

MAIN BOOM LOAD RATINGS IN LBS WITH OUTRIGGERS EXTENDED AND THE CRANE LEVEL										JIB LOAD RATINGS IN LBS WITH OUTRIGGERS EXTENDED AND THE CRANE LEVEL						
LMI CODE #1										OPERATING RADIUS FT	FIXED JIB		TELESCOPIC JIB			
LOADED BOOM ANGLE BOOM LENGTH AND MARKER 											LMI CODE #2		LMI CODE #3		LMI CODE #4	
											BOOM LOADING ANG	JIB LENGTH FOR ALL BOOM LENGTHS SEE WARNING NOTE 4	BOOM LOADING ANG	JIB LENGTH FOR ALL BOOM LENGTHS SEE WARNING NOTE 4	BOOM LOADING ANG	JIB LENGTH FOR ALL BOOM LENGTHS SEE WARNING NOTE 4
OPERATING RADIUS FT	29.8 FT	51 FT	68 FT	85 FT	101.3 FT		26 FT	26 FT	46 FT							
5	74 60000									10						
8	68 46690									12						
10	64 40260	76 22500								15						
12	59 35620	73 22500	79 22500							20						
15	52 30220	70 22500	76 21050	80 14840						25	79 5300	79 5100				
20	39 22370	64 22500	72 17920	76 13050	79 10080					30	77 5200	77 4920	80 3050			
25	17 16930	57 17550	67 15760	73 11500	76 9110					35	75 4760	75 4470	78 3050			
30		50 13960	63 13860	69 10070	73 8200					40	73 4350	73 4060	76 3050			
35		42 11070	58 11290	66 8880	70 6900					45	71 3970	71 3680	74 2980			
40		32 8630	52 8850	62 8150	67 5900					50	68 3630	68 3260	72 2810			
45		19 6870	46 7110	58 7230	64 5090					55	66 3170	66 2790	70 2650			
50			40 5800	53 5920	61 4430					60	63 2760	63 2380	68 2470			
55			32 4780	49 4910	57 3890					65	61 2410	61 2030	66 2210			
60			22 3960	44 4090	54 3410					70	58 2110	58 1730	64 1930			
65				38 3420	50 3000					75	55 1830	55 1450	61 1670			
70				32 2860	46 2650					80	52 1590	52 1210	59 1440			
75				24 2390	42 2350					85	49 1380	49 1000	57 1240			
80				12 1970	37 2060					90	46 1190	46 810	54 1060			
85					32 1710					95	42 1010	42 630	52 890			
90					25 1400					100	38 850		49 740			
95					16 1120					105	34 710		46 600			
100																
105																
	480 LBS	280 LBS	210 LBS	170 LBS	140 LBS	DEDUCTIONS FOR STOWED FIXED JIB										
	710 LBS	420 LBS	320 LBS	250 LBS	210 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	7 PART LINE	
8500 LBS	17000 LBS	25500 LBS	34000 LBS	42500 LBS	51000 LBS	60000 LBS	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.
7400 LBS	14800 LBS	22200 LBS	29600 LBS	37000 LBS	44400 LBS	51800 LBS	9/16" 6X25 IWRC (3.5:1 SF) – 29750 LBS MIN BREAKING STRENGTH 9/16" ROT RESISTANT (5.0:1 SF) – 37000 LBS MIN BREAKING STRENGTH

AREA OF OPERATION



DEDUCTIONS FROM RATED LOADS FOR LOAD HANDLING DEVICES SUPPLIED BY MANITEX

AUXILIARY BLOCK	-----	50 LBS
AUXILIARY SHEAVE	-----	50 LBS
OVERHAUL BALL	-----	SEE OVERHAUL BALL MANUFACTURER NAMEPLATE
LOAD BLOCK	-----	SEE BLOCK MANUFACTURER NAMEPLATE
SWING AROUND JIB (STOWED)	-----	SEE LOAD CHART



LMI OPERATING CODES

<u>SETTING</u>	<u>CRANE CONFIGURATION</u>
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#1—	— MAIN BOOM
#2—	— FIXED JIB
#3—	— TELESCOPIC JIB—RETRACTED
#4—	— TELESCOPIC JIB—EXTENDED

#5—	— PERSONNEL LIFTING PLATFORM ON MAIN BOOM
#6—	— PERSONNEL LIFTING PLATFORM ON FIXED JIB
#7—	— PERSONNEL LIFTING PLATFORM ON TELESCOPIC JIB—RETRACTED
#8—	— PERSONNEL LIFTING PLATFORM ON TELESCOPIC JIB—EXTENDED

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 TELESKOPED 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 , IS THE INCLUDED ANGLE BETWEEN THE HORIZONTAL AND LONGITUDINAL AXES OF THE BOOM BASE AFTER LIFTING RATED LOAD AT RATED RADIUS.