

Lifting Capacities

Lattice Boom Crawler Crane

LS-138H II

80-ton (72.57 metric ton)

HYLAB Series

Tube Boom Capacities

40' – 200' (12.19 – 60.96 m)

24' (7.31 m) Live Mast

- Extended/Retracted Side Frames

20' (6.10 m) Base Section

- Extended/Retracted Side Frames

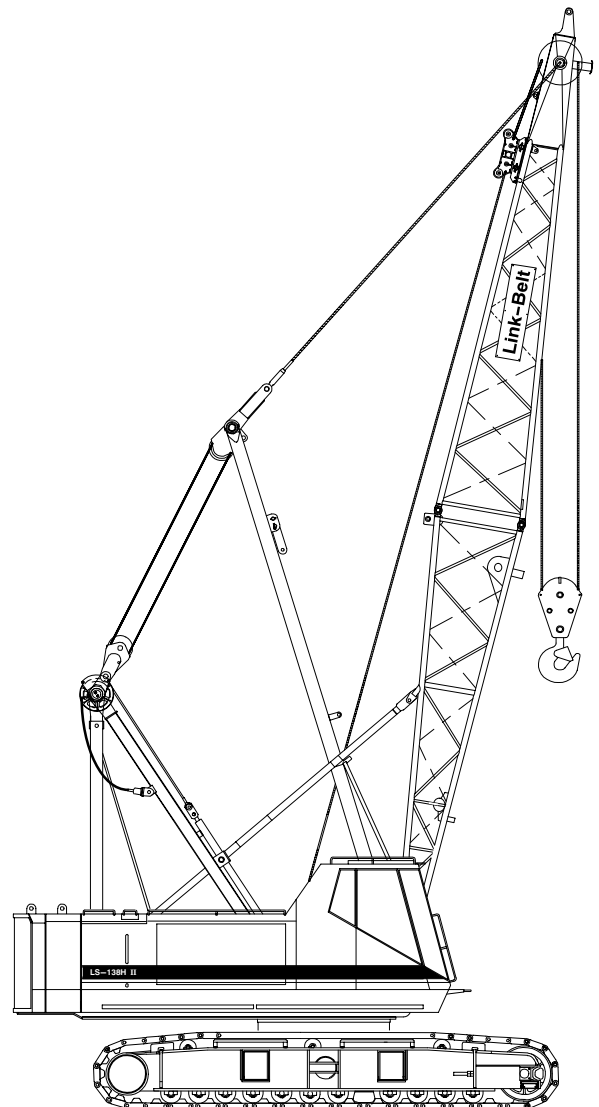
5' (1.52m) Tip Extension

Duty Cycle Capacities

- 40' – 70' (12.19 – 21.34 m) Tube Boom
- Extended Side Frames
- "A" Counterweight

Tube Boom Capacities

- 40' – 200' (12.19 – 60.96 m) Tube Boom
- 54" (1.37 m) Wide x 44" (1.12 m) Deep Boom
- 20' (6.10 m) Open Throat Top Section
- 24' (7.31 m) Live Mast
- Extended / Retracted Side Frames
- Over End Blocked Capacities
- "AB", "A", or "O" Counterweight Options
- 20' 2" (6.15 m) Crawler Length



CAUTION: This material is supplied for reference use only. Operator must refer to in-cab Crane Rating Manual to determine allowable machine lifting capacities and operating procedures.



WARNING

READ AND UNDERSTAND THE OPERATOR'S AND SAFETY MANUALS AND THE FOLLOWING INSTRUCTIONS AND CHART VALUES BEFORE OPERATING THE CRANE. OPERATION WHICH DOES NOT FOLLOW THESE INSTRUCTIONS MAY RESULT IN AN ACCIDENT.

OPERATING INSTRUCTIONS

GENERAL:

1. Rated lifting capacities in pounds as shown on lift charts pertain to this crane as originally manufactured and normally equipped. Modifications to the crane or use of optional equipment other than that specified can result in a reduction of capacity.
2. Construction equipment can be dangerous if improperly operated or maintained. Operation and maintenance of this crane must be in compliance with the information in the Operator's, Parts, and Safety Manuals supplied with this crane. If these manuals are missing, order replacements through the distributor.
3. The operator and other personnel associated with this crane shall read and fully understand the latest applicable American National Standards Institute (ANSI) safety standards for cranes.
4. All capacities listed in this book are in compliance with ASME/ANSI B30.5c-1998, SAE J987-April 1994, and SAE J765-October 1990.

LIFT CRANE OPERATION:

1. Capacities shown are in pounds and are not more than 75% of the tipping loads with the crane standing level on firm supporting surface. A deduction must be made from these capacities for weight of hook block, hook ball, sling, grapple, load weighing device, etc. When using main hook while jib is attached, reduce capacities by values shown on Capacity Deductions For Lifting Off Main Boom Hook With Jib Installed. When using main hook while 5ft. tip extension is attached, reduce capacities by values shown on Capacity Deductions For Lifting Off Main Boom Hook With 5ft. Tip Extension Installed. See Operator's Manual for all limitations when raising or lowering attachment.
2. The crane capacities in the shaded areas are based on structural strength. The crane capacities in the non-shaded areas are based on stability ratings.

