

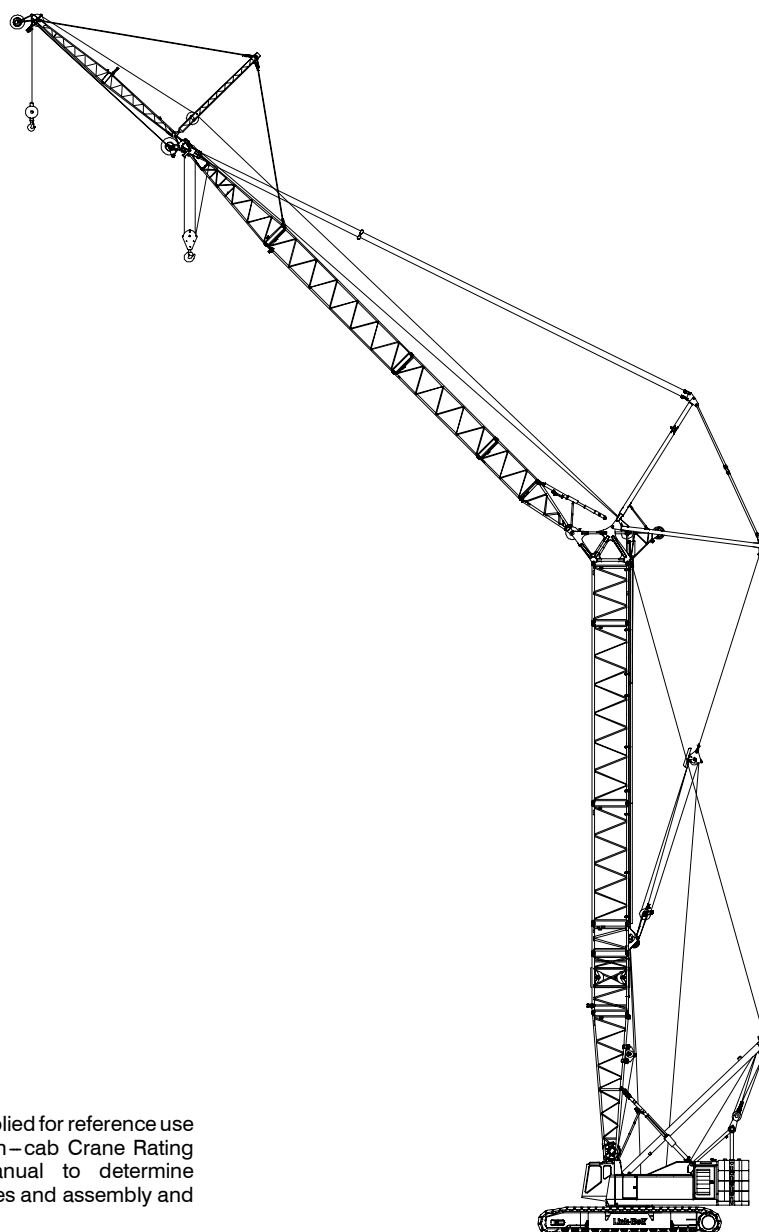


Technical Data

Specifications & Luffing Attachment Capacities

LS-278H

Crawler Crane
250 Ton (227 metric ton)



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



5441-0205-F9



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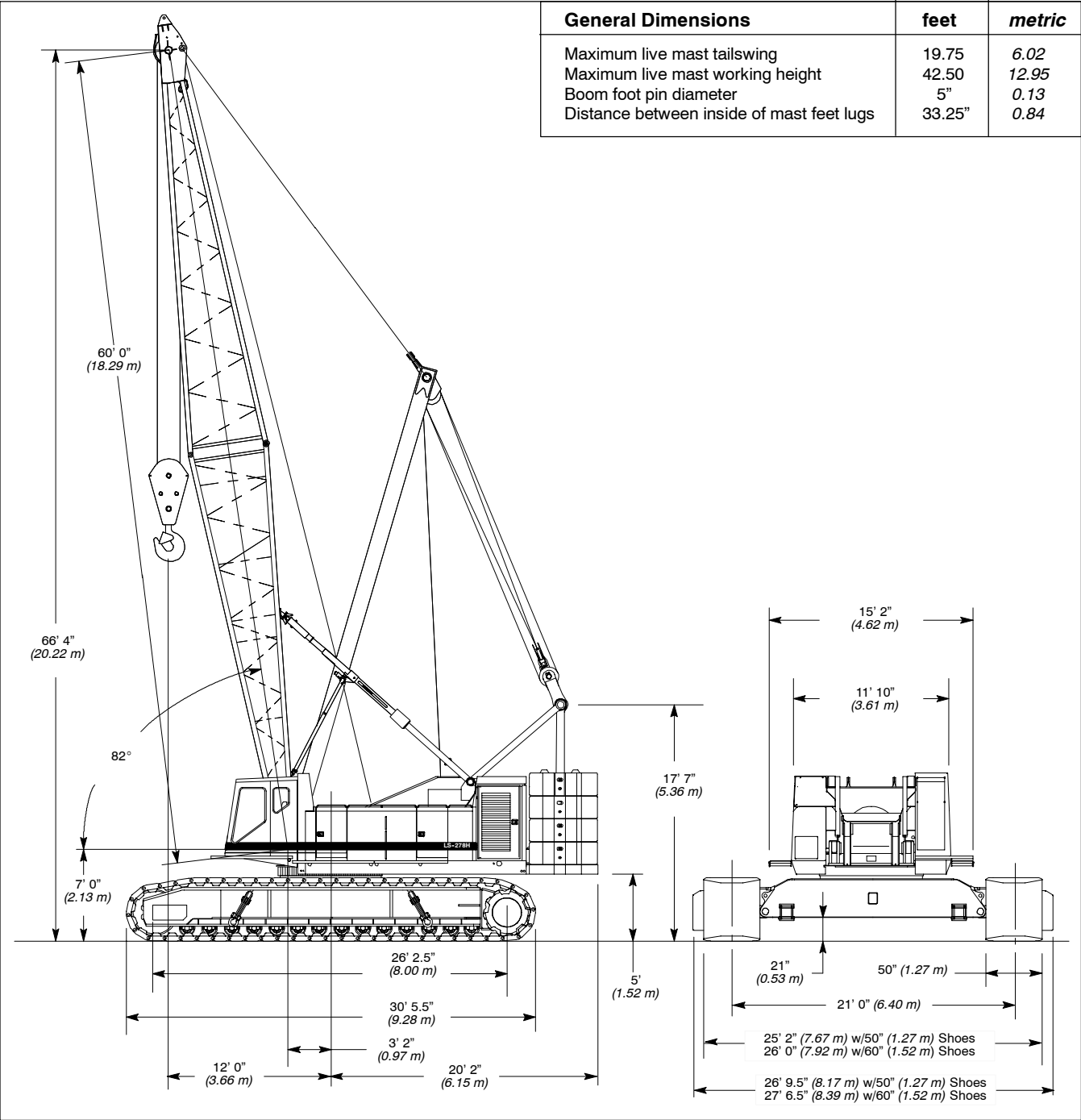


Specifications

Hydraulic Lattice Boom Crawler Crane

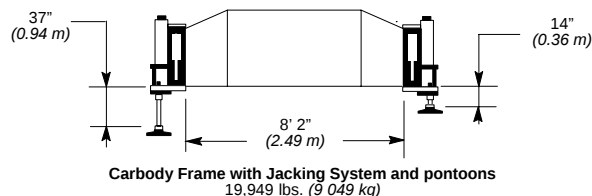
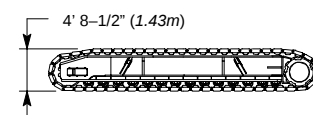
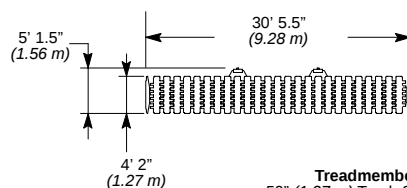
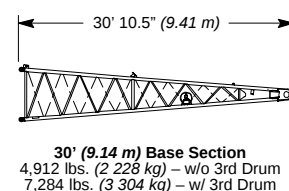
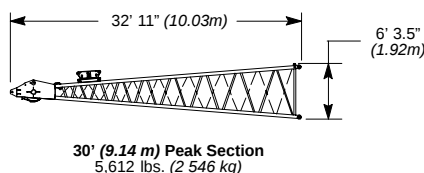
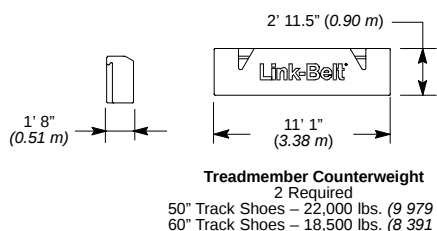
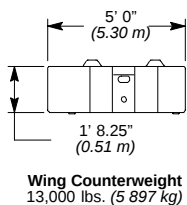
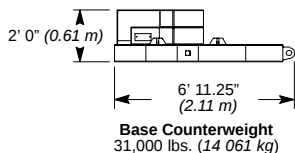
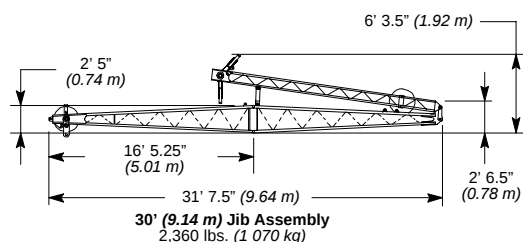
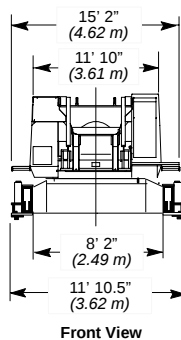
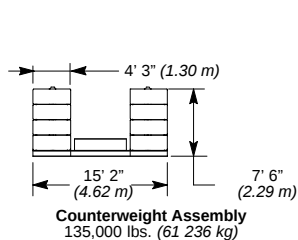
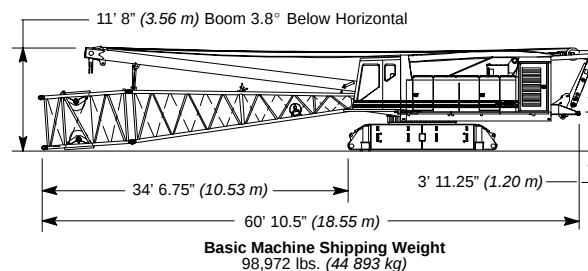
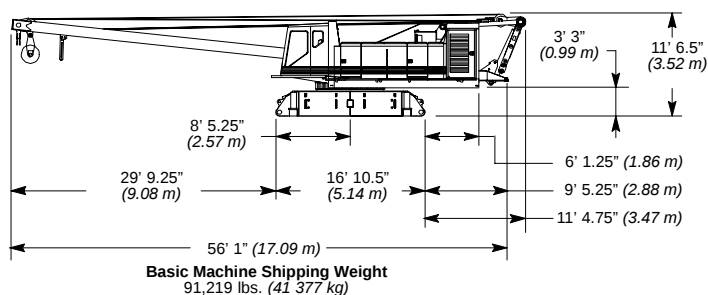
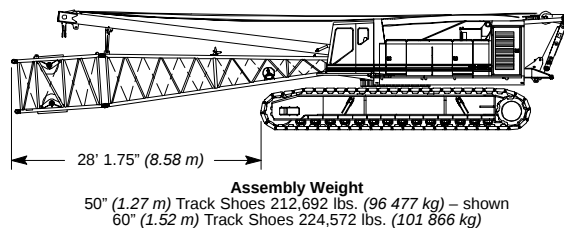
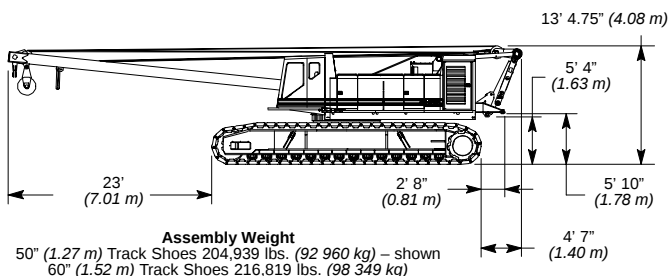
LS-278H 250-Ton (227 metric ton)

HYLAB Series





LS-278H Machine Transport Weights



Base Counterweight	31,000 lbs. (14 062 kg)
Base Counterweight + 4 Wing Counterweights	83,000 lbs. (37 649 kg)
Base Counterweight + 8 Wing Counterweights	135,000 lbs. (61 236 kg)



LS-278H Transportation Weights – approximate

Base Machine: Jacking system with four floats, 18-part bail assembly, 50 gallons (189 L) of fuel, 30' (9.14 m) live mast, 18-part boom hoist reeving, boom backstops, auxiliary lifting bail, 1,025' (312.4 m) front hoist rope and 850' (259.1 m) rear hoist rope.

