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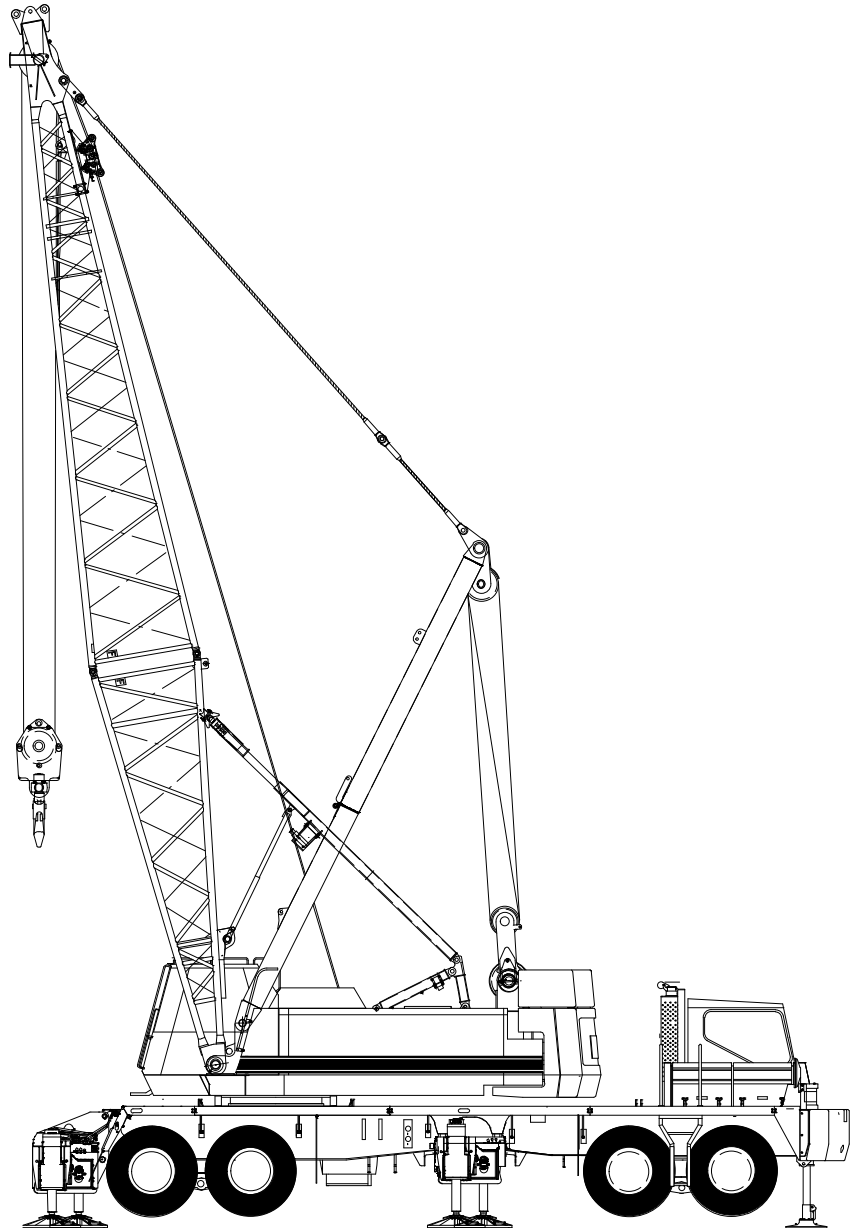
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Technical Data

Specifications & Tube Boom Capacities

HC-238H II

Truck Crane
150 Ton (136.08 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.

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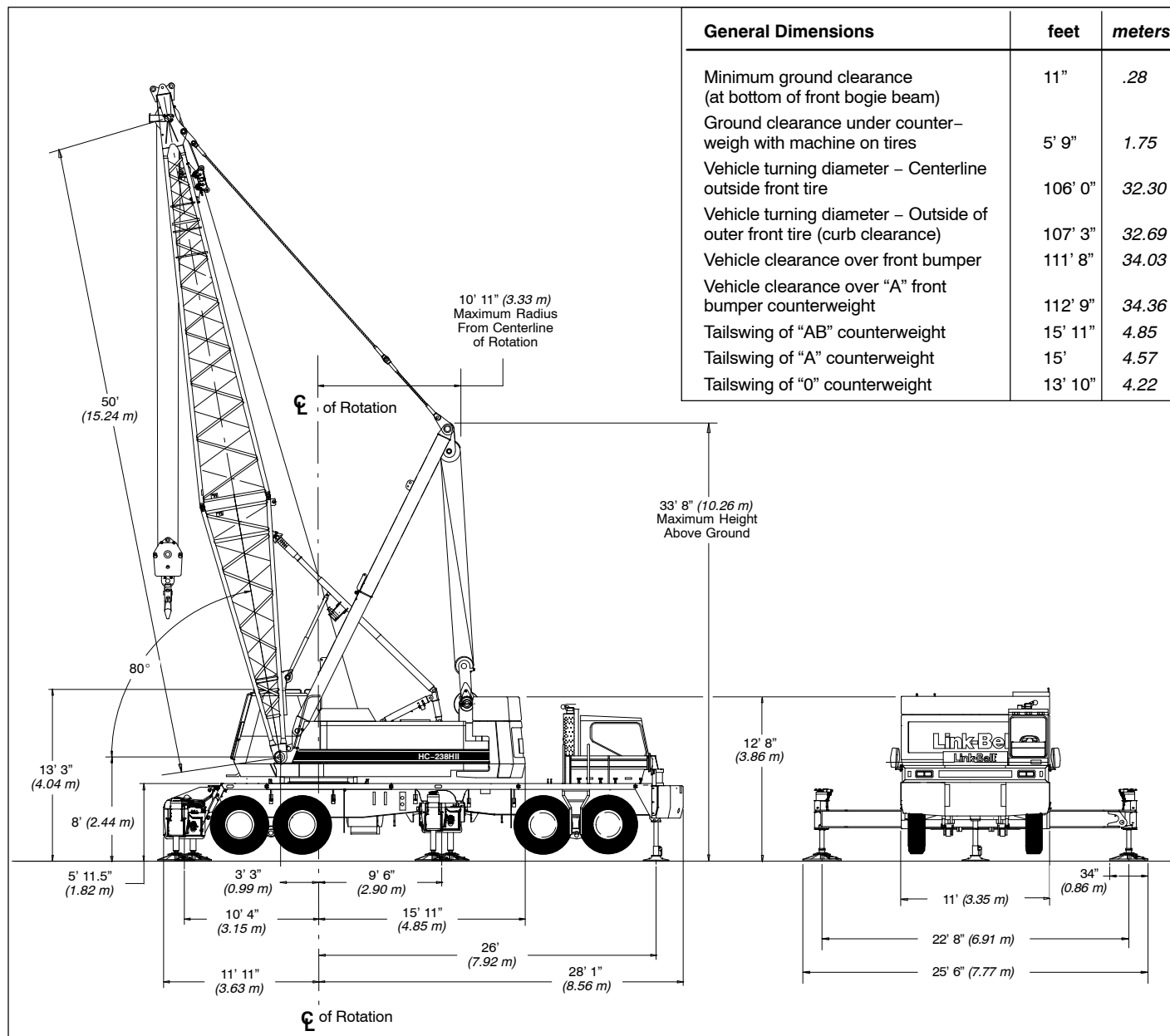
Specifications

Lattice Boom Truck Crane

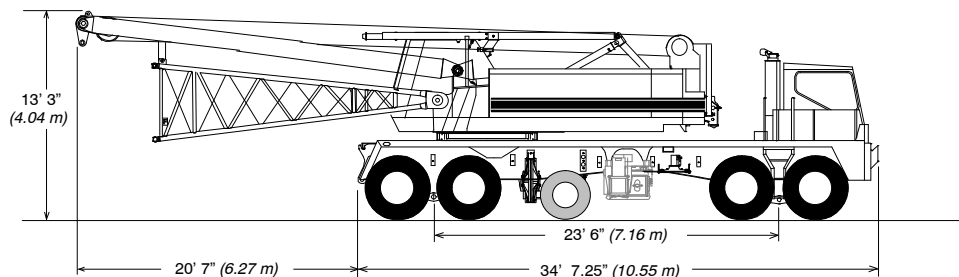
HC-238H II

150-ton (136.08 metric ton)

