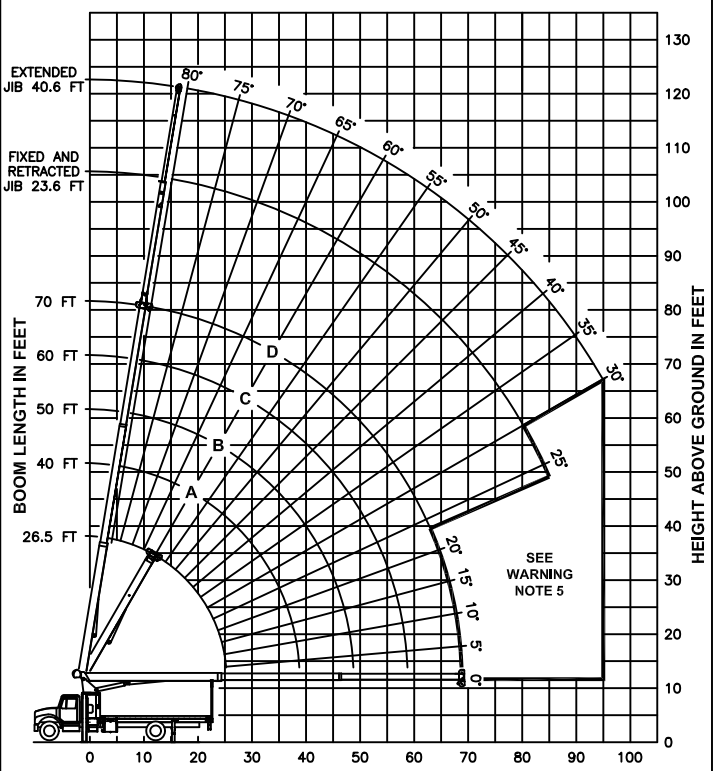
RANGE DIAGRAM



OPERATING RADIUS FROM CENTERLINE OF ROTATION IN FEET

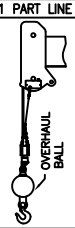
LMI OPERATING CODES

SETTING	CRANE CONFIGURATION
#1	MAIN BOOM
#2	FIXED JIB
#3	TELE JIB – RETRACTED
#4	TELE JIB – EXTENDED

SETTING	CRANE WITH PERSONNEL LIFTING PLATFORM
#5	PERSONNEL LIFTING PLATFORM ON MAIN BOOM
#6	PERSONNEL LIFTING PLATFORM ON FIXED JIB
#7	PERSONNEL LIFTING PLATFORM ON TELE JIB – RETRACTED

WARNING: LIFTING PERSONNEL FROM EXTENDED JIB IS NOT APPROVED

ALLOWABLE LINE PULL

1 PART LINE	2 PART LINE	3 PART LINE	4 PART LINE
			
8500 LBS	17000 LBS	25500 LBS	34000 LBS
7400 LBS	14800 LBS	22200 LBS	29600 LBS

WARNING

ANTI–TWO–BLOCK SYSTEM MUST BE IN GOOD OPERATING CONDITION BEFORE OPERATING CRANE. REFER TO OWNER'S MANUAL.

KEEP AT LEAST 3 WRAPS OF LOAD LINE ON DRUM AT ALL TIMES.

9/16" – 6X25 IWRC (3.5:1 S.F.)	29750 LBS. BREAKING STRENGTH
9/16" ROT RESISTANT (5.0:1 S.F.)	37000 LBS. BREAKING STRENGTH

DEDUCTIONS FROM RATED LOADS FOR LOAD HANDLING DEVICES SUPPLIED BY MANITEX

OVERHAUL BALL	SEE OVERHAUL BALL MFGR. NAMEPLATE
LOAD BLOCKS	SEE BLOCK MFGR. NAMEPLATE
HOSE REEL	160 LBS
SWING AROUND JIB	SEE LOAD CHART

WARNING

LIFTING OFF THE MAIN BOOM POINT WHILE THE JIB IS ERECTED IS NOT INTENDED OR APPROVED.

LOAD RATINGS IN LBS WITH OUTRIGGERS AND STABILIZERS EXTENDED

LMI CODE #1

OPERATING RADIUS FT	LOADED BOOM ANGLE ∠	BOOM LENGTH AND MARKER	A		B		C		D	
			∠	26.5 FT	∠	40 FT	∠	50 FT	∠	60 FT	∠	70 FT
5	79	34000										
8	73	23930	79	22330								
10	68	20230	76	18670	80	18000						
12	63	17600	73	16100	77	15450	80	13420				
15	55	14420	69	13400	74	12780	77	11900	80	9400		
20	40	10350	61	10540	68	9970	72	9550	76	8180		
25	12	7830	52	8070	61	8130	67	7800	71	7000		
30			41	6400	54	6470	62	6510	67	6050		
35			28	5160	47	5240	56	5280	62	5280		
40					37	4200	50	4260	58	4300		
45					25	3360	43	3420	52	3460		
50							35	2790	47	2820		
55							24	2290	40	2330		
60									33	1930		
65									23	1600		
70												
75												
80												
85												
90												
95												
	350 LBS		240 LBS		190 LBS		160 LBS		140 LBS		DEDUCTIONS FOR STOWED FIXED JIB	
	530 LBS		350 LBS		280 LBS		240 LBS		200 LBS		DEDUCTIONS FOR STOWED TELESCOPIC JIB	

JIB LOAD RATINGS IN LBS WITH OUTRIGGERS AND STABILIZERS EXTENDED

OPERATING RADIUS FT	FIXED JIB LMI CODE #2		TELESCOPIC JIB LMI CODE #3		TELESCOPIC JIB LMI CODE #4	
	LOADED BOOM ANG ∠	JIB LENGTH FOR ALL BOOM LENGTHS SEE WARNING NOTE 4	LOADED BOOM ANG ∠	JIB LENGTH FOR ALL BOOM LENGTHS SEE WARNING NOTE 4	LOADED BOOM ANG ∠	JIB LENGTH FOR ALL BOOM LENGTHS SEE WARNING NOTE 4
	∠	23.6 FT	∠	23.6 FT	∠	40.6 FT
10						
12						
15						
20	80	4400	80	4200		
25	78	4200	78	4000	80	3000
30	75	4000	75	3800	78	2660
35	71	3600	71	3380	75	2380
40	68	3220	68	3010	72	2150
45	65	2880	65	2650	69	1940
50	61	2580	61	2340	66	1770
55	57	2310	57	2060	63	1620
60	53	2020	53	1790	60	1490
65	49	1690	49	1460	57	1380
70	45	1410	45	1180	54	1280
75	40	1180	40	950	51	1190
80	34	980	34	750	47	1030
85	27	810	27	570	43	850
90					39	700
95					34	560

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. BOOM MUST BE FULLY RETRACTED WHEN JIB IS ERECTED, BEFORE LOWERING BOOM THROUGH THIS AREA.
6. FOR BOOM ANGLES NOT SHOWN ON JIB LOAD RATING CHART, USE RATING OF NEXT LOWER BOOM ANGLE.
7. FOR BOOM LENGTHS NOT SHOWN, USE RATING OF NEXT LONGER BOOM LENGTH. FOR RADII NOT SHOWN, USE RATING OF NEXT LONGER RADIUS.
8. 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.
9. 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.
10. 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. BOOM MUST BE FULLY RETRACTED AGAINST BOOM STOPS AT ALL TIMES WHEN LIFTING MINIMUM BOOM LENGTH CAPACITY LOADS.

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. CRANE LOAD RATINGS WITH OUTRIGGERS ARE BASED ON OUTRIGGERS AND STABILIZERS EXTENDED AND SET WITH MACHINE LEVELED.
3. 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.

Manitex

MODELS 1770C & 1770T

CRANE MEETS ANSI B30.5 REQUIREMENTS

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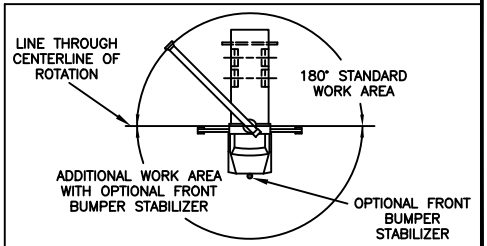

AREA OF OPERATION