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Link-Belt
 CONSTRUCTION EQUIPMENT

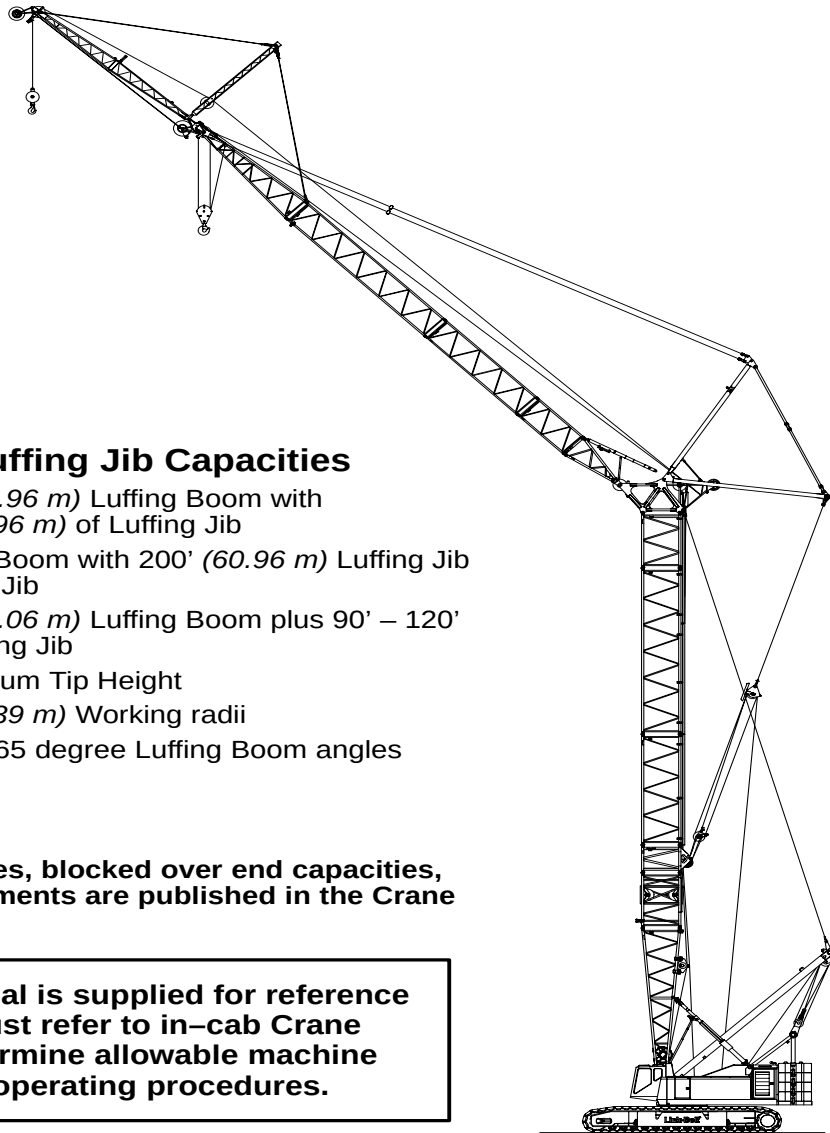
Lifting Capacities

Lattice Boom Crawler Crane with Luffing Attachment

LS-278H

52-ton (47.17 metric ton)

HYLAB Series



Luffing Boom and Luffing Jib Capacities

- 110' – 200' (33.53 – 60.96 m) Luffing Boom with 90' – 200' (27.43 – 60.96 m) of Luffing Jib
- 200' (60.96 m) Luffing Boom with 200' (60.96 m) Luffing Jib and 30' (9.14 m) Fixed Jib
- 110' – 220' (33.53 – 67.06 m) Luffing Boom plus 90' – 120' (27.43 – 36.58 m) Luffing Jib
- 432' (131.67 m) Maximum Tip Height
- 33' – 290' (10.06 – 88.39 m) Working radii
- 90, 85, 80, 75, 70 and 65 degree Luffing Boom angles
- 360 Degree Capacities
- Full Counterweight

Note: Over end capacities, blocked over end capacities, and lengths in 10' increments are published in the Crane Rating Manual.

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.



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CONSTRUCTION EQUIPMENT**WARNING**

READ AND UNDERSTAND THE OPERATOR'S AND SAFETY MANUAL 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 kips (1,000 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 B30.5, SAE J987, and SAE J765 at date of manufacture.
4. The crane capacities marked with an asterisk (*) are based on structural strength. The crane capacities in the non-asterisked area are based on stability ratings.
5. For recommended reeving, parts of line, wire rope type, and wire rope inspection, see Wire Rope Capacity chart, Operator's Manual, and Parts Manual. Rated lifting capacities are based on correct reeving. Deduction must be made for excessive reeving. Any reeving over minimum required is considered excessive and must be accounted for when making lifts. Use Working Range Diagram to estimate the extra feet of wire rope included in reeving. Then consult Wire Rope Capacity chart to determine the weight per foot of wire rope type. Deduct this amount for each extra foot of wire rope before attempting to lift a load.
6. 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 on load, ground conditions, and operating speeds. The operator shall therefore reduce load ratings in order to take these conditions into account. Refer to the Wind Speed Restrictions and Job Site Travel Restrictions for safe operation, travel, and storage of the attachment.

SET UP:

1. For all operating conditions, the crane must be leveled on a firm supporting surface that will adequately support the loadings without settling or collapsing.

**WARNING**

For over end capacities and lift off of combinations with luffing boom lengths longer than 180', the idlers/sprockets must be blocked with a minimum of 1/2" steel plate.

2. Counterweights: All luffing attachment combinations require the Maximum Counterweight Combination (135K + LWR).
3. Refer to the Operator's Manual for instructions pertaining to assembly and raising and lowering of the attachment.
4. The fixed jib has only one length (30 ft) and only one offset with respect to the luffing jib (5 degrees).
7. 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 25 mph and appropriately reduced for wind speeds greater than 25 mph. Extreme caution should be used when lifting heavy loads or loads with large wind sail area under high wind conditions (over 25 mph). See Wind Restriction charts in this manual for appropriate capacity reductions.
8. The 35 ft luffing boom live mast must be used for all capacities shown in this Crane Rating Manual.
9. Retractable high gantry must be fixed in raised position for all capacities in this manual.
10. The 10' "JN" luffing boom extension must be pinned to the luffing boom cap for all luffing boom combinations.
11. The 10' Self Assembly Section must be pinned between the luffing boom base section and the 5' Bail Anchor Section for all luffing boom combinations.
12. The least stable rated condition is over the side with **unblocked** sprockets and idlers.
13. Refer to the enclosed charts for allowable attachment liftoff lengths and allowable working lengths at the various luffing boom angles.
14. Do not operate at radii or boom lengths where this 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.
15. When traveling with a load, refer to Job Site Travel With Load information and be sure to follow all of the guidelines listed in the Operator's Manual.

LUFFING ATTACHMENT OPERATION:

1. Capacities shown in this publication are in kips (1,000 pounds) and are not more than 75% of the tipping loads with the crane standing level on a firm supporting surface. A deduction must be made from these capacities for weight of hook block, hook ball, sling, grapple, load weighing device, etc.
2. When lifting from the luffing jib with the fixed jib installed, or when lifting from the auxiliary sheaves with the luffing jib or fixed jib installed, reduce capacities by the values shown on the Capacity Deductions For Auxiliary Load Handling Equipment. See Operator's Manual for all limitations when raising or lowering the attachment.
3. Do not suspend more than one load at a time.

LS-278H Luffing Attachment

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CONSTRUCTION EQUIPMENT**CAPACITY DEDUCTIONS FOR AUXILIARY
LOAD HANDLING EQUIPMENT**

Lifting From Luffing Jib With:	Weight (lb)
30 ft Fixed Jib Installed	2,700
15-ton hook ball on fixed jib (see hook ball for actual weight)	1,325
15-ton hook ball on auxiliary sheave (see hook ball for actual weight)	1,325
60-ton hook block on auxiliary sheave	1,700
Lifting From Fixed Jib With:	Weight (lb)
15-ton hook ball on fixed jib (see hook ball for actual weight)	1,325
15-ton hook ball on auxiliary sheave (see hook ball for actual weight)	1,325
60-ton hook block on auxiliary sheave	1,700

Lifting From Auxiliary Sheave With:	Weight (lb)
15-Ton Hook Ball on Fixed Jib	1,325
15-Ton Hook Ball on Luffing Jib	1,325
60-Ton Hook Block on Luffing Jib	1,700
Pendant Deflector (w/o Luffing Jib)	800
90' Luffing Jib	20,300
100' Luffing Jib	21,400
110' Luffing Jib	22,600
120' Luffing Jib	23,900
130' Luffing Jib	25,100
140' Luffing Jib	26,400
150' Luffing Jib	27,800
160' Luffing Jib	29,200
170' Luffing Jib	30,600
180' Luffing Jib	32,000
190' Luffing Jib	33,500
200' Luffing Jib	35,000
90' Luffing Jib + 30' Fixed Jib	22,900
100' Luffing Jib + 30' Fixed Jib	24,200
110' Luffing Jib + 30' Fixed Jib	25,500
120' Luffing Jib + 30' Fixed Jib	26,800
130' Luffing Jib + 30' Fixed Jib	28,200
140' Luffing Jib + 30' Fixed Jib	29,600
150' Luffing Jib + 30' Fixed Jib	31,100
160' Luffing Jib + 30' Fixed Jib	32,600
170' Luffing Jib + 30' Fixed Jib	34,100
180' Luffing Jib + 30' Fixed Jib	35,700
190' Luffing Jib + 30' Fixed Jib	37,300
200' Luffing Jib + 30' Fixed Jib	38,900

**JOB SITE TRAVEL
RESTRICTIONS WITH A LOAD****Guidelines:**

- The travel surface must be firm and uniformly compacted. The travel surface must be capable of supporting the crane's ground bearing pressure under the exact crane configuration (including suspended load) being used.
- Maximum machine gradeability (fore and aft) = 5%
- Maximum machine list (side to side) = 1%
- Travel with the crane upper inline with the crawlers (straight over the end). Do not swing and travel at the same time. Do not hoist and travel at the same time. Operate all crane functions independently.
- Travel with the travel drive motors towards the rear.
- The machine's house lock must be engaged.
- Travel with load must not be done under adverse weather conditions, or conditions of poor visibility.
- The wind speed must be less than 10 MPH. The suspended load's wind sail area can greatly increase the wind loading. Therefore, the operator shall reduce the load ratings to account for this condition.
- Block and steer with the load suspended to turn the machine.

CAUTION

Avoid severe movements of the crane. Severe movements can side load or shock load the luffing attachment. Perform all crane functions smoothly and slowly.

- When traveling on a grade, position the counterweight up the grade and raise the luffing boom the corresponding angle (degrees) of the grade to be traveled.

Allowable Loads

- The luffing boom must be positioned at 80°, 75° or 70° only, with the machine sitting on a level surface.
- The luffing jib must be positioned between a 30° and 60° angle.
- The machine may be traveled with a load with any luffing boom attachment up to the maximum lengths listed below. There must be a rating listed on the 360 Degree capacity chart (Section 4) for the angles listed above. The luffing boom and luffing jib must be positioned at the proper angles listed in the capacity chart.

Luffing Boom Lengths	Luffing Jib Lengths
110' – 150'	90' – 150'

- Travel with up to 75% of the rated capacity is permitted.
- The load must be suspended from either the auxiliary sheaves or the luffing jib sheaves. Do not travel with a load suspended from the fixed jib.
- Refer to the Operator's Manual for more information.

Job site travel restrictions without a load:

- Travel with the luffing jib folded under and latched to the luffing boom is permitted only when the luffing boom is at a 75 degree luffing boom angle.
- Travel is prohibited at luffing boom angles greater than 85 degrees.
- If a luffing attachment combination has a capacity listed for a given radius and the luffing boom angle is less than 85 degrees, travel without load is permitted in that configuration.
- With the luffing boom set at 75°, travel without load is permitted at the negative value of any luffing jib angle that has a rated capacity on the 360° chart for a 75° luffing boom angle

WIND SPEED RESTRICTIONS

- Failure to follow these wind speed restrictions may result in structural failure of the luffing jib and/or luffing boom, which would cause property damage and/or bodily injury.
- The effects of the wind force on the hook load are the responsibility of the user and are not taken into account. When hoisting any load in windy conditions, the load wind area and load controllability must be considered for safe crane operation.
- Wind speed is to be determined at the luffing boom cap.

WIND SPEED CHART	
Luffing Boom Lengths: 110' – 160' Luffing Jib Only Lengths: 90' – 140' Luffing Jib + Fixed Jib Lengths: 90' + 30' – 110' + 30'	
DESCRIPTION	ALLOWABLE WIND SPEEDS IN M.P.H.
1. Normal Lifting Operation. (See Capacity Charts)	0–25
2. Reduced Operation. Capacities must be reduced by 50%.	26–40
3. No Operation. Store Attachment On Ground.	Over 40
4. Job Site Travel Without A Load.	0–15
5. Job Site Travel With A Load.	0–10

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LS–278H Luffing Attachment

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CONSTRUCTION EQUIPMENT**WIND SPEED RESTRICTIONS (continued)**

Luffing Boom Lengths: 170' to 220' Luffing Jib Only Lengths: 150' to 200' Luffing Jib + Fixed Jib Lengths: 120' + 30' to 200' + 30'	
DESCRIPTION	ALLOWABLE WIND SPEEDS IN M.P.H.
1. Normal Lifting Operation. (See Capacity Charts)	0–25
2. No Operation. Store Attachment.*	26–40
3. No Operation. Store Attachment On Ground.	Over 40
4. Job Site Travel Charts Without A Load.	0–15
5. Job Site Travel With A Load.	0–10

*The attachment must be stored in one of the following positions:

1. Lay the luffing boom and luffing jib on the ground.
2. Tie off luffing boom tip to an immovable object. For details and information on the tie-off procedure, see the Operator's Manual.

ROLLED OUT LIFTOFF CAPABILITIES

Luffing Boom Length		Luffing Jib Length	
ft	meters	ft	meters
110	33.5	90–200	27.4–64.0
120	36.6	90–200	27.4–64.0
130	39.6	90–200	27.4–64.0
140	42.7	90–200	27.4–64.0
150	45.7	90–200	27.4–64.0
160	48.8	90–200	27.4–64.0
170	51.8	90–200	27.4–64.0
180	54.9	90–200	27.4–64.0
*190	57.9	90–200	27.4–64.0
*200	61.0	90–200	27.4–64.0
*210	64.0	90–180	27.4–54.9
*220	67.1	90–120	27.4–36.6

Luffing Jib + Fixed Jib Length	
ft	meters
90+30 – 200+30	27.4+9.1–64.0+9.1
90+30 – 200+30	27.4+9.1–64.0+9.1
90+30 – 200+30	27.4+9.1–64.0+9.1
90+30 – 200+30	27.4+9.1–64.0+9.1
90+30 – 200+30	27.4+9.1–64.0+9.1
90+30 – 200+30	27.4+9.1–64.0+9.1
90+30 – 200+30	27.4+9.1–64.0+9.1
90+30 – 200+30	27.4+9.1–64.0+9.1
90+30 – 200+30	27.4+9.1–64.0+9.1
90+30 – 200+30	27.4+9.1–64.0+9.1
90+30 – 150+30	27.4+9.1–45.7+9.1
90+30 – 110+30	27.4+9.1–33.5+9.1

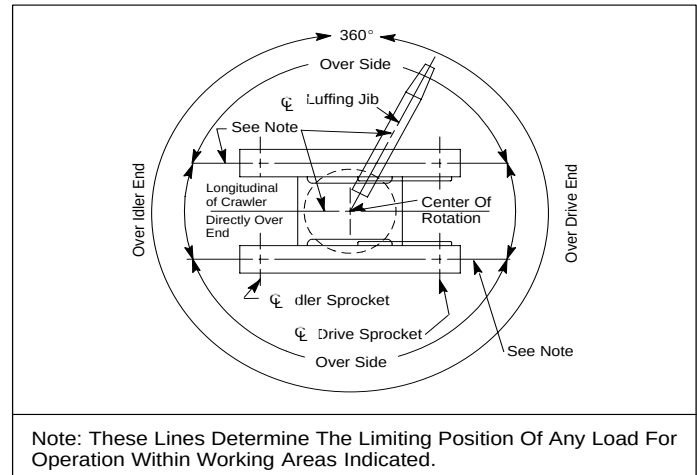
ROLLED UNDER LIFTOFF CAPABILITIES

Luffing Boom Length		Luffing Jib Length	
ft	meters	ft	meters
110	33.5	90–100	27.4–30.5
120	36.6	90–110	27.4–33.5
130	39.6	90–120	27.4–36.6
140	42.7	90–130	27.4–39.6
150	45.7	90–140	27.4–42.7
160	48.8	90–150	27.4–45.7
170	51.8	90–160	27.4–48.8
180	54.9	90–170	27.4–51.8
*190	57.9	90–180	27.4–54.9
*200	61.0	90–190	27.4–57.9
*210	64.0	90–180	27.4–54.9
*220	67.1	90–120	27.4–36.6

⚠ WARNING

The luffing boom angle must be 75° when erecting or lowering the luffing jib. Crane damage can occur. See Operator's Manual for more information.

* Erection must be done over the end of the lower, with the idlers/sprockets blocked with a minimum of 1/2" steel plate. Counterweights "135K" (135,000) lbs. upper + "LWR" must be installed.

WORKING AREAS**A.I.S.C. Certified Erector**

LS–278H Luffing Attachment

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CONSTRUCTION EQUIPMENT**WIRE ROPE CAPACITY**

Parts of Line	1"			
	Type DB	Type CC	Type LB	Type RB
1	29,500	30,700	32,500	22,700
2	59,000	61,400	65,000	45,400
3	88,500	92,100	97,500	68,100
4	118,000	122,800	130,000	90,800
5	147,500	153,500	162,500	113,500
6	177,000	184,200	195,000	136,200
7	206,500	214,900	227,500	158,900
8	236,000	245,600	260,000	181,600
9	265,500	276,300	292,500	204,300
10	295,000	307,000	325,000	227,000
11	324,500	337,700	357,500	249,700
12	354,000	368,400	390,000	272,400
Weight (lb/ft)	1.85	2.03	1.85	2.00

Parts of Line	1-1/8"				(28 mm)
	Type DB	Type CC	Type LB	Type RB	Type DC
1	37,100	39,000	40,800	28,600	43,900
2	74,200	78,000	81,600	57,200	87,800
3	111,300	117,000	122,400	85,800	131,700
4	148,400	156,000	163,200	114,400	175,600
5	185,500	195,000	204,000	143,000	219,500
6	222,600	234,000	244,800	171,600	263,400
7	259,700	273,000	285,600	200,200	307,300
8	296,800	312,000	326,400	228,800	351,200
9	333,900	351,000	367,200	257,400	395,100
10	371,000	390,000	408,000	286,000	439,000
11	408,100	429,000	448,800	314,600	482,900
12	445,200	468,000	489,600	343,200	526,800
Weight (lb/ft)	2.34	2.58	2.34	2.50	2.36

LBCE Type	Description
CC	36 x 7 Classification Non-rotating – Extra Extra Improved Plow Steel Right Lay – Regular Lay – Compacted Strand
DB	6 x 26 (6 x 19 Class) – Warrington Seale – Extra Improved Plow Steel – Preformed – Right Lay – Regular Lay – I.W.R.C.
LB	6 x 25 (6 x 19 Class) Filler Wire – Preformed – I.W.R.C. – Right Lay – Regular Lay – Compact Strands
RB	19 x 19 Rotation Resistant – Extra Extra Improved Plow Steel – Preformed – Right Lay – Regular Lay. Swaged
DC	8 Strand Rope – Compacted Strand – Right Lay Regular Lay

Notes:

1. Capacities shown are in pounds and working loads must not exceed the ratings on the capacity charts in this Crane Rating Manual.

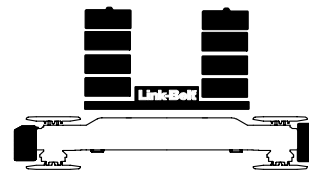
2. Study Operator's Manual for wire rope inspection procedures.

AUXILIARY SHEAVES NOTES

- Capacities are for a LS-278H Crawler Crane with "135K" upper counterweight and "LWR" lower counterweight.
- Capacities are for working areas as described on the Working Areas Chart found in the General Information section of this Crane Rating Manual and are based on the crane sitting level on a firm supporting surface.
- Capacities are limited to an LBCE 68" x 80" tubular boom with a luffing boom top.
- Capacities are for luffing boom lengths between 110 feet and 210 feet.
- The least stable condition is over the side with **unblocked** idlers and sprockets.
- All capacities are in pounds and are not more than 75% of the tipping loads. Those capacities followed by an asterisk are governed by factors other than those which would cause a tipping condition.
- The appropriate deduction must be taken if any luffing jib or fixed jib components are installed. See the Capacity Deductions for Auxiliary Load Handling Equipment for more information.
- If the luffing jib is installed, the minimum luffing boom angle is 65 degrees. The maximum boom angle is 80 degrees when using the auxiliary sheaves.
- The luffing jib should be set to a 15 degree offset when using the auxiliary sheaves.
- See Operator's Manual for more information.

ALLOWABLE COUNTERWEIGHT COMBINATIONS

Counterweight combinations are in kips (1 kip = 1,000 lbs.)

**135K+LWR**135,000 lbs. Upper Counterweight
Full Lower Counterweight**AUXILIARY LOWER COUNTERWEIGHT COMBINATION**

Counterweight combinations are in kips (1 kip = 1,000 lbs.)



(front view)

Auxiliary Lower Counterweight components for Full LWR

(top view)

22 K (each)**22,000 lbs. Auxiliary Lower Counterweight Assembly
Required with 50" Open End Track Shoes**

(top view)

18.5 K (each)**18,500 lbs. Auxiliary Lower Counterweight Assembly
Required with 60" Open End Track Shoes****A.I.S.C. Certified Erector****PCI P.C.I. Qualified Erector**

LS-278H Luffing Attachment

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**ROLLED UNDER LIFTOFF CAPABILITIES**

Component	Weight	
	lb	kg
1. 30' Luffing Boom Base Section (w/o 3rd Drum Assembly)	4,912	2 228
• 3rd Drum Assembly (w/o Rope)	2,857	1 296
• 3rd Fleeting Sheave Assembly	850	386
• 3rd Drum Rope (970' of 1" type "RB")	1,940	880
2. Luffing Boom Extensions (w/o Guide Rails and Pendants)		
• 10' Luffing Boom Extension Assembly	1,243	564
• 10' Luffing Boom Extension With Lifting Sheaves Assembly	3,251	1 475
• 10' Luffing Boom Extension With Heavy Side Lattice	1,273	577
• 20' Luffing Boom Extension Assembly	2,067	938
• 30' Luffing Boom Extension Assembly	2,892	1 312
• 40' Luffing Boom Extension Assembly	3,923	1 779
• 50' Luffing Boom Extension Assembly	4,807	2 180
3. Pendants		
• 1-1/4" Diameter X 10' Long, Type "N" (Each)	82	37
• 1-1/4" Diameter X 20' Long, Type "N" (Each)	109	49
• 1-1/4" Diameter X 30' Long, Type "N" (Each)	137	62
• 1-1/4" Diameter X 40' Long, Type "N" (Each)	164	74
• 1-1/4" Diameter X 50' Long, Type "N" (Each)	192	87
4. 5' Bail Anchor Extension	1,992	904
5. Luffing Jib Bail Assembly	1,122	509
6. Luffing Jib Bridle Assembly	788	357
7. Luffing Jib Bridle Guide Rails		
• 20' Rail (Each)	158	72
• Crossmember Support Assembly (Each)	68	31
• 20' Guide Rail Completely Assembled (Each)	520	236
8. 5' Luffing Boom Cap Assembly (w/o Pendant Deflector)	3,674	1 667
9. Pendant Deflector Assembly	782	355
10. Fan Post Assembly	5,553	2 519
11. 10' Luffing Jib Base Assembly (w/ Luffing Jib Backstops)	1,823	827
12. Luffing Jib Extensions		
• 10' Luffing Jib Extension Assembly	602	273
• 20' Luffing Jib Extension Assembly	1,022	464
• 30' Luffing Jib Extension Assembly	1,444	655
• 40' Luffing Jib Extension Assembly	1,864	846
13. 20' Luffing Jib Peak Assembly (w/ Nose Wheel)	3,786	1 717
14. 30' Fixed Jib Assembly (w/ Nose Wheel)	2,147	974
15. Upper Counterweights		
• Fabricated Base Upper Counterweight	31,000	14 062
• Cast Upper Counterweight (Each)	13,000	5 897
16. Auxiliary Lower Counterweights		
• 22K Assembly for 50" Open End Track Shoes (Each)	22,000	9 979
• 18.5K Assembly for 60" Open End Track Shoes (Each)	18,500	8 392
17. Side Frames		
• Side Frame with 60" Open End Track Shoes (Each)	56,860	25 792
• Side Frame with 50" Open End Track Shoes (Each)	62,800	28 486

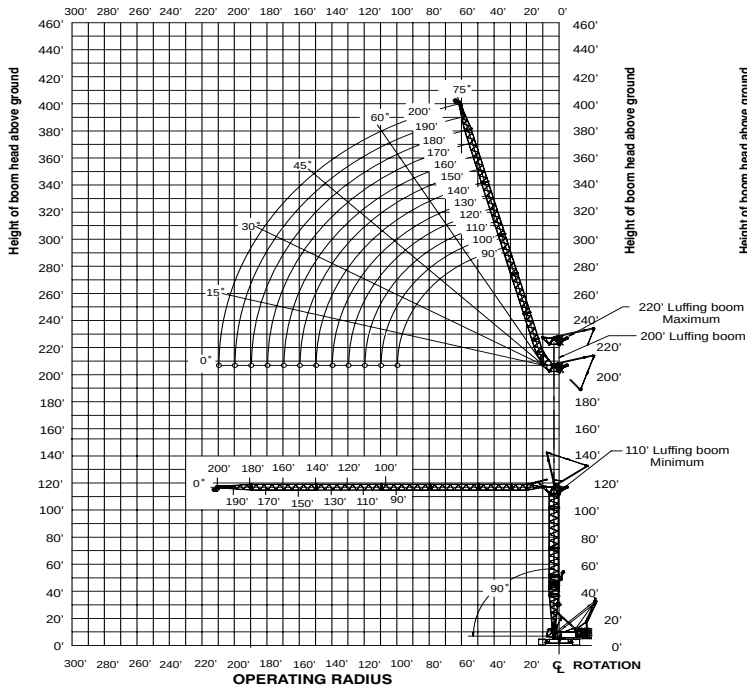
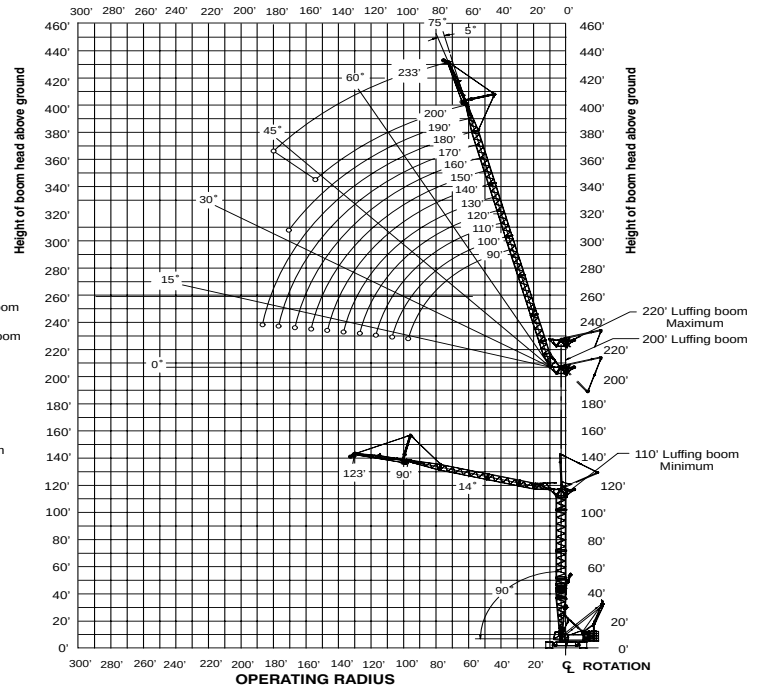
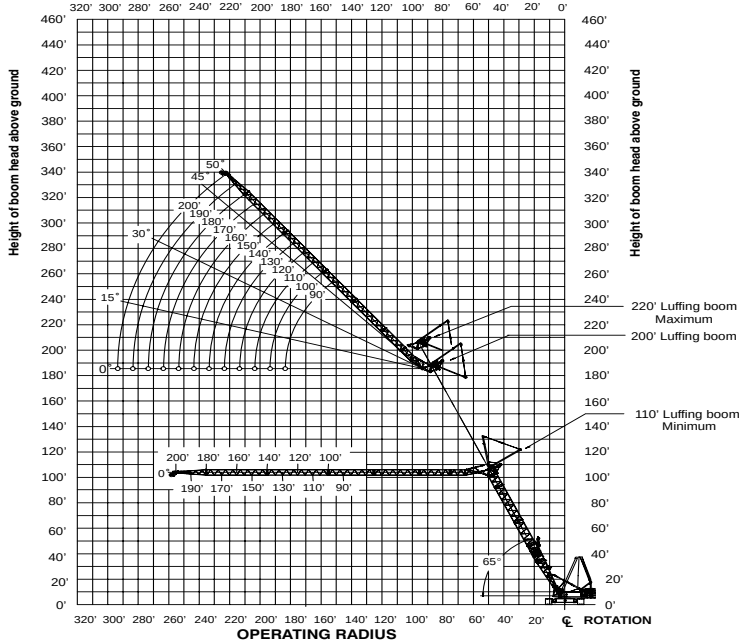
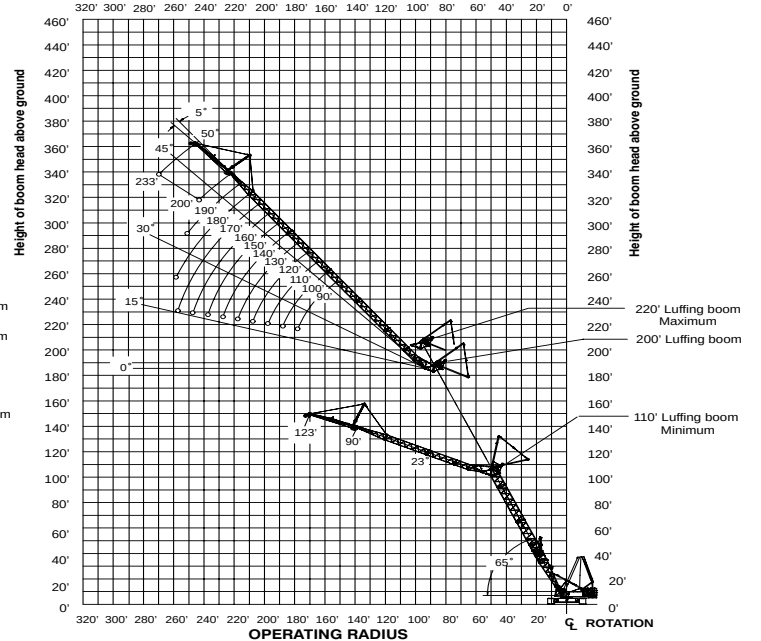
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CONSTRUCTION EQUIPMENT**WORKING RANGE DIAGRAMS****90° LUFFING BOOM ANGLE – 360° LUFFING JIB****90° LUFFING BOOM ANGLE – 360° LUFFING JIB + FIXED JIB****65° LUFFING BOOM ANGLE – 360° LUFFING JIB****65° LUFFING BOOM ANGLE – 360° LUFFING JIB + FIXED JIB****Notes:**

1. Boom and jib geometry shown are 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 luffing jib angles are equal to the values listed in the Capacity Chart for each boom length.
3. Refer to the Capacity Charts for allowable luffing boom, luffing jib, and fixed jib combinations.

LS-278H Luffing Attachment

**A.I.S.C. Certified Erector****PCI P.C.I. Qualified Erector**

L. R. WILLSON & SONS, INC.

773 ANNAPOLIS ROAD • PO BOX 227

GAMBRILLS, MARYLAND 21054

www.lrwilsonandsons.com

LS-278H 360 Degree Capacities - Luffing Boom + Luffing Jib																							
68" x 80" Luffing Boom, 50" x 60" Luffing Jib, 135K + LWR Counterweight																							
Luffing Boom Angle																							
Luffing Boom Length (ft)	Luffing Jib Length (ft)	Load Radius (ft)	90 Degrees			85 Degrees			80 Degrees			75 Degrees			70 Degrees			65 Degrees					
			Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)			
110	90	33	75.0	203.9	104.0	*																	
110	90	35	73.5	203.3	100.6	*																	
110	90	40	70.2	201.7	93.7	*																	
110	90	50	63.3	197.4	80.4	*	70.0	200.6	92.8	*													
110	90	60	55.9	191.5	69.0	*	62.9	196.2	79.3	*													
110	90	66								65.0	195.8	81.0											
110	90	70	47.8	183.6	61.0	*	55.5	190.2	71.4	*	62.5	194.1	76.0										
110	90	80	38.4	172.9	55.8	*	47.4	182.3	63.2	*	55.1	188.0	64.3										
110	90	83												60.0	189.6	59.2							
110	90	90	26.6	157.2	54.2	*	38.0	171.4	56.8	*	46.9	179.9	55.6	54.5	184.9	53.3							
110	90	98															55.0	181.9	45.8				
110	90	100	0.0	117.0	31.0	*	25.9	155.4	50.7		37.4	168.9	48.8	46.2	176.6	46.8	53.7	180.7	44.9				
110	90	109					0.0	116.0	35.2	*													
110	90	110									25.1	152.4	43.3	36.6	165.3	41.6	45.3	172.2	40.1				
110	90	113																	50.0	173.0	37.1		
110	90	118									0.0	114.2	39.3	*									
110	90	120												24.0	148.2	37.5	35.5	160.5	36.0	44.1	166.7	34.5	
110	90	128												0.0	111.6	34.5							
110	90	130															22.3	142.4	32.5	34.0	154.4	31.2	
110	90	137															0.0	108.2	30.3				
110	90	140																	19.9	134.7	28.3		
110	90	145																	0.0	104.0	26.8		
110	110	38	75.0	223.3	89.2	*																	
110	110	40	73.9	222.7	86.8	*																	
110	110	50	68.4	219.3	74.5	*																	
110	110	57					70.0	219.4	77.0	*													
110	110	60	62.7	214.7	63.9	*	68.2	218.1	73.9	*													
110	110	70	56.6	208.9	55.0	*	62.4	213.5	65.7	*													
110	110	75									65.0	213.9	68.9	*									
110	110	80	50.1	201.4	48.3	*	56.4	207.6	58.7	*	62.1	211.4	63.7										
110	110	90	43.0	192.0	43.5	*	49.8	200.1	50.9	*	56.0	205.4	55.0										
110	110	93												60.0	206.9	50.7							
110	110	100	34.6	179.5	40.1	*	42.6	190.5	45.1	*	49.5	197.8	48.2	55.5	202.3	46.2							
110	110	110	24.0	161.7	39.5	*	34.2	177.9	40.7	*	42.2	188.1	42.8	48.9	194.6	41.0	55.0	198.3	39.6				
110	110	120	0.0	117.0	24.8	*	23.4	159.8	39.0	*	33.7	175.3	38.7	41.6	184.7	37.0	48.2	190.3	35.4				
110	110	126																	50.0	188.3	31.8		
110	110	129					0.0	116.1	28.1	*													
110	110	130									22.7	156.6	34.9	33.0	171.5	33.5	40.8	180.1	32.0	47.3	184.9	30.6	
110	110	138									0.0	114.2	31.5	*									
110	110	140												21.6	152.2	30.4	32.0	166.5	29.1	39.7	174.3	27.8	
110	110	148												0.0	111.6	28.3							
110	110	150															20.2	146.1	26.6	30.7	160.1	25.4	
110	110	157															0.0	108.2	25.0				
110	110	160																	18.0	138.0	23.3		
110	110	165																	0.0	104.0	22.2		
110	130	43	75.0	242.6	74.9	*																	
110	130	50	71.8	240.5	68.8	*																	
110	130	60	67.1	236.8	60.8	*																	
110	130	64					70.0	238.2	65.6	*													
110	130	70	62.3	232.1	51.2	*	66.9	235.6	61.0	*													
110	130	80	57.2	226.2	44.1	*	62.0	230.9	54.9	*													
110	130	83									65.0	232.0	58.4	*									
110	130	90	51.7	219.1	38.1	*	56.9	225.0	47.9	*	61.8	228.8	54.4										
110	130	100	45.9	210.3	34.2	*	51.5	217.8	41.4	*	56.6	222.8	47.6										
110	130	103												60.0	224.2	44.0							
110	130	110	39.4	199.5	31.3	*	45.6	208.9	36.0	*	51.2	215.5	42.2	56.2	219.7	40.7							
110	130	120	31.8	185.5	29.5	*	39.1	198.0	32.5	*	45.3	206.6	37.9	*	50.8	212.3	36.5						
110	130	121															55.0	214.7	34.3				
110	130	130	22.0	165.8	29.1	*	31.4	183.8	30.0	*	38.7	195.5	33.5	*	44.8	203.2	32.9	50.2	208.0	31.4			
110	130	139																		50.0	203.6	27.4	
110	130	140	0.0	117.0	19.9	*	21.5	163.7	28.6	*	30.9	181.1	29.9	*	38.1	191.9	29.9	44.2	198.8	28.5	49.4	202.7	27.1
110	130	149					0.0	116.1	22.7	*													
110	130	150									20.8	160.5	27.1	*	30.3	177.2	27.3	37.4	187.2	26.0	43.3	193.2	24.8
110	130	158									0.0	114.2	25.6	*									
110	130	160												19.9	155.8	25.1	29.4	172.0	23.9	36.4	181.2	22.7	
110	130	168												0.0	111.6	23.5							
110	130	170															18.5	149.5	22.0	28.2	165.4	20.9	
110	130	177															0.0	108.2	20.8				
110	130	180																	16.6	141.1	19.3		
110	130	185																	0.0	104.1	18.5		
110	150	48	75.0	261.9	61.7	*																	
110	150	50	74.3	261.4	60.9	*																	
110	150	60	70.3	258.2	56.2	*																	
110	150	70	66.2	254.3	48.4	*	70.0	257.0	55.7	*													
110	150	80	62.0	249.4	40.1	*	66.0	253.1	50.6	*													
110	150	90	57.5	243.6	34.9	*	61.8	248.2	46.0	*													
110	150	92			34.1						65.0	250.2	49.5	*									
110	150	100	52.9	236.6	30.7	*	57.3	242.3	38.2	*	61.5	246.1	45.9	*									
110	150	110	47.9	228.4	27.4	*	52.7	235.3	33.3	*	57.1	240.2	41.6										
110	150	113												60.0	241.5	38.9							
110	150	120	42.6	218.4	24.8	*	47.7	227.0	29.4	*	52.4	233.1	36.4	*	56.7	237.1	35.9						



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LS-278H 360 Degree Capacities - Luffing Boom + Luffing Jib 68" x 80" Luffing Boom, 50" x 60" Luffing Jib, 135K + LWR Counterweight																							
Luffing Boom Length (ft)	Luffing Jib Length (ft)	Load Radius (ft)	Luffing Boom Angle																				
			90 Degrees				85 Degrees				80 Degrees				75 Degrees				70 Degrees				65 Degrees
			Jib Angle (deg)	Tip Height (ft)	Capacity (kips)		Jib Angle (deg)	Tip Height (ft)	Capacity (kips)		Jib Angle (deg)	Tip Height (ft)	Capacity (kips)		Jib Angle (deg)	Tip Height (ft)	Capacity (kips)		Jib Angle (deg)	Tip Height (ft)	Capacity (kips)		
130	90	90	26.6	177.2	51.0	*	39.8	193.5	57.5		49.9	202.7	54.8		58.5	207.6	52.1						
130	90	100	0.0	137.0	32.7	*	28.4	178.7	50.5		40.9	192.9	48.1		50.6	200.5	45.7						
130	90	105																55.0	200.7	41.1			
130	90	110					7.7	148.0	42.9	*	29.9	178.8	42.7		41.8	190.9	40.9	51.2	197.1	38.9			
130	90	111					0.0	136.0	36.8	*													
130	90	120									12.0	152.7	38.5		31.1	177.4	36.7	42.4	187.7	34.8			
130	90	122									0.0	133.9	37.6							50.0	191.1	32.4	
130	90	130													14.7	153.7	33.1	31.9	174.5	31.5	42.7	183.2	
130	90	133													0.0	130.9	32.1						
130	90	140																16.2	152.1	28.6	32.2	170.1	
130	90	144																0.0	127.0	27.5			
130	90	150																		16.8	148.2	24.7	
130	90	154																	0.0	122.2	23.8		
130	110	38	75.0	243.3	86.3	*																	
130	110	40	73.9	242.7	84.1	*																	
130	110	50	68.4	239.3	72.6	*																	
130	110	58					70.0	239.3	75.2	*													
130	110	60	62.7	234.7	64.9	*	69.1	238.7	73.7	*													
130	110	70	56.6	228.9	56.8	*	63.4	234.3	65.6	*													
130	110	78									65.0	233.6	64.4										
130	110	80	50.1	221.4	49.6	*	57.4	228.7	59.2	*	64.1	232.9	62.8										
130	110	90	43.0	212.0	44.2	*	51.0	221.5	54.0	*	58.2	227.4	54.2										
130	110	98													60.0	226.2	46.3						
130	110	100	34.6	199.5	40.4	*	44.0	212.3	47.3	*	51.8	220.4	47.5	58.7	225.0	45.1							
130	110	110	24.0	181.7	35.8	*	35.8	200.3	42.4	*	44.8	211.5	42.2	52.4	218.1	40.4							
130	110	117															55.0	217.1	35.5				
130	110	120	0.0	137.0	26.1	*	25.6	183.5	39.3	*	36.9	199.9	38.1	45.5	209.4	36.2	52.9	214.7	34.2				
130	110	130					6.9	149.2	33.3	*	27.0	183.8	34.5	37.7	198.2	32.7	46.0	206.1	30.9				
130	110	131					0.0	136.0	29.5	*													
130	110	135																		50.0	206.4	27.9	
130	110	140									10.9	154.7	31.3	28.1	182.7	29.7	38.2	195.1	28.1	46.2	201.5	26.5	
130	110	142									0.0	133.9	30.2	*									
130	110	150												13.3	156.2	27.1	28.8	179.9	25.6	38.4	190.5	24.2	
130	110	153												0.0	130.9	26.3							
130	110	160															14.7	154.8	23.5	29.1	175.6	22.2	
130	110	164															0.0	127.0	22.7				
130	110	170																		15.2	151.0	20.4	
130	110	174																	0.0	122.2	19.7		
130	130	43	75.0	262.6	72.4	*																	
130	130	50	71.8	260.5	66.7	*																	
130	130	60	67.1	256.8	59.5	*																	
130	130	65					70.0	258.1	63.8	*													
130	130	70	62.3	252.1	53.0	*	67.8	256.3	60.5	*													
130	130	80	57.2	246.2	45.5	*	62.9	251.7	54.5	*													
130	130	87									65.0	251.7	56.0										
130	130	90	51.7	239.1	39.0	*	57.8	246.0	49.6	*	63.5	250.3	53.6										
130	130	100	45.9	230.3	34.8	*	52.5	239.0	43.9	*	58.4	244.7	46.9										
130	130	108													60.0	243.5	40.7						
130	130	110	39.4	219.5	31.6	*	46.7	230.5	37.8	*	53.1	237.9	41.6	58.9	242.3	39.7							
130	130	120	31.8	205.5	29.1	*	40.3	220.0	33.7	*	47.4	229.6	37.6	53.6	235.6	35.6							
130	130	128															55.0	233.5	30.8				
130	130	130	22.0	185.8	25.7	*	32.9	206.5	30.6	*	41.1	219.3	34.0	48.0	227.5	32.1	54.0	232.2	30.3				
130	130	140	0.0	137.0	21.0	*	23.5	187.8	28.4	*	33.8	206.3	30.9	41.7	217.4	29.2	48.3	224.1	27.5				
130	130	147																		50.0	221.7	24.1	
130	130	150					6.4	150.4	24.4	*	24.8	188.4	27.6	34.6	204.7	26.6	42.1	214.2	25.1	48.5	219.5	23.5	
130	130	151					0.0	136.0	22.9	*													
130	130	160									10.0	156.5	24.5	25.8	187.5	24.4	35.1	201.7	23.0	42.3	209.6	21.6	
130	130	162									0.0	133.9	22.3	*									
130	130	170												12.2	158.4	22.5	26.4	184.8	21.2	35.3	197.2	19.8	
130	130	173												0.0	131.0	21.7	*						
130	130	180															13.5	157.3	19.5	26.7	180.5	18.3	
130	130	184															0.0	127.0	18.9				
130	130	190																		14.0	153.5	16.9	
130	130	194																	0.0	122.2	16.4		
130	150	48	75.0	281.9	58.9	*																	
130	150	50	74.3	281.4	58.2	*																	
130	150	60	70.3	278.2	54.0	*																	
130	150	70	66.2	274.3	48.9	*																	
130	150	72					70.0	276.9	53.5	*													
130	150	80	62.0	269.4	42.4	*	66.8	273.8	50.0	*													
130	150	90	57.5	263.6	35.9	*	62.5	269.0	45.5	*													
130	150	95									65.0	269.9	48.3	*									
130	150	100	52.9	256.6	31.4	*	58.1	263.3	41.7	*	63.0	267.6	46.3										
130	150	110	47.9	248.4	27.9	*	53.5	256.6	35.4	*	58.7	262.0	41.0										
130	150	118													60.0	260.8	35.7						
130	150	120	42.6	238.4	25.0	*	48.6	248.5	30.9	*	54.1	255.4	37.1	59.1	259.6	34.9							



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Luffing Boom Length (ft)	Luffing Jib Length (ft)	Load Radius (ft)	Luffing Boom Angle																	
			90 Degrees			85 Degrees			80 Degrees			75 Degrees			70 Degrees			65 Degrees		
			Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)
130	150	171				0.0	136.0	16.9	*											
130	150	180								9.3	158.2	17.7	*	24.0	191.9	19.1	*	32.6	207.7	19.0
130	150	182								0.0	134.0	16.4	*					39.3	217.1	17.7
130	150	190												11.3	160.4	16.6	*	24.6	189.4	17.6
130	150	193												0.0	131.0	16.0	*			
130	150	200																12.5	159.6	15.8
130	150	204																0.0	127.0	14.7
130	150	210																	13.0	155.9
130	150	214																0.0	122.2	13.6
130	170	54	75.0	301.2	45.8	*														
130	170	60	72.7	299.3	43.7	*														
130	170	70	69.2	295.9	40.3	*														
130	170	79					70.0	295.7	43.1	*										
130	170	80	65.5	291.7	36.9	*	69.6	295.3	42.8	*										
130	170	90	61.7	286.7	33.3	*	66.0	291.2	38.9	*										
130	170	100	57.8	280.9	28.8	*	62.2	286.4	36.5	*										
130	170	104									65.0	288.0	38.1	*						
130	170	110	53.8	274.1	25.1	*	58.4	280.7	33.5	*	62.7	285.0	36.6	*						
130	170	120	49.5	266.2	22.2	*	54.3	274.0	28.9	*	58.8	279.4	34.5	*						
130	170	128													60.0	278.2	31.5			
130	170	130	44.9	256.9	19.7	*	50.0	266.2	25.2	*	54.8	272.8	32.4	*	59.2	276.9	30.9			
130	170	140	39.9	245.9	17.8	*	45.5	257.2	22.1	*	50.5	265.2	28.6	*	55.2	270.5	28.0			
130	170	150	34.3	232.7	16.3	*	40.5	246.4	19.6	*	46.0	256.3	24.6	*	51.0	263.0	25.5			
130	170	151																55.0	266.2	23.6
130	170	160	27.7	216.1	14.9	*	35.0	233.5	17.6	*	41.1	245.8	21.1	*	46.5	254.2	23.3	51.2	259.6	21.8
130	170	170	19.2	193.0	13.4	*	28.6	217.4	16.0	*	35.7	233.2	18.2	*	41.6	243.9	21.4	46.8	250.9	20.0
130	170	173																		
130	170	180	0.0	137.1	12.7	*	20.5	195.6	14.6	*	29.5	217.5	15.8	*	36.3	231.5	18.8	*	42.0	240.7
130	170	190					5.6	152.5	13.3	*	21.6	196.6	13.9	*	30.1	216.2	15.8	*	36.6	228.4
130	170	191					0.0	136.0	12.3	*										
130	170	200									8.7	159.8	12.7	*	22.5	196.0	13.5	*	30.5	213.4
130	170	202									0.0	134.0	11.9	*						
130	170	210													10.7	162.4	11.8	*	23.1	193.6
130	170	213													0.0	131.0	11.5	*		
130	170	220																11.8	161.7	11.2
130	170	224													0.0	127.0	10.5	*	23.3	189.3
130	170	230																		
130	170	234																12.2	158.1	10.9
																		0.0	122.2	9.8
130	190	59	75.0	320.5	35.0	*														
130	190	60	74.6	320.2	34.8	*														
130	190	70	71.4	317.1	32.6	*														
130	190	80	68.2	313.4	30.2	*														
130	190	86					70.0	314.5	33.9	*										
130	190	90	64.9	309.1	27.8	*	68.6	312.9	33.0	*										
130	190	100	61.6	304.1	25.4	*	65.4	308.7	31.0	*										
130	190	110	58.1	298.2	22.8	*	62.0	303.7	29.2	*										
130	190	112									65.0	306.1	30.7	*						
130	190	120	54.4	291.6	19.8	*	58.5	298.0	27.3	*	62.4	302.3	29.3	*						
130	190	130	50.6	283.9	17.3	*	54.9	291.4	23.5	*	58.9	296.7	27.6	*						
130	190	138													60.0	295.5	27.9			
130	190	140	46.6	275.1	15.3	*	51.1	283.9	20.3	*	55.4	290.2	26.0	*	59.3	294.3	27.4			
130	190	150	42.3	264.9	13.6	*	47.2	275.3	17.7	*	51.6	282.8	23.6	*	55.7	287.9	24.9			
130	190	160	37.6	253.0	12.3	*	42.9	265.3	15.5	*	47.6	274.3	20.1	*	52.0	280.6	22.7			
130	190	163																		
130	190	170	32.4	238.7	11.3	*	38.3	253.6	13.7	*	43.4	264.5	17.1	*	48.0	272.2	20.8	55.0	282.6	20.7
130	190	180	26.2	220.8	10.4	*	33.1	239.7	12.3	*	38.8	253.0	14.6	*	43.8	262.5	18.7	*	48.3	268.8
130	190	186																		
130	190	190	18.2	196.3	9.5	*	27.1	222.4	11.1	*	33.7	239.4	12.5	*	39.3	251.2	15.4	*	44.1	259.2
130	190	200	0.0	137.0	9.0	*	19.4	199.1	10.1	*	27.8	222.6	10.9	*	34.2	237.8	12.9	*	39.6	248.1
130	190	210					5.3	153.4	9.5	*	20.5	200.3	9.6	*	28.4	221.4	10.9	*	34.6	234.9
130	190	211					0.0	136.0	8.7	*										
130	190	220									8.3	161.3	8.8	*	21.3	199.8	9.3	*	28.8	218.7
130	190	222									0.0	134.0	8.4	*						
130	190	230													10.1	164.2	8.1	*	21.8	197.5
130	190	233													0.0	131.0	8.0	*		
130	190	240																		
130	190	244													11.1	163.7	7.7	*	22.0	193.3
130	190	250													0.0	127.0	7.3	*		
130	190	254																	11.5	160.2
																			0.0	122.2
130	200	61	75.0	330.2	30.7	*														
130	200	70	72.4	327.6	29.0	*														
130	200	80	69.4	324.2	27.1	*														
130	200	89					70.0	323.9	30.4	*										
130	200	90	66.3	320.1	25.1	*	69.8	323.6	30.3	*										
130	200	100	63.1	315.4	23.0	*	66.7	319.6	28.5	*										
130	200	110	59.8	309.9	21.0	*	63.5	315.0	26.8	*										
130	200	116									65.0	315.2	27.4	*						
130	200	120	56.5	303.7	18.7	*	60.3	309.6	25.2	*	63.9	313.5	26.9	*						



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GAMBRILLS, MARYLAND 21054

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LS-278H 360 Degree Capacities - Luffing Boom + Luffing Jib 68" x 80" Luffing Boom, 50" x 60" Luffing Jib, 135K + LWR Counterweight																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Luffing Boom Length (ft)	Luffing Jib Length (ft)	Load Radius (ft)	Luffing Boom Angle																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
			90 Degrees			85 Degrees			80 Degrees			75 Degrees			70 Degrees			65 Degrees																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
			Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
130	200	150	45.4	279.3	12.5	*	49.8	288.6	16.9	*	53.8	295.4	22.4	*	57.6	299.9	23.9	*																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															</



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LS-278H 360 Degree Capacities - Luffing Boom + Luffing Jib																								
68" x 80" Luffing Boom, 50" x 60" Luffing Jib, 135K + LWR Counterweight																								
Luffing Boom Length (ft)	Luffing Jib Length (ft)	Load Radius (ft)	Luffing Boom Angle																					
			90 Degrees			85 Degrees			80 Degrees			75 Degrees			70 Degrees			65 Degrees						
			Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)				
150	130	156																	50.0	239.9	21.0			
150	130	160								16.7	190.9	24.1	*	30.6	216.4	23.7		40.0	229.4	22.0	47.6	236.2	20.3	
150	130	166								0.0	153.6	20.0	*											
150	130	170												20.3	195.4	21.8		32.6	215.7	20.2	41.3	226.0	18.7	
150	130	178												0.0	150.3	18.9	*							
150	130	180																23.1	196.8	18.7	34.1	213.1	17.2	
150	130	190																4.6	156.2	17.2	25.1	195.5	15.9	
150	130	200																			10.8	164.6	14.7	
150	130	202																			0.0	140.3	14.4	
150	150	48	75.0	301.9	53.4	*																		
150	150	50	74.3	301.4	52.6	*																		
150	150	60	70.3	298.2	48.2	*																		
150	150	70	66.2	294.3	43.4	*																		
150	150	74					70.0	296.8	50.8	*														
150	150	80	62.0	289.4	39.0	*	67.5	294.4	48.7	*														
150	150	90	57.5	283.6	34.6	*	63.3	289.9	44.5	*														
150	150	99									65.0	289.6	46.1											
150	150	100	52.9	276.6	30.5	*	58.9	284.3	39.8	*	64.5	289.0	45.5											
150	150	110	47.9	268.4	26.8	*	54.3	277.7	36.9	*	60.2	283.8	40.7											
150	150	120	42.6	258.4	23.5	*	49.5	269.9	32.1	*	55.7	277.5	36.4											
150	150	123												60.0	280.2	32.8								
150	150	130	36.6	246.3	20.7	*	44.2	260.5	28.2	*	50.9	270.1	32.8	56.9	275.9	30.6								
150	150	140	29.5	231.0	18.2	*	38.5	249.2	25.0	*	45.8	261.2	29.8	52.2	268.8	27.7								
150	150	146																						
150	150	150	20.5	209.5	16.2	*	31.8	235.0	21.6	*	40.2	250.5	27.2	47.2	260.3	25.3	55.0	268.7	24.1					
150	150	160	0.0	157.0	15.4	*	23.6	215.9	18.7	*	33.9	237.2	23.3	41.8	250.1	23.1	53.3	266.1	23.3					
150	150	169															48.4	258.0	21.4					
150	150	170					10.6	183.4	16.2	*	26.2	219.9	19.9	*	35.6	237.7	21.3				50.0	255.2	18.2	
150	150	172					0.0	155.9	15.4	*										49.4	254.1	18.0		
150	150	180									15.5	193.7	17.2	*	28.4	221.7	19.6				44.1	244.7	16.6	
150	150	186									0.0	153.7	14.5	*										
150	150	190												18.9	198.9	16.7	*	30.2	221.3	16.7	38.3	233.3	15.3	
150	150	198												0.0	150.3	13.8	*							
150	150	200																21.5	200.7	15.5	31.6	219.0	14.1	
150	150	210															4.3	157.0	13.3	*	23.4	199.8	13.1	
150	150	220																		10.0	166.4	12.1		
150	150	222																		0.0	140.3	11.9		
150	170	54	75.0	321.2	41.3	*																		
150	170	60	72.7	319.3	39.3	*																		
150	170	70	69.2	315.9	36.2	*																		
150	170	80	65.5	311.7	33.0	*																		
150	170	81					70.0	315.6	39.9	*														
150	170	90	61.7	306.7	29.7	*	66.6	311.9	37.6	*														
150	170	100	57.8	300.9	26.6	*	62.9	307.2	35.3	*														
150	170	107									65.0	307.7	36.4	*										
150	170	110	53.8	294.1	23.6	*	59.0	301.7	32.9	*	64.0	306.4	35.8	*										
150	170	120	49.5	286.2	20.9	*	55.0	295.2	29.5	*	60.2	301.1	33.7	*										
150	170	130	44.9	276.9	18.4	*	50.8	287.6	26.1	*	56.2	294.9	31.8	*										
150	170	133													60.0	297.5	29.0							
150	170	140	39.9	265.9	16.2	*	46.3	278.8	22.8	*	52.0	287.7	29.2	57.3	293.3	27.1								
150	170	150	34.3	252.7	14.3	*	41.4	268.4	20.1	*	47.6	279.2	26.3	*	53.2	286.3	24.6							
150	170	158																55.0	285.0	21.1				
150	170	160	27.7	236.1	12.7	*	36.0	255.9	17.7	*	42.9	269.3	22.4	*	48.8	278.2	22.5	54.1	283.6	20.7				
150	170	170	19.2	213.0	11.4	*	29.8	240.5	15.4	*	37.7	257.5	19.0	*	44.2	268.7	20.7	49.9	275.8	19.0				
150	170	180	0.0	157.1	11.0	*	22.2	220.0	13.4	*	31.8	243.1	16.1	*	39.1	257.5	19.1	45.3	266.6	17.5				
150	170	182																						
150	170	190					9.9	185.2	11.7	*	24.6	224.4	13.9	*	33.4	243.9	16.7	*	40.3	255.8	16.1	50.0	270.5	15.7
150	170	192					0.0	155.9	11.0	*									46.2	262.9	14.6			
150	170	200									14.5	196.3	12.1	*	26.7	226.6	13.9	*	34.8	242.8	14.9	41.3	252.5	13.5
150	170	206									0.0	153.7	10.4	*										
150	170	210												17.8	202.1	11.7	*	28.4	226.6	13.8	35.9	240.0	12.5	
150	170	218												0.0	150.3	9.8	*							
150	170	220																20.2	204.4	11.7	*	29.7	224.4	11.5
150	170	230													4.0	157.7	9.4	*	21.9	203.8	10.7			
150	170	240																		9.4	168.1	9.3	*	
150	170	242																		0.0	140.3	8.4	*	
150	190	59	75.0	340.5	31.8	*																		
150	190	60	74.6	340.2	31.6	*																		
150	190	70	71.4	337.1	29.4	*																		
150	190	80	68.2	333.4	27.1	*																		
150	190	88	</																					

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Luffing Boom Length (ft)	Luffing Jib Length (ft)	Load Radius (ft)	Luffing Boom Angle																	
			90 Degrees			85 Degrees			80 Degrees			75 Degrees			70 Degrees			65 Degrees		
			Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)
150	190	169													55.0	301.4	18.4			
150	190	170	32.4	258.7	9.7 *	39.1	275.7	13.9 *	44.9	287.8	18.2 *	50.1	296.0	20.1	54.8	301.0	18.3			
150	190	180	26.2	240.8	8.6 *	34.0	262.2	12.3 *	40.5	276.9	15.3 *	46.0	287.0	18.5	51.0	293.4	16.8			
150	190	190	18.2	216.3	7.7 *	28.2	245.7	10.7 *	35.6	264.1	12.8 *	41.7	276.6	16.8 *	47.0	284.7	15.5			
150	190	194																50.0	285.8	13.4
150	190	200	0.0	157.0	7.7 *	20.9	223.8	9.3 *	30.0	248.6	10.9 *	36.9	264.4	13.7 *	42.7	274.7	14.3	47.8	281.0	12.8
150	190	210				9.4	186.9	8.2 *	23.3	228.7	9.4 *	31.6	249.7	11.3 *	38.1	262.9	13.2	43.6	271.2	11.8
150	190	212				0.0	155.9	7.6 *												
150	190	220							13.8	198.8	8.2 *	25.2	231.2	9.4 *	32.9	248.9	12.2	39.0	259.8	10.9
150	190	226							0.0	153.7	7.1 *									
150	190	230										16.8	205.2	7.9 *	26.8	231.5	9.8 *	33.9	246.2	10.1
150	190	238										0.0	150.3	6.7 *						
150	190	240													19.1	207.8	7.9 *	28.0	229.6	9.3
150	190	250													3.8	158.4	6.3 *	20.7	207.5	8.2 *
150	190	260																8.9	169.7	6.2 *
150	190	262																0.0	140.3	5.6 *
150	200	61	75.0	350.2	27.8 *															
150	200	70	72.4	347.6	26.3 *															
150	200	80	69.4	344.2	24.3 *															
150	200	90	66.3	340.1	22.3 *															
150	200	91				70.0	343.8	28.8 *												
150	200	100	63.1	335.4	20.3 *	67.2	340.3	27.1 *												
150	200	110	59.8	329.9	18.3 *	64.1	335.7	25.2 *												
150	200	120	56.5	323.7	16.4 *	60.8	330.5	23.2 *	65.0	334.9	26.3 *									
150	200	130	53.0	316.6	14.6 *	57.5	324.6	21.1 *	61.8	329.9	24.7 *									
150	200	140	49.3	308.6	12.9 *	54.0	317.8	19.0 *	58.5	324.1	23.3 *									
150	200	148										60.0	323.5	23.9 *						
150	200	150	45.4	299.3	11.4 *	50.4	310.0	17.0 *	55.1	317.6	21.9 *	59.4	322.3	23.6 *						
150	200	160	41.2	288.7	10.0 *	46.6	301.2	15.0 *	51.5	310.1	20.6 *	56.0	316.0	21.6 *						
150	200	170	36.6	276.3	8.8 *	42.5	291.0	13.0 *	47.7	301.6	17.8 *	52.4	308.8	19.8 *						
150	200	175													55.0	309.6	17.2			
150	200	180	31.5	261.5	7.7 *	38.1	279.2	11.4 *	43.7	291.8	14.9 *	48.7	300.6	18.2	53.3	306.1	16.5			
150	200	190	25.5	243.1	6.9 *	33.1	265.2	10.0 *	39.4	280.6	12.4 *	44.8	291.2	16.7	49.6	298.1	15.2			
150	200	200	17.7	217.9	6.2 *	27.5	248.1	8.8 *	34.6	267.3	10.4 *	40.6	280.4	13.7 *	45.7	289.0	14.0			
150	200	201																50.0	293.5	12.4
150	200	210	0.0	157.0	5.7 *	20.4	225.6	7.6 *	29.2	251.3	8.8 *	36.0	267.7	11.2 *	41.6	278.6	12.9	46.5	285.3	11.5
150	200	220				9.2	187.7	6.7 *	22.7	230.7	7.5 *	30.7	252.5	9.2 *	37.1	266.3	11.9	42.4	275.1	10.6
150	200	222				0.0	155.9	6.0 *												
150	200	230							13.4	200.0	6.6 *	24.6	233.4	7.6 *	32.0	251.8	9.9 *	38.0	263.3	9.8
150	200	236							0.0	153.7	5.7 *									
150	200	240										16.4	206.6	6.3 *	26.1	233.8	7.9 *	33.0	249.2	9.0
150	200	248										0.0	150.3	5.4 *						
150	200	250													18.6	209.5	6.3 *	27.3	232.0	8.3
150	200	260													3.7	158.8	5.0 *	20.2	209.3	6.6 *
150	200	270																8.7	170.5	4.9 *
150	200	272																0.0	140.3	4.4 *
170	90	33	75.0	263.9	89.2 *															
170	90	35	73.5	263.3	87.4 *															
170	90	40	70.2	261.7	83.3 *															
170	90	50	63.3	257.4	73.7 *															
170	90	55				70.0	260.4	80.4 *												
170	90	60	55.9	251.5	65.9 *	66.6	258.4	76.1 *												
170	90	70	47.8	243.6	56.1 *	59.5	253.3	68.3 *												
170	90	77							65.0	254.9	64.6									
170	90	80	38.4	232.9	47.9 *	51.8	246.5	61.7 *	62.8	253.4	61.5									
170	90	90	26.6	217.2	41.2 *	43.1	237.3	56.0 *	55.4	247.4	53.1									
170	90	98										60.0	247.5	44.2						
170	90	100	0.0	177.0	34.3 *	32.7	224.5	48.1 *	47.3	239.4	46.6	58.7	246.5	43.2						
170	90	110				17.8	203.3	40.8 *	37.8	228.5	41.3	50.9	239.4	38.8						
170	90	114				0.0	175.8	37.2 *												
170	90	119													55.0	238.3	32.5			
170	90	120							25.7	212.4	37.4	42.2	230.0	34.8	54.1	237.5	32.1			
170	90	129							0.0	173.3	34.0									
170	90	130										31.5	216.6	31.4	45.8	229.1	29.0			
170	90	139																50.0	227.3	24.5
170	90	140										15.5	193.7	28.5	36.1	217.6	26.4	48.8	226.1	24.2
170	90	143										0.0	169.6	27.5						
170	90	150													23.2	200.0	24.0	39.7	215.9	22.1
170	90	157													0.0	164.6	22.4			
170	90	160																28.3	201.1	20.2
170	90	170																7.4	170.0	18.5
170	90	171																0.0	158.4	18.4
170	110	38	75.0	283.3	76.6 *															
170	110	40	73.9	282.7	74.9 *															
170	110	50	68.4	279.3	66.8 *															
170	110	60	62.7	274.7	58.5 *															
170	110	62				70.0	279.2	68.7 *												
170	110	70	56.6	268.9	50.7 *	65.4	275.9	63.3 *												
170	110	80	50.1	261.4	43.7 *	59.6	270.7	57.1 *												
170	110	85							65.0	273.0	56.0									
170	110	90	43.0	252.0	38.1 *	53.3	264.0	52.2 *	62.3	270.7	52.4									



L. R. WILLSON & SONS, INC.

773 ANNAPOLIS ROAD • PO BOX 227

GAMBRILLS, MARYLAND 21054

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LS-278H 360 Degree Capacities - Luffing Boom + Luffing Jib 68" x 80" Luffing Boom, 50" x 60" Luffing Jib, 135K + LWR Counterweight																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
Luffing Boom Length (ft)	Luffing Jib Length (ft)	Load Radius (ft)	Luffing Boom Angle																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
			90 Degrees				85 Degrees				80 Degrees				75 Degrees				70 Degrees				65 Degrees																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
			Jib Angle (deg)	Tip Height (ft)	Capacity (kips)		Jib Angle (deg)	Tip Height (ft)	Capacity (kips)		Jib Angle (deg)	Tip Height (ft)	Capacity (kips)		Jib Angle (deg)	Tip Height (ft)	Capacity (kips)		Jib Angle (deg)	Tip Height (ft)	Capacity (kips)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
170	110	100	34.6	239.5	33.0	*	46.5	255.6	46.1	*	56.3	264.8	45.9		60.0	264.8	38.9																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		



A.I.S.C. Certified Erector



PCI P.C.I. Qualified Erector

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LS-278H 360 Degree Capacities - Luffing Boom + Luffing Jib																	
68" x 80" Luffing Boom, 50" x 60" Luffing Jib, 135K + LWR Counterweight																	
Luffing Boom Length (ft)	Luffing Jib Length (ft)	Load Radius (ft)	Luffing Boom Angle														
			90 Degrees			85 Degrees			80 Degrees			75 Degrees			70 Degrees		
			Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)
170	170	100	57.8	320.9	23.3 *	63.6	328.0	33.0 *									
170	170	110	53.8	314.1	20.6 *	59.7	322.6	29.8 *									
170	170	111							65.0	327.4	34.7 *						
170	170	120	49.5	306.2	18.1 *	55.7	316.3	26.7 *	61.5	322.7	32.8 *						
170	170	130	44.9	296.9	15.9 *	51.6	308.9	23.6 *	57.6	316.9	30.9 *						
170	170	138										60.0	316.8	26.5			
170	170	140	39.9	285.9	14.0 *	47.1	300.3	20.8 *	53.5	310.0	28.6	59.3	315.8	26.1			
170	170	150	34.3	272.7	12.3 *	42.3	290.2	18.2 *	49.2	302.0	26.1	55.3	309.4	23.7			
170	170	160	27.7	256.1	10.8 *	37.0	278.2	15.8 *	44.6	292.7	23.3 *	51.1	301.9	21.7			
170	170	165													55.0	303.8	18.7
170	170	170	19.2	233.0	9.7 *	31.0	263.4	13.7 *	39.6	281.6	19.9 *	46.6	293.2	19.9	52.8	300.0	17.9
170	170	180	0.0	177.1	9.4 *	23.7	244.0	11.9 *	33.9	268.2	16.6 *	41.8	282.9	18.3	48.5	291.8	16.4
170	170	190				12.9	213.8	10.3 *	27.3	251.3	13.9 *	36.5	270.6	16.9	43.8	282.2	15.1
170	170	194				0.0	175.9	9.8 *								50.0	288.6
170	170	200							18.6	227.7	11.8 *	30.3	255.4	14.4 *	38.7	270.8	14.0
170	170	209							0.0	173.4	9.1 *						
170	170	210										22.8	235.4	11.8 *	32.9	256.9	12.9
170	170	220										11.3	202.8	9.7 *	26.0	239.2	12.0
170	170	223										0.0	169.6	8.3 *			
170	170	230													16.8	213.7	9.8 *
170	170	237													0.0	164.6	7.6 *
170	170	240															
170	170	250														20.5	217.9
170	170	251														5.4	174.4
																0.0	158.5
170	190	59	75.0	360.5	28.4 *												
170	190	60	74.6	360.2	28.2 *												
170	190	70	71.4	357.1	26.1 *												
170	190	80	68.2	353.4	24.0 *												
170	190	89				70.0	354.3	29.8 *									
170	190	90	64.9	349.1	21.7 *	69.8	354.1	29.6 *									
170	190	100	61.6	344.1	19.5 *	66.5	350.1	27.5 *									
170	190	110	58.1	338.2	17.4 *	63.2	345.4	25.3 *									
170	190	119							65.0	345.5	28.0 *						
170	190	120	54.4	331.6	15.4 *	59.8	339.9	23.0 *	64.7	345.2	27.8 *						
170	190	130	50.6	323.9	13.6 *	56.2	333.7	20.7 *	61.4	340.1	26.2 *						
170	190	140	46.6	315.1	11.9 *	52.5	326.5	18.4 *	57.9	334.2	24.7 *						
170	190	148										60.0	334.1	23.5			
170	190	150	42.3	304.9	10.4 *	48.6	318.3	16.2 *	54.2	327.5	23.3 *	59.4	333.1	23.1			
170	190	160	37.6	293.0	9.1 *	44.4	308.8	14.2 *	50.4	319.7	21.2 *	55.8	326.8	21.1			
170	190	170	32.4	287.7	7.9 *	39.9	297.7	12.4 *	46.4	310.9	18.8 *	52.1	319.5	19.3			
170	190	176													55.0	320.2	16.3
170	190	180	26.2	260.8	7.0 *	35.0	284.7	10.7 *	42.1	300.6	16.0 *	48.2	311.1	17.7	53.6	317.5	15.8
170	190	190	18.2	236.3	6.2 *	29.3	268.8	9.3 *	37.3	288.5	13.2 *	44.0	301.5	16.3	49.8	309.6	14.5
170	190	200	0.0	177.0	6.3 *	22.4	248.1	8.0 *	32.0	274.1	11.0 *	39.4	290.3	14.6 *	45.7	300.5	13.3
170	190	203															
170	190	210				12.2	216.0	6.9 *	25.8	256.0	9.2 *	34.4	277.0	11.8 *	41.3	290.0	12.3
170	190	214				0.0	175.8	6.7 *								47.1	297.7
170	190	220							17.6	230.9	7.8 *	28.7	260.7	9.6 *	36.5	277.6	11.4
170	190	229							0.0	173.4	6.0 *						
170	190	230										21.6	239.4	7.8 *	31.1	262.6	10.4 *
170	190	240										10.7	204.7	6.3 *	24.6	243.7	8.2 *
170	190	243										0.0	169.6	5.4 *			
170	190	250													15.9	216.6	6.4 *
170	190	257													0.0	164.6	4.9 *
170	190	260															
170	190	270														19.4	221.4
170	190	271														5.1	175.3
																0.0	158.4
170	200	61	75.0	370.2	24.8 *												
170	200	70	72.4	367.6	23.3 *												
170	200	80	69.4	364.2	21.5 *												
170	200	90	66.3	360.1	19.6 *												
170	200	93				70.0	363.7	26.2 *									
170	200	100	63.1	355.4	17.7 *	67.8	360.9	24.9 *									
170	200	110	59.8	349.9	15.8 *	64.6	356.5	23.0 *									
170	200	120	56.5	343.7	14.0 *	61.4	351.4	21.0 *									
170	200	123							65.0	354.6	25.0 *						
170	200	130	53.0	336.6	12.3 *	58.1	345.6	19.0 *	62.9	351.4	24.1 *						
170	200	140	49.3	328.6	10.8 *	54.7	338.9	17.0 *	59.6	345.9	22.7 *						
170	200	150	45.4	319.3	9.4 *	51.1	331.4	15.1 *	56.3	339.6	21.4 *						
170	200	153										60.0	342.8	22.1			
170	200	160	41.2	308.7	8.2 *	47.3	322.7	13.3 *	52.7	332.5	19.8 *	57.8	338.7	20.7			
170	200	170	36.6	296.3	7.1 *	43.2	312.8	11.6 *	49.1	324.4	17.7 *	54.3	332.0	19.0			
170	200	180	31.5	281.5	6.1 *	38.9	301.3	10.1 *	45.1	315.1	15.7 *	50.7	324.3	17.4			
170	200	182															
170	200	190	25.5	263.1	5.4 *	34.1	287.8	8.7 *	40.9	304.4	12.9 *	46.9	315.5	16.0	55.0	328.4	15.2
170	200	200	17.7	237.9	4.8 *	28.5	271.3	7.4 *	36.4	291.9	10.6 *	42.8	305.5	14.8	52.1	322.5	14.2
170	200	209													48.4	314.2	13.0
170	200	210	0.0	177.0	4.9 *	21.8	250.0	6.4 *	31.2	276.9	8.8 *	38.4	293.8	11.8 *	44.5	304.7	12.0
170	200	220				11.9	217.0	5.5 *	25.1	258.2	7.3 *	33.5	280.0	9.5 *	40.2	293.7	11.1
170	200	224				0.0	175.8	5.3 *									
170	200	230							17.2	232.4	6.2 *	27.9	263.2	7.6 *	35.5	280.8	10.2
170	200	239							0.0	173.4	4.7 *						



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LS-278H 360 Degree Capacities - Luffing Boom + Luffing Jib																								
68" x 80" Luffing Boom, 50" x 60" Luffing Jib, 135K + LWR Counterweight																								
Luffing Boom Length (ft)	Luffing Jib Length (ft)	Load Radius (ft)	Luffing Boom Angle																					
			90 Degrees			85 Degrees			80 Degrees			75 Degrees			70 Degrees			65 Degrees						
			Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)				
170	200	240																						
170	200	250																						
170	200	253													21.0	241.2	6.2	*	30.3	265.4	8.3	*		
170	200	260													10.4	205.7	4.9	*	24.0	245.9	6.5	*		
170	200	267													0.0	169.6	4.1	*						
170	200	270																	15.5	218.0	5.0	*		
170	200	280																	0.0	164.6	3.7	*		
170	200	281																			18.9	223.1	5.2	*
																					5.0	175.7	3.6	*
																					0.0	158.4	3.3	*
190	90	33	75.0	283.9	78.3	*																		
190	90	35	73.5	283.3	77.0	*																		
190	90	40	70.2	281.7	74.0	*																		
190	90	50	63.3	277.4	66.4	*																		
190	90	57					70.0	280.3	71.5	*														
190	90	60	55.9	271.5	57.5	*	67.8	279.1	69.2	*														
190	90	70	47.8	263.6	49.5	*	60.8	274.3	62.4	*														
190	90	80	38.4	252.9	42.6	*	53.2	267.8	56.6	*	65.0	274.6	60.0											
190	90	90	26.6	237.2	37.4	*	44.7	259.0	51.5	*	58.1	269.4	52.1											
190	90	100	0.0	197.0	34.6	*	34.7	247.0	44.2	*	50.2	262.2	45.7											
190	90	104													60.0	266.8	40.5							
190	90	110					21.1	228.1	37.9	*	41.3	252.4	41.0		55.1	262.7	37.5							
190	90	116					0.0	195.7	34.7	*														
190	90	120									30.4	238.6	36.7		46.9	254.6	33.6							
190	90	126																						
190	90	130									13.3	213.6	33.1		37.4	243.5	30.4		55.0	257.1	28.8			
190	90	132									0.0	193.0	30.9	*					51.6	253.9	27.6			
190	90	140																						
190	90	147													25.0	227.0	27.6		42.9	244.7	25.1			
190	90	148																						
190	90	150													0.0	188.9	25.4				50.0	245.5	21.1	
190	90	160																	32.5	231.7	22.9			
190	90	164																	17.4	210.2	20.9			
190	90	170													0.0	183.4	20.1				38.1	232.1	18.8	
190	90	179																			26.1	216.2	17.3	
																					0.0	176.5	15.9	
190	110	38	75.0	303.3	66.0	*																		
190	110	40	73.9	302.7	64.5	*																		
190	110	50	68.4	299.3	57.8	*																		
190	110	60	62.7	294.7	50.9	*																		
190	110	64					70.0	299.1	61.4	*														
190	110	70	56.6	288.9	44.4	*	66.4	296.6	57.8	*														
190	110	80	50.1	281.4	38.9	*	60.6	291.6	52.5	*														
190	110	89									65.0	292.7	52.2											
190	110	90	43.0	272.0	33.8	*	54.4	285.2	47.9	*	64.4	292.2	51.4											
190	110	100	34.6	259.5	29.5	*	47.7	277.1	41.7	*	58.4	286.7	45.0											
190	110	110	24.0	241.7	25.9	*	40.2	266.8	36.2	*	52.1	279.8	40.4											
190	110	114													60.0	284.1	35.4							
190	110	120	0.0	197.0	24.3	*	31.3	252.9	31.1	*	45.1	271.0	36.2		56.0	280.1	33.0							
190	110	130					19.1	231.7	26.7	*	37.2	259.5	32.7		49.4	272.4	29.8							
190	110	136					0.0	195.7	24.6	*														
190	110	137																						
190	110	140																	55.0	273.5	25.0			
190	110	150									27.5	243.7	29.7		42.2	262.7	27.0		53.2	271.5	24.4			
190	110	152									12.0	215.9	26.8	*	33.7	249.9	24.7		46.4	263.0	22.2			
190	110	160									0.0	193.0	22.5	*										
190	110	168													22.6	231.2	22.6	*	38.7	252.1	20.4		50.0	260.8
190	110	170													0.0	188.9	20.0	*						
190	110	180																	29.3	237.3	18.7		42.7	251.2
190	110	184																	15.7	213.1	17.2		34.4	238.6
190	110	190																	0.0	183.4	16.6			
190	110	199																			23.6	220.6	14.1	
																					0.0	176.5	13.1	
190	130	43	75.0	322.6	52.3	*																		
190	130	50	71.8	320.5	49.0	*																		
190	130	60	67.1	316.8	44.0	*																		
190	130	70	62.3	312.1	39.3	*	70.0	317.9	52.5	*														
190	130	80	57.2	306.2	34.6	*	65.5	314.0	48.2	*														
190	130	90	51.7	299.1	30.3	*	60.5	308.9	43.6	*														
190	130	97									65.0	310.8	45.9											
190	130	100	45.9	290.3	26.5	*	55.3	302.6	38.6	*	63.7	309.6	44.3											
190	130	110	39.4	279.5	23.2	*	49.8	295.0	33.8	*	58.7	304.1	39.8											
190	130	120	31.8	265.5	20.3	*	43.7	285.6	29.3	*	53.3	297.3	35.6											
190	130	124													60.0	301.5	31.1							
190	130	130	22.0	245.8	18.1	*	36.9	273.8	25.3	*	47.6	289.1	32.1		56.6	297.4	29.1							
190	130	140	0.0	197.0	17.1	*	28.8	258.3	21.9	*	41.3	278.9	29.2		51.2	290.1	26.4							
190	130	14																						

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Luffing Boom Length (ft)	Luffing Jib Length (ft)	Load Radius (ft)	Luffing Boom Angle														
			90 Degrees			85 Degrees			80 Degrees			75 Degrees			70 Degrees		
			Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)
190	130	188										0.0	188.9	14.5	*		
190	130	190													26.9	242.3	15.4
190	130	200													14.4	215.8	14.2
190	130	204													0.0	183.4	12.9
190	130	210															21.7
190	130	219													0.0	176.5	10.7
190	150	48	75.0	341.9	41.2	*											
190	150	50	74.3	341.4	40.7	*											
190	150	60	70.3	338.2	37.3	*											
190	150	70	66.2	334.3	33.7	*											
190	150	77					70.0	336.7	42.8	*							
190	150	80	62.0	329.4	30.1	*	68.9	335.7	41.9	*							
190	150	90	57.5	323.6	26.6	*	64.8	331.4	38.3	*							
190	150	100	52.9	316.6	23.4	*	60.5	326.2	34.4	*							
190	150	106									65.0	329.0	40.2	*			
190	150	110	47.9	308.4	20.5	*	56.0	320.0	30.6	*	63.2	326.9	39.0	*			
190	150	120	42.6	298.4	18.0	*	51.2	312.6	26.9	*	58.8	321.4	35.0	*			
190	150	130	36.6	286.3	15.8	*	46.1	303.9	23.5	*	54.3	314.8	31.5	*			
190	150	134										60.0	318.8	27.4			
190	150	140	29.5	271.0	13.9	*	40.6	293.3	20.4	*	49.4	306.9	28.6	*	57.1	314.8	25.7
190	150	150	20.5	249.5	12.4	*	34.3	280.2	17.7	*	44.2	297.5	26.1	*	52.4	307.7	23.4
190	150	160	0.0	197.0	11.9	*	26.7	263.2	15.3	*	38.4	286.1	22.9	*	47.4	299.3	21.4
190	150	170					16.3	237.8	13.3	*	31.7	271.9	19.6	*	42.0	289.2	19.7
190	150	176					0.0	195.7	12.4	*							
190	150	180									23.5	252.7	16.6	*	35.9	276.8	18.1
190	150	186															
190	150	190									10.3	219.7	13.8	*	28.7	261.0	16.7
190	150	192									0.0	193.1	11.6	*			
190	150	200										19.3	238.5	14.1	*	32.9	264.9
190	150	208										0.0	188.9	10.2	*		
190	150	210													25.0	246.9	12.6
190	150	220													13.4	218.2	11.4
190	150	224													0.0	183.4	9.0
190	150	230															
190	150	239														20.2	228.3
															0.0	176.5	7.9
190	170	54	75.0	361.2	32.4	*											
190	170	60	72.7	359.3	30.8	*											
190	170	70	69.2	355.9	28.1	*											
190	170	80	65.5	351.7	25.4	*											
190	170	84					70.0	355.5	34.0	*							
190	170	90	61.7	346.7	22.7	*	67.9	353.2	32.4	*							
190	170	100	57.8	340.9	20.2	*	64.2	348.8	29.7	*							
190	170	110	53.8	334.1	17.8	*	60.4	343.5	26.8	*							
190	170	114									65.0	347.1	32.8	*			
190	170	120	49.5	326.2	15.6	*	56.4	337.4	23.9	*	62.8	344.3	31.7	*			
190	170	130	44.9	316.9	13.6	*	52.3	330.2	21.2	*	59.0	338.7	29.8	*			
190	170	140	39.9	305.9	11.9	*	47.9	321.9	18.6	*	55.0	332.2	27.6	*			
190	170	144										60.0	336.1	24.2			
190	170	150	34.3	292.7	10.4	*	43.2	312.1	16.2	*	50.7	324.6	24.5	*	57.4	332.1	22.8
190	170	160	27.7	276.1	9.2	*	38.0	300.4	14.1	*	46.2	315.8	21.6	*	53.3	325.2	20.8
190	170	170	19.2	253.0	8.2	*	32.1	286.1	12.1	*	41.4	305.3	18.8	*	49.0	317.2	19.0
190	170	172															
190	170	180	0.0	197.1	8.0	*	25.1	267.8	10.5	*	36.0	292.8	16.2	*	44.4	307.7	17.5
190	170	190					15.3	240.6	9.1	*	29.7	277.4	13.8	*	39.3	296.6	16.2
190	170	196					0.0	195.7	8.5	*							
190	170	198															
190	170	200									22.0	256.7	11.6	*	33.6	283.0	14.9
190	170	210									9.6	221.5	9.5	*	26.9	265.9	11.9
190	170	212									0.0	193.1	7.9	*			
190	170	220													18.2	241.8	9.6
190	170	228													0.0	188.9	6.9
190	170	230															
190	170	240													23.5	251.2	10.0
190	170	244													12.6	220.5	7.7
190	170	250													0.0	183.4	6.0
190	170	259															
																18.9	231.7
															0.0	176.5	5.2
190	190	59	75.0	380.5	25.0	*											
190	190	60	74.6	380.2	24.7	*											
190	190	70	71.4	377.1	22.8	*											
190	190	80	68.2	373.4	20.8	*											
190	190	90	64.9	369.1	18.8	*											
190	190	91					70.0	374.3	26.6	*							
190	190	100	61.6	364.1	16.8	*	67.1	370.7	24.8	*							
190	190	110	58.1	358.2	14.8	*	63.8	366.2	22.7	*							
190	190	120	54.4	351.6	13.0	*	60.4	360.9	20.6	*							
190	190	123									65.0	365.2	26.4	*			
190	190	130	50.6	343.9	11.4	*	56.8	354.8	18.4	*	62.5	361.6	25.3	*			
190	190	140	46.6	335.1	9.9	*	53.1	347.8	16.3	*	59.1	356.0	23.9	*			
190	190	150	42.3	324.9	8.5	*	49.3	339.7	14.3	*	55.5	349.6	21.7	*			
190	190	154													60.0	353.4	21.4
190	190	160	37.6	313.0	7.4	*	45.2	330.5	12.5	*	51.8	342.2	19.5	*	57.7	349.5	20.1



A.I.S.C. Certified Erector



P.C.I. Qualified Erector

L. R. WILLSON & SONS, INC.

773 ANNAPOLIS ROAD • PO BOX 227

GAMBRILLS, MARYLAND 21054

www.lrwilsonandsons.com

LS-278H 360 Degree Capacities - Luffing Boom + Luffing Jib 68" x 80" Luffing Boom, 50" x 60" Luffing Jib, 135K + LWR Counterweight																						
Luffing Boom Length (ft)	Luffing Jib Length (ft)	Load Radius (ft)	Luffing Boom Angle																			
			90 Degrees				85 Degrees				80 Degrees			75 Degrees			70 Degrees			65 Degrees		
			Jib Angle (deg)	Tip Height (ft)	Capacity (kips)		Jib Angle (deg)	Tip Height (ft)	Capacity (kips)		Jib Angle (deg)	Tip Height (ft)	Capacity (kips)		Jib Angle (deg)	Tip Height (ft)	Capacity (kips)		Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	
210	90	60	55.9	291.5	49.9	*	69.0	299.7	62.1	*												
210	90	70	47.8	283.6	43.4	*	62.0	295.1	56.5	*												
210	90	80	38.4	272.9	38.1	*	54.5	288.9	51.4	*												
210	90	84									65.0	294.3	55.7									
210	90	90	26.6	257.2	33.5	*	46.3	280.7	46.8	*	60.6	291.1	51.0									
210	90	100	0.0	217.0	31.4	*	36.6	269.4	40.5	*	53.0	284.6	44.7									
210	90	109												60.0	286.1	36.7						
210	90	110						24.0	252.2	34.9	*	44.6	275.9	40.1	59.0	285.3	36.2					
210	90	118						0.0	215.7	31.5	*											
210	90	120										34.5	263.7	36.0	51.2	278.4	32.4					
210	90	130										20.8	244.7	32.4	42.5	269.0	29.3					
210	90	133																55.0	275.9	25.4		
210	90	136										0.0	212.7	27.9	*							
210	90	140													32.0	255.8	26.6	49.0	270.1	23.6		
210	90	150													16.3	233.5	24.2	39.9	259.9	21.6		
210	90	154													0.0	208.2	23.3					
210	90	156																				
210	90	160																	50.0	263.6	18.0	
210	90	170																	46.2	259.6	17.3	
210	90	171																	8.3	215.2	18.1	
210	90	180																	0.0	202.2	17.9	
210	90	188																				
																			23.8	231.0	14.6	
																			0.0	194.7	13.6	
210	110	38	75.0	323.3	56.3	*																
210	110	40	73.9	322.7	55.1	*																
210	110	50	68.4	319.3	49.6	*																
210	110	60	62.7	314.7	44.0	*																
210	110	65					70.0	319.0	54.3	*												
210	110	70	56.6	308.9	38.9	*	67.4	317.2	52.1	*												
210	110	80	50.1	301.4	34.1	*	61.7	312.5	47.5	*												
210	110	90	43.0	292.0	29.9	*	55.6	306.4	43.0	*												
210	110	92									65.0	312.4	48.7									
210	110	100	34.6	279.5	26.2	*	49.0	298.6	37.8	*	60.5	308.5	44.0									
210	110	110	24.0	261.7	23.2	*	41.6	288.7	32.8	*	54.3	302.1	39.5									
210	110	119												60.0	303.5	32.2						
210	110	120	0.0	217.0	22.0	*	33.0	275.6	28.4	*	47.6	294.0	35.4	59.2	302.7	31.7						
210	110	130					21.7	256.3	24.6	*	40.1	283.6	32.0	52.9	295.9	28.6						
210	110	138					0.0	215.7	22.3	*												
210	110	140									31.2	269.6	29.0	46.0	287.4	26.0						
210	110	144																				
210	110	150									18.8	248.2	25.8	*	38.3	276.3	23.7	51.1	287.8	20.9		
210	110	156									0.0	212.7	20.3	*								
210	110	160												28.8	261.3	21.7	44.1	278.7	19.1			
210	110	168																				
210	110	170									14.8	236.3	19.9		35.9	266.7	17.5	48.9	277.5	15.2		
210	110	174									0.0	208.3	17.4	*								
210	110	180													25.8	250.0	16.1					
210	110	190													7.5	216.5	14.9	41.5	267.6	13.9		
210	110	191													0.0	202.2	14.7	32.9	254.4	12.8		
210	110	200																				
210	110	208																21.5	235.0	11.8		
																		0.0	194.7	11.1		
210	130	43	75.0	342.6	44.9	*																
210	130	50	71.8	340.5	42.1	*																
210	130	60	67.1	336.8	38.2	*																
210	130	70	62.3	332.1	34.1	*																
210	130	72					70.0	337.8	46.4	*												
210	130	80	57.2	326.2	30.1	*	66.3	334.7	43.1	*												
210	130	90	51.7	319.1	26.5	*	61.4	329.8	38.8	*												
210	130	100	45.9	310.3	23.2	*	56.3	323.7	34.5	*												
210	130	101									65.0	330.5	42.4	*								
210	130	110	39.4	299.5	20.4	*	50.8	316.3	30.3	*	60.4	325.8	38.9									
210	130	120	31.8	285.5	18.0	*	44.8	307.3	26.4	*	55.2	319.5	34.8									
210	130	129												60.0	320.8	28.3						
210	130	130	22.0	265.8	16.0	*	38.2	296.0	23.0	*	49.7	311.8	31.4	59.3	320.0	27.9						
210	130	140	0.0	217.0	15.3	*	30.3	281.3	19.9	*	43.6	302.4	28.5	54.0	313.4	25.3						
210	130	150					19.9	259.9	17.3	*	36.8	290.5	25.6	*	48.4	305.4	23.0					
210	130	156																55.0	308.7	19.2		
210	130	158					0.0	215.7	15.7	*												
210	130	160									28.6	275.0	21.9	*	42.2	295.5	21.1	52.5	305.4	18.4		
210	130	170									17.3	251.3	18.5	*	35.1	282.9	19.4	46.8	296.9	16.9		
210	130	176									0.0	212.8	14.7	*								
210	130	180												26.5	266.2	17.9	40.4	286.4	15.5			
210	130	181																				
210	130	190												13.6	238.7	15.8	*	33.0	272.9	14.3	50.0	
210	130	194												0.0	208.3	12.5	*				294.2	
210	130	200																			286.2	
210	130	210																23.7	254.4	13.2	274.8	
210	130	211																6.9	217.8	12.1	260.1	
210	130	220																0.0	202.2	10.6	10.3	
210	130	228																				
																		19.8	238.6	9.5		
																		0.0	194.7	8.9		
210	150	48	75.0	361.9	35.7	*																



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Luffing Boom Length (ft)	Luffing Jib Length (ft)	Load Radius (ft)	Luffing Boom Angle																	
			90 Degrees			85 Degrees			80 Degrees			75 Degrees			70 Degrees			65 Degrees		
			Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)
210	150	50	74.3	361.4	35.2	*														
210	150	60	70.3	358.2	32.2	*														
210	150	70	66.2	354.3	29.1	*														
210	150	79					70.0	356.6	37.3	*										
210	150	80	62.0	349.4	26.0	*	69.6	356.3	37.0	*										
210	150	90	57.5	343.6	23.0	*	65.5	352.1	33.9	*										
210	150	100	52.9	336.6	20.3	*	61.2	347.1	30.6	*										
210	150	109									65.0	348.7	35.9	*						
210	150	110	47.9	328.4	17.8	*	56.8	341.1	27.2	*	64.7	348.3	35.7	*						
210	150	120	42.6	318.4	15.6	*	52.1	334.0	24.0	*	60.4	343.1	33.2	*						
210	150	130	36.6	306.3	13.7	*	47.0	325.4	21.1	*	55.9	336.9	30.7	*						
210	150	139										60.0	338.1	24.9						
210	150	140	29.5	291.0	12.0	*	41.6	315.2	18.3	*	51.1	329.5	27.8	*	59.4	337.3	24.6			
210	150	150	20.5	269.5	10.7	*	35.4	302.6	15.9	*	46.0	320.7	24.4	*	54.8	330.8	22.4			
210	150	160	0.0	217.0	10.5	*	28.2	286.5	13.8	*	40.5	310.0	21.2	*	50.0	323.2	20.5			
210	150	167													55.0	325.0	16.6			
210	150	170					18.5	263.3	12.0	*	34.2	296.9	18.2	*	53.6	322.9	16.2			
210	150	178					0.0	215.7	10.9	*										
210	150	180									26.6	279.9	15.5	*	48.7	314.8	14.8			
210	150	190									16.1	254.3	13.1	*	43.4	305.2	13.7			
210	150	194																50.0	309.6	11.0
210	150	196									0.0	212.8	10.3	*						
210	150	200										24.6	270.7	14.1	*	37.5	293.4	12.6		
210	150	210										12.6	241.0	11.0	*	30.6	278.6	11.6		
210	150	214										0.0	208.3	8.6	*					
210	150	220													22.0	258.4	10.7			
210	150	230													6.4	219.0	8.3	*	28.1	265.3
210	150	231													0.0	202.2	7.2	*		
210	150	240																18.4	242.0	7.5
210	150	248																0.0	194.7	5.9
210	170	54	75.0	381.2	28.0	*														
210	170	60	72.7	379.3	26.5	*														
210	170	70	69.2	375.9	24.2	*														
210	170	80	65.5	371.7	21.8	*														
210	170	86					70.0	375.4	29.7	*										
210	170	90	61.7	366.7	19.5	*	68.5	373.9	28.7	*										
210	170	100	57.8	360.9	17.2	*	64.9	369.5	26.3	*										
210	170	110	53.8	354.1	15.1	*	61.1	364.4	23.8	*										
210	170	118									65.0	366.8	30.6	*						
210	170	120	49.5	346.2	13.2	*	57.1	358.5	21.2	*	64.1	365.7	30.2	*						
210	170	130	44.9	336.9	11.5	*	53.0	351.5	18.8	*	60.3	360.4	27.7	*						
210	170	140	39.9	325.9	10.0	*	48.7	343.3	16.5	*	56.4	354.3	25.1	*						
210	170	149										60.0	355.4	22.0						
210	170	150	34.3	312.7	8.7	*	44.0	333.8	14.3	*	52.2	347.1	22.4	*	59.5	354.6	21.7			
210	170	160	27.7	296.1	7.6	*	38.9	322.5	12.4	*	47.8	338.7	19.7	*	55.5	348.3	19.8			
210	170	170	19.2	273.0	6.8	*	33.2	308.8	10.7	*	43.1	328.9	17.2	*	51.3	340.8	18.1			
210	170	178													55.0	341.4	14.3			
210	170	180	0.0	217.1	6.8	*	26.4	291.3	9.2	*	37.9	317.2	14.9	*	54.4	340.3	14.1			
210	170	190					17.4	266.5	7.9	*	32.0	302.9	12.7	*	50.1	332.6	13.0			
210	170	198					0.0	215.7	7.3	*										
210	170	200									25.0	284.4	10.8	*	45.5	323.5	11.9			
210	170	207																50.0	324.9	9.2
210	170	210									15.1	257.0	9.0	*	40.6	312.8	11.0			
210	170	216									0.0	212.8	6.8	*				48.6	322.2	8.9
210	170	220													23.1	274.9	9.4	*	44.0	312.7
210	170	230													11.9	243.2	7.3	*	38.9	301.3
210	170	234													0.0	208.3	5.6	*		
210	170	240													20.7	262.2	7.6	*	33.1	287.6
210	170	250													6.0	220.0	5.2	*	26.3	270.1
210	170	251													0.0	202.2	4.5	*		
210	170	260																17.3	245.1	5.7
210	170	268																0.0	194.7	3.4
210	180	56	75.0	390.9	24.6	*														
210	180	60	73.7	389.8	23.8	*														
210	180	70	70.4	386.5	21.8	*														
210	180	80	66.9	382.6	19.8	*														
210	180	89					70.0	384.8	26.3	*										
210	180	90	63.4	378.0	17.7	*	69.8	384.6	26.2	*										
210	180	100	59.8	372.6	15.7	*	66.3	380.5	24.1	*										
210	180	110	56.1	366.3	13.8	*	62.8	375.8	21.9	*										
210	180	120	52.1	359.1	12.0	*	59.2	370.2	19.7	*										
210	180	122									65.0	375.8	27.4	*						
210	180	130	48.0	350.7	10.4	*	55.4	363.8	17.5	*	62.1	371.8	25.7	*						
210	180	140	43.5	341.0	9.0	*	51.4	356.4	15.4	*	58.5	366.1	23.4	*						
210	180	150	38.7	329.5	7.8	*	47.2	347.8	13.4	*	54.7	359.5	21.1	*						
210	180	154										60.0	364.1	20.6						
210	180	160	33.3	315.7	6.7	*	42.7	337.8	11.6	*	50.6	351.9	18.8	*	57.6	360.2	19.5			
210	180	170	26.9	298.5	5.8	*	37.8	326.0	10.0	*	46.4	343.1	16.5	*	53.8	353.4	17.8			
210	180	180	18.7	274.7	5.2	*	32.3	311.7	8.6	*	41.8	332.7	14.3	*	49.7	345.5	16.3			
210	180	184																		
210	180	190	0.0	217.0	5.3	*	25.7	293.7	7.3	*	36.8	320.5	12.3	*	55.0	349.6	13.3			
210	180	200					16.9	268.0	6.3	*	31.1	305.7	10.5	*	52.7	345.4	12.6			
210	180	200									40.7	325.7	13.8	*	48.6	337.2	11.6			



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P.C.I. Qualified Erector

L. R. WILLSON & SONS, INC.

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GAMBRILLS, MARYLAND 21054

www.lrwilsonandsons.com

LS-278H 360 Degree Capacities - Luffing Boom + Luffing Jib 68" x 80" Luffing Boom, 50" x 60" Luffing Jib, 135K + LWR Counterweight																				
Luffing Boom Angle																				
Luffing Boom Length (ft)	Luffing Jib Length (ft)	Load Radius (ft)	90 Degrees			85 Degrees			80 Degrees			75 Degrees			70 Degrees			65 Degrees		
			Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)
210	180	208				0.0	215.7	5.8	*											
210	180	210								24.2	286.6	8.8	*	35.6	313.0	12.1	*	44.2	327.6	10.7
210	180	213																50.0	332.5	8.3
210	180	220								14.7	258.3	7.3	*	29.7	297.4	9.6	*	39.4	316.5	9.8
210	180	226								0.0	212.8	5.4	*					47.2	326.7	7.8
210	180	230												22.4	276.9	7.5	*	34.1	303.1	9.0
210	180	240												11.5	244.2	5.7	*	27.9	286.4	8.0
210	180	244												0.0	208.3	4.3	*			
210	180	250																20.1	264.0	6.0
210	180	260													5.9	220.6	4.0	*	25.6	272.4
210	180	261													0.0	202.2	3.3	*		
210	180	270																16.8	246.6	4.4
210	180	278																0.0	194.7	2.4
220	90	33	75.0	313.9	64.3	*														
220	90	35	73.5	313.3	62.9	*														
220	90	40	70.2	311.7	59.4	*														
220	90	50	63.3	307.4	52.8	*														
220	90	59				70.0	310.2	58.7	*											
220	90	60	55.9	301.5	46.4	*	69.6	310.0	58.5	*										
220	90	70	47.8	293.6	40.6	*	62.6	305.5	53.5	*										
220	90	80	38.4	282.9	35.8	*	55.2	299.5	48.8	*										
220	90	86							65.0	304.1	53.2	*								
220	90	90	26.6	267.2	31.7	*	47.0	291.5	44.2	*	61.9	301.9	50.4							
220	90	100	0.0	227.0	29.8	*	37.6	280.5	38.5	*	54.4	295.7	44.2							
220	90	110					25.3	264.1	33.4	*	46.1	287.4	39.7							
220	90	111											60.0	295.8	35.0					
220	90	119				0.0	225.6	30.0	*											
220	90	120							36.5	276.0	35.6		53.3	290.0	31.8					
220	90	130							23.7	258.8	32.1		44.9	281.4	28.7					
220	90	136							0.0	222.6	26.4	*				55.0	285.3	23.8		
220	90	138																		
220	90	140										34.9	269.4	26.0		51.8	282.3	22.9		
220	90	150										21.4	250.8	23.7		43.2	273.1	20.9		
220	90	156										0.0	217.9	22.2	*					
220	90	160														32.8	260.3	19.1	50.0	272.7
220	90	170														17.9	239.2	17.5	40.8	262.5
220	90	174														0.0	211.6	16.8		
220	90	180																	29.8	248.4
220	90	190																	11.7	222.0
220	90	192																	0.0	203.7
220	110	38	75.0	333.3	51.9	*														
220	110	40	73.9	332.7	50.7	*														
220	110	50	68.4	329.3	45.8	*														
220	110	60	62.7	324.7	40.7	*														
220	110	66				70.0	329.0	50.9	*											
220	110	70	56.6	318.9	36.3	*	67.9	327.5	49.2	*										
220	110	80	50.1	311.4	31.9	*	62.2	322.9	45.1	*										
220	110	90	43.0	302.0	28.0	*	56.1	316.9	40.7	*										
220	110	94							65.0	322.3	46.0	*								
220	110	100	34.6	289.5	24.7	*	49.6	309.3	35.7	*	61.6	319.3	43.5							
220	110	110	24.0	271.7	21.9	*	42.3	299.7	31.2	*	55.4	313.2	39.1							
220	110	120	0.0	227.0	20.8	*	33.9	286.9	27.1	*	48.8	305.4	35.0							
220	110	121											60.0	313.1	30.6					
220	110	130				22.9	268.4	23.5	*	41.5	295.4	31.6	54.6	307.5	28.0					
220	110	139				0.0	225.6	21.2	*											
220	110	140							32.9	282.3	28.7		47.9	299.5	25.4					
220	110	148														55.0	301.7	20.6		
220	110	150							21.4	262.8	25.1	*	40.4	289.2	23.2	53.4	299.8	20.2		
220	110	158							0.0	222.6	19.2	*								
220	110	160										31.5	275.4	21.2		46.6	291.4	18.4		
220	110	170										19.4	254.3	19.5		38.9	280.6	16.9		
220	110	173																	50.0	288.0
220	110	176										0.0	217.9	16.2	*					
220	110	180														29.6	265.9	15.6	44.8	281.2
220	110	190														16.2	242.2	14.3	36.8	269.6
220	110	194														0.0	211.6	13.5	*	
220	110	200																	26.9	253.4
220	110	210																	10.6	224.0
220	110	212																	0.0	203.7
220	120	41	75.0	342.9	46.3	*														
220	120	50	70.3	340.0	42.3	*														
220	120	60	65.1	335.9	38.2	*														
220	120	70	59.7	330.6	33.9	*	70.0	338.4	47.2	*										
220	120	80	54.0	324.1	30.0	*	64.7	334.1	43.0	*										
220	120	90	47.9	316.0	26.3	*	59.3	328.7	38.6	*										
220	120	98							65.0	331.3	42.6	*								
220	120	100	41.0	305.8	23.2	*	53.5	322.1	34.1	*	64.1	330.5	42.1	*						
220	120	110	33.1	292.6	20.4	*	47.3	313.8	29.9	*	58.7	325.1	38.7	*						
220	120	120	23.0	273.8	18.2	*	40.4	303.4	26.1	*	52.9	318.3	34.7							
220	120	126																		
220	120	130	0.0	227.0	17.4	*	32.4	289.9	22.7	*	46.6	309.8	31.3		60.0	321.8	28.7			
220	120	130													57.9	319.5	27.6			



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LS-278H 360 Degree Capacities - Luffing Boom + Luffing Jib 68" x 80" Luffing Boom, 50" x 60" Luffing Jib, 135K + LWR Counterweight																										
Luffing Boom Length (ft)	Luffing Jib Length (ft)	Load Radius (ft)	Luffing Boom Angle																							
			90 Degrees			85 Degrees			80 Degrees			75 Degrees			70 Degrees			65 Degrees								
			Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)						
220	120	140				21.9	270.3	19.7	*	39.7	299.1	28.4		52.1	312.5	25.1										
220	120	149				0.0	225.6	17.8	*																	
220	120	150								31.4	285.1	25.0	*	45.7	303.8	22.8										
220	120	153													55.0	309.9	19.2									
220	120	160								20.5	264.6	21.3	*	38.6	292.7	20.9	50.9	304.7	18.1							
220	120	168								0.0	222.6	16.3	*													
220	120	170												30.1	278.1	19.2	44.5	295.6	16.6							
220	120	179																	50.0	295.6	12.9					
220	120	180												18.5	256.0	17.7	37.2	284.0	15.3	49.4	294.8	12.8				
220	120	186												0.0	217.9	13.7	*									
220	120	190																28.3	268.5	14.1	42.8	285.2	11.8			
220	120	200																15.5	243.6	13.0	35.2	272.8	10.9			
220	120	204																0.0	211.6	11.3	*					
220	120	210																			25.7	255.8	10.0			
220	120	220																			10.2	224.9	9.2			
220	120	222																			0.0	203.7	9.0			
LS-278H 360 Degree Capacities - Luffing Boom (200 ft.) + Luffing Jib (200 ft.) + Fixed Jib (30 ft.) 68" x 80" Luffing Boom, 50" x 60" Luffing Jib, 24" x 32" Fixed Jib, 135K + LWR Counterweight																										
Luffing Boom Length (ft)	Luffing & Fixed Jib Lengths (ft)	Load Radius (ft)	Luffing Boom Angle																							
			90 Degrees			85 Degrees			80 Degrees			75 Degrees			70 Degrees			65 Degrees								
			Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)	Jib Angle (deg)	Tip Height (ft)	Capacity (kips)						
200	200+30	72	75.0	431.7	12.8	*																				
200	200+30	80	73.1	429.4	12.2	*																				
200	200+30	90	70.5	426.0	11.1	*																				
200	200+30	100	67.8	422.0	10.1	*																				
200	200+30	109					70.0	424.0	14.8	*																
200	200+30	110	65.1	417.5	9.0	*	69.8	423.7	14.8	*																
200	200+30	120	62.4	412.5	7.9	*	67.1	419.6	13.7	*																
200	200+30	130	59.5	406.8	6.8	*	64.4	415.0	12.6	*																
200	200+30	140	56.6	400.4	5.8	*	61.6	409.7	11.4	*																
200	200+30	145									65.0	413.2	16.2	*												
200	200+30	150	53.6	393.2	4.9	*	58.8	403.9	10.2	*	63.7	410.8	15.7	*												
200	200+30	160	50.5	385.3	4.0	*	55.9	397.3	8.9	*	60.9	405.4	14.5	*												
200	200+30	170	47.2	376.3	3.2	*	52.8	389.9	7.8	*	58.0	399.3	13.2	*												
200	200+30	180	43.7	366.2	2.5	*	49.6	381.7	6.7	*	55.0	392.5	11.9	*	60.0	399.3	14.7	*								
200	200+30	190					46.3	372.5	5.6	*	51.9	384.9	10.6	*	57.1	393.0	13.1									
200	200+30	200					42.7	362.1	4.7	*	48.7	376.4	9.3	*	54.1	385.9	12.0									
200	200+30	210					38.9	350.3	3.8	*	45.3	366.9	8.1	*	51.0	378.1	10.9									
200	200+30	214														55.0	382.4	8.4								
200	200+30	220					34.8	336.6	3.1	*	41.7	356.2	6.9	*	47.7	369.3	10.0	53.0	377.5	7.9						
200	200+30	230									37.8	343.9	4.9	*	44.2	359.4	8.6	*	49.8	369.3	7.1					
200	200+30	240									33.5	329.6	3.1	*	40.6	348.2	6.5	*	46.5	360.2	6.4					
200	200+30	245																	50.0	362.6	3.6	*				
200	200+30	250													36.6	335.4	4.6	*	43.0	349.9	5.6	*	48.5	358.5	3.3	*
200	200+30	260													32.1	320.4	2.8	*	39.2	338.1	4.9	*	45.1	348.9	2.7	*
200	200+30	270																	35.0	324.6	4.2	*	41.5	338.1	2.1	*
200	200+30	280																	30.4	308.7	2.5	*				



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