HYLAB Series

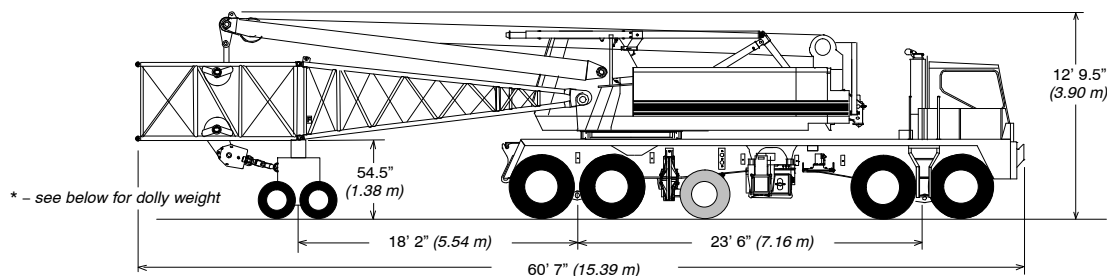


HC-238H II Machine Transport Weights and Dimensions – approximate



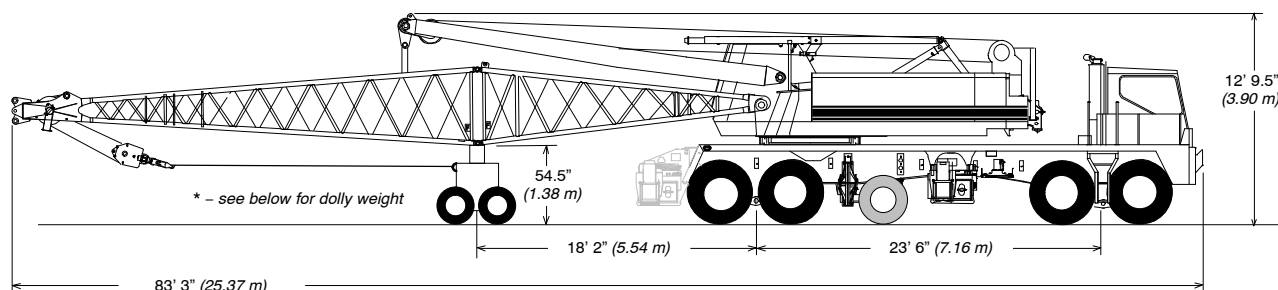
Axle weights with boom base, with/without front outrigger box and with/without pusher axle. (Includes ropes and standard backstops)

	GVW	Front	Rear	Pusher
With front O/R box and with pusher axle	99,789 (45 264)	31,699 (14 378)	48,090 (21 813)	20,000 (9 072)
With front O/R box and without pusher axle	97,539 (44 243)	37,098 (16 827)	60,441 (27 416)	not applicable
Without front O/R box and with pusher axle	90,741 (41 159)	26,504 (12 022)	44,237 (20 066)	20,000 (9 072)
Without front O/R box and without pusher axle	88,491 (40 139)	31,902 (14 471)	56,589 (25 668)	not applicable



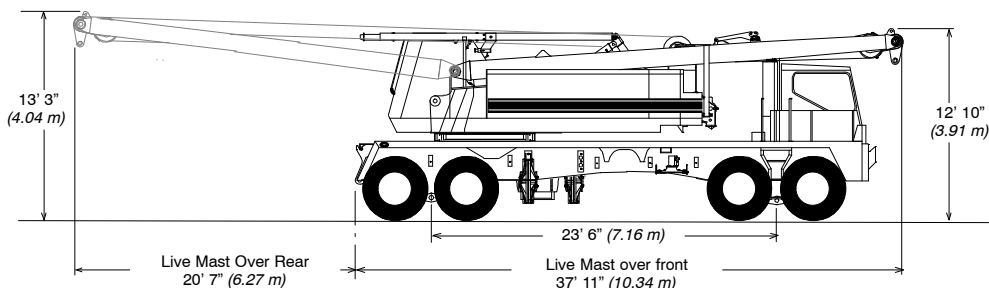
Axle weights with boom base, 10 ft. section, front outrigger box, and with/without pusher axle. (Includes ropes and standard backstops)

	GVW	Front	Rear	Pusher	Dolly
With pusher axle	108,044 (49 008)	35,923 (16 294)	40,644 (18 436)	20,000 (9 072)	11,476 (5 205)
Without pusher axle	105,794 (47 987)	41,322 (18 743)	52,996 (24 039)	not applicable	11,476 (5 205)



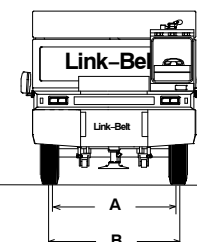
Axle weights with basic boom, with/without pusher axle, front O/R box and with/without rear O/R box. (Includes ropes and standard backstops)

	GVW	Front	Rear	Pusher	Dolly
With rear O/R box and pusher axle	120,388 (54 607)	33,134 (15 029)	48,623 (22 055)	20,000 (9 072)	18,630 (8 450)
Without rear O/R box and with pusher axle	110,434 (50 092)	35,845 (16 259)	35,959 (16 311)	20,000 (9 072)	18,630 (8 450)
Without rear O/R box and without pusher axle	108,184 (49 071)	41,244 (18 708)	48,310 (21 913)	not applicable	18,630 (8 450)



Axle weights Live Mast, without pusher axle and without front or rear O/R box. (Includes ropes and standard backstops)

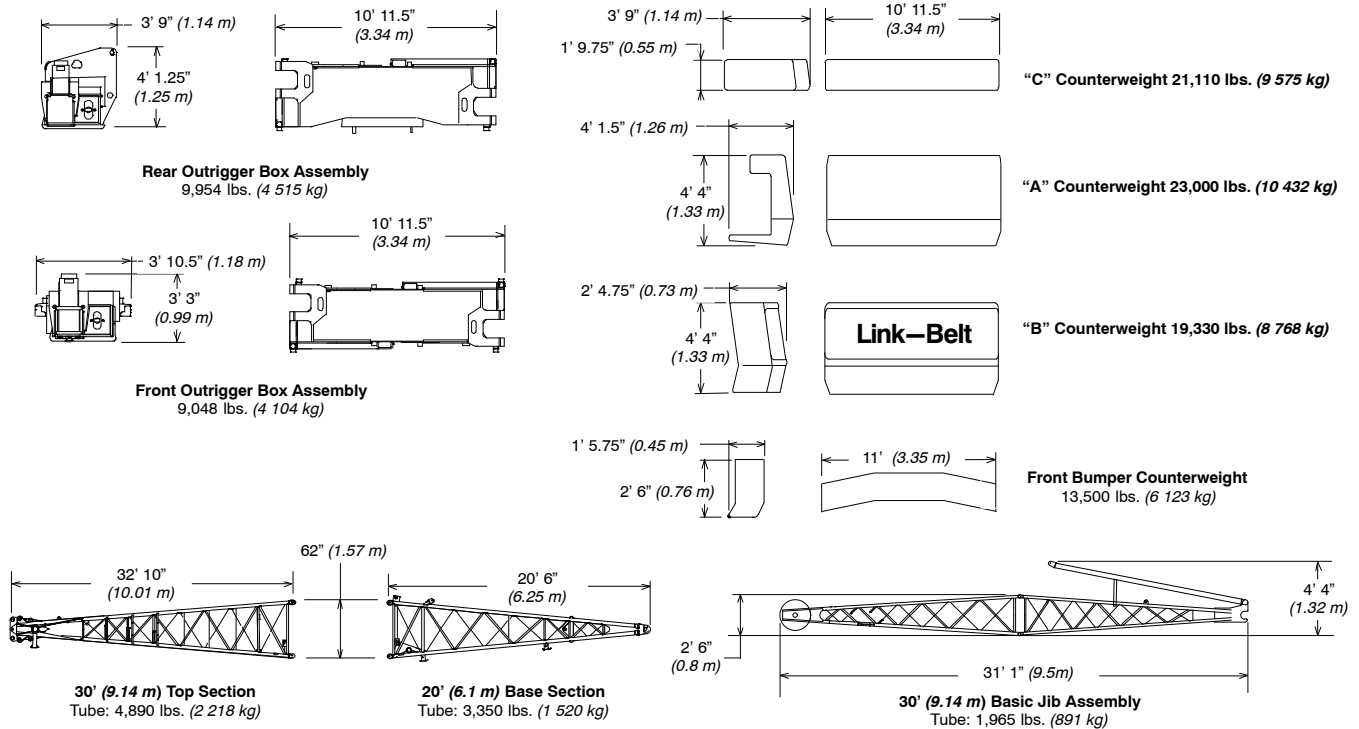
	GVW	Front	Rear
Live mast over front	85,334 (38 707)	38,520 (17 472)	46,814 (21 234)
Live mast over rear	85,334 (38 707)	33,054 (14 993)	52,280 (23 714)



A – 8' 4.25" (2.55 m) Track (rear)
B – 8' 9" (2.67 m) Track (front)

* – Dolly weight = 5,000 lbs. (2 268 kg) -- Dolly weights vary. Refer to manufacturers weight when determining axle loads.