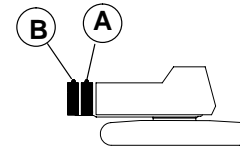
3. For recommended reeving, parts of line, wire rope type, and wire rope inspection, see Wire Rope Capacity chart, Operator's Manual, and Parts Manual.
4. Load ratings in this Crane Rating Manual are based on freely suspended loads and make no allowances for such factors as the effect of the wind, ground conditions, and operating speeds. The operator shall therefore reduce load ratings in order to take these conditions into account.
5. Rated lifting capacities do not account for the effects of wind on a suspended load or boom. Lifting capacities should be considered acceptable for wind speeds less than 20 mph and appropriately reduced for wind speeds greater than 20 mph. Extreme caution should be used when lifting heavy loads or loads with large wind sail area under high wind conditions (over 20 mph).
6. The 24ft. live mast must be used for all capacities in this Crane Rating Manual.
7. The least stable rated condition is over the side.
8. Booms must be erected and lowered over the end.
9. Do not operate at radii and boom lengths where the Crane Rating Manual lists no capacity. Do not use longer booms or jibs than those listed in this Crane Rating Manual. Any of the above can cause a tipping condition, or boom and jib failure.
10. These capacities apply only to the crane as originally manufactured and normally equipped by Link-Belt Construction Equipment Company.

FOR OVER END CAPACITIES ONLY

1. These capacities can be lifted over either end with the crane standing level on a firm supporting surface with adequate blocking placed under the tread member sprockets/idlers, to prevent rocking.
2. Do not travel with a load.

WIRE ROPE CAPACITY

Parts of Line	7/8"		5/8"		Notes
	Type "DB"	Type "RB"	Type "ZB"	Type "WB"	
1	22,700	17,520 *	11,000 **	13,650 *	Capacities shown are in pounds and working loads must not exceed the ratings on the capacity charts in this Crane Rating Manual. Study Operator's Manual for wire rope inspection procedures.
2	45,400	35,040	22,000	27,310	
3	68,100	52,560	33,000	40,970	
4	90,800	70,080	44,000	54,620	
5	113,500	87,600	55,000	68,280	
6	136,200	105,120	66,000	81,940	
7	158,900	122,640	77,000	95,600	
8	181,600	140,160	88,000	109,250	
LBCE Type	Description				
DB	6 x 26 (6 x 19 Class) – Warrington Seale – Extra Improved Plow Steel – Preformed – Right Lay – Regular Lay – I.W.R.C.				
RB	19 x 19 Rotation Resistant– Extra Extra Improved Plow Steel – Preformed – Right Lay – Regular Lay. Swaged – SF = 5:1				
ZB	36 x 7 Class – Non–Rotating – Extra Improved Plow Steel – Right Lay – Regular Lay – S.F. = 5:1				
WB	8 Strand – Regular Lay				
* Use of swivel end with 1 part of line is not recommended.					
** Swivel end is recommended for operation with 1 part of line.					

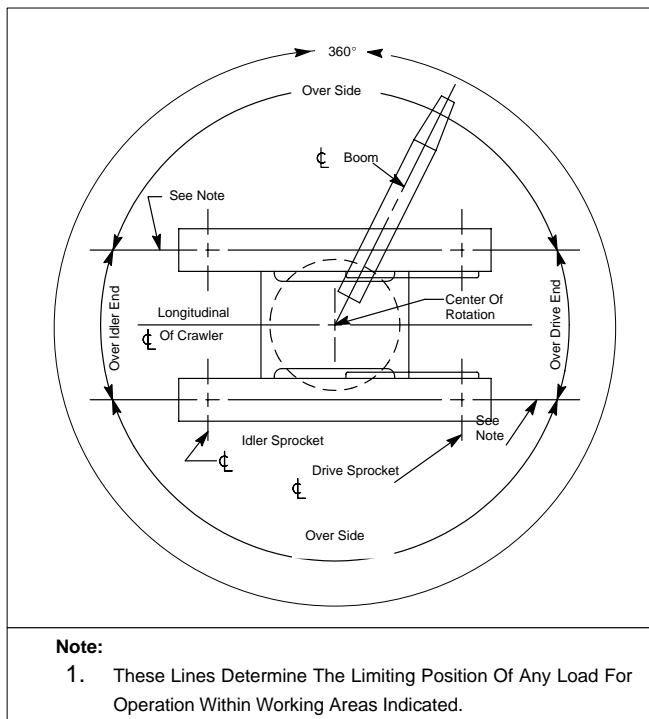


LIFTOFF CAPABILITIES

Counterweight (Side Frames)	Over End	
	Maximum Boom Feet	Maximum Boom + Jib Feet
NO (RETRACTED)	90	N/A
NO (EXTENDED)	120	N/A
A (RETRACTED)	140	N/A
A (EXTENDED)	170	N/A
AB (EXTENDED) See Note 6	200	180 + 60 190 + 30 See Note 6

Counterweight (Side Frames)	Over Side	
	Maximum Boom Feet	Maximum Boom + Jib Feet
NO (RETRACTED)	90	N/A
NO (EXTENDED)	120	N/A
A (RETRACTED)	140	N/A
A (EXTENDED)	170	N/A
AB (EXTENDED)	200	170 + 60

WORKING AREAS



NOTES:

- Booms should be erected or lowered over the end with no load if possible – hook block on ground. (See Note 6).
- Crane on firm and level surface.
- Open throat booms 190' and 200' in length require mid–point suspension pendants.
- Boom and jib combination of 190' + 30' does require mid–point suspension pendants.
- Boom and jib combination of 180' + 60' does not require mid–point suspension pendants.
- For Maximum Boom + Jib Combinations only – Adequate blocking must be placed under The side frame sprockets/idlers to prevent rocking. (Lift Off Over End only).

CAPACITY DEDUCTIONS FOR LIFTING OFF MAIN BOOM HOOK WITH JIB INSTALLED (OPEN THROAT BOOM ONLY)

When using main boom hook, while jib is attached, reduce boom capacities by the values in the following chart:

Jib Length (ft)	Capacity Deduction (lbs)
30	2,000
45	2,400
60	3,200

CAPACITY DEDUCTIONS FOR LIFTING OFF MAIN BOOM HOOK WITH 5 FOOT TIP EXTENSION INSTALLED

When using main boom hook, while 5 foot tip extension is attached, reduce boom capacities by the values in the following chart:

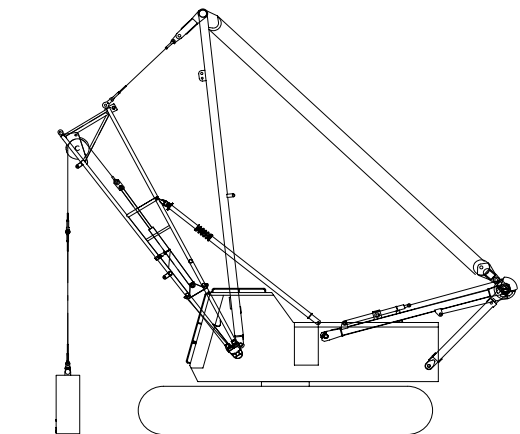
Tip Extension (ft)	Capacity Deduction (lbs)
5	1,100

20' BASE SECTION CYLINDER LIFTING CAPACITIES (WITHOUT COUNTERWEIGHT INSTALLED)

Base Section Cylinders		Side Frames Extended (lb)	Side Frames Retracted (lb)
Radius (ft)	Angle (deg)		
15	55.0	26,500	26,500
16	50.9	26,500	26,500
17	46.4	26,500	26,100
18	41.6	26,500	23,900
19	36.0	26,500	22,000
20	29.5	26,500	20,300
21	20.6	26,500	18,700

NOTES:

1. Rated capacities for 360° rotation.
2. Boom base section supported by make up pendants.
3. Lifting any load with one cylinder is prohibited. Rated capacities are for lifting loads with both cylinders.
4. Gantry can be either in the raised or lowered position when lifting loads with the cylinders in the base section. When the gantry is in the lowered position the backstay links must be pinned.
5. Do not raise boom higher than 55° angle.
6. Do not lower live mast below 3° angle with gantry in lowered position.

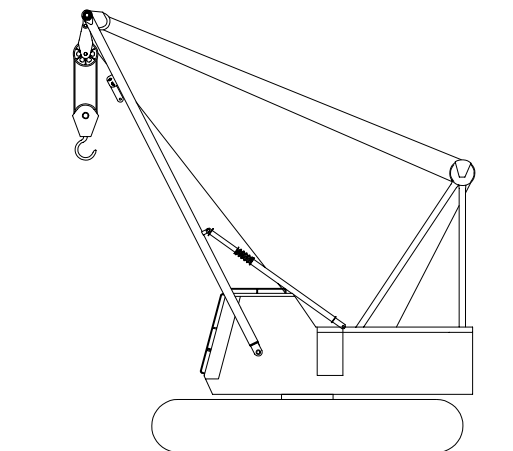


LIVE MAST LIFTING CAPACITIES (WITHOUT COUNTERWEIGHT INSTALLED)

Live Mast		Side Frames Extended (lb)	Side Frames Retracted (lb)
Radius (ft)	Angle (deg)		
10	73.7	60,000	60,000
11	71.2	60,000	51,600
12	68.7	60,000	44,600
13	66.1	60,000	39,200
14	63.5	60,000	34,900
15	60.8	59,400	31,500
16	58.0	52,700	28,600
17	55.1	47,400	26,200
18	52.2	43,000	24,200
19	49.1	39,300	22,500
20	45.8	36,200	20,900
21	42.4	33,500	19,600
22	38.8	31,200	18,400
23	34.8	29,200	17,300
24	30.3	27,400	16,400

NOTES:

1. Refer to the Operator's Manual.
2. Live mast backstops must be in position and operative.
3. Use rear hoist drum only. Reeve hoist line to drum over live mast cross member.
4. Reeve hoist rope with three (3) parts of 7/8" diameter wire rope.
5. The crane shall be leveled on a firm supporting surface.
6. Capacities are based on 75% stability.
7. See Crane Assembly Component Weights chart for weight of components for crane assembly.
8. Rated capacities for 360° rotation.
9. Gantry can be either in the raised or lowered position when lifting loads with the live mast. When the gantry is in the lowered position the backstay links must be pinned.
10. Do not lower live mast below 3° angle with gantry in lowered position.



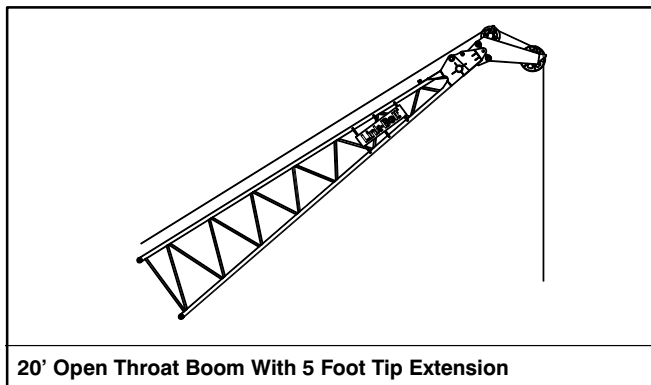
MAXIMUM ALLOWABLE CAPACITIES FOR 5 FOOT TIP EXTENSION

LIFTING CAPACITY TO BE THE SMALLEST OF THE FOLLOWING VALUES:

1. 18,000 lb (Maximum).
2. The standard crane lift capacity minus 1,100 lb for the boom length, tip extension load radius, and counterweight configuration in use on the crane.

NOTES:

1. All notes are to be adhered to as listed on the standard lift crane capacity charts.
2. Reduce the main boom lift capacities by 1,100 lb when the tip extension is installed.
3. The maximum boom length on which the tip extension can be installed is 150'.
4. Do not lift or suspend a load from the boom tip extension and main boom at the same time.



DUTY CYCLE NOTES FOR TUBULAR BOOM

1. The capacities included in this chart are the maximum allowable, and are based on machine standing level on firm supporting surface under ideal job conditions.
2. Capacities are based on 75% of minimum tipping loads for dragline; 67.5% for clamshell.
3. Capacities are maximum recommended by PCSA Standard #4. User must make allowances for soft or uneven supporting surfaces, rapid cycle operations, bucket suction or other unfavorable conditions which may require smaller buckets for most efficient operation.
4. Weight of bucket, plus load must not exceed these capacities.
5. Dragline operation is not recommended with boom angles less than 35°.
6. Boom length for dragline/clamshell attachment operation should not exceed 70'.
7. Retractable high gantry must be fixed in raised position for all capacities on this chart.
8. These capacities apply to the machine as originally manufactured and normally equipped by Link-Belt Construction Equipment Company.

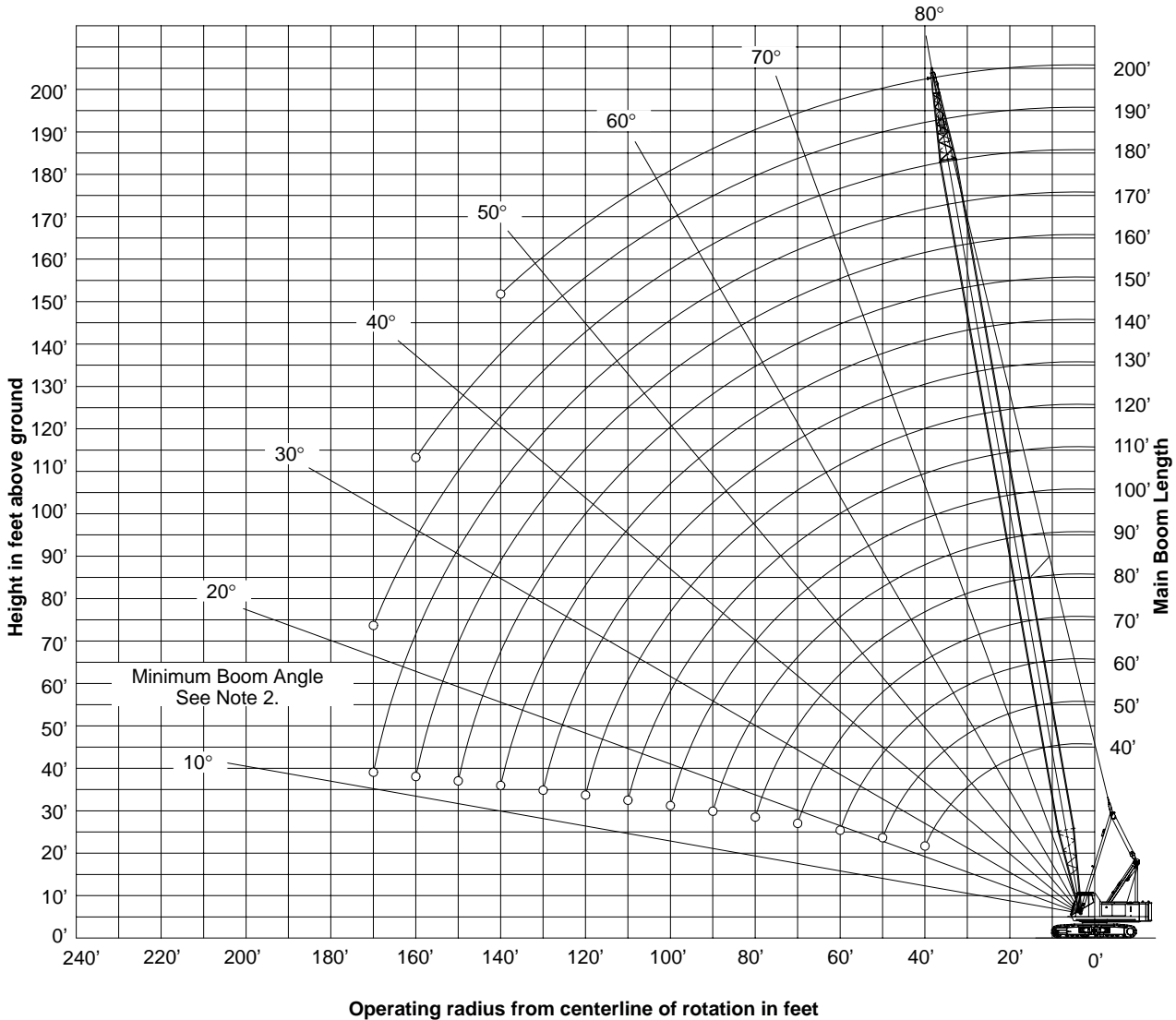
DUTY CYCLE CAPACITIES TUBULAR BOOM

Boom Length (ft)	Load Radius (ft)	Boom Angle (deg)	Side Frames Extended – "A" Counterweight Only (All capacities listed are in pounds)	
			Dragline	Clamshell/Magnet
40	15	73.0	—	15,800
40	20	65.3	—	15,800
40	25	57.1	15,800	15,800
40	30	48.1	15,800	15,800
40	35	37.5	15,800	15,800
40	40	23.4	—	15,800
50	20	70.5	—	15,800
50	25	64.3	—	15,800
50	30	57.7	15,800	15,800
50	35	50.6	15,800	15,800
50	40	42.7	15,800	15,800
50	50	20.9	—	15,800
60	25	68.8	—	15,800
60	30	63.6	—	15,800
60	35	58.1	15,800	15,800
60	40	52.3	15,800	15,800
60	50	38.9	15,800	15,800
60	60	19.0	—	11,700
70	25	71.9	—	15,800
70	30	67.6	—	15,800
70	35	63.1	—	15,800
70	40	58.4	15,800	15,800
70	50	48.1	15,800	15,800
70	60	35.9	13,000	11,700
70	70	17.6	—	9,300

WORKING RANGE DIAGRAM

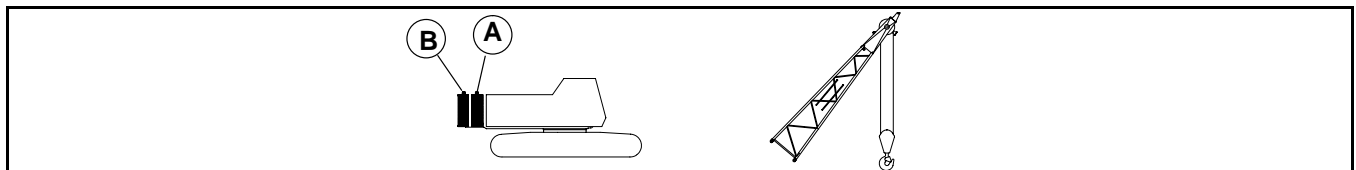
40' TO 200' OPEN THROAT BOOM

Maximum Boom Angle
See Note 2.



Notes:

1. Boom geometry shown is for unloaded condition and crane standing level on firm supporting surface. Boom deflection, subsequent radius and boom angle change must be accounted for when applying load to hook.
2. Maximum and minimum boom angles are equal to the values listed in the capacity chart for each boom length.



MAIN BOOM CAPACITIES – 40 FT OPEN THROAT TUBE BOOM							
Load Radius (Ft.)	Boom Angle (deg)	Over End Blocked	360° Rotation				
			Side Frames Extended			Side Frames Retracted	
			AB CTWT (lb)	A CTWT (lb)	0 CTWT (lb)	A CTWT (lb)	0 CTWT (lb)
9	81.8	160,000	160,000	160,000	160,000	143,300	77,200
10	80.3	160,000	160,000	160,000	153,200	116,900	62,800
11	78.9	160,000	160,000	157,600	123,000	98,600	52,700
12	77.4	160,000	160,000	145,300	98,100	85,100	45,300
13	75.9	151,900	151,900	134,800	81,500	74,800	39,700
14	74.5	141,600	141,600	118,600	69,500	66,600	35,200
15	73.0	132,600	132,600	103,500	60,500	60,000	31,500
16	71.5	124,700	124,700	91,800	53,500	54,500	28,500
17	69.9	117,600	117,600	82,300	47,900	49,900	26,000
18	68.4	111,300	108,700	74,600	43,300	46,000	23,900
19	66.9	105,600	99,500	68,200	39,400	42,600	22,000
20	65.3	100,400	91,600	62,700	36,200	39,700	20,400
25	57.1	80,200	65,400	44,500	25,300	29,200	14,600
30	48.1	60,900	50,500	34,100	19,100	22,900	11,100
35	37.5	48,800	40,900	27,400	15,100	18,600	8,700
40	23.4	40,500	34,100	22,700	12,200	15,400	7,000

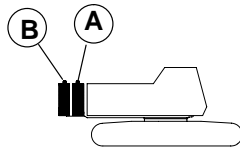
MAIN BOOM CAPACITIES – 70 FT OPEN THROAT TUBE BOOM							
Load Radius (Ft.)	Boom Angle (deg)	Over End Blocked	360° Rotation				
			Side Frames Extended			Side Frames Retracted	
			AB CTWT (lb)	A CTWT (lb)	0 CTWT (lb)	A CTWT (lb)	0 CTWT (lb)
14	81.2	129,700	129,700	119,600	70,600	67,100	35,700
15	80.4	126,800	126,800	104,400	61,400	60,400	32,000
16	79.5	124,100	124,100	92,600	54,300	54,900	28,900
17	78.7	117,100	117,100	83,000	48,600	50,300	26,400
18	77.9	110,800	109,400	75,200	43,900	46,300	24,200
19	77.0	105,200	100,000	68,700	40,000	42,900	22,300
20	76.2	100,000	92,100	63,200	36,700	39,900	20,600
25	71.9	80,200	65,700	44,800	25,600	29,400	14,800
30	67.6	61,200	50,800	34,400	19,400	23,000	11,300
35	63.1	49,100	41,100	27,700	15,300	18,700	8,900
40	58.4	40,800	34,400	23,000	12,500	15,600	7,100
50	48.1	30,100	25,600	16,800	8,800	11,400	4,800
60	35.9	23,600	20,100	13,000	6,400	8,700	3,300
70	17.6	19,100	16,300	10,300	4,800	6,800	2,200

MAIN BOOM CAPACITIES – 50 FT OPEN THROAT TUBE BOOM							
Load Radius (Ft.)	Boom Angle (deg)	Over End Blocked	360° Rotation				
			Side Frames Extended			Side Frames Retracted	
			AB CTWT (lb)	A CTWT (lb)	0 CTWT (lb)	A CTWT (lb)	0 CTWT (lb)
11	81.1	159,900	159,900	157,300	123,900	99,000	53,100
12	80.0	159,900	159,900	145,100	98,900	85,500	45,700
13	78.8	151,700	151,700	134,600	82,100	75,100	40,000
14	77.6	141,500	141,500	119,100	70,000	66,900	35,500
15	76.4	132,500	132,500	104,000	61,000	60,300	31,800
16	75.3	124,600	124,600	92,200	53,900	54,800	28,800
17	74.1	117,500	117,500	82,700	48,300	50,200	26,200
18	72.9	111,200	109,100	75,000	43,600	46,200	24,100
19	71.7	105,500	99,800	68,500	39,800	42,800	22,200
20	70.5	100,300	91,900	63,000	36,500	39,900	20,600
25	64.3	80,200	65,600	44,700	25,500	29,400	14,800
30	57.7	61,100	50,700	34,300	19,300	23,000	11,300
35	50.6	49,000	41,100	27,600	15,300	18,700	8,900
40	42.7	40,700	34,400	22,900	12,400	15,600	7,200
50	20.9	30,000	25,500	16,800	8,700	11,400	4,800

MAIN BOOM CAPACITIES – 80 FT OPEN THROAT TUBE BOOM							
Load Radius (Ft.)	Boom Angle (deg)	Over End Blocked	360° Rotation				
			Side Frames Extended			Side Frames Retracted	
			AB CTWT (lb)	A CTWT (lb)	0 CTWT (lb)	A CTWT (lb)	0 CTWT (lb)
15	81.6	116,800	116,800	104,500	61,600	60,400	32,000
16	80.9	114,600	114,600	92,700	54,400	54,900	28,900
17	80.1	111,400	111,400	83,100	48,700	50,300	26,300
18	79.4	109,300	109,300	75,300	44,000	46,300	24,100
19	78.7	104,900	100,100	68,800	40,100	42,900	22,200
20	77.9	99,800	92,200	63,300	36,700	39,900	20,600
25	74.2	80,000	65,700	44,800	25,600	29,400	14,700
30	70.5	61,200	50,700	34,400	19,300	22,900	11,200
35	66.6	49,000	41,100	27,600	15,300	18,600	8,800
40	62.7	40,700	34,300	22,900	12,400	15,500	7,100
50	54.3	30,100	25,500	16,800	8,700	11,300	4,700
60	44.8	23,500	20,000	12,900	6,400	8,600	3,200
70	33.5	19,100	16,300	10,300	4,800	6,700	2,100
80	16.5	15,900	13,500	8,300	3,600	5,300	—

MAIN BOOM CAPACITIES – 60 FT OPEN THROAT TUBE BOOM							
Load Radius (Ft.)	Boom Angle (deg)	Over End Blocked	360° Rotation				
			Side Frames Extended			Side Frames Retracted	
			AB CTWT (lb)	A CTWT (lb)	0 CTWT (lb)	A CTWT (lb)	0 CTWT (lb)
12	81.6	149,600	149,600	144,800	99,300	85,600	45,900
13	80.7	146,400	146,400	134,400	82,500	75,300	40,100
14	79.7	141,200	141,200	119,400	70,400	67,000	35,600
15	78.7	132,300	132,300	104,200	61,300	60,400	31,900
16	77.8	124,400	124,400	92,400	54,200	54,900	28,900
17	76.8	117,400	117,400	82,900	48,500	50,300	26,300
18	75.8	111,100	109,300	75,100	43,800	46,300	24,200
19	74.8	105,400	99,900	68,700	39,900	42,900	22,300
20	73.8	100,200	92,100	63,200	36,600	39,900	20,600
25	68.8	80,200	65,700	44,800	25,600	29,400	14,800
30	63.6	61,200	50,800	34,400	19,400	23,000	11,300
35	58.1	49,100	41,100	27,700	15,300	18,700	8,900
40	52.3	40,800	34,400	23,000	12,500	15,600	7,200
50	38.9	30,100	25,600	16,800	8,800	11,400	4,800
60	19.0	23,600	20,100	13,000	6,400	8,700	3,300

MAIN BOOM CAPACITIES – 90 FT OPEN THROAT TUBE BOOM							
Load Radius (Ft.)	Boom Angle (deg)	Over End Blocked	360° Rotation				
			Side Frames Extended			Side Frames Retracted	
			AB CTWT (lb)	A CTWT (lb)	0 CTWT (lb)	A CTWT (lb)	0 CTWT (lb)
16	81.9	104,700	104,700	92,700	54,500	54,900	28,900
17	81.2	102,800	102,800	83,200	48,700	50,200	26,300
18	80.6	101,200	101,200	75,300	44,000	46,200	24,100
19	79.9	99,600	99,600	68,800	40,100	42,800	22,200
20	79.3	97,700	92,200	63,300	36,700	39,800	20,500
25	76.0	79,800	65,700	44,800	25,600	29,300	14,700
30	72.7	61,200	50,700	34,300	19,300	22,800	11,100
35	69.4	49,000	41,000	27,500	15,200	18,500	8,700
40	65.9	40,700	34,200	22,800	12,300	15,400	6,900
50	58.7	30,000	25,400	16,700	8,600	11,200	4,600
60	50.9	23,500	19,900	12,800	6,300	8,500	3,100
70	42.2	19,000	16,200	10,200	4,700	6,600	2,000
80	31.5	15,800	13,400	8,300	3,500	5,200	—
90	15.5	13,400	11,300	6,800	2,600	4,100	—



MAIN BOOM CAPACITIES – 100 FT OPEN THROAT TUBE BOOM								
Load Radius (Ft.)	Boom Angle (deg)	Over End Blocked	360° Rotation					PROHIBITED
			Side Frames Extended			Side Frames Retracted		
			AB CTWT (lb)	CTWT (lb)	A CTWT (lb)	0 CTWT (lb)	A CTWT (lb)	
18	81.5	93,400	93,400	75,300	44,000	46,200		
19	81.0	92,000	92,000	68,800	40,000	42,700		
20	80.4	89,400	89,400	63,200	36,700	39,700		
25	77.5	79,600	65,600	44,700	25,500	29,200		
30	74.5	61,100	50,600	34,200	19,200	22,700		
35	71.5	48,900	40,900	27,400	15,100	18,400		
40	68.5	40,600	34,100	22,700	12,200	15,300		
50	62.1	29,900	25,300	16,600	8,500	11,100		
60	55.4	23,400	19,800	12,700	6,200	8,400		
70	48.2	18,900	16,100	10,100	4,600	6,500		
80	39.9	15,700	13,300	8,100	3,400	5,100		
90	29.9	13,300	11,200	6,700	2,500	4,000		
100	14.7	11,400	9,500	5,500	—	3,100		

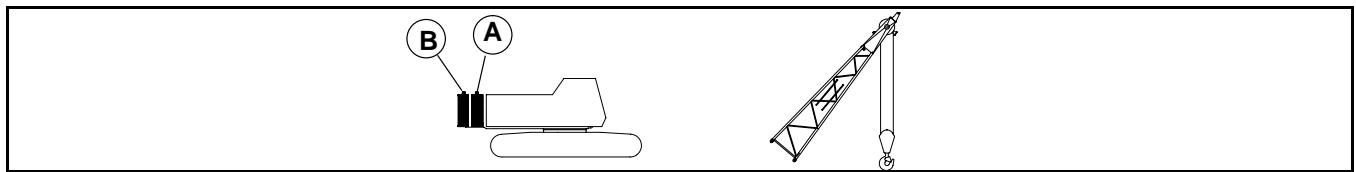
MAIN BOOM CAPACITIES – 130 FT OPEN THROAT TUBE BOOM								
Load Radius (Ft.)	Boom Angle (deg)	Over End Blocked	360° Rotation					PROHIBITED
			Side Frames Extended			Side Frames Retracted		
			AB CTWT (lb)	CTWT (lb)	A CTWT (lb)	0 CTWT (lb)	A CTWT (lb)	
25	80.4	65,100	65,100	44,500	—	28,800		
30	78.1	60,900	50,300	33,900	—	22,300		
35	75.9	48,600	40,600	27,100	—	18,000		
40	73.6	40,200	33,800	22,300	—	14,800		
50	68.9	29,500	24,900	16,200	—	10,600		
60	64.1	23,000	19,400	12,300	—	7,900		
70	59.1	18,500	15,600	9,600	—	6,000		
80	53.8	15,300	12,900	7,700	—	4,700		
90	48.2	12,900	10,800	6,300	—	3,600		
100	41.9	11,000	9,200	5,100	—	2,700		
110	34.8	9,500	7,800	4,200	—	2,000		
120	26.1	8,200	6,700	3,400	—	—		
130	12.9	7,100	5,800	2,700	—	—		

MAIN BOOM CAPACITIES – 110 FT OPEN THROAT TUBE BOOM								
Load Radius (Ft.)	Boom Angle (deg)	Over End Blocked	360° Rotation					PROHIBITED
			Side Frames Extended			Side Frames Retracted		
			AB CTWT (lb)	CTWT (lb)	A CTWT (lb)	0 CTWT (lb)	A CTWT (lb)	
25	78.6	77,100	65,500	44,600	25,400	29,000		
30	75.9	61,000	50,500	34,100	19,100	22,600		
35	73.2	48,800	40,800	27,300	15,000	18,200		
40	70.5	40,500	34,000	22,600	12,100	15,100		
50	64.9	29,800	25,200	16,400	8,400	10,900		
60	59.0	23,200	19,700	12,600	6,000	8,200		
70	52.7	18,800	15,900	9,900	4,400	6,400		
80	45.8	15,600	13,200	8,000	3,300	5,000		
90	38.0	13,200	11,100	6,500	2,400	3,900		
100	28.4	11,300	9,400	5,400	—	3,000		
110	14.0	9,700	8,100	4,400	—	2,300		

MAIN BOOM CAPACITIES – 140 FT OPEN THROAT TUBE BOOM								
Load Radius (Ft.)	Boom Angle (deg)	Over End Blocked	360° Rotation					PROHIBITED
			Side Frames Extended			Side Frames Retracted		
			AB CTWT (lb)	CTWT (lb)	A CTWT (lb)	0 CTWT (lb)	A CTWT (lb)	
25	81.1	60,000	60,000	44,400	—	28,700		
30	79.0	56,700	50,200	33,800	—	22,200		
35	76.9	48,500	40,400	27,000	—	17,800		
40	74.8	40,100	33,600	22,200	—	14,700		
50	70.5	29,400	24,800	16,000	—	10,500		
60	66.1	22,800	19,200	12,100	—	7,800		
70	61.5	18,400	15,500	9,500	—	5,900		
80	56.8	15,200	12,700	7,600	—	4,500		
90	51.7	12,700	10,600	6,100	—	3,400		
100	46.3	10,800	9,000	4,900	—	2,600		
110	40.3	9,300	7,700	4,000	—	—		
120	33.5	8,000	6,600	3,200	—	—		
130	25.2	7,000	5,600	2,600	—	—		
140	12.4	6,100	4,800	2,000	—	—		

MAIN BOOM CAPACITIES – 120 FT OPEN THROAT TUBE BOOM								
Load Radius (Ft.)	Boom Angle (deg)	Over End Blocked	360° Rotation					PROHIBITED
			Side Frames Extended			Side Frames Retracted		
			AB CTWT (lb)	CTWT (lb)	A CTWT (lb)	0 CTWT (lb)	A CTWT (lb)	
25	79.6	71,600	65,500	44,600	25,400	28,900		
30	77.1	61,000	50,400	34,000	19,000	22,500		
35	74.7	48,700	40,700	27,200	14,900	18,100		
40	72.2	40,400	33,900	22,500	12,000	15,000		
50	67.1	29,700	25,100	16,300	8,200	10,800		
60	61.8	23,100	19,500	12,400	5,900	8,100		
70	56.2	18,700	15,800	9,800	4,300	6,200		
80	50.3	15,500	13,000	7,900	3,100	4,800		
90	43.7	13,000	10,900	6,400	2,200	3,700		
100	36.3	11,100	9,300	5,200	—	2,900		
110	27.2	9,600	8,000	4,300	—	2,200		
120	13.4	8,300	6,800	3,500	—	—		

MAIN BOOM CAPACITIES – 150 FT OPEN THROAT TUBE BOOM								
Load Radius (Ft.)	Boom Angle (deg)	Over End Blocked	360° Rotation					PROHIBITED
			Side Frames Extended			Side Frames Retracted		
			AB CTWT (lb)	CTWT (lb)	A CTWT (lb)	0 CTWT (lb)	A CTWT (lb)	
25	81.7	55,100	55,100	44,300	—	—		
30	79.7	52,200	50,000	33,700	—	—		
35	77.8	48,400	40,300	26,800	—	—		
40	75.8	40,000	33,500	22,100	—	—		
50	71.9	29,200	24,600	15,900	—	—		
60	67.8	22,700	19,100	12,000	—	—		
70	63.6	18,200	15,300	9,300	—	—		
80	59.2	15,000	12,600	7,400	—	—		
90	54.7	12,600	10,500	5,900	—	—		
100	49.9	10,700	8,800	4,800	—	—		
110	44.6	9,100	7,500	3,800	—	—		
120	38.9	7,900	6,400	3,100	—	—		
130	32.4	6,800	5,500	2,400	—	—		
140	24.3	5,900	4,700	—	—	—		
150	12.0	5,100	4,000	—	—	—		



MAIN BOOM CAPACITIES 160 FT OPEN THROAT TUBE BOOM							
Load Radius (Ft.)	Boom Angle (deg)	Over End Blocked	360° Rotation				
			Side Frames Extended			Side Frames Retracted	
			AB CTWT (lb)	CTWT (lb)	A CTWT (lb)	0 CTWT (lb)	A CTWT (lb)
30	80.4	47,900	47,900	33,500	PROHIBITED		
35	78.6	44,000	40,200	26,700			
40	76.7	39,900	33,300	21,900			
50	73.0	29,100	24,500	15,700			
60	69.2	22,500	18,900	11,800			
70	65.4	18,000	15,100	9,200			
80	61.3	14,800	12,400	7,200			
90	57.2	12,400	10,300	5,800			
100	52.8	10,500	8,700	4,600			
110	48.2	9,000	7,300	3,700			
120	43.2	7,700	6,200	2,900			
130	37.6	6,700	5,300	2,200			
140	31.3	5,800	4,500	—			
150	23.5	5,000	3,800	—			
160	11.6	4,300	3,200	—			

MAIN BOOM CAPACITIES – 190 FT OPEN THROAT TUBE BOOM							
Load Radius (Ft.)	Boom Angle (deg)	Over End Blocked	360° Rotation				
			Side Frames Extended			Side Frames Retracted	
			AB CTWT (lb)	CTWT (lb)	A CTWT (lb)	0 CTWT (lb)	A CTWT (lb)
30	81.9	32,900	32,900	PROHIBITED			
35	80.4	32,500	32,500				
40	78.9	30,700	30,700				
50	75.8	25,700	24,000				
60	72.6	19,600	18,400				
70	69.4	16,200	14,600				
80	66.2	13,300	11,900				
90	62.8	11,000	9,800				
100	59.4	9,100	8,100				
110	55.8	7,500	6,800				
120	52.1	6,100	5,700				
130	48.2	5,000	4,800				
140	44.0	4,000	4,000				
150	39.4	3,100	3,100				
160	34.4	2,100	2,100				

MAIN BOOM CAPACITIES – 170 FT OPEN THROAT TUBE BOOM							
Load Radius (Ft.)	Boom Angle (deg)	Over End Blocked	360° Rotation				
			Side Frames Extended			Side Frames Retracted	
			AB CTWT (lb)	CTWT (lb)	A CTWT (lb)	0 CTWT (lb)	A CTWT (lb)
30	81.0	42,400	42,400	33,400	PROHIBITED		
35	79.2	40,300	40,000	26,600			
40	77.5	37,000	33,200	21,800			
50	74.0	28,900	24,300	15,500			
60	70.5	22,300	18,800	11,700			
70	66.9	17,900	15,000	9,000			
80	63.2	14,700	12,200	7,100			
90	59.3	12,200	10,100	5,600			
100	55.3	10,300	8,500	4,400			
110	51.1	8,800	7,200	3,500			
120	46.6	7,500	6,100	2,700			
130	41.8	6,500	5,100	2,100			
140	36.5	5,600	4,400	—			
150	30.3	4,800	3,700	—			
160	22.8	4,100	3,100	—			
170	11.3	3,500	2,500	—			

MAIN BOOM CAPACITIES – 200 FT OPEN THROAT TUBE BOOM							
Load Radius (Ft.)	Boom Angle (deg)	Over End Blocked	360° Rotation				
			Side Frames Extended			Side Frames Retracted	
			AB CTWT (lb)	CTWT (lb)	A CTWT (lb)	0 CTWT (lb)	A CTWT (lb)
35	80.9	28,600	28,600	PROHIBITED			
40	79.4	27,200	27,200				
50	76.5	21,500	21,500				
60	73.5	17,500	17,500				
70	70.5	14,200	14,200				
80	67.4	11,700	11,700				
90	64.3	9,500	9,500				
100	61.1	7,700	7,700				
110	57.8	6,200	6,200				
120	54.3	5,000	5,000				
130	50.7	3,900	3,900				
140	46.9	2,800	2,800				

MAIN BOOM CAPACITIES – 180 FT OPEN THROAT TUBE BOOM							
Load Radius (Ft.)	Boom Angle (deg)	Over End Blocked	360° Rotation				
			Side Frames Extended			Side Frames Retracted	
			AB CTWT (lb)	CTWT (lb)	A CTWT (lb)	0 CTWT (lb)	A CTWT (lb)
30	81.5	37,500	37,500	PROHIBITED			
35	79.9	36,800	36,800				
40	78.2	33,900	33,000				
50	75.0	28,100	24,100				
60	71.6	21,900	18,600				
70	68.2	17,700	14,800				
80	64.8	14,500	12,000				
90	61.2	12,100	10,000				
100	57.5	10,200	8,300				
110	53.6	8,600	7,000				
120	49.6	7,400	5,900				
130	45.3	6,100	5,000				
140	40.6	5,000	4,200				
150	35.4	4,100	3,500				
160	29.5	3,300	2,900				
170	22.1	2,500	2,400				

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