Item Description	Gross Weight		Transport Loads										Notes and Load Summary
	lb.	kg.	1	2	3	4	5	6	7	8	9	10	
Base Machine	91,219	41 376	1										Numbers in the load columns to the left represent quantities.
Add treadmember with 50" (1.27 m) pads – 2 required	56,860	25 791		1	1								
Add 60" (1.52 m) shoes in place of standard – 2 required	5,940	2 694											Estimated transport assumes the load out consist of 230' (70.1m) of tube boom + 75' (22.86m) of jib with full counterweight.
Add 31,000 lbs. (14 061 kg) base counterweight	31,000	14 061				1							
Add 13,000 lbs. (5 897 kg) wing counterweight –8 required	13,000	5 897					2	2	2	1	1		Support loads were targeted at 45,000 lb (20 412kg), 8'-6" (2.6m) wide, 48' (14.6m) long, and 13'-6" (4.1m) high using a drop deck trailer. This may vary depending on state laws, empty truck/trailer weights, and style of trailer.
Add treadmember ctwt. for 50" track shoes – 2 required	22,000	9 979								1	1		
Add treadmember ctwt. for 60" track shoes – 2 required	18,500	8 391											Estimated weights vary by +/- 2%.
Add third drum ready base section	4,912	2 228				1							
Add 30' (9.14 m) top section with six head sheaves	5,612	2 546					1						Estimated Total Load of #1 91,219 lbs. (41 376 kg)
Add 10' (3.10 m) "JE" wall ext. with pins and pendants	1,727	783											
Add 10' (3.05 m) "JE" wall ext. with sheaves, pins and pendants	3,251	1 474				1							Estimated Total Load of #2 56,860 lbs. (25 791 kg)
Add 20' (6.10 m) "JE" wall ext. with pins and pendants	2,514	1 140					1					1	
Add 30' (9.14 m) "JE" wall ext. with pins and pendants	3,454	1 567										1	Estimated Total Load of #3 56,860 lbs. (25 791 kg)
Add 40' (12.19 m) "JE" wall ext. with pins and pendants	4,567	2 072									1		
Add 50' (15.24m) "JE" wall ext. with pins and pendants	5,567	2 525						1	1	1			Estimated Total Load of #4 44,482 lbs. (20 358 kg)
Add auxiliary tip extension	980	445											
Add hydraulic third drum plumbing	500	227											Estimated Total Load of #5 42,413 lbs. (19 238 kg)
Add hydraulic third drum without rope	2,372	1 076											
Add 30' (9.14 m) tubular jib	2,360	1 070										1	Estimated Total Load of #6 32,449 lbs. (14 719 kg)
Add 10' (3.10 m) jib extension	259	117					1						
Add 20' (6.14 m) jib extension	441	200					1	2					Estimated Total Load of #7 31,576 lbs. (14 319 kg)
Add hammerhead top section with 10' transition section	5,514	2 501											
Add auxiliary hammerhead tip extension	976	443										1	Estimated Total Load of #8 40,567 lbs. (18 401 kg)
Add jib wire rope 1.12" x 850' type "RB"	2,338	1 060										3	
Add jib wire rope 1" x 1,210' type " RB"	2,626	1 191											Estimated Total Load of #9 39,567 lbs. (17 947 kg)
Add jib wire rope 1" x 1,210' type " DB"	2,130	966											
Add drum wire rope 1" x 1,050' type " RB"	2,279	1 034											Estimated Total Load of #10 8,328 lbs. (3 778 kg)
Add 15-ton (13.6 mt) Hook Ball – Non Swivel	1,400	635					1						
Add 15-ton (13.6 mt) Hook Ball – Swivel	1,400	635											Estimated Total Load of #11 8,328 lbs. (3 778 kg)
Add 60-ton (54 mt) 2 Sheave Hook Block	5,720	2 595				1							
Add 150-ton (136 mt) 6 Sheave Hook Block	1,400	635											Estimated Total Load of #12 8,328 lbs. (3 778 kg)
Add 200-ton (181 mt) 6 Sheave Hook Block	3,860	1 751											
Add 250-ton (227 mt) 6 Sheave Hook Block	5,650	2 563					1						Estimated Total Load of #13 8,328 lbs. (3 778 kg)
Add 100 gallons of fuel	724	328											
Add left and right side catwalks	537	244									1		Estimated Total Load of #14 8,328 lbs. (3 778 kg)
Remove 4 floats for jacking system	-235	-107											
Remove jacking system without floats	-1,739	-789											Estimated Total Load of #15 8,328 lbs. (3 778 kg)
Remove front hoist rope	-2,398	-1 088											
Remove rear hoist rope	-1,700	-771											Estimated Total Load of #16 8,328 lbs. (3 778 kg)
Remove auxiliary lifting bail	-410	-186											

Notes:

- Estimated transport loads assume the load out consist of 330' (100.58 m) of main boom plus 100' (30.48 m) of jib with full counterweight.
- Support loads were targeted at 45,000 lbs. (20 412 kg), 8' 6" (2.59 m) wide, 48' (14.63 m) long and 13' 6" (4.11 m) high using a single drop trailer. This may vary depending on state laws, empty truck/trailer weights and style of trailer.
- Estimated loads may vary by +/- 2%.

LS-278H Machine Working Weight

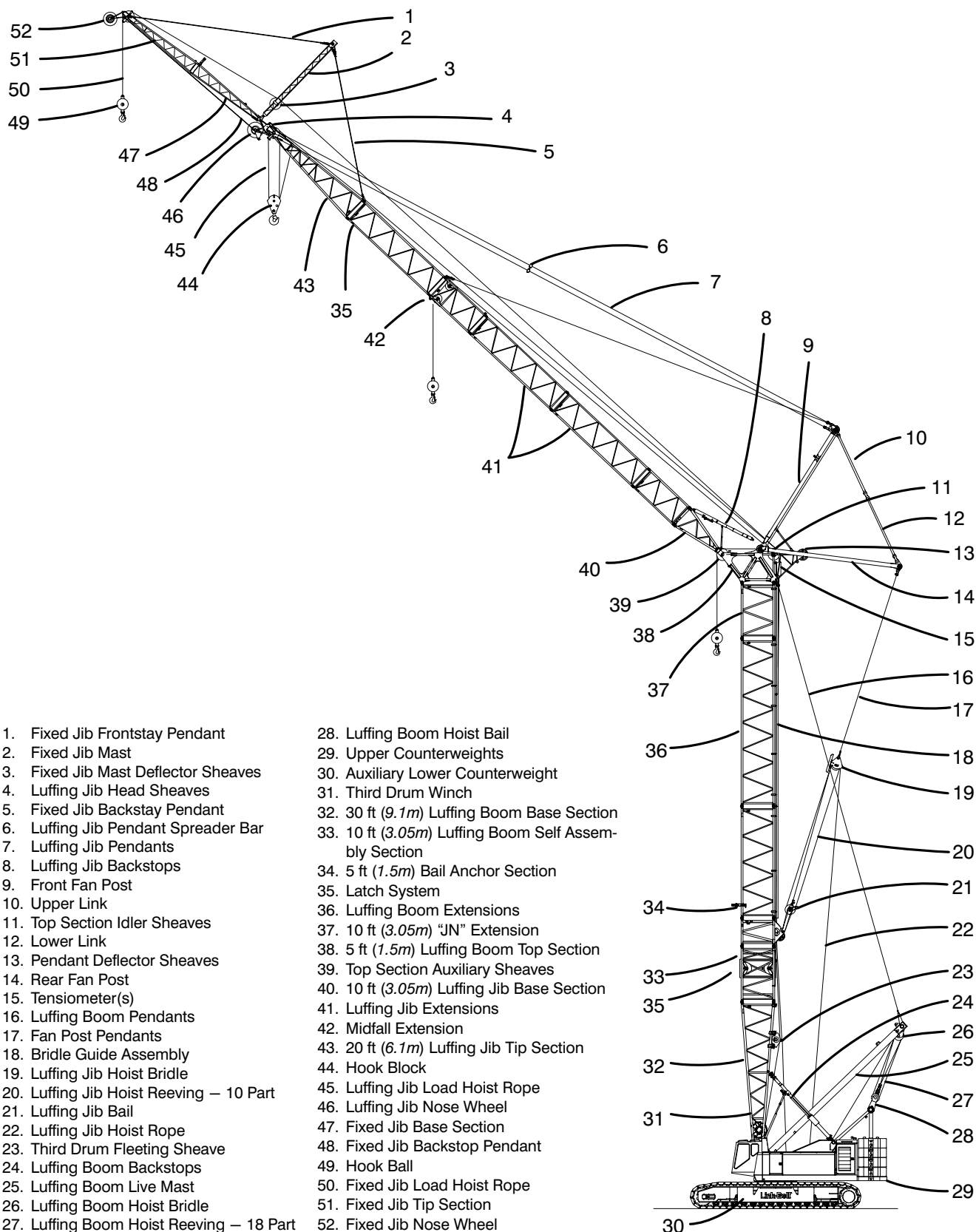
Option	Description	50" (1.27 m) Track Shoes		60" (1.52 m) Track Shoes	
		Gross Weight lbs. (kg)	Ground Bearing Pressure psi (kg/cm ²)	Gross Weight lbs. (kg)	Ground Bearing Pressure psi (kg/cm ²)
1	Base Machine equipped with 60' (18.29 m) of open throat tubular boom, live mast, 135,000 lbs of upper counterweight, lower counterweights, 1,025' (312.42 m) front hoist rope, 850' (259.08 m) rear hoist rope, 250-ton (226.8 mt) hook block, 148 gallons (560.2 L) of fuel, and 200 lbs. (90.7 kg) operator.	401,560 (182 144)	12.11 (0.85)	406,440 (184 358)	10.22 (0.72)
2	Option #1 plus midpoint pendants, and 270' (82.3 m) of boom extensions to obtain 330' (100.58 L) of main boom.	434,561 (197 114)	13.11 (0.92)	439,441 (199 327)	11.04 (0.78)
3	Option #2 plus 100' (30.48 m) of jib and 15-ton (13.6 mt) hook ball – subtract 30' (9.14 m) of boom extension and midpoint pendants to obtain maximum 300' + 100' (91.44 + 30.48 m) of main boom + jib.	436,449 (197 970)	13.16 (0.93)	441,329 (200 184)	11.09 (0.78)
4	Base Machine equipped with 45' (13.72 m) of Hammer head tube boom, live mast, 135,000 lbs. of upper counterweight, lower counterweights, 1,025' (312.42 m) front hoist rope, 850' (259.08 m) rear hoist rope, 250-ton (226.8 mt) hook block, 148 gallons (560.2 L) of fuel, and 200 lbs. (90.7 kg) operator.	401,461 (182 100)	12.11 (0.85)	406,341 (184 313)	10.21 (0.72)
5	Option #4 plus "B" counterweight and 200' (60.96 m) of boom extensions to obtain 245' (74.68 m) of main boom.	427,381 (193 857)	12.89 (0.91)	432,261 (196 070)	10.86 (0.76)

Notes:

- Ground bearing pressure is based on the total weight distributed evenly over the track contact area.
- Total contact area for 50" (1.27 m) track shoes is 33,158 in² (213 922 cm²) and 60" (1.52 m) track shoes is 39,788 in² (256 696 cm²)

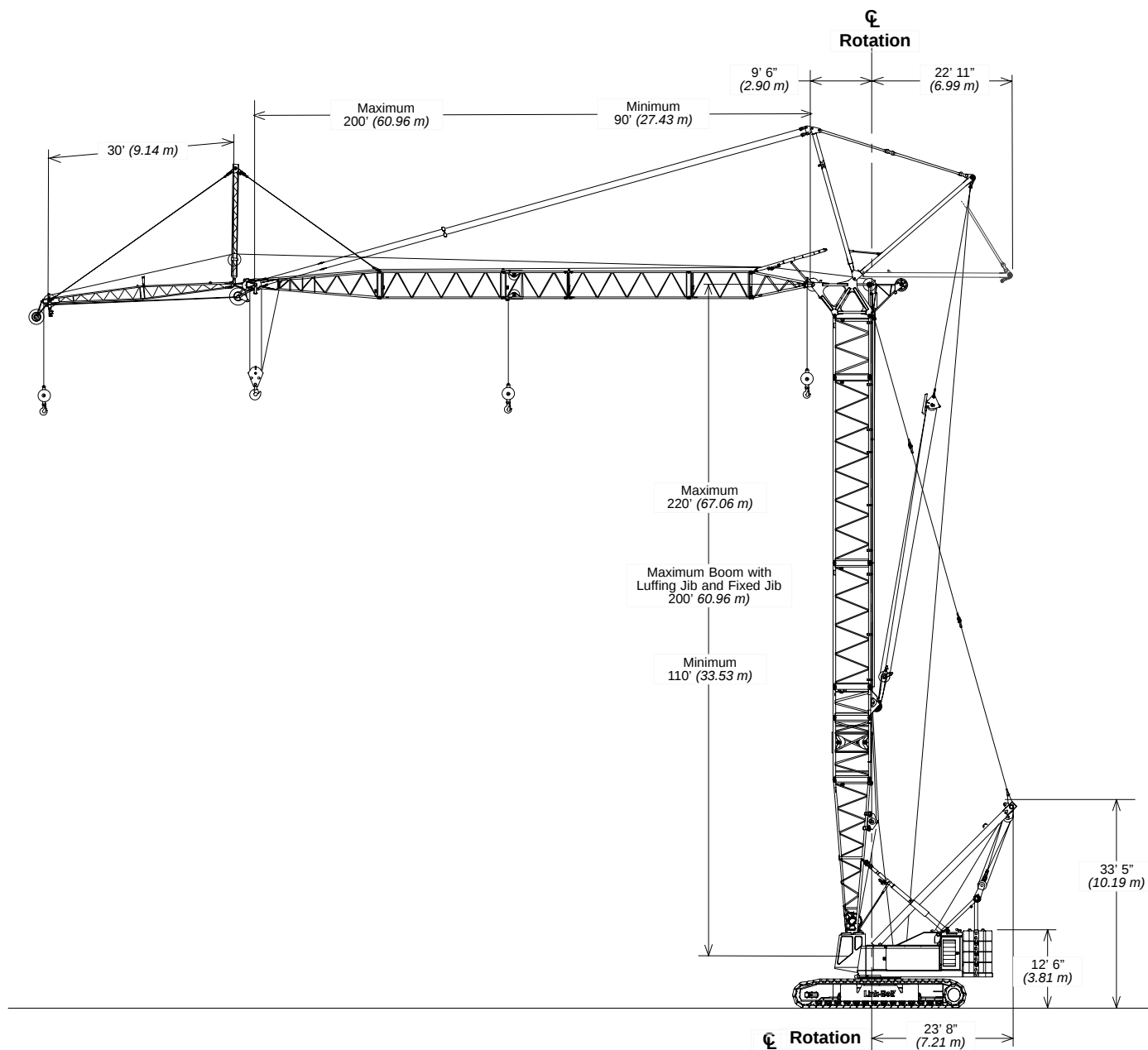


LS-278H Luffing Attachment Nomenclature





LS-278H Luffing Attachment Dimensions



Attachment Options

60' – 330' (18.29 – 100.58 m) Tubular Boom

Basic Boom – 60' (18.29 m) two-piece design that utilizes a 30' (9.14 m) base section and a 30' (9.14 m) open throat top section with in-line connecting pins on 80" (2.03 m) wide and 68" (1.73 m) deep centers.

- 250-ton (226.8 mt) maximum capacity
- Max boom tip height of 333' (101.5 m)
- Boom feet on 66" (1.67 m) centers
- 4.25" (10.79 cm) diameter chords

- Lugs on base section to attach carrying links
- Skywalk platform
- Deflector roller on top section
- Rigid sheave guards
- Six, 21" (0.53 m) root diameter steel sheaves mounted on sealed anti-friction bearings
- Oil filled mechanical boom angle indicator

Boom Extensions – The following table provides the lengths available and the suggested quantity to obtain maximum boom in 10' (3.05m) increments. Midpoint pendant connections are required at 140' (42.67 m) for boom lengths 250' (72.6 m) and longer.

Tube Boom Extensions	Suggested Quantity for Maximum Boom
10' (3.05 m)	1
20' (6.10 m)	2
30' (9.14 m)	2
40' (12.19 m)	2

- Deflector roller on top of each section
- Two rollers on 40' (12.19 m) and 50' (15.24 m) extensions.
- Appropriate length pendants
- The optional 10' (3.05 m) extension with lifting sheaves is used for self assembly/disassembly instead of using live mast and auxiliary lifting bail.



Link-Belt

CONSTRUCTION EQUIPMENT

■ 45' – 245' (13.72 – 74.68 m) Hammer Head Boom

Basic Boom – 45' (13.72 m) three-piece design that utilizes a 30' (9.14 m) base section, a 10' (3.05 m) taper section, and a 5' (1.52 m) hammer head top section. Taper section pins to standard base section with in-line connecting pins on 80" (2.03 m) wide and 68" (1.73 m) deep centers.

- 200-ton (178.6 mt) maximum capacity
- Maximum boom tip height is 243' (74.07 m)
- 4.25 (10.80 m) tubular "JE" wall chords
- Lugs on base section to attach carrying links.
- Skywalk platform
- Deflector roller on top section
- Rigid sheave guards
- Six, 21" (0.53 m) root diameter steel sheaves mounted on sealed anti-friction bearings.
- Oil-filled mechanical boom angle indicator.

Hammer Head Boom Extensions – The following table provides the lengths available and the suggested quantity to obtain maximum boom in 10' (3.05 m) increments. Extensions are common with open throat extensions.

Hammer Head Boom Extensions "JE"	Suggested Quantity for Maximum Boom
10' (3.05 m) with or without lifting sheaves	1
20' (6.10 m)	1
30' (9.14 m)	1
40' (12.19 m)	0
50' (15.24 m)	3

- Deflector roller on top of each section. Two rollers 40' (12.19 m) and 50' (15.24 m) extensions.
- Appropriate length pendants
- 10' (3.05 m) extension with lifting sheaves is available for self-assembly and disassembly.

■ 30' – 100' (9.14 – 30.48 m) Tubular Jib

Basic Tube Jib – 30' (9.14 m) two-piece design that utilizes a 15' (4.57 m) base section and a 15' (4.57 m) top section with in-line connecting pins on 32" (0.81 m) wide and 24" (0.61 m) deep centers. Designed to be used on the open throat top section only.

- 30-ton (27.2 mt) maximum capacity
- Maximum tip height of tube boom + jib is 403.8' (123.1 m).
- Jib offset angles at 5, 15 and 25 degrees
- 2.25" (57 mm) tubular chords
- One 18.5" (0.47 m) root diameter steel sheave mounted on sealed anti-friction bearings.

Jib Extensions – The following table provides the lengths available and the suggested quantity to obtain maximum jib in 10' (3.05 m) increments.

Jib Extensions	Suggested Quantity for Maximum Boom
10' (3.05 m)	1
20' (6.10 m)	3

- Wood wear block on top of each section.
- Appropriate length pendants.

■ 90' – 200' (27.43 – 50.29 m) Luffing Jib

Basic Luffing Jib – 90' (24.38 m) five-piece design utilizes a 5' (1.52 m) luffing boom top section, 10' (3.05 m) base section, 10' (3.05 m) extension, 20' (6.01 m) extension, 30' (9.14 m) extension, and 20' (6.10 m) top section with in-line connecting pins. Boom extensions are 50" (1.12 m) wide and 60" (1.37 m) deep at the centers.

- 54-ton (24.5 mt) maximum capacity
- Working lengths of 90' (24.38 m) to 200' (48.77 m)
- Top section includes mounting lugs for all attachment options.
- Lugs on base section to attach fan-post transport links.
- Two polyamide 24" (0.46 m) diameter luffing jib head sheaves
- Two polyamide 25" (0.54 m) diameter luffing boom auxiliary head sheaves
- Pin on nose wheel
- Ten-part luffing jib hoist.
- 1.25" (31.75 mm) diameter type "BC" pendants

Luffing Jib Extensions – The following table provides the lengths available and the suggested quantity to obtain the maximum luffing jib in 10' (3.05 m) increments. Midpoint pendants are not required.

Luffing Jib Extensions	Suggested Quantity for Maximum Boom
10' (3.05 m)	1
20' (6.10 m)	1
30' (9.14 m)	2
40' (12.19 m)	2

Midfall Extension – The midfall (if equipped) consists of a 10' (3.05 m) luffing jib extension equipped with load hoisting machinery and provides an auxiliary load hoist location for short radius light duty lifting.

- Midfall capacities and suspension adjustments are available for luffing jib lengths of 110 – 200' (33.5 – 61.0 m).
- Midfall capacities range from 18,800 lbs. (8 528 kg) to 9,400 lbs. (4 264 kg).

■ Luffing Boom

- Common base and extensions as open throat boom
- 10' (3.05 m) Self-Assembly section required for bail anchor
- Working angles of 90, 85, 80, 75, 70, and 65 degrees.
- Working lengths of 110' (25.91 m) to 220' (50.29 m)
- 1.25" (34.92 mm) diameter type "BC" pendants; same as open throat boom.

Luffing Boom Extensions – The following table provides the lengths available and the suggested quantity to obtain the maximum

luffing boom in 10' (3.05 m) increments. Mid-point pendants are not required.

Luffing Boom Extensions	Suggested Quantity for Maximum Boom
10' (3.05 m) *	2
20' (6.10 m)	1
30' (9.14 m)	1
40' (12.19 m)	1
50' (15.24 m)	3

* : 10' (3.05 m) Must be the Self-assembly and "JN" section.

- Rear hoist drum becomes luffing jib hoist
- Optional third drum provides second working hoist line, if required.
- Designed for self-assembly
- Luffing jib hoist bridle and bail can remain reeved for machine transport
- Job site mobility with attachment
- Rolled out or rolled under erection methods
- Compact transport module.

■ Auxiliary 5' (1.5 m) Tip Extension

Designed to use in place of jib to provide clearance between working hoist lines. The horsehead style extension is equipped with a single 28.3" (0.72 m) root diameter steel sheaves mounted on sealed anti-friction bearing. Maximum capacity is 25-tons (22.32 mt).

■ Auxiliary Hammer Head Tip Extension

Designed to use in place of jib to provide clearance between working hoist lines. The extension is equipped with a single 20" (0.51 m) root diameter steel sheaves mounted on sealed anti-friction bearing. Maximum capacity is 17.5-tons (15.9 mt).

■ Boom Hoist System

Designed to lift off maximum boom or maximum boom plus jib unassisted. Operates up to a maximum boom angle of 82 degrees. Boom hoist limit system limits maximum boom angle operation.

- Hydraulic controlled retractable gantry frame.
- 18-part reeving with 1" (2.54 cm) type "W" wire rope
- Bridle assembly and 35' (10.67 m) live mast
- Four 1.25" x 26' 4" (3.18 cm x 8.03 m) pendants
- Two 1" x 112' 10" (25.4 cm x 34.39 m) mid-point pendants
- Tubular spring-buffered boom backstops (rigid type)
- Sheaves contain sealed anti-friction bearings
- Boom speed from minimum to maximum operating radius for 150' (45.72 m) of open throat boom is 84 seconds.



Link-Belt

CONSTRUCTION EQUIPMENT

Revolving Upper Structure

■ Frame

All welded steel frame with precision machined surfaces for mating parts.

■ Engine

Detroit Diesel Series 60 – 12.7 Liter with oil filter, oil cooler, air cleaner, fuel filter, water separator, tachometer and electrical shutdown.	
Number of cylinders	6
Bore and stroke – in. (mm)	5.12" x 6.00" (130 x 152)
Piston displacement – cu. in. (cm ³)	778 (12 751)
Max brake hp (kw)	450 (336) @ 1,800 r.p.m.
Peak torque – ft./lb. (joules)	1,550 (2 102) @ 1,350 r.p.m.
Electrical System	12V
Batteries	4, Group 31 rated @ 725 cc amps at 0 deg. (F)
Alternator	130 amps
Approximate fuel consumption	Gal./hr. (L/hr)
100% HP	20.09 (76.05)
75% HP	15.06 (57.01)
50% HP	10.04 (38.01)
25% HP	5.02 (19.00)

■ Hydraulic System Specifications

Hydraulic Pumps – The pump arrangement is designed to provide hydraulically powered functions allowing positive, precise control with independent or simultaneous operation of all crane functions.

- One variable displacement pump operating at 5,225 psi (36 025 kPa) and 94 gal/min (355 L/min) powers front hoist drum.
- One variable displacement pump operating at 5,100 psi (35 163 kPa) and 94 gal/min (355.8 L/min) powers the rear hoist drum.
- One variable displacement pump operating at 4,600 psi (31 717 kPa) and 73 gal/min (278 L/min) powers the boom hoist drum.
- Two variable displacement pumps operating at 5,000 psi (34 474 kPa) and 52 gal/min (197 L/min) powers the travel system.
- One variable displacement pump operating at 4,350 psi (29 993 kPa) and 73 gal/min (276 L/min) powers the swing system.
- One fixed displacement gear type pump operating at 1,250 psi (88 kg/cm²) and 8 gal/min (32 L/min) powers the pilot control system.

Pump Control ("Fine Inching") mode – Special pump setting, selectable from operator's cab, that allows very slow movements of front and rear hoist for precision work.

Hydraulic Reservoir – 144 gal (545 L), equipped with sight level gauge. Diffusers built in for deaeration.

Filtration – One 10 micron, full flow, line filter in the return line of the hydraulic reservoir.

Counterbalance Valves – All hoist motors are equipped with counterbalance valves to provide positive load lowering and prevent accidental load drop if the hydraulic pressure is suddenly lost.

■ Front Hoist Drums

Drum contains a pilot controlled, bi-directional, axial piston motor and a planetary gear reduction unit to provide positive control under all load conditions.

- Power up/down operation mode
- Spring applied, hydraulically released, disc-type brake controlled automatically
- 1.12" (28.4 mm) grooved "Lebus" lagging
- Drum pawl controlled automatically
- Electronic drum rotation indicator
- Mounted on anti-friction bearings
- 20.88" (0.53 m) root diameter
- 36" (0.91 m) flange diameter
- 31.94" (0.81 m) width

■ Rear Hoist Drums

Drum contains a pilot controlled, bi-directional, axial piston motor and a planetary gear reduction unit to provide positive control under all load conditions.

- Power up/down operation mode
- Spring applied, hydraulically released, disc-type brake controlled automatically
- 1" (25.4 mm) grooved "Lebus" lagging
- Drum pawl controlled automatically
- Electronic drum rotation indicator
- Mounted on anti-friction bearings
- 30.88" (0.78 m) root diameter
- 40.5" (1.03 m) flange diameter
- 31.94" (0.81 m) width

■ Optional Third Hoist Drum

The hydraulic winch is mounted in the boom base section and is used in conjunction with a fleeting sheave and three sheave assembly to run the wire rope over the boom top section.

- Power up/down operation mode
- Automatic brake mode (spring applied, hydraulically released)
- Smooth drum
- Electronic drum rotation indicator
- Mounted on anti-friction bearings
- 12.75" (0.32m) root diameter
- 22.75" (0.58m) flange diameter
- 17" (0.43m) width

■ Boom Hoist Drum

Contains a pilot controlled, bi-directional, axial piston motor and a planetary gear reduction unit to provide positive control under all load conditions.

- Spring applied, hydraulically released, disc type brake controlled automatically
- 1" (2.54 cm) grooved lagging
- Drum pawl controlled automatically
- Mounted on anti-friction bearings
- Electronic drum rotation indicator
- 20.88" (0.53 m) root diameter
- 31" (0.79 m) flange diameter
- 30.75" (0.78 m) width

■ Swing System

Contains a pilot controlled bi-directional axial piston motors and the planetary gear reduction unit to provide positive control under all load conditions.

- Spring applied, hydraulically released, 360 degree multi-plate brake
- Free swing mode when lever is in neutral position
- 360 degree positive house lock
- Audio/visual swing alarm
- Maximum swing speed is 2.4 rpm

■ Upper Counterweight

Consist of a nine-piece design. Easily lowered to the ground using a remote control box to hydraulically retract the gantry. The design allows division of 135, 000 lbs. (61 235 kgs) of counterweight into light-weight modules for transportation. This design allows for operating with less than maximum counterweight.

- 31,000 lbs. (14 061 kg) base counterweight
- Eight, 13,000 lbs. (5 897 kg) wing counterweights
- Capacity charts exist for 135,000 lbs. (61 235 kg), 83,000 lbs. (37 648 kg) or 31,000, (14 061 kg).

■ Operator's Cab and Controls

Fully enclosed modular steel compartment is independently mounted and insulated to protect against vibration and noise.

- All tinted/tempered safety glass
- Sliding entry door
- Swing up roof window with wiper
- Door and window locks
- Heater with circulating fan
- Engine instrumentation panel (tachometer, fuel gauge, voltmeter, engine oil pressure, engine water temperature, hydraulic oil temperature, hour meter and service monitor system)
- Electronic drum rotation indicators

(continued on page 9)



LS-278H Load Hoisting Performance

Available line speed and line pull – based on Cummins N14–C440 engine at 1,800 rpm. Line pulls are not based on wire rope strength. See Wire Rope Capacity Chart for maximum permissible single part-of-line working loads.

Rope Layer	Front Drum – 1.12" (28.45 mm) Wire Rope											
	Maximum Line Pull		No Load Line Speed		Full Load Line Speed		Pitch Diameter		Layer		Total	
	lb.	kg	ft./min.	m/min.	ft./min.	m/min.	in.	mm	ft.	m	ft.	m
1	44,390	22 403	287	87.5	142	43.3	22	558.8	148	45.1	148	45.1
2	44,808	20 325	316	96.3	157	47.9	24.25	616.1	164	50.0	312	95.1
3	41,003	18 599	346	105.5	171	52.1	26.5	673.1	179	54.6	491	149.7
4	37,794	17 143	375	114.3	186	56.7	28.75	730.3	194	59.1	684	208.5
5	35,051	15 899	404	123.1	200	61.0	31	787.4	209	63.7	893	272.2
6	32,679	14 823	434	132.3	215	65.5	33.25	844.6	224	68.3	1118	340.8
7	30,608	13 884	463	141.1	229	69.8	35.5	901.7	239	72.8	1357	413.6

NOTE: The seventh layer is for storage only

Rope Layer	Rear Drum – 1" (25.4 mm) Wire Rope											
	Maximum Line Pull		No Load Line Speed		Full Load Line Speed		Pitch Diameter		Layer		Total	
	lb.	kg	ft./min.	m/min.	ft./min.	m/min.	in.	mm	ft.	m	ft.	m
1	33,206	15 062	416	126.8	206	62.8	31.88	809.8	242	73.8	242	73.8
2	31,245	14 173	442	134.7	219	66.8	33.88	860.5	257	78.3	499	152.1
3	29,503	13 383	468	142.6	232	70.7	35.88	911.4	272	82.9	771	235
4	27,945	12 676	494	150.6	245	74.7	37.88	962.1	287	87.5	1058	322.5

NOTE: The fourth layer is for storage only

Rope Layer	Boom Hoist Drum – 1" (25.4 mm) Wire Rope											
	Maximum Line Pull		No Load Line Speed		Full Load Line Speed		Pitch Diameter		Layer		Total	
	lb.	kg	ft./min.	m/min.	ft./min.	m/min.	in.	mm	ft.	m	ft.	m
1	42,966	19 489	239	72.8	120	36.6	21.88	555.8	160	48.8	160	48.8
2	39,367	17 857	261	79.6	131	39.9	23.88	606.6	174	53.0	334	101.8
3	36,324	16 477	283	86.3	142	43.3	25.88	657.4	189	57.6	523	159.4
4	33,718	15 294	305	93.0	153	46.6	27.88	708.2	204	62.2	727	221.6
5	31,461	14 270	327	99.7	164	50.0	29.88	759.0	218	66.4	945	288.0

Rope Layer	Third Hoist Drum – 1" (25.4 mm) Wire Rope											
	Maximum Line Pull		No Load Line Speed		Full Load Line Speed		Pitch Diameter		Layer		Total	
	lb.	kg	ft./min.	m/min.	ft./min.	m/min.	in.	mm	ft.	m	ft.	m
1	29,090	13 195	271	82.6	230	70.1	21	533.4	131	39.9	131	39.9
2	26,560	12 048	297	90.5	251	76.5	23	584.2	143	43.6	274	83.5
3	24,440	11 086	322	98.1	273	83.2	25	635.0	156	47.5	430	131.1
4	22,630	10 265	348	106.1	295	89.9	27	685.8	168	51.2	598	182.3
5	21,070	9 557	374	114.0	317	96.6	29	736.6	181	55.2	779	237.4
6	NOTE: Storage layer only								193	58.8	972	296.3

Wire Rope Application	Diameter		Length		Type	Maximum Permissible Load	
	in	mm	ft	m		lbs	kg
Boom Hoist	1	25.4	870	265.2	W	11,770	5 339
Front Hoist	1.125	28.4	1025	312.4	LB	40,850	18 529
Rear Hoist (Optional)	1	25.4	850	259.1	RB	22,760	10 324
Rear Hoist (Optional)	1	25.4	1210	368.8	RB	22,760	10 324
Rear Hoist (Optional)	1	25.4	1210	368.8	DB	29,540	13 399
Third Drum (Optional)	1	25.4	1050	320.0	RB	22,760	10 324

Rope Type	Description
W	6 x 26 (6 X 19 Class) – Extra Improved Plow Steel – Preformed – Independent Wire Rope Core – Right Lay – Alternate Lay
LB	6 x 26 (6 X 19 Class) – Filler Wire – Preformed – Independent Wire Rope Core – Right Lay – Regular Lay
RB *	19 x 19 Rotation Resistant – Extra–Extra Improved Plow Steel – Preformed – Right Lay – Regular Lay
DB	6 x 26 (6 X 19 Class) – Warrington Seale – Extra Improved Plow Steel – Preformed – Right Lay – Regular Lay

* – Use of swivel ball is not recommended.



Revolving Upper Structure (continued from page 7)

■ Operator's Cab and Controls (continued)

- Six way adjustable seat with seat belt
- Dry chemical fire extinguisher
- Twist lock hand and foot throttle
- Hand and foot operated boom hoist control
- Pilot operated arm chair single axis control levers
- Swing lever with swing brake and horn located on handle
- 12-volt power outlet

■ Load Indicator / Rated Capacity Limiter

Standard Equipment – PAT DS-350/1334 modular system that includes two lineriders, angle sensor, computer, graphic

display, and anti-two block equipment to provide the following information.

- Graphic representation of machine configuration.
- Step-by-step machine set-up
- Boom length & angle
- Jib length & angle
- Load on hook
- Rated load
- Load radius
- Tip height
- Anti-two block warning & function limiters
- Operation mode
- Provides audio/visual warning when the load on hook is within 90% of the crane's rated load.
- Provides audio/visual warning and limits functions when the load on hook is at 100% of the crane's rated load.
- Operator settable alarms include minimum

and maximum boom angle, maximum tip height, left and right swing, and range control (obstacle avoidance). These alarms provide an audio/visual warning only.

Note: Function limiters are activated for anti-two block and overload conditions. These limiters are designed to prevent hoist-up on front and rear drums and boom down.

■ Additional Equipment – Standard

- 93" (2.36 m) outside diameter turntable bearing
- Front, right and left side removable catwalks
- 143 (usable) U.S. gallons (541.3 L) fuel tank
- Machine lifting links

Lower Structure

■ Carbody

All welded box construction frame with precision-machined surfaces for turntable bearing and rotating joint.

- 10' (3.05 m) overall width
- 16' 10" (5.13 m) overall length
- Hydraulic tubing and hoses for travel system
- Four ground controlled hydraulic jacks with 24" (610 mm) aluminum floats

■ Treadmembers

All welded, precision-machined assemblies that are attached to the carbody with hydraulic assist pin pullers..

- 21' (6.40 m) extended gauge
- 30' 5" (9.27 m) overall length
- 50" (1.27 m) wide track shoes – standard
- 60" (1.52 m) wide track shoes – optional

- 14 sealed (oil filled) track rollers per treadmember
- Sealed (oil filled) idler and drive planetaries
- Compact travel drives
- Hydraulic adjusting tracks
- Ladder assembly
- Lifting links

Travel and Steering – Each treadmember contains a pilot controlled, bi-directional, axial piston motor and a planetary gear reduction unit to provide positive control under all load conditions.

- Individual control provides smooth, precise maneuverability including full counter-rotation.
- Spring applied, hydraulically released disc type brake controlled automatically.
- Maximum travel speed is 0.7 mph. (1.6 km/h).
- Designed to 30% gradeability.

■ Lower Counterweight

The design consist of a counterweight that quickly hangs on each treadmember for increased 360 degree capacities.

- Two, 22,000 lbs. (9 979 kg) counterweight are for 50" (1.27 m) track shoes.
- Two, 18,500 lbs. (8 391 kg) counterweights are for 60" (1.52 m) track shoes.
- Capacity charts exist for 135,000 lbs (61 235 kg) of upper counterweight plus lower counterweights..



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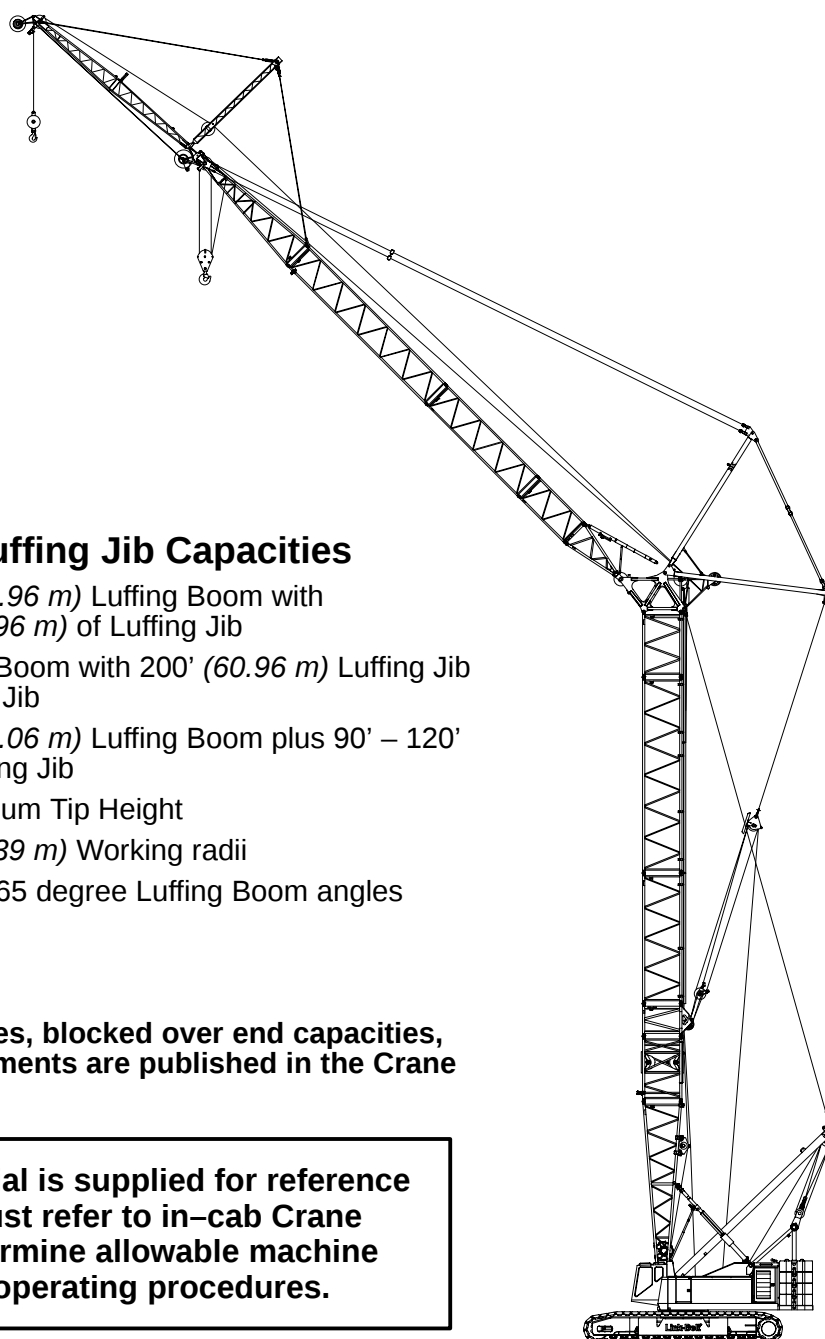
Lifting Capacities

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.



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.



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 to 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



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

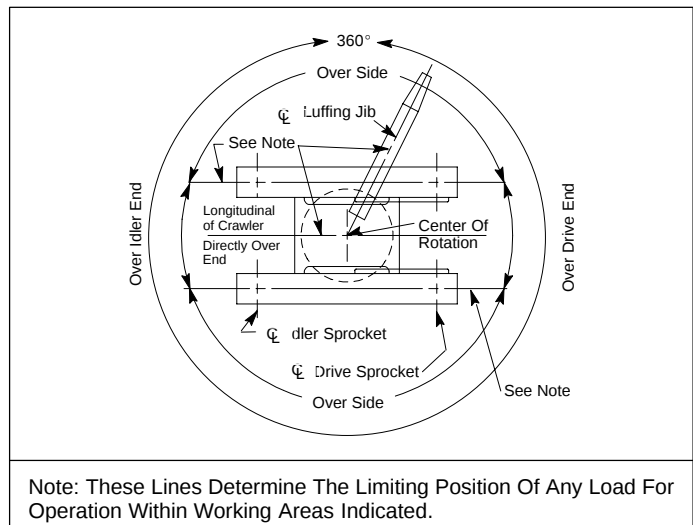
Luffing Boom Length		Luffing Jib Length	
ft	meters	ft	meters
110	33.5	90–100	27.4–30.5
120	36.6	90–110	27.4–33.5
130	39.6	90–120	27.4–36.6
140	42.7	90–130	27.4–39.6
150	45.7	90–140	27.4–42.7
160	48.8	90–150	27.4–45.7
170	51.8	90–160	27.4–48.8
180	54.9	90–170	27.4–51.8
*190	57.9	90–180	27.4–54.9
*200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





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

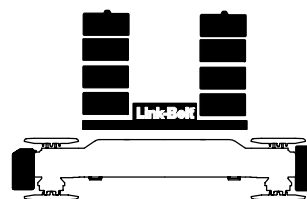
LBCE Type	Description
CC	36 x 7 Classification Non-rotating – Extra Extra Improved Plow Steel Right Lay – Regular Lay – Compacted Strand
DB	6 x 26 (6 x 19 Class) – Warrington Seale – Extra Improved Plow Steel – Preformed – Right Lay – Regular Lay – I.W.R.C.
LB	6 x 25 (6 x 19) Class Filler Wire – Preformed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

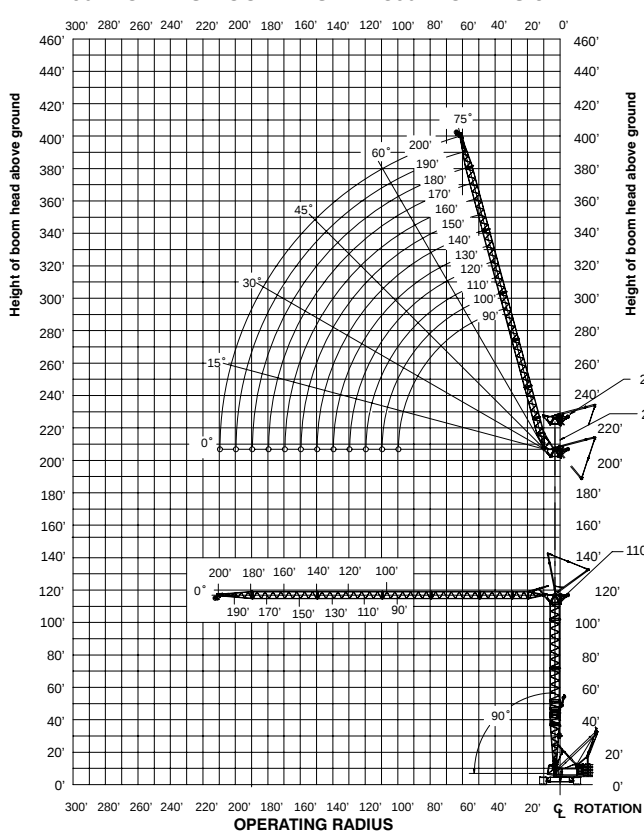
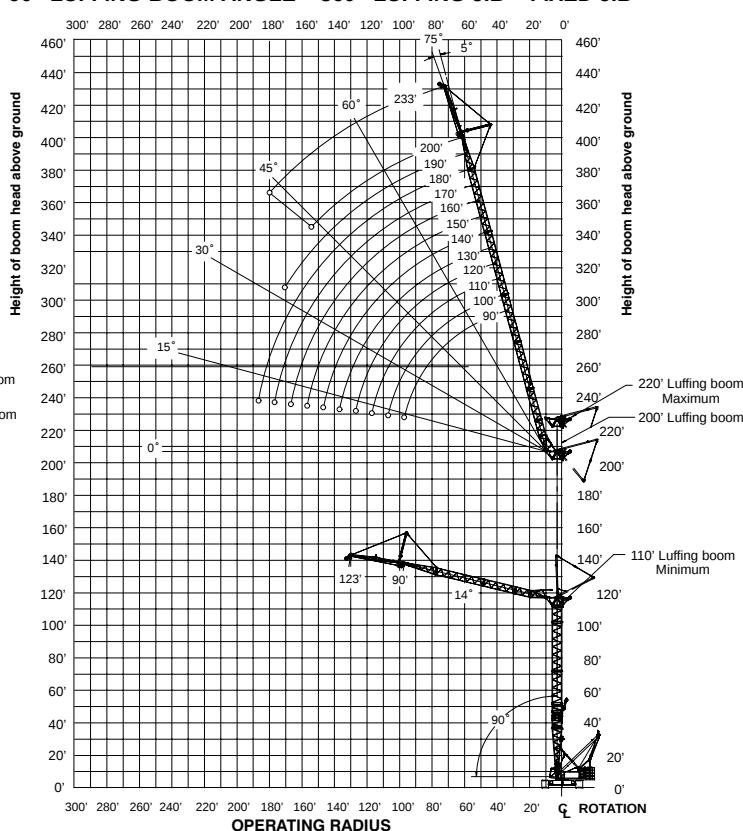
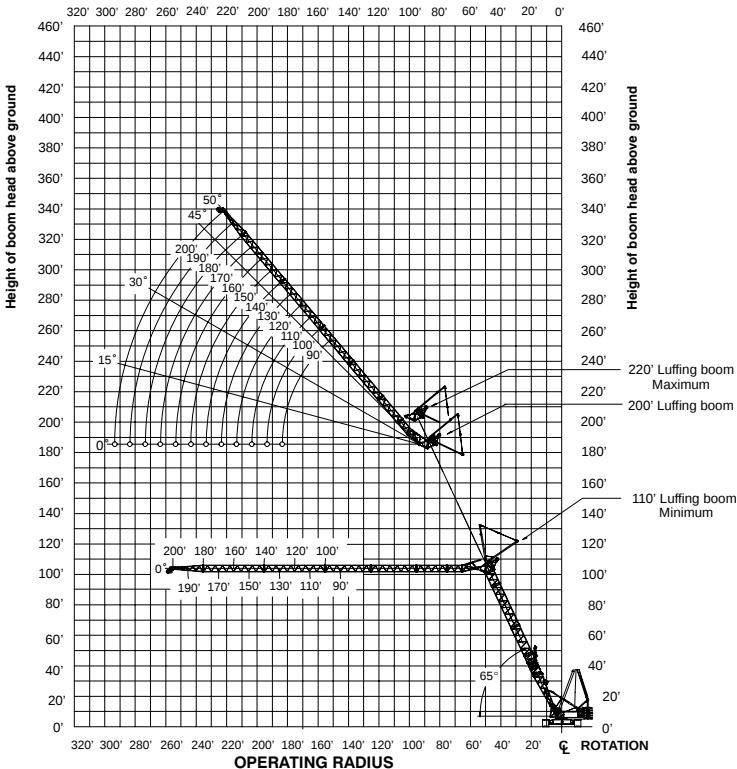
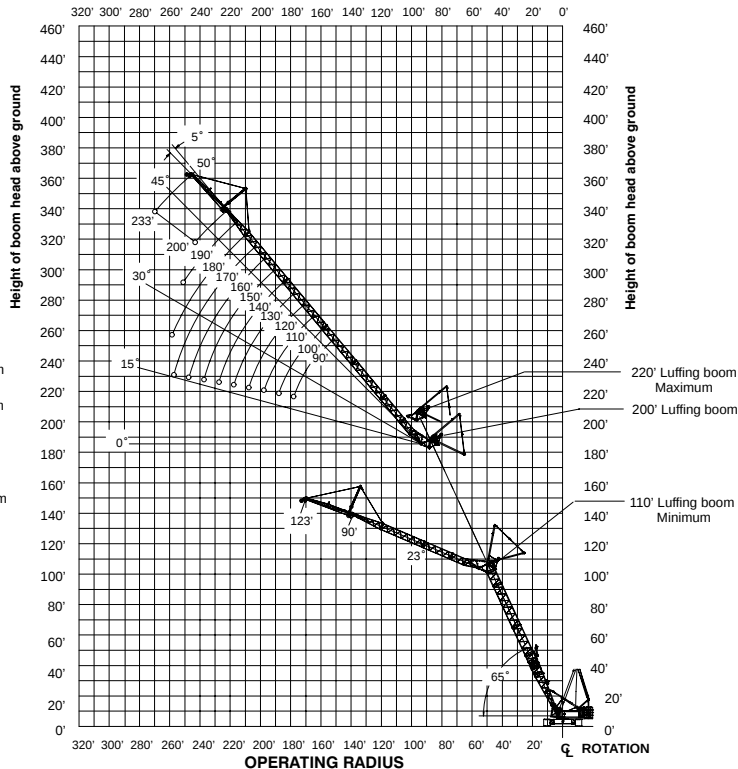


ROLLED UNDER LIFTOFF CAPABILITIES

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



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 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)
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						



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)	*
110	150	130	36.6	206.3	22.9	*	42.3	217.0	26.3	*	47.4	224.7	31.5	*	52.1	229.9	32.3	*								
110	150	133														55.0	231.1	29.9								
110	150	140	29.5	191.0	21.6	*	36.3	204.8	23.8	*	42.0	214.6	27.5	*	47.0	221.4	29.4		51.6	225.7	27.9					
110	150	150	20.5	169.5	21.4	*	29.2	189.2	22.0	*	35.9	202.2	24.3	*	41.6	211.1	26.8		46.5	217.0	25.5					
110	150	152																				50.0	218.9	23.8		
110	150	160	0.0	117.0	16.1	*	20.0	167.4	21.0	*	28.8	186.4	21.6	*	35.4	198.5	24.3	*	41.0	206.5	23.3		45.8	211.5	22.1	
110	150	169					0.0	116.1	18.5	*																
110	150	170									19.4	164.0	19.6	*	28.2	182.4	21.0	*	34.7	193.7	21.5		40.2	200.8	20.3	
110	150	178									0.0	114.3	19.1	*												
110	150	180													18.5	159.2	18.5	*	27.3	177.1	19.8		33.8	187.5	18.8	
110	150	188													0.0	111.6	17.8	*								
110	150	190																	17.2	152.7	17.6	*	26.2	170.2	17.3	
110	150	197																	0.0	108.2	16.3	*				
110	150	200																				15.4	143.9	16.1		
110	150	205																				0.0	104.1	15.3		
110	170	54	75.0	281.2	50.0	*																				
110	170	60	72.7	279.3	47.8	*																				
110	170	70	69.2	275.9	44.6	*																				
110	170	77					70.0	275.8	45.1	*																
110	170	80	65.5	271.7	37.6	*	69.0	274.7	44.3	*																
110	170	90	61.7	266.7	32.3	*	65.3	270.5	40.0	*																
110	170	100	57.8	260.9	28.1	*	61.6	265.5	36.7	*	65.0	268.3	39.6	*												
110	170	110	53.8	254.1	24.6	*	57.7	259.7	31.4	*	61.4	263.4	37.3	*												
110	170	120	49.5	246.2	21.9	*	53.6	252.8	27.3	*	57.4	257.5	34.8	*												
110	170	123													60.0	258.8	34.2									
110	170	130	44.9	236.9	19.6	*	49.3	244.8	24.0	*	53.3	250.6	30.3	*	57.1	254.4	31.7									
110	170	140	39.9	225.9	17.8	*	44.7	235.5	21.2	*	49.0	242.6	26.1	*	53.0	247.4	28.8									
110	170	144																55.0	247.5	26.2						
110	170	150	34.3	212.7	16.5	*	39.6	224.5	19.0	*	44.4	233.1	22.6	*	48.7	239.3	26.2		52.6	243.2	24.8					
110	170	160	27.7	196.1	15.7	*	34.0	211.1	17.3	*	39.3	222.0	19.8	*	44.0	229.7	23.9	*	48.2	235.0	22.7					
110	170	165																				50.0	234.2	20.6		
110	170	170	19.2	173.0	15.6	*	27.4	194.2	16.0	*	33.7	208.5	17.4	*	38.9	218.4	20.2	*	43.5	225.3	20.9		47.6	229.6	19.7	
110	170	180	0.0	117.0	12.9	*	18.8	170.8	15.2	*	27.0	191.4	15.5	*	33.2	204.7	17.3	*	38.4	213.8	19.2		42.9	219.7	18.2	
110	170	189					0.0	116.1	14.1	*																
110	170	190									18.2	167.3	14.1	*	26.4	187.3	15.0	*	32.6	199.7	17.4	*	37.6	207.9	16.8	
110	170	198									0.0	114.3	14.2	*												
110	170	200													17.4	162.4	13.3	*	25.6	181.8	14.7	*	31.7	193.4	15.5	
110	170	208													0.0	111.6	12.9	*								
110	170	210																	16.2	155.6	12.7	*	24.6	174.7	14.4	
110	170	217																	0.0	108.3	11.9	*				
110	170	220																				14.5	146.5	12.2		
110	170	225																				0.0	104.1	11.1		
110	190	59	75.0	300.5	38.1	*																				
110	190	60	74.6	300.2	37.8	*																				
110	190	70	71.4	297.1	35.6	*																				
110	190	80	68.2	293.4	33.3	*																				
110	190	84					70.0	294.6	35.2	*																
110	190	90	64.9	289.1	30.1	*	68.1	292.3	34.0	*																
110	190	100	61.6	284.1	25.8	*	64.8	287.9	31.9	*																
110	190	109									65.0	286.4	31.9	*												
110	190	110	58.1	278.2	22.3	*	61.4	282.9	30.0	*	64.6	285.9	31.6	*												
110	190	120	54.4	271.6	19.5	*	57.9	277.0	25.6	*	61.2	280.7	29.8	*												
110	190	130	50.6	263.9	17.2	*	54.3	270.3	22.2	*	57.7	274.8	28.0	*												
110	190	133													60.0	276.2	29.0	*								
110	190	140	46.6	255.1	15.3	*	50.5	262.6	19.3	*	54.1	268.1	25.1	*	57.4	271.8	27.8	*								
110	190	150	42.3	244.9	13.7	*	46.4	253.7	17.0	*	50.2	260.3	21.5	*	53.8	264.9	25.6									
110	190	156																	55.0	263.8	23.0					
110	190	160	37.6	233.0	12.5	*	42.1	243.5	15.0	*	46.2	251.4	18.4	*	50.0	257.1	23.4		53.4	260.8	22.1					
110	190	170	32.4	218.7	11.6	*	37.4	231.4	13.5	*	41.9	241.0	15.9	*	45.9	248.0	19.8	*	49.6	252.8	20.3					
110	190	178																				50.0	249.6	17.9		
110	190	180	26.2	200.8	11.0	*	32.1	217.0	12.2	*	37.1	228.9	13.8	*	41.5	237.6	16.6	*	45.5	243.6	18.7		49.0	247.5	17.5	
110	190	190	18.2	176.3	11.1	*	25.9	199.0	11.3	*	31.8	214.3	12.1	*	36.7	225.3	14.1	*	41.1	233.0	17.2		44.9	238.1	16.2	
110	190	200	0.0	117.0	9.0	*	17.8	174.0	10.7	*	25.5	196.0	10.8	*	31.4	210.5	12.1	*	36.2	220.5	14.6	*	40.4	227.3	14.9	
110	190	209					0.0	116.1	9.4	*																
110	190	210									17.2	170.4	9.9	*	25.0	191.8	10.5	*	30.8	205.4	12.2	*	35.5	214.5	13.8	
110	190	218									0.0	114.3	9.8	*												
110	190	220													16.4	165.3	9.4	*	24.2	186.2	10.3	*	30.0	198.9	12.5	
110	190	228													0.0	111.6	9.2	*								
110	190	230																	15.3	158.4	8.9	*	23.2	178.9	10.3	
110	190	237																	0.0	108.2	8.4	*				
110	190	240																				13.7	149.0	8.6		
110	190	245																				0.0	104.1	7.9		



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	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	27.1
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
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
130	130	151					0.0	136.0	22.9	*								48.5	219.5	23.5
130	130	160								10.0	156.5	24.5	*	25.8	187.5	24.4	35.1	201.7	23.0	42.3
130	130	162								0.0	133.9	22.3	*					42.3	209.6	21.6
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				
130	150	130	36.6	226.3	22.9	*	43.3	238.8	27.4	*	49.2	247.5	33.4	54.5	253.1	31.5				
130	150	140	29.5	211.0	20.9	*	37.4	227.0	24.5	*	43.9	238.0	29.8	49.7	245.3	28.6	55.0	249.9	26.9	
130	150	150	20.5	189.5	18.6	*	30.5	212.2	22.3	*	38.1	226.5	25.8	44.5	236.0	26.1	50.0	241.9	24.5	
130	150	160	0.0	137.0	17.0	*	21.9	191.9	20.6	*	31.4	212.1	22.5	38.7	224.7	23.9	44.8	232.7	22.4	50.0
130	150	170					5.9	151.5	18.0	*	23.1	192.7	19.7	*	32.1	210.6	22.0	39.1	221.6	20.6



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	150	171				0.0	136.0	16.9	*				9.3	158.2	17.7	*	24.0	191.9	19.1	*	32.6	207.7	19.0		39.3	217.1	17.7			
130	150	180											0.0	134.0	16.4	*														
130	150	182																11.3	160.4	16.6	*	24.6	189.4	17.6		32.8	203.3	16.4		
130	150	190																0.0	131.0	16.0	*									
130	150	193																												
130	150	200																				12.5	159.6	15.8	*	24.8	185.1	15.2		
130	150	204																				0.0	127.0	14.7	*					
130	150	210																								13.0	155.9	14.0		
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																				50.0	252.4	18.1						
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	18.4		46.9	246.3	17.1						
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	17.0		42.1	236.1	15.7					
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	15.7		36.8	223.9	14.6					
130	170	202									0.0	134.0	11.9	*																
130	170	210													10.7	162.4	11.8	*	23.1	193.6	13.4	*	30.7	209.0	13.5					
130	170	213													0.0	131.0	11.5	*												
130	170	220																11.8	161.7	11.2	*	23.3	189.3	12.5						
130	170	224																0.0	127.0	10.5	*									
130	170	230																				12.2	158.1	10.9	*					
130	170	234																				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																55.0	282.6	20.7										
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	52.2	277.1	19.4										
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	17.8										
130	190	186																				50.0	267.7	15.6						
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	16.4		48.4	264.2	15.1						
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											



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	*					
130	200	160	41.2	268.7	11.1	*	45.9	279.6	14.6	*	50.2	287.6	19.6	*	54.2	293.1	22.4						
130	200	168														55.0	290.8	19.3					
130	200	170	36.6	256.3	10.0	*	41.8	269.1	12.8	*	46.4	278.7	16.6	*	50.6	285.4	20.5						
130	200	180	31.5	241.5	9.2	*	37.3	257.0	11.3	*	42.3	268.4	14.1	*	46.7	276.6	18.8	*	50.8	282.0	17.5		
130	200	190	25.5	223.1	8.6	*	32.2	242.6	10.0	*	37.8	256.5	11.9	*	42.7	266.5	15.3	*	47.0	273.2	16.1		
130	200	192																		50.0	275.4	14.5	
130	200	200	17.7	197.9	7.8	*	26.4	224.8	9.0	*	32.8	242.4	10.2	*	38.2	254.7	12.7	*	42.9	263.2	14.8		47.1
130	200	210	0.0	137.0	5.7	*	18.9	200.8	8.3	*	27.1	225.1	8.8	*	33.3	240.9	10.6	*	38.5	251.6	13.7		43.0
130	200	220					5.1	153.9	6.4	*	19.9	202.1	7.8	*	27.7	223.9	8.9	*	33.7	237.9	11.2	*	38.7
130	200	221					0.0	136.0	6.1	*													
130	200	230									8.1	162.0	7.0	*	20.7	201.7	7.6	*	28.1	221.2	9.2	*	33.8
130	200	232									0.0	134.0	6.4	*									
130	200	240													9.8	165.0	6.6	*	21.2	199.4	7.5	*	28.3
130	200	243													0.0	131.0	6.5	*					
130	200	250																	10.9	164.7	6.3	*	21.4
130	200	254														0.0	127.0	5.9	*				
130	200	260																			11.3	161.2	6.1
130	200	264																			0.0	122.2	5.5
150	90	33	75.0	243.9	97.3	*																	
150	90	35	73.5	243.3	94.4	*																	
150	90	40	70.2	241.7	88.3	*																	
150	90	50	63.3	237.4	76.4	*																	
150	90	53					70.0	240.4	87.7	*													
150	90	60	55.9	231.5	69.3	*	65.4	237.7	78.8	*													
150	90	70	47.8	223.6	63.3	*	58.2	232.4	70.3	*													
150	90	74									65.0	235.2	69.6										
150	90	80	38.4	212.9	53.7	*	50.3	225.2	64.3	*	60.3	231.8	62.5										
150	90	90	26.6	197.2	45.8	*	41.5	215.5	57.2	*	52.7	225.2	54.0										
150	90	93													60.0	228.2	48.7						
150	90	100	0.0	157.0	33.6	*	30.6	201.7	50.2	*	44.2	216.3	47.4		54.8	223.8	44.5						
150	90	110					13.7	177.1	43.4	*	34.1	204.0	42.1		46.6	215.6	39.9						
150	90	112					0.0	155.9	37.9	*									55.0	219.5	36.6		
150	90	120									20.0	184.5	38.0		37.0	204.4	35.8		48.5	213.2	33.5		
150	90	126									0.0	153.6	35.8										
150	90	130													24.5	187.6	32.3		39.4	202.9	30.3		50.0
150	90	138													0.0	150.3	29.7						
150	90	140																	27.8	187.8	27.5		41.2
150	90	150														5.5	154.5	25.1					30.3
150	90	160																					13.0
150	90	162																					0.0
150	110	38	75.0	263.3	82.9	*																	
150	110	40	73.9	262.7	79.6	*																	
150	110	50	68.4	259.3	70.1	*																	
150	110	60	62.7	254.7	62.8	*	70.0	259.2	72.6	*													
150	110	70	56.6	248.9	57.2	*	64.4	255.1	64.7	*													
150	110	80	50.1	241.4	49.5	*	58.5	249.7	58.3	*													
150	110	82									65.0	253.3	60.0										
150	110	90	43.0	232.0	42.4	*	52.2	242.8	53.5	*	60.3	249.1	53.4										
150	110	100	34.6	219.5	36.9	*	45.2	234.0	49.0	*	54.1	242.7	46.8										
150	110	103													60.0	245.5	42.2						
150	110	110	24.0	201.7	32.1	*	37.3	222.6	42.7	*	47.3	234.5	41.5		55.8	241.2	39.3						
150	110	120	0.0	157.0	26.9	*	27.6	206.9	36.5	*	39.8	224.0	37.6		49.2	233.5	35.2						
150	110	124																	55.0	235.9	31.7		
150	110	130					12.4	179.4	31.0	*	30.7	209.8	33.9		41.9	223.7	31.8		50.8	231.0	29.7		
150	110	132					0.0	155.9	28.9	*													
150	110	140									18.1	187.8	30.8		33.3	210.7	28.9		43.7	221.7	27.0		
150	110	143																					
150	110	146									0.0	153.6	27.2	*									50.0
150	110	150													22.1	191.7	26.4		35.5	209.6	24.6		45.1
150	110	158													0.0	150.3	24.5						
150	110	160																	25.1	192.5	22.6		37.1
150	110	170																	5.0	155.4	20.7		27.4
150	110	180																					11.7
150	110	182																					0.0
150	130	43	75.0	282.6	68.6	*																	
150	130	50	71.8	280.5	64.1	*																	
150	130	60	67.1	276.8	57.3	*																	
150	130	67					70.0	278.0	61.5	*													
150	130	70	62.3	272.1	50.8	*	68.6	276.9	59.5	*													
150	130	80	57.2	266.2	44.5	*	63.8	272.5	53.6	*													
150	130	90	51.7	259.1	39.0	*	58.7	267.0	48.7	*	65.0	271.4	52.4										
150	130	100	45.9	250.3	33.9	*	53.4	260.3	44.9	*	60.2	266.5	46.1										
150	130	110	39.4	239.5	29.5	*	47.7	252.1	39.2	*	55.0	260.1	40.9										
150	130	113													60.0	262.8	37.3						
150	130	120	31.8	225.5	25.8	*	41.4	241.9	34.7	*	49.4	252.4	37.0		56.4	258.6	34.6						
150	130	130	22.0	205.8	22.8	*	34.3	229.1	30.3	*	43.3	242.8	33.4		51.0	251.2	31.2						
150	130	135																	55.0	252.3	27.6		
150	130	140	0.0	157.0	21.2	*	25.4	211.6	26.0	*	36.5	230.9	30.4		45.0	242.2	28.3		52.3	248.6	26.3		
150	130	150					11.4	181.5	22.4	*	28.2	215.1	27.7		38.4	231.0	25.9		46.4	240.0	24.0		
150	130	152					0.0	155.9	21.2	*													



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							16.7	190.9	24.1	*	30.6	216.4	23.7			50.0	239.9	21.0
150	130	160							0.0	153.6	20.0	*				40.0	229.4	22.0	47.6	236.2
150	130	166																		
150	130	170										20.3	195.4	21.8		32.6	215.7	20.2	41.3	226.0
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																		
150	150	130	36.6	246.3	20.7	*	44.2	260.5	28.2	*	50.9	270.1	32.8	60.0	280.2	32.8				
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															55.0	268.7	24.1	
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	53.3	266.1	23.3	
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	48.4	258.0	21.4	
150	150	169																	50.0	255.2
150	150	170					10.6	183.4	16.2	*	26.2	219.9	19.9	35.6	237.7	21.3	43.1	248.2	19.6	49.4
150	150	172					0.0	155.9	15.4	*									254.1	18.0
150	150	180									15.5	193.7	17.2	28.4	221.7	19.6	37.1	236.3	18.1	44.1
150	150	186									0.0	153.7	14.5	*					244.7	16.6
150	150	190												18.9	198.9	16.7	*	30.2	221.3	16.7
150	150	198												0.0	150.3	13.8	*		233.3	15.3
150	150	200															21.5	200.7	15.5	31.6
150	150	210															4.3	157.0	13.3	23.4
150	150	220																	199.8	13.1
150	150	222																	166.4	12.1
150	150	222																	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
150	170	192					0.0	155.9	11.0	*									270.5	15.7
150	170	200									14.5	196.3	12.1	*	26.7	226.6	13.9	34.8	242.8	14.9
150	170	206									0.0	153.7	10.4	*					262.9	14.6
150	170	210												17.8	202.1	11.7	*	28.4	226.6	13.8
150	170	218												0.0	150.3	9.8	*		240.0	12.5
150	170	220															20.2	204.4	11.7	29.7
150	170	230															4.0	157.7	9.4	224.4
150	170	240																	203.8	10.7
150	170	242																	168.1	9.3
150	170	242																	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					70.0	334.4	32.4	*										
150	190	90	64.9	329.1	24.8	*	69.2	333.5	31.9	*										
150	190	100	61.6	324.1	22.4	*	65.9	329.4	30.0	*										
150	190	110	58.1	318.2	20.1	*	62.6	324.6	27.8	*										
150	190	116									65.0	325.8	29.4	*						
150	190	120	54.4	311.6	18.0	*	59.1	319.0	25.4	*	63.6	323.8	28.6	*						
150	190	130	50.6	303.9	15.9	*	55.6	312.6	22.9	*	60.2	318.4	27.0	*						
150	190	140	46.6	295.1	14.1	*	51.8	305.2	20.5	*	56.6	312.3	25.4	*						
150	190	143													60.0	314.8	25.6			
150	190	150	42.3	284.9	12.4	*	47.9	296.8	18.2	*	52.9	305.2	23.9	*	57.6	310.6	24.0			
150	190	160	37.6	273.0	10.9	*	43.7	287.1	15.9	*	49.0	297.1	21.6	*	53.9	303.8	21.9			



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	190	169																					
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		
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		
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		
150	190	226									0.0	153.7	7.1	*									
150	190	230													16.8	205.2	7.9	*	26.8	231.5	9.8	*	
150	190	238													0.0	150.3	6.7	*					
150	190	240																	19.1	207.8	7.9	*	
150	190	250																	3.8	158.4	6.3	*	
150	190	260																					
150	190	262																					
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																					
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		
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		
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	*	
150	200	236									0.0	153.7	5.7	*									
150	200	240													16.4	206.6	6.3	*	26.1	233.8	7.9	*	
150	200	248													0.0	150.3	5.4	*					
150	200	250																	18.6	209.5	6.3	*	
150	200	260																	3.7	158.8	5.0	*	
150	200	270																					
150	200	272																					
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																	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																					
170	90	140													15.5	193.7	28.5		36.1	217.6	26.4		
170	90	143													0.0	169.6	27.5						
170	90	150																	23.2	200.0	24.0		
170	90	157																	0.0	164.6	22.4		
170	90	160																					
170	90	170																					
170	90	171																					
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										



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	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							
170	110	108																						
170	110	110	24.0	221.7	28.9	*	38.8	244.8	39.6	*	49.7	257.3	40.7		59.0	263.8	38.1							
170	110	120	0.0	177.0	26.7	*		29.5	230.0	33.7	*	42.5	247.7	36.9		52.7	257.0	34.1						
170	110	130						16.1	206.2	28.8	*	34.1	235.0	33.3		45.8	248.4	30.8	55.0	254.7	28.2			
170	110	134						0.0	175.8	27.0	*													
170	110	140										23.2	216.7	30.3		38.0	237.2	28.0	48.6	247.1	25.7			
170	110	149										0.0	173.3	24.8	*									
170	110	150														28.4	222.0	25.6	41.2	237.1	23.5			
170	110	152																				50.0	242.7	21.1
170	110	160													14.0	196.2	23.4	32.5	223.7	21.5	43.9	234.7	19.6	
170	110	163													0.0	169.6	22.7							
170	110	170																20.9	203.9	19.8	35.8	222.7	18.0	
170	110	177																0.0	164.6	18.6				
170	110	180																			25.5	205.8	16.6	
170	110	190																			6.7	171.2	15.3	
170	110	191																			0.0	158.4	15.2	
170	130	43	75.0	302.6	60.3	*																		
170	130	50	71.8	300.5	56.4	*																		
170	130	60	67.1	296.8	50.5	*																		
170	130	69					70.0	298.0	58.6	*														
170	130	70	62.3	292.1	44.6	*	69.4	297.5	57.9	*														
170	130	80	57.2	286.2	39.4	*	64.6	293.3	52.4	*														
170	130	90	51.7	279.1	34.5	*	59.6	288.0	47.5	*														
170	130	94									65.0	291.1	49.0											
170	130	100	45.9	270.3	30.0	*	54.4	281.5	42.6	*	62.0	288.1	45.3											
170	130	110	39.4	259.5	26.2	*	48.8	273.5	37.3	*	56.9	282.2	40.6											
170	130	118													60.0	282.2	34.1							
170	130	120	31.8	245.5	22.9	*	42.6	263.8	32.2	*	51.4	274.9	36.3		59.1	281.1	33.5							
170	130	130	22.0	225.8	20.3	*	35.6	251.5	27.8	*	45.5	266.1	32.8		53.8	274.5	30.2							
170	130	140	0.0	177.0	19.1	*	27.1	235.1	23.9	*	39.0	255.1	29.8		48.2	266.4	27.4							
170	130	142																55.0	271.1	24.6				
170	130	150					14.8	208.9	20.6	*	31.3	240.9	27.2		41.9	256.4	25.0	50.5	264.9	22.8				
170	130	154					0.0	175.8	19.4	*														
170	130	160									21.4	220.7	24.2	*	34.8	243.8	22.9	44.5	255.7	20.9				
170	130	164																						
170	130	169									0.0	173.3	18.0	*							50.0	258.0	18.2	
170	130	170													26.1	226.8	21.1	37.8	244.2	19.2	46.6	252.9	17.3	
170	130	180													12.9	198.6	19.4	29.9	229.3	17.7	40.2	242.4	16.0	
170	130	183													0.0	169.6	16.6	*						
170	130	190																19.2	207.4	16.4	32.8	228.9	14.7	
170	130	197																0.0	164.6	15.3	*			
170	130	200																			23.5	210.2	13.6	
170	130	210																			6.2	172.4	12.6	
170	130	211																			0.0	158.4	12.5	
170	150	48	75.0	321.9	47.2	*																		
170	150	50	74.3	321.4	46.6	*																		
170	150	60	70.3	318.2	42.5	*																		
170	150	70	66.2	314.3	38.5	*																		
170	150	76					70.0	316.8	48.0	*														
170	150	80	62.0	309.4	34.4	*	68.2	315.1	46.6	*														
170	150	90	57.5	303.6	30.5	*	64.0	310.6	42.5	*														
170	150	100	52.9	296.6	26.8	*	59.7	305.3	38.3	*														
170	150	102									65.0	309.3	43.3											
170	150	110	47.9	288.4	23.5	*	55.2	298.9	34.0	*	61.7	305.4	40.0											
170	150	120	42.6	278.4	20.6	*	50.4	291.3	29.9	*	57.3	299.5	35.7											
170	150	128													60.0	299.5	30.0							
170	150	130	36.6	266.3	18.1	*	45.2	282.2	26.1	*	52.6	292.5	32.2		59.2	298.5	29.5							
170	150	140	29.5	251.0	15.9	*	39.5	271.3	22.6	*	47.6	284.1	29.2		54.7	292.0	26.7							
170	150	150	20.5	229.5	14.2	*	33.1	257.6	19.6	*	42.2	274.1	26.7		49.9	284.2	24.4							
170	150	153																55.0	287.5	21.5				
170	150	160	0.0	177.0	13.5	*	25.2	239.7	17.0	*	36.2	261.9	24.3	*	44.6	275.0	22.3	51.8	282.5	20.2				
170	150	170					13.7	211.4	14.7	*	29.1	246.2	20.3	*	38.9	263.8	20.5	46.8	273.9	18.6				
170	150	174					0.0	175.9	13.9	*														
170	150	177																			50.0	273.3	15.7	
170	150	180									19.9	224.3	17.0	*	32.4	249.8	18.9	41.3	263.5	17.1	48.6	270.9	15.3	
170	150	189									0.0	173.4	13.0	*										
170	150	190													24.3	231.3	17.2	*	35.1	250.8	15.8	43.3	261.2	14.1
170	150	200													12.0	200.8	14.0	*	27.8	234.4	14.6	37.3	249.4	13.0
170	150	203													0.0	169.6	11.9	*						
170	150	210																17.9	210.7	13.5	30.5	234.5	12.0	
170	150	217																0.0	164.6	11.0	*			
170	150	220																			21.8	214.2	11.1	
170	150	230																			5.7	173.4	10.3	
170	150	231																			0.0	158.4	10.2	
170	170	54	75.0	341.2	36.8	*																		
170	170	60	72.7	339.3	35.1	*																		
170	170	70	69.2	335.9	32.1	*																		
170	170	80	65.5	331.7	29.1	*																		
170	170	82					70.0	335.5	37.9	*														
170	170	90	61.7	326.7	26.1	*	67.3	332.6	36.0	*														

[illegible]



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										21.0	241.2	6.2 *	30.3	265.4	8.3 *	37.2	279.4	8.0
170	200	250										10.4	205.7	4.9 *	24.0	245.9	6.5 *	32.2	265.0	7.4
170	200	253										0.0	169.6	4.1 *						
170	200	260													15.5	218.0	5.0 *	26.3	247.1	6.8
170	200	267													0.0	164.6	3.7 *			
170	200	270																18.9	223.1	5.2 *
170	200	280																5.0	175.7	3.6 *
170	200	281																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													55.0	257.1	28.8			
190	90	130							13.3	213.6	33.1	37.4	243.5	30.4	51.6	253.9	27.6			
190	90	132							0.0	193.0	30.9 *									
190	90	140										25.0	227.0	27.6	42.9	244.7	25.1			
190	90	147																50.0	245.5	21.1
190	90	148										0.0	188.9	25.4						
190	90	150													32.5	231.7	22.9	47.5	242.9	20.6
190	90	160													17.4	210.2	20.9	38.1	232.1	18.8
190	90	164													0.0	183.4	20.1			
190	90	170																26.1	216.2	17.3
190	90	179																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													55.0	273.5	25.0			
190	110	140							27.5	243.7	29.7	42.2	262.7	27.0	53.2	271.5	24.4			
190	110	150							12.0	215.9	26.8 *	33.7	249.9	24.7	46.4	263.0	22.2			
190	110	152							0.0	193.0	22.5 *									
190	110	160										22.6	231.2	22.6	38.7	252.1	20.4	50.0	260.8	18.1
190	110	168										0.0	188.9	20.0 *						
190	110	170													29.3	237.3	18.7	42.7	251.2	16.6
190	110	180													15.7	213.1	17.2	34.4	238.6	15.3
190	110	184													0.0	183.4	16.6			
190	110	190																23.6	220.6	14.1
190	110	199																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	149													55.0	289.9	21.8			
190	130	150				17.5	234.9	18.9 *	34.1	266.0	26.6	45.2	281.2	24.1	54.3	288.9	21.5			
190	130	156				0.0	195.7	17.5 *												
190	130	160							25.2	248.4	23.2 *	38.6	270.1	22.0	48.6	281.0	19.7			
190	130	170							11.0	217.9	19.3 *	30.9	255.7	20.3	42.5	271.1	18.1			
190	130	172							0.0	193.1	16.3 *									
190	130	173																50.0	276.1	15.6
190	130	180										20.8	235.0	18.7	35.5	258.8	16.7	45.7	269.6	14.6



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)				
190	130	188										0.0	188.9	14.5	*									
190	130	190															26.9	242.3	15.4		39.2	258.6	13.5	
190	130	200															14.4	215.8	14.2		31.5	244.5	12.5	
190	130	204															0.0	183.4	12.9	*				
190	130	210																			21.7	224.6	11.5	
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	55.0	306.2	19.0				
190	150	170					16.3	237.8	13.3	*	31.7	271.9	19.6	*	42.0	289.2	19.7	50.3	298.7	17.4				
190	150	176					0.0	195.7	12.4	*														
190	150	180									23.5	252.7	16.6	*	35.9	276.8	18.1	45.1	289.6	16.0				
190	150	186																			50.0	291.4	13.3	
190	150	190									10.3	219.7	13.8	*	28.7	261.0	16.7	39.4	278.6	14.8	47.8	287.6	12.8	
190	150	192									0.0	193.1	11.6	*										
190	150	200													19.3	238.5	14.1	*	32.9	264.9	13.6	42.4	277.6	11.8
190	150	208													0.0	188.9	10.2	*						
190	150	210																25.0	246.9	12.6		36.4	265.5	10.9
190	150	220																13.4	218.2	11.4	*	29.3	250.0	10.0
190	150	224																0.0	183.4	9.0	*			
190	150	230																			20.2	228.3	9.3	
190	150	239																			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																55.0	322.6	16.5				
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	51.5	316.4	15.3				
190	170	190					15.3	240.6	9.1	*	29.7	277.4	13.8	*	39.3	296.6	16.2	47.0	307.7	14.1				
190	170	196					0.0	195.7	8.5	*														
190	170	198																			50.0	306.7	11.2	
190	170	200									22.0	256.7	11.6	*	33.6	283.0	14.9	*	42.2	297.6	13.0	49.3	305.5	11.1
190	170	210									9.6	221.5	9.5	*	26.9	265.9	11.9	*	36.9	285.5	12.0	44.7	296.1	10.2
190	170	212									0.0	193.1	7.9	*										
190	170	220													18.2	241.8	9.6	*	30.9	270.6	11.1	39.7	285.1	9.4
190	170	228													0.0	188.9	6.9	*						
190	170	230																23.5	251.2	10.0	*	34.1	271.8	8.6
190	170	240																12.6	220.5	7.7	*	27.5	255.0	8.0
190	170	244																0.0	183.4	6.0	*			
190	170	250																			18.9	231.7	7.3	
190	170	259																			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	*																		



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)
190	190	170	32.4	298.7	6.4 *	40.7	319.7	10.8 *	47.8	333.8	17.2 *	54.1	342.7	18.4						
190	190	180	26.2	280.8	5.5 *	35.9	307.1	9.3 *	43.6	324.0	15.1 *	50.2	334.9	16.9						
190	190	183													55.0	339.0	14.3			
190	190	190	18.2	256.3	4.9 *	30.3	291.7	7.9 *	39.0	312.7	13.1 *	46.2	326.0	15.5	52.4	333.9	13.4			
190	190	200	0.0	197.0	5.0 *	23.7	272.1	6.8 *	34.0	299.1	11.1 *	41.8	315.6	14.3	48.5	325.7	12.3			
190	190	210				14.5	243.2	5.8 *	28.1	282.5	9.1 *	37.1	303.5	12.2 *	44.3	316.2	11.3			
190	190	211																50.0	322.1	9.4
190	190	216				0.0	195.7	5.5 *												
190	190	220							20.8	260.5	7.5 *	31.8	288.9	9.7 *	39.8	305.1	10.5	46.5	314.3	8.7
190	190	230							9.1	223.1	6.1 *	25.5	270.6	7.7 *	34.9	292.0	9.6	42.2	304.1	8.0
190	190	232							0.0	193.1	5.0 *									
190	190	240										17.2	245.0	6.1 *	29.2	276.0	8.4 *	37.5	292.1	7.3
190	190	248										0.0	188.9	4.2 *						
190	190	250													22.2	255.2	6.4 *	32.2	277.7	6.7
190	190	260													11.9	222.6	4.7 *	26.0	259.8	6.1
190	190	264													0.0	183.4	3.5 *			
190	190	270																17.9	234.9	5.0 *
190	190	279																0.0	176.6	2.9 *
190	200	61	75.0	390.2	21.7 *															
190	200	70	72.4	387.6	20.3 *															
190	200	80	69.4	384.2	18.6 *															
190	200	90	66.3	380.1	16.8 *															
190	200	94				70.0	383.7	23.3 *												
190	200	100	63.1	375.4	15.1 *	68.3	381.5	22.4 *												
190	200	110	59.8	369.9	13.4 *	65.2	377.2	20.6 *												
190	200	120	56.5	363.7	11.7 *	62.0	372.3	18.8 *												
190	200	127							65.0	374.3	23.7 *									
190	200	130	53.0	356.6	10.2 *	58.7	366.6	16.9 *	64.0	372.8	23.2 *									
190	200	140	49.3	348.6	8.8 *	55.3	360.1	15.1 *	60.8	367.6	21.9 *									
190	200	150	45.4	339.3	7.6 *	51.7	352.7	13.3 *	57.5	361.6	20.1 *									
190	200	158										60.0	362.1	20.1						
190	200	160	41.2	328.7	6.5 *	47.9	344.2	11.6 *	54.0	354.8	18.2 *	59.5	361.2	19.8						
190	200	170	36.6	316.3	5.5 *	44.0	334.6	10.0 *	50.4	347.0	16.2 *	56.1	354.9	18.1						
190	200	180	31.5	301.5	4.7 *	39.7	323.4	8.6 *	46.5	338.2	14.3 *	52.6	347.7	16.6						
190	200	189													55.0	347.2	13.2			
190	200	190	25.5	283.1	4.0 *	34.9	310.2	7.3 *	42.4	328.0	12.4 *	48.9	339.5	15.2	54.6	346.4	13.1			
190	200	200	17.7	257.9	3.6 *	29.6	294.4	6.2 *	38.0	316.1	10.7 *	45.0	330.2	14.0	51.0	338.8	12.0			
190	200	210	0.0	197.0	3.8 *	23.1	274.2	5.2 *	33.1	302.1	8.8 *	40.7	319.4	12.3 *	47.2	330.1	11.0			
190	200	218																50.0	329.7	8.5
190	200	220				14.1	244.5	4.4 *	27.4	285.0	7.1 *	36.1	306.8	9.7 *	43.2	320.2	10.1	49.2	327.8	8.4
190	200	226				0.0	195.7	4.2 *												
190	200	230							20.3	262.3	5.8 *	30.9	291.7	7.7 *	38.8	308.7	9.3	45.3	318.6	7.6
190	200	240							8.9	223.9	4.7 *	24.8	272.8	6.0 *	34.0	295.1	8.6	41.1	307.9	7.0
190	200	242							0.0	193.1	3.7 *									
190	200	250										16.7	246.4	4.7 *	28.4	278.6	6.5 *	36.5	295.5	6.4
190	200	258										0.0	188.9	3.1 *						
190	200	260													21.6	257.1	4.9 *	31.4	280.6	5.8
190	200	270													11.6	223.7	3.5 *	25.3	262.0	5.3
190	200	274													0.0	183.4	2.5 *			
190	200	280																17.4	236.5	3.7 *
200	200	61	75.0	400.2	20.1 *															
200	200	70	72.4	397.6	18.8 *															
200	200	80	69.4	394.2	17.2 *															
200	200	90	66.3	390.1	15.5 *															
200	200	95				70.0	393.6	21.9 *												
200	200	100	63.1	385.4	13.8 *	68.6	391.9	21.1 *												
200	200	110	59.8	379.9	12.2 *	65.5	387.6	19.4 *												
200	200	120	56.5	373.7	10.6 *	62.3	382.7	17.6 *												
200	200	129							65.0	384.1	22.9 *									
200	200	130	53.0	366.6	9.2 *	59.0	377.1	15.8 *	64.6	383.5	22.7 *									
200	200	140	49.3	358.6	7.9 *	55.6	370.6	14.1 *	61.4	378.4	21.0 *									
200	200	150	45.4	349.3	6.7 *	52.0	363.3	12.4 *	58.0	372.5	19.2 *									
200	200	160	41.2	338.7	5.7 *	48.3	355.0	10.8 *	54.6	365.9	17.3 *									
200	200	161										60.0	371.8	19.1						
200	200	170	36.6	326.3	4.8 *	44.3	345.4	9.3 *	51.0	358.3	15.4 *	57.0	366.3	17.6						
200	200	180	31.5	311.5	4.0 *	40.1	334.4	7.9 *	47.2	349.6	13.6 *	53.5	359.3	16.1						
200	200	190	25.5	293.1	3.4 *	35.4	321.4	6.7 *	43.2	339.7	11.8 *	49.9	351.4	14.8						
200	200	192													55.0	356.6	12.3			
200	200	200	17.7	267.9	3.0 *	30.1	305.9	5.6 *	38.8	328.2	10.2 *	46.0	342.4	13.6	52.2	350.9	11.5			
200	200	210	0.0	207.0	3.2 *	23.7	286.2	4.7 *	34.0	314.6	8.6 *	41.9	332.0	12.5 *	48.5	342.6	10.5			
200	200	220				15.1	257.8	3.9 *	28.4	298.1	7.0 *	37.4	319.9	9.7 *	44.6	333.1	9.6			
200	200	222																50.0	338.8	7.6
200	200	227				0.0	205.7	3.7 *												
200	200	230							21.7	276.7	5.7 *	32.4	305.6	7.6 *	40.3	322.2	8.9	46.9	331.7	7.1
200	200	240							11.7	243.3	4.5 *	26.5	287.9	5.9 *	35.7	309.4	8.1	42.9	321.7	6.4
200	200	244							0.0	202.9	3.3 *									
200	200	250										19.1	264.1	4.5 *	30.4	294.0	6.5 *	38.5	310.0	5.8
200	200	260										5.9	219.0	3.1 *	24.2	274.6	4.8 *	33.6	296.3	5.2 *
200	200	261										0.0	198.6	2.5 *						
200	200	270													15.8	247.1	3.4 *	28.0	279.5	4.6 *
200	200	280																21.1	257.6	3.7 *
200	200	290																10.6	222.5	2.2 *



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)			
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																	50.0	263.6	18.0		
210	90	160															28.5	245.2	19.7	46.2	259.6	17.3	
210	90	170															8.3	215.2	18.1	36.5	248.2	15.9	
210	90	171															0.0	202.2	17.9				
210	90	180																		23.8	231.0	14.6	
210	90	188																		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															55.0	292.3	22.0				
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																		50.0	278.9	15.4	
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	41.5	267.6	13.9	
210	110	190															7.5	216.5	14.9	32.9	254.4	12.8	
210	110	191															0.0	202.2	14.7				
210	110	200																		21.5	235.0	11.8	
210	110	208																		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																		50.0	294.2	13.1	
210	130	190												13.6	238.7	15.8	*	33.0	272.9	14.3	44.7	286.2	12.1
210	130	194												0.0	208.3	12.5	*						
210	130	200															23.7	254.4	13.2		38.1	274.8	11.2
210	130	210															6.9	217.8	12.1	*	30.2	260.1	10.3
210	130	211															0.0	202.2	10.6	*			
210	130	220																		19.8	238.6	9.5	
210	130	228																		0.0	194.7	8.9	
210	150	48	75.0	361.9	35.7	*																	



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)
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 *	44.8	314.0	18.8 *	53.6	322.9	16.2 *			
210	150	178				0.0	215.7	10.9 *												
210	150	180							26.6	279.9	15.5 *	39.1	302.9	17.3 *	48.7	314.8	14.8 *			
210	150	190							16.1	254.3	13.1 *	32.6	289.0	15.9 *	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 *	47.0	304.3	10.5 *
210	150	210										12.6	241.0	11.0 *	30.6	278.6	11.6 *	41.5	294.0	9.6 *
210	150	214										0.0	208.3	8.6 *						
210	150	220													22.0	258.4	10.7 *	35.4	281.4	8.9 *
210	150	230													6.4	219.0	8.3 *	28.1	265.3	8.2 *
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 *	46.8	332.1	16.6 *	54.4	340.3	14.1 *			
210	170	190				17.4	266.5	7.9 *	32.0	302.9	12.7 *	42.0	321.9	15.3 *	50.1	332.6	13.0 *			
210	170	198				0.0	215.7	7.3 *												
210	170	200							25.0	284.4	10.8 *	36.7	309.7	14.1 *	45.5	323.5	11.9 *			
210	170	207																50.0	324.9	9.2 *
210	170	210							15.1	257.0	9.0 *	30.6	294.7	11.9 *	40.6	312.8	11.0 *	48.6	322.2	8.9 *
210	170	216							0.0	212.8	6.8 *									
210	170	220										23.1	274.9	9.4 *	35.1	300.0	10.1 *	44.0	312.7	8.2 *
210	170	230										11.9	243.2	7.3 *	28.7	283.9	9.3 *	38.9	301.3	7.5 *
210	170	234										0.0	208.3	5.6 *						
210	170	240													20.7	262.2	7.6 *	33.1	287.6	6.9 *
210	170	250													6.0	220.0	5.2 *	26.3	270.1	6.3 *
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													55.0	349.6	13.3 *			
210	180	190	0.0	217.0	5.3 *	25.7	293.7	7.3 *	36.8	320.5	12.3 *	45.4	336.4	15.0 *	52.7	345.4	12.6 *			
210	180	200				16.9	268.0	6.3 *	31.1	305.7	10.5 *	40.7	325.7	13.8 *	48.6	337.2	11.6 *			



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)
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
210	180	261																0.0	202.2	3.3
210	180	270																		
210	180	278																16.8	246.6	4.4
																		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															55.0	285.3	23.8	
220	90	138									0.0	222.6	26.4	*						
220	90	140												34.9	269.4	26.0				
220	90	150												21.4	250.8	23.7				
220	90	156												0.0	217.9	22.2	*			
220	90	160																32.8	260.3	19.1
220	90	170																17.9	239.2	17.5
220	90	174																0.0	211.6	16.8
220	90	180																		
220	90	190																29.8	248.4	13.9
220	90	192																11.7	222.0	12.7
																		0.0	203.7	12.5
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																		
220	110	176												0.0	217.9	16.2	*			
220	110	180																29.6	265.9	15.6
220	110	190																16.2	242.2	14.3
220	110	194																0.0	211.6	13.5
220	110	200																		
220	110	210																26.9	253.4	11.2
220	110	212																10.6	224.0	10.3
																		0.0	203.7	10.1
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			
															57.9	319.5	27.6			



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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