HC-238H II Machine Transport Weights and Dimensions –approximate



HC-238H II Transportation Weights – approximate

Base Machine: 85 gallons (321 L) of carrier fuel, 12-part boom hoist reeving, rigid boom backstops, auxiliary lifting bail, 950' (290 m) front hoist rope, 600' (182.88 m) rear hoist rope and 77 gallons (291 L) of upper fuel

Item Description	Gross Weight		Transport Loads								Notes and Load Summary
	lbs.	kg.	#1	#2	#3	#4	#5	#6	#7	#8	
Base Machine	85,080	38 592	1								Numbers in the load columns to the left represent quantities.
Add Front outrigger box with manual pins	9,048	4 101		1							
Add Hydraulic pins to front outrigger box	647	293									Estimated transport assumes the load out consist of 260' (79.25 m) of tube boom + 75' (22.86m) of jib with full counterweight.
Add Rear outrigger box with hydraulic pins	9,954	4 515		1							
Add "A" bumper counterweight	13,500	6 123		1							Support loads were targeted at 45,000 lb (20 412 kg), 8' 6" (2.6 m) wide, 48' (14.6 m) long, and 13' 6" (4.1 m) high using a drop deck trailer. This may vary depending on state laws, empty truck/trailer weights, and style of trailer.
Add Main outrigger floats	660	299		1							
Add Front outrigger float	80	36		1							Estimated weights vary by +/- 2%.
Add "A" counterweight	23,000	10 433			1						
Add "B" counterweight	19,330	8 768			1						Estimated Total Load of #1 85,080 lbs. (38 592 kg).
Add "C" counterweight	21,110	9 575				1					
Add Upper Catwalk – Left Side	154	70									Estimated Total Load of #2 42,656 lbs. (19 348 kg).
Add 20' (6.10 m) Boom base section	3,350	1 520								1	
Add 30' (9.14 m) Boom top section	4,890	2 218		1							Estimated Total Load of #3 44,964 lbs. (20 395 kg).
Add 10' (3.05 m) Boom extension	973	441									
Add 10' (3.05 m) Boom extension with lifting sheaves	2,607	1 183									Estimated Total Load of #4 24,351 lbs. (11 045 kg).
Add 10' (3.05 m) Boom extension – luffer ready	3,162	1 434								1	
Add 20' (6.10 m) Boom extension	1,537	697								1	Estimated Total Load of #5 3,241 lbs. (1 470 kg).
Add 30' (9.14 m) Boom extension	2,115	959									
Add 40' (12.19 m) Boom extension	2,678	1 215									Estimated Total Load of #6 3,241 lbs. (1 470 kg).
Add 50' (15.24 m) Boom extension	3,241	1 470				1	1	1	1		
Add Auxiliary tip extension	640	290									Estimated Total Load of #7 3,241 lbs. (1 470 kg).
Add Hydraulic third drum to boom base section	0	0									
Add Third drum fleeting sheave for luffer to boom base section	176	80									Estimated Total Load of #8 8,049 lbs. (3 651 kg).
Add Third drum 3-sheave assembly to boom top section	381	173									
Add Third drum controls for free spooling	100	45									Estimated Total Load of #7 3,241 lbs. (1 470 kg).
Add 30' (9.14 m) Tubular Jib	1,683	763			1						
Add 15' (4.57 m) Tubular Jib Extension	317	144			3						Estimated Total Load of #8 8,049 lbs. (3 651 kg).
Add Basic luffing attachment	10,567	4 793									
Add Luffing jib top with nose wheel	2,851	1 293									Estimated Total Load of #8 8,049 lbs. (3 651 kg).
Add 10' (3.05 m) luffing jib extension	688	312									

HC-238H II Transportation Weights – approximate (continued)

Item Description	Gross Weight		Transport Loads							
	lbs.	kg.	#1	#2	#3	#4	#5	#6	#7	#8
Add 20' (6.10 m) luffing jib extension	1,197	543								
Add 30' (9.14 m) luffing jib extension	1,518	689								
30' (9.14 m) luffing fixed jib conversion	280	127								
Add Hammerhead top section	4,950	2 245								
Add 0.88" x 465' (22 mm x 142 m) Type 'DB' jib wire rope	628	285								
Add 0.88" x 600' (22 mm x 183 m) Type 'RB' jib wire rope	900	408								
Add 0.88" x 805' (22 mm x 245 m) Type 'DB' jib wire rope	1,070	485								
Add 0.88" x 745' (22 mm x 227 m) Type 'RB' 3rd drum rope	1,117	507								
Add 15-ton (13.6 mt) Hook Ball – Non-swivel	750	340								
Add 15-ton (13.6 mt) Hook Ball – Swivel	760	345		1						
Add 25-ton (22.7 mt) two sheave Hook Block	1,164	528		1						
Add 60-ton (54.4 mt) two sheave Hook Block	1,650	747								
Add 140-ton (127 mt) six sheave Hook Block	2,600	1 179		1						
Remove Auxiliary Lifting Bail	-410	-186								
Remove Front hoist rope 0.88" x 950' (22 mm x 290m) of type 'DB'	-1,350	-612								

Refer to page three for
Transportation Weights
Notes and Load Summary.

HC-238H II Machine Working Weights

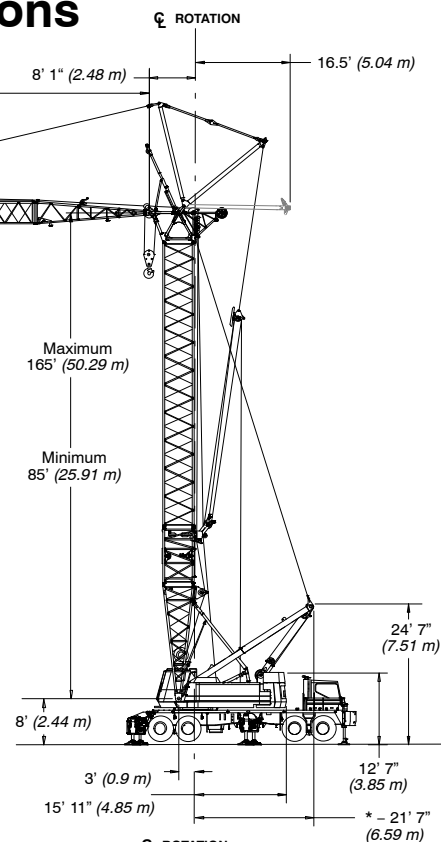
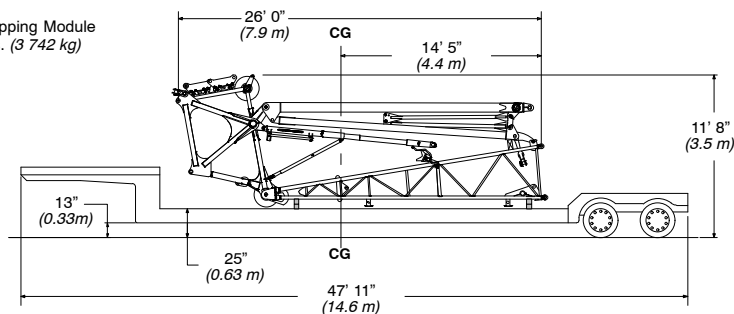
Option	Description	Gross Weight lbs. (kg)	Maximum Ground Bearing Pressure psi (kg/cm ²)
1	Base Machine equipped with 50' (15.24 m) of tube boom, live mast, "ABC" counterweight, 950' (290 m) front hoist rope, 600' (182.88 m) rear hoist rope, 140-ton (127 mt) hook block, 77 gallons (291.4 L) of fuel, 85 gallons (321.76 L) of carrier fuel, front and rear outrigger boxes with floats and fifth outrigger float, and 200 lbs. (90.7 kg) operator.	183,875 (83 404)	177 (12.44)
2	Option #1 plus "A" bumper counterweight and 210' (64.01 m) of boom extensions to obtain 260' (79.25 m) of main boom.	211,723 (96 306)	92 (6.47)
3	Option #2 plus 75' (22.86 m) of tubular jib and 15-ton (13.6 mt) hook ball – subtract 30' (9.14 m) of boom extension to obtain maximum 230' + 75' (70.1 + 22.9 m) of main boom + jib.	212,597 (96 432)	115 (8.09)
4	Option #1 plus "A" bumper counterweight, 140' (42.67 m) of boom extensions, luffing boom top, 160' (48.77 m) luffing jib, and 15-ton (13.6 mt) hook ball. Remove 30' (9.14 m) open throat top.	222,126 (100 756)	112 (7.87)
5	Base Machine equipped with 35' (10.67 m) of Hammerhead boom, live mast, "ABC" upper counterweight and "A" bumper counterweight, 950' (290 m) front hoist rope, 600' (182.88 m) rear hoist rope, 140-ton (127 mt) hook block, 77 gallons (291.4 L) of fuel, 85 gallons (321.76 L) of carrier fuel, front and rear outrigger boxes with floats and fifth outrigger float, and 200 lbs. (90.7 kg) operator.	197,435 (89 555)	172 (12.09)

HC-238H II Luffing Attachment Dimensions

Luffing Shipping Module

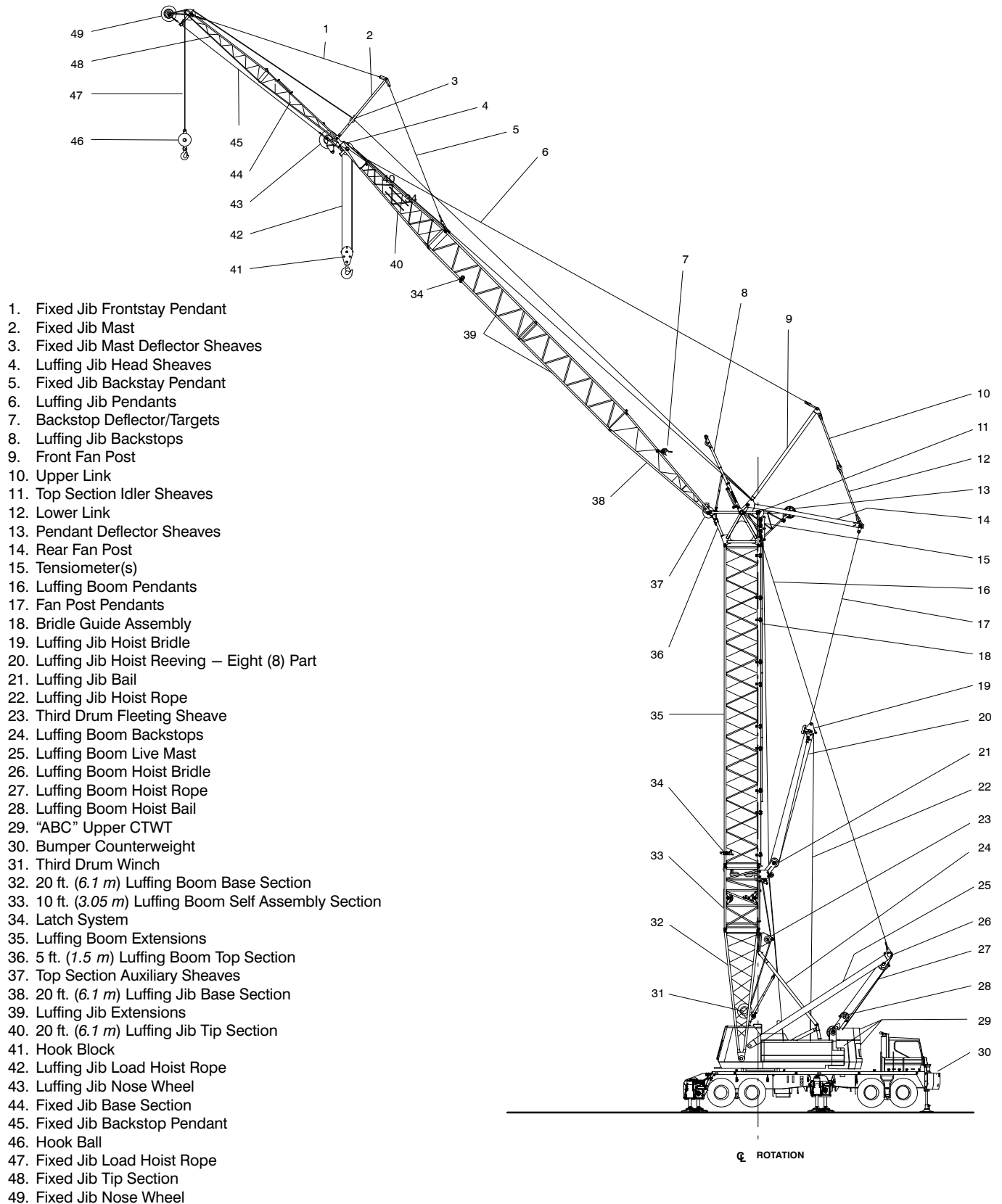
Luffing jib base section, luffing boom top section and the front and rear fan post.

Luffing Shipping Module
8,250 lbs. (3 742 kg)



* – Maximum value when boom is at 90°

HC-238H II Luffing Attachment Nomenclature



Attachment Options

■ 50' – 260' (15.24 – 79.25 m) Open Throat Boom

Basic Boom – 50' (15.24 m) two-piece design that utilizes a 20' (6.10 m) base section and a 30' (9.14 m) open throat top section with in-line connecting pins. Boom extensions are 70" (1.78 m) wide and 62" (1.57 m) deep centers.

- 135-ton (122.47 mt) maximum capacity
- Boom feet on 55" (1.40 m) centers
- 4" (0.10 m) "HX" diameter chords
- Top section includes mounting lugs for all optional attachments.
- Lugs on base section to attach carrying links.
- Skywalk platform
- Base section has mounting lugs for optional third hoist drum.
- Permanent skid pads mounted on top section to protect head machinery
- Six, 20.5" (0.52 m) root diameter steel sheaves mounted on sealed anti-friction bearings
- Mechanical boom angle indicator
- Deflector roller on top section
- Quick reeve boom top

Boom Extensions – The following table provides the lengths available and the suggested quantity to obtain maximum boom in 10' (3.05 m) increments. Midpoint pendant connections are required at 110' (33.53 m) for boom lengths of 250' (76.2 m) and 260' (79.25 m).

Boom Extensions	Suggested Quantity for Max. Boom
10' (3.05 m) With or without lifting sheaves	1
20' (6.10 m)	1
30' (9.14 m)	0
40' (12.19 m)	2
50' (15.24 m)	2

- Deflector roller on top of each section
- Appropriate length pendants
- Maximum boom tip height of 264' (80.47 m)
- 10' (3.05 m) extensions with lifting sheaves is available for self assembly/disassembly.

■ 35' (10.67 m) Hammer Head Boom

Three-piece design that utilizes a 20' (6.10 m) base section, a 10' (3.05 m) transition extension and a 5' (1.5 m) head top section with in-line connection pins.

- 150-ton (136 mt) maximum capacity
- Maximum boom tip height of 42' (12.80 m)
- Boom feet on 55" (1.40 m) centers
- 4" (0.10 m) "HX" diameter chords
- Lugs on base section to attach carrying links
- Skywalk platform
- Deflector roller on top section
- Rigid sheave guards
- Seven, 20.62" (0.52 m) root diameter steel sheaves mounted on sealed anti-friction bearings
- Mechanical boom angle indicator

■ 30' – 75' (9.14 – 22.86 m) Fixed Jib

Basic Fixed 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.

- 2" (38.1 mm) "BK" diameter chords
- One 18.5" (0.47 m) root diameter steel sheave mounted on sealed anti-friction bearings.
- 15' (4.57 m) jib extensions provide jib lengths at 45' (13.72 m), 60' (18.29 m) and 75' (22.86 m).
- Jib offset angles at 5, 15 and 25 degrees
- Maximum tip height of open throat boom + fixed jib is 308' (93.87 m).

■ 80' – 160' (24.38 – 48.77 m) Luffing Jib

Basic Luffing Jib – 80' (24.38 m) five-piece design utilizes a 5' (1.52 m) luffing boom top section, 20' (6.10 m) base section, 10' (3.05 m) extension, 30' (9.14 m) extension, and 20' (6.10 m) top section with in-line connecting pins. Boom extensions are 44" (1.12 m) wide and 54" (1.37 m) deep at the centers.

- 27-ton (24.5 mt) maximum capacity
- Working lengths of 80' (24.38 m) to 160' (48.77 m).
- Top section includes mounting lugs for all attachment options
- Lugs on base section to attach fan-post transport links
- Two steel 18" (0.46 m) diameter luffing jib head sheaves
- Two polyamide 21.25" (0.54 m) diameter luffing boom auxiliary head sheaves
- Pin-on nose wheel
- Eight-part luffing jib hoist.
- 1.25" (31.75 mm) diameter type "N" 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 Max. Boom
10' (3.05 m)	0
20' (6.10 m)	1
30' (9.14 m)	2

Note: Extensions and pendants are common with the LS-138H, LS-138H II, LS-208H and LS-208H II.

- Deflector roller on top of each extension
- Appropriate length pendants
- Max. luffing jib tip height of 326' (99.36 m)

■ 30' (9.14 m) Fixed Jib

- Common fixed jib used on open throat boom.
- Maximum luffing jib plus fixed jib tip height of 347' (105.77 m)

■ 85' – 165' (25.91 – 50.29 m) Luffing Boom

- Common base and extensions as open throat boom
- 10' (3.05 m) luffing extension required for bail anchor
- Working angles of 90, 85, 80, 75, 70, and 65 degrees.
- Working lengths of 85' (25.91 m) to 165' (50.29 m)
- 1.38" (34.92 mm) diameter type "N" 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. Midpoint pendants are not required.

Luffing Boom Extensions	Suggested Quantity for Max. Boom
10' (3.05 m) Luffer Ready	1
20' (6.10 m)	1
30' (9.14 m)	0
40' (12.19 m)	2
50' (15.24 m)	2

- 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 instead of a jib to provide clearance between working hoist lines. The extension is equipped with two 18" (0.46 m) root diameter nylon sheaves mounted on sealed anti-friction bearings. Maximum capacity is 9-ton (8.16 mt).

■ Boom Hoist System

Designed to lift off maximum boom or maximum boom plus jib unassisted. Operates up to a maximum boom angle of 80 degrees. Automatically limits maximum boom angle operation.

- Pin-on bail frame
- 12-part reeving with 7/8" (22.23 mm) type 'LB' wire rope
- Bridle assembly
- Two 1.38" (35.05 mm) pendants
- Tubular spring buffered boom backstops (rigid type) – standard
- Tubular spring buffered hydraulic boom backstops are optional to flip mast to rear of upper.
- Steel sheaves contain sealed anti-friction bearings.
- Boom speed from 0 to 82 degrees is 96 seconds with no load. Speed determined using 200' (60.96 m) of boom.

Revolving Upperstructure

■ Frame

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

■ Engine

Isuzu A-6SDITQB diesel engine with oil filter, oil cooler, air cleaner, fuel filter, water separator, hourmeter, tachometer and electrical shutdown.	
Number of cylinders	6
Bore and stroke – in. (mm)	4.72 x 5.71 (120 x 145)
Piston displacement – in ³ (cm ³)	600 (9 839)
Engine rpm at full load speed	2,100
Hi-idle rpm	2,325
Full load speed – h.p. (kw)	207 (155)
Peak torque – ft.-lb. (joule)	513 (696)
Peak torque – r.p.m.	1,400
Electrical system	24 volt
Batteries	2-12 volt
Approximate fuel consumption	Gal./hr (L/hr)
100% H.P.	11.50 (43.53)
75% H.P.	8.60 (32.55)
50% H.P.	5.75 (21.77)
25% H.P.	2.87 (10.86)

■ 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.

- Two variable displacement pumps operating at 4,000 psi (281 kg/cm²) and 64 gal/min (242 L/min) powers the load hoist drums, boom hoist drum and third drum.
- Two fixed displacement gear type pumps operating at 3,000 psi (210 kg/cm²) and 23 gal/min (87 L/min) powers the swing motors.
- One fixed displacement gear type pump operating at 1,200 psi (84.4 kg/cm²) and 8 gal/min (30 L/min) powers the pilot control system, clutches, brakes, pump controls and counterweight lifting cylinders.
- One fixed displacement gear type pump operating at 2,000 psi (141 kg/cm²) and 7 gal/min (26.5 L/min) powers the live mast rear storage cylinders.

Pump Control (“Fine Inching”) mode – Special pump setting, selectable from operator’s cab, that allows very slow movements of load hoist drums and boom hoist drum for precision work.

Hydraulic Reservoir – 42 gal. (159 L), equipped with sight level gauge. Diffusers built in for deaeration.

Filtration – One, 10 micron, full flow, line filter in the control circuit. All oil is filtered prior to entering the 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.

■ Load Hoist Drums

Each 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 & free-fall operation modes
- Automatic brake mode (spring applied, hydraulically released, band type brake)
- 0.88” (22.22 mm) grooved lagging
- Drum pawl controlled manually
- Mechanical thumb thumper drum rotation indicators
- Mounted on anti-friction bearings
- 16.76” (0.43 m) root diameter
- 33.85” (0.86 m) flange diameter
- 23.15” (0.59 m) width

Note: The free-fall operational mode is designed to prevent load lowering even if the free-fall switch is accidentally activated. The automatic brake mode meets all OSHA requirements for personnel handling.

Drum Clutches – Speed-o-Matic™ power hydraulic two-shoe clutch design that uses a 26” (660 mm) diameter x 5.12” (130 mm) wide shoe that internally expands to provide load control. Swept area is 418 in² (2 697 cm²).

Drum Brakes – External contacting band type 38” (965 mm) diameter x 5” (127 mm) wide. Provides a swept area of 597 in² (3 851 cm²). Spring applied hydraulic release “automatic brake mode” or mechanical linkage foot control.

■ Optional Third Hoist Drum

The hydraulic winch is mounted in the boom base section in conjunction with a fleeting sheave and 3-sheave idler assembly to run the wire rope over the boom top section.

- Power up/down Automatic brake mode.
- Optional – Free-spooling capability for pile driving applications.
- Spring applied hydraulically released brakes.
- Grooved for 0.88” (22.22 mm) wire rope.
- 18.75” (0.47 m) root diameter.
- 27” (0.69 m) flange diameter.
- 24” (0.61 m) width.
- Mounted on anti-friction bearings.

■ 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.
- Drum pawl controlled automatically.
- Mounted on anti-friction bearings.

- 0.88” (22.22 mm) grooved lagging
- 15” (0.38 m) root diameter.
- 30.71” (0.78 m) flange diameter.
- 12.04” (0.31 m) width.

■ Swing System

Pilot controlled bi-directional axial piston motors and planetary gear reduction unit provides positive control under all load conditions.

- Spring applied, hydraulically released, 360 degree multi-plate brake
- Free swing mode when lever is in neutral position
- Two position positive house lock
- Audio/Visual swing alarms
- Maximum swing speed is 2.2 rpm

■ Upper Counterweight

Consist of a three piece design that can be easily lowered to the carrier deck.

- 23,000 lbs. (10 432 kg) “A” counterweight
- 19,330 lbs. (8 768 kg) “B” counterweight
- 21,110 lbs. (9 575 kg) “C” counterweight
- Total upper structure counterweight 63,440 (28 776 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 and front window
- Swing up roof window with wiper
- Door and window locks
- Heater with circulating fan
- Sun visor
- Engine instrumentation panel (tachometer, voltmeter, engine oil pressure, engine water temperature, fuel level, hydraulic oil temperature, hour meter, and service monitor system)
- Mechanical drum rotation indicators for front and rear hoist drums
- Six-way adjustable seat
- Dry chemical fire extinguisher
- Hand and foot throttle
- Fully adjustable single axis arm chair controls
- Swing lever with swing brake and horn located on handle
- Bubble type level
- Ergonomic gauge layout
- Control shut off lever

(continued from page 7)

HC-238H II Load Hoist Performance

Available line speed and pull – based on Isuzu 4HK1 engine at 2,100 rpm full load speed. Line Pulls are not based on wire rope strength. See wire rope capacity chart for maximum permissible single part of line working loads.

Front Drum – 7/8" (22 mm) Rope												
Layer	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	35,292	16 008	249	76	76	23	17.6	442	111	33.8	111	33.8
2	32,084	14 553	274	84	83	25	19.1	493	122	37.1	233	70.9
3	29,410	13 340	299	91	91	28	20.7	526	133	40.5	365	111.4
4	27,148	12 314	324	99	99	30	22.2	564	144	43.8	509	155.3
5	25,209	11 435	349	106	106	32	23.7	602	155	47.2	664	202.4
6	23,528	10 672	374	114	114	35	25.2	641	166	50.5	830	253.0
7	22,058	10 006	399	122	121	37	26.7	678	177	53.9	1,007	306.9

Rear Drum – 7/8" (22 mm) Rope												
Layer	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	21,781	9 880	404	123	123	37	17.6	448	111	33.8	111	33.8
2	19,801	8 982	444	135	135	41	19.4	492	122	37.1	233	70.9
3	18,151	8 233	485	148	147	45	21.1	537	133	40.5	365	111.4
4	16,755	7 600	525	160	160	49	22.9	581	144	43.8	509	155.3
5	15,558	7 057	566	173	172	52	24.6	626	155	47.2	664	202.4
6	14,521	6 587	606	185	184	56	26.4	670	166	50.5	830	253.0
7	13,613	6 175	646	197	197	60	28.1	715	177	53.9	1,007	306.9

Boom Hoist Drum – 7/8" (22 mm) Rope												
Layer	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	38,496	17 462	119	36	77	23	15.88	403.2	51.8	15.8	51.8	15.8
2	34,647	15 716	132	40	86	26	17.63	447.7	57.1	17.4	108.9	33.2
3	31,497	14 287	145	44	94	29	19.38	429.1	62.3	19.0	171.2	53.2
4	28,872	13 096	158	48	103	31	21.13	536.6	67.2	20.5	238.5	72.7
5	26,651	12 089	171	52	111	34	22.88	581.0	72.5	22.1	310.9	94.8
6	24,748	11 226	185	56	120	37	24.63	625.5	77.4	23.6	388.4	118.4
7	23,098	10 477	198	60	129	39	26.38	669.9	82.7	25.2	471.3	143.7

Third Drum Capacity – 7/8" (22 mm) Rope												
Layer	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	19,640	8 909	252	77	193	59	19.6	498	128	39.01	128	39.01
2	18,032	8 179	275	84	210	64	21.4	544	139	42.37	267	81.38
3	16,668	7 560	297	91	228	69	23.1	587	151	46.02	418	127.41
4	15,495	7 029	320	98	245	75	24.9	632	162	49.38	580	176.78
5	14,477	6 567	342	104	262	80	26.6	675	173	52.73	753	229.51

Wire Rope Application	Size: Diameter		Type	Max. Permissible Load		Type "DB": 6 X 25 (6X19 Class) – filler wire – extra improved plow steel – preformed I.W.R.C. – right lay – regular lay Type "RB": 19 strand, compacted strand, rotation resistant – extra extra improved plow steel – preformed right lay – regular lay Type "LB": 6 strand, compacted strand, seale or Warrington seale – preformed, I.W.R.C. – right lay – regular lay.
	inch	mm		lbs.	kg	
Main hoist	7/8	22	DB	22,700	10 297	
Auxiliary hoist	7/8	22	RB	17,520	7 947	
Boom hoist	7/8	22	LB	25,000	11 340	
Boom pendants	1–3/8	35	N	n/a	n/a	
Jib pendants	3/4	19	N	n/a	n/a	

Revolving Upperstructure *(continued from page 7)*

■ Load Moment Indicator/Limiter

Standard Equipment: PAT DS-350G/1334 modular system that includes two line-riders, angle sensor, computer, graphics display, and anti two block equipment to provide the following information:

- Graphic representation of Machine Configuration
- Graphical 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 an audio/visual warning when the load on hook is within 90% of the cranes rated load.
- Provides an audio/visual warning and limits functions when the load on hook is at 100% of the cranes rated load.
- Operator settable alarms include maximum and minimum 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, rear and third hoist drums, and boom hoist down.

■ Additional Equipment – Standard

- 93" (2.36 m) outside diameter turn table bearing
- Front, and removable right catwalks.
- Left side catwalks are optional.
- 77 (usable) U.S. Gallons (291.5 L) fuel tank
- Upper lifting links
- Two 70-watt headlights

Carrier

■ Type

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

- 11' 0" (3.35 m) wide
- 23' 6" (7.16 m) wheel base.
- 8 x 4 drive.
- 100,000 psi (689.5 mPa) alloy steel, triple box construction.

■ Axles

Front

- Tubular tandem axles
- 105" (2.67 m) track with single wheels.
- Oil lubed wheel bearings with see through hubcaps.
- 43,660 lbs. (19 804 kg) maximum axle loading at 56 m.p.h. (90 km/hr)

Rear

- Tubular tandem axles
- 100.25" (2.56 m) track with dual wheels.
- Oil lubed wheel bearings with see through hubcaps.
- 9.14:1 ratio with interaxle differential lockout
- 85,840 lbs. (38 936 kg) maximum axle loading at 56 m.p.h. (90 km/hr)

Optional Pusher Axle

- Tubular single axles
- 97.75" (2.48 m) track with dual wheels.
- Oil lubed wheel bearings with see through hubcaps.
- 22,000 lbs. (9 979 kg) maximum axle loading at 56 m.p.h. (90 km/hr)
- Can be air lifted to provide 4.31" (109.5 mm) clearance to ground
- Air controlled

■ Suspension

Front – Air-ride system, 4-bag walking beam style, that deflates to solid mount for increased stability during job site travel.

Rear – Solid mount, bronze bushed equalizer beams with rubber bushed torque rods.

■ Wheels

Front – Hub mounted steel disc.

Rear – Integral with planetary hubs.

■ Tires

Standard – 385/95 R25 VHS tubeless radials.

- Three-star rating
- Static load – 16.6 width x 24.6 radius

■ Brakes

Service

- Full air brakes on all wheel ends. Dual circuit with modulated emergency brakes.

Front

- 16.5" x 6" (0.42 m x 0.15 m) S-Cam brakes.

Rear

- 20.25" x 7" (0.51 m x 0.18 m) S-Cam brakes.

Parking/Emergency

- One spring set, air released chamber per rear axle end. Emergency brakes apply automatically when air pressure drops below 60 psi (413.7 kPa) in both systems.

■ Steering

- Sheppard full integral, hydraulic power.
- Steering mounted on high sides of frame to minimize exposure to hazards.
- High speed, high power system to maximize maneuverability both on job and on the road.

■ Transmissions

Main

- Eaton RTO 14908LL with 8 progressive highway gears and 2 "super low" gears for 10 forward and 3 reverse speeds.

Auxiliary

- Spicer P-1241-C; used with manual transmission; midship mounted with 4-speed gearing; 2.31:1 first gear ratio.

■ Electrical

Four group 31 batteries provide 12-volt operating system and 12-volt starting with 1,600 cold cranking amps available. Charging is provided by a 130 amp alternator.

Lights

- Four dual, sealed beam headlights
- Front, side, and rear directional signals with 4-way hazard system
- Stop and tail lights
- Rear and side clearance lights
- Side turn indicators
- Lighted license plate bracket

■ Outriggers

The outrigger system is designed with five hydraulically controlled outriggers that provide an optimal 360-degree working area and simultaneous operation of steering and outriggers.

- The front and rear outriggers are a double-box design that allows all four telescoping beams and jacks to extend/retract independently.
- Hydraulic controls are located at each outrigger location with the bumper outrigger operated at the front bumper. The controls are designed to allow both front and rear jacks to be operated from the driver's side of carrier if necessary.
- Vertical jack cylinders are equipped with holding valves.
- Quick-attach self-aligning rear outrigger box with hydraulic pins.
- Quick attach self-aligning front outrigger box with manual pins. Hydraulic pins are optional.
- Front left outrigger jack will tilt to allow front box to roll under carrier frame for removal.
- 34" (0.86 m) diameter quick-release steel floats.
- 24" (0.61 m) diameter self-storing aluminum bumper float.

Jack Reactions

- Maximum 180,000 lbs. (81 648 kg) force and 198 psi (1 365 kPa) ground bearing pressure on main outriggers
- Maximum 41,000 lbs. (18 598 kg) force and 91 psi (627 kPa) ground bearing pressure on front bumper outrigger.

Carrier Engine Specifications

Specification	Cummins ISX12
Emissions Compliance Level:	EPA 2010 ⁽¹⁾
Maximum Allowable Sulfur Content of Fuel (PPM):	15
Numbers of Cylinders	6
Cycle	4
Bore and Stroke: inch (mm)	5.11 x 5.91 (130x150)
Piston Displacement: in ³ (L)	729 (11.9)
Max. Brake Horsepower: hp (kW)	500 (373) @ 1,800 rpm 460 (343) @ 2,100 rpm
Peak Torque: ft lb (Nm)	1,550 (2 102) @ 1,200 rpm
Alternator: volts – amps	12 – 145
Crankcase Capacity: qt (L)	48 (45.4)
- Cruise control - Three-stage engine compression brake - Thermostatically controlled, hydraulically driven radiator fan 120 volt engine block heater - Ether injection system – optional ISX ⁽¹⁾ Complies with EPA emissions standards effective January 2010.	

Bumper Counterweight

Standard

- “A” counterweight – 13,500 lbs. (6 124 kg)

Carrier Cab

Fully enclosed, one person. Galvaneal steel construction, lined with vinyl covered acoustic insulation with sound reduction insulation and isolated from engine compartment.

Equipped with:

- Air ride seat with seat belt
- 2-speed, electric windshield wiper and washer
- Tilt/telescoping steering column
- Front and roof, fresh air vents
- Safety plate glass on front
- Sliding, tinted, rear and right side windows
- Roll down door window
- Door and window locks
- Diagnostic connectors for engine
- Fire extinguisher
- 19,800 BTU heater/defroster
- Rubber floor mat
- Horn
- Dome light
- Accessory plug/lighter

Cab Instrumentation – Tilt-out (for service access), illuminated, instrument panel includes:

- Speedometer
- Hourmeter
- Voltmeter
- Odometer
- Tachometer

- Stop and check engine warning lights
- Fuel gauge
- Engine oil pressure gauge
- Engine temperature gauge
- Front and rear air pressure gauges with low air pressure warning buzzer/light
- Cruise controls
- Engine fan override switch
- Heater and defroster controls
- Light controls
- Park brake switch and applied light
- Engine diagnostic switch

Additional Equipment

Standard:

- Towing shackles, front and rear.
- Aluminum, full deck fenders and ladders
- Outrigger controls located on outrigger boxes.
- Engine throttle-up control switch
- West Coast-type rear view mirrors with adjustable convex mirror
- Trailer electrical and air connectors
- 2-way reading bubble levels
- Back-up alarm
- Mud flaps
- Air dryer
- Lug wrench
- Tire inflation system
- Remote plug for block heater
- 85 gal. (321.76 L) fuel tank

Optional:

- Spare tires and rims

Carrier Speeds

Main–Eaton RTO 16908LL			Auxiliary–Spicer P–1241–C							
			4th (0.81)		3rd (1.00)		2nd (1.24)		1st (2.37)	
Gear		Ratio	mph	km/h	mph	km/h	mph	km/h	mph	km/h
High	8th	.74	58.4	94.2	47.4	76.3	38.2	61.5	20.0	32.2
	7th	1.00	43.2	69.5	35.1	56.5	28.3	45.5	14.8	23.8
	6th	1.36	31.8	51.2	25.8	41.5	20.8	33.5	10.9	17.5
	5th	1.83	23.6	38.0	19.2	30.9	15.5	24.9	8.1	13.0
Low	4th	2.53	17.1	27.5	13.9	22.4	11.2	18.0	5.9	9.5
	3rd	3.40	12.7	20.4	10.3	16.6	8.3	13.4	4.4	7.1
	2nd	4.63	9.3	15.0	7.6	12.2	6.1	9.8	3.2	5.1
	1st	6.24	6.9	11.1	5.6	9.0	4.5	7.2	2.4	3.9
	L	9.42	4.6	7.4	3.7	6.0	3.0	4.8	1.6	2.6
Deep Reduction	LL	14.56	3.0	4.8	2.4	3.9	1.9	3.1	1.0	1.6
Hi Rev.	Rev.	2.89	15.0	24.1	12.1	19.5	9.8	15.8	5.1	8.2
Lo Rev.	Rev.	9.85	4.4	7.1	3.6	5.8	2.9	4.7	1.5	2.4
Deep Reduction	Rev.	15.22	2.8	4.5	2.3	3.7	1.9	3.1	1.0	1.6
Deep Reduction @ 600 rpm	LL	14.56	0.85	1.4	0.7	1.2	.55	0.9	0.3	0.5
Deep Reduction @ 600 rpm	Rev.	15.22	0.8	1.3	0.65	1.1	0.5	0.8	0.3	0.5

Axle Loads

Base machine: Standard carrier with 85 gallons (321 L) of fuel and manual front outrigger pins. Standard revolving upperstructure with 77 gallons (291 L) of fuel, rigid backstops, mast, bridle, bail, and 950' (290 m) of front hoist rope.	Gross Vehicle Weight		Upper Facing Rear of Carrier				Upper Facing Front of Carrier			
			Front Axle		Rear Axle		Front Axle		Rear Axle	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg
	85,080	38 592	32,012	14 974	52,068	23 618	25,582	11 604	59,498	26 988
Add Rear Outrigger Box w/ Hydraulic Pin Pullers	9,954	4 515	-2,711	-1 230	12,665	5 745	-2,711	-1 230	12,665	5 745
Add Front Outrigger Box w/ Manual Pins	9,049	4 104	5,195	2 357	3,853	1 748	5,195	2 357	3,853	1 748
Add Hydraulic Front Outrigger Pin Removal System	647	293	317	169	276	125	371	169	276	125
Add Main Outrigger Floats To Storage Racks	660	299	230	104	430	195	230	104	430	195
Add Bumper Outrigger Pontoon To Storage Rack	80	36	60	27	20	9	60	27	20	9
Add "A" Bumper Counterweight	13,500	6 123	16,420	7 448	-2,920	-1 325	16,420	7 448	-2,920	-1 325
Add Pusher Lift Axle (Maximum Boost)	2,250	1 021	-4,834	-2 193	-11,166	-5 065	-4,834	-2 193	-11,166	-5 065
Add Tag Axle (Customer Supplied)	7,000	3 175	7,234	3 281	-24,234	-10 993	7,234	3 281	-24,234	-10 993
Add Driver To Carrier Cab	220	100	245	111	-25	-11	245	111	-25	-11
Add Hydraulic Backstops	535	243	116	52	419	190	51	23	484	219
Flip Mast to rear of Upper	0	0	4,442	2 015	1,744	791	-2,505	-1 136	8,691	3 942
Add 465' (145 m) Type 'DB' Rear Hoist Rope	628	285	282	128	346	157	-86	-39	714	324
Add 600' (183 m) Type 'RB' Rear Hoist Rope	900	408	404	183	496	225	-124	-56	1,024	464
Add 800' (245 m) Type 'DB' Rear Hoist Rope	1,070	485	480	218	590	267	-147	-67	1,217	552
Add "A" Upper Counterweight	22,730	10 310	16,932	7 680	6,068	2 752	-9,755	-4 425	32,755	14 858
Add "B" Upper Counterweight	19,200	8 709	12,280	5 570	7,050	3 198	-6,248	-2 834	25,578	11 602
Add "C" Upper Counterweight	27,070	12 279	15,805	7 169	5,305	2 406	-9,217	-4 181	30,327	13 756
Remove Wire Rope From Front Drum	-1,350	-612	-378	-171	-972	-441	-43	-20	-1,307	-593
Add 20' (6.10 m) Base Section	3,350	1 520	-1,222	-554	4,572	2 074				
Add 10' (3.05 m) Extension w/ Lifting Sheaves	2,607	1 183	-3,137	-1 423	5,744	2 606				
Add 10' (3.05 m) Luffer Ready Extension w/o Bail	3,162	1 434	-3,361	-1 524	6,523	2 959				
Add Luffing Jib Bail to the 10' Extension	1013	459	-1,248	-566	2,261	1 026				
Add Luffing Jib Bridle to the 10' Extension	517	235	-668	-303	1,185	537				
Add Third Drum, Wire Rope and Idler to Base Section	3,515	1 594	-698	-317	4,213	1 911				
Add Hookblock to 10' (3.05 m) Self-assembly Extension	2,000	907	-4,255	-1 930	6,255	2 837				
Add Single Axle Dolly w/ Base and Peak	15,392	6 982	1,507	684	-2,922	-1 325				
Add Single Axle Dolly w/ Base and 10' (3.05 m) Self Assy.	13,002	5 898	1,588	721	1,958	888				
Add Tandem Axle Dolly w/ Base and Peak	17,392	7 889	1,507	684	-2,922	-1 325				
Add Tandem Axle Dolly w/ Base and 10' (3.05 m) Self Assy.	15,002	6 805	1,588	721	1,958	888				
Add Hookblock to 10' (3.05 m) Self-assembly (w/ Dolly)	2,000	907	-29	-13	-937	-425				
Add Hookblock to Boom Peak (w/ Dolly)	2,000	907	-100	-45	-3,196	-1 450				

Axle	Maximum Allowable Load @ 65 mph (104 km/h)
Front Tandem	43,660 lb (19 804 kg)
Rear Tandem	85,840 lb (38 937 kg)
Pusher	20,000 lb (9 072 kg)

Lifting Capacities

Hydraulic Lattice Boom Truck Crane

HC-238H II 150-ton (136 metric ton) **HYLAB Series**

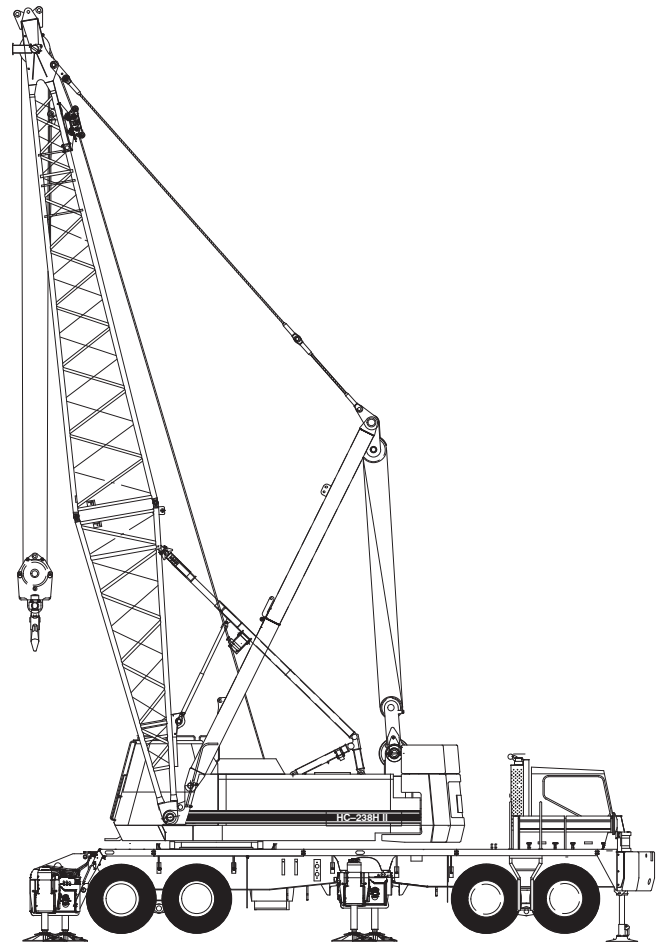
Tube Boom Capacities
50 – 260 ft. (15.24 – 79.25 m)

Live Mast Lifting Capacities
10' (3.05 m) Extension Lifting Capacities
5' (1.52 m) Tip Extension Capacities

Tube Boom Capacities

- 35' (10.67 m) Hammer Head Boom
- 50' – 260' (15.24 – 79.25 m) Open Throat Boom
- 70" (1.78 m) Wide x 62" (1.57 m) Deep boom
- On Fully Extended Outriggers
- 360° Rotation
- Counterweight options "ABC + A", "ABC", "AB", "A" and "0"

Note: Over Rear Capacities are published in the Crane Rating Manual only.



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



WARNING

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

OPERATING INSTRUCTIONS

GENERAL:

1. Rated lifting capacities in pounds as shown on lift chart pertain to this crane as originally manufactured and normally equipped by Link-Belt Construction Equipment Company (LBCE). 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 the 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 B30.5–1994, SAE J987–April 1994, and SAE J765–October 1990.

LIFT CRANE OPERATION:

1. Capacities shown are in pounds and are not more than 85% of the tipping loads on outriggers and 75% of the tipping loads on tires with crane standing level on firm supporting surface. A deduction must be made from these capacities for weight of hook block, hook ball, sling, grapple, load weighing devices, etc. When using main hook while jib is attached, reduce capacities by values shown on chart "Capacity Deductions For Lifting Off Main Boom Hook With Jib Installed." When using main hook while 5' Tip Extension is attached, reduce capacities by values shown in "Capacity Deduction for Lifting Off Main Hook with 5' Tip Extension Installed". See Operator's Manual for all limitations when raising or lowering attachment.
2. The hammerhead boom is available only in a 35' length.
3. The crane capacities in the shaded areas are based on structural strength or hydraulic limitations. The crane capacities in the non-shaded areas are based on stability ratings. Some capacities are limited by a maximum obtainable 80° boom angle.

4. For recommended reeving, parts of line, wire rope type and wire rope inspection, see Wire Rope Capacity Chart and Operators Manual.
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. Rated lifting capacities do not account for the effects of wind on a suspended load or boom. Lifting capacities should be considered acceptable for wind speeds less than 20 mph and appropriately reduced for wind speeds greater than 20 mph. Extreme caution should be used when lifting heavy loads or loads with large wind sail area under high wind conditions (over 20 mph). See Wind Restriction charts in this manual for appropriate capacity reductions.
7. "On outrigger" capacities require that all four outrigger beams are fully extended, all five jacks are extended until all tires are clear of the ground and crane is properly leveled on a firm supporting surface.
8. The least stable rated condition is over the side.
9. Do not lift or suspend a load from the boom tip extension or jib and the main boom at the same time.
10. Do not swing over side until all four outrigger beams are fully extended, all five jacks are extended until all tires are clear of the ground and crane is properly leveled on a firm supporting surface.
11. "0+0" counterweight indicates no upper or carrier counterweight on the machine.
12. "A+0" counterweight indicates 23,000 lb. "A" upper counterweight with no carrier counterweight.
13. "AB+0" counterweight indicates 42,330 lb. "AB" upper counterweight with no carrier counterweight.
14. "ABC+0" counterweight indicates 63,440 lb. "ABC" upper counterweight with no carrier counterweight.
15. "ABC+A" counterweight indicates 63,440 lb. "ABC" upper counterweight with 13,500 lb. carrier counterweight.

16. Midpoint pendants are required on open throat booms 250 ft. and 260 ft. in length.
17. Load ratings are based on freely suspended loads and make no allowance for such factors as the effect of wind, ground conditions and operating speeds. Therefore the operator shall reduce load ratings in order to take these conditions into account.
18. 45' open throat boom consists of the 20' boom base section and the 25' open throat peak section.
19. 50'–260' boom lengths consist of the 20' boom base section, the appropriate length of boom extensions, and either of the following:
 - 30' open throat peak
 - 25' open throat peak w/5' open throat boom extension.
20. When using the 25' open throat peak section with boom lengths 50' or longer, the 5' open throat boom extension must be pinned directly to the 25' open throat peak.
2. Travel slowly and cautiously on a firm and level supporting surface.
3. Control load with taglines to prevent an increase in load radius while traveling. Failure to control load radius could result in a tipping condition, or boom and jib failure.

DEFINITIONS:

1. Load Radius: Horizontal distance from a projection of the axis of rotation to the supporting surface, before loading, to the center of the vertical hoist line or tackle with load applied.
 2. Boom Angle: The angle between the boom base section and horizontal with freely suspended load at the rated radius.
 3. Working Area: Area measured in a circular arc about the center line of rotation as shown on the Working Area Diagram.
 4. Freely Suspended Load: Load hanging free with no direct external force applied except by the hoist line.
 5. Side Load: Horizontal side force applied to the lifted load either on the ground or in the air.
- PICK AND CARRY CAPACITIES:**
1. On tire capacities are restricted to a maximum travel speed of 1 mph (1.6 km/h). The boom must be centered straight over the rear with travel swing lock engaged and the load must be restrained from swinging.

WIRE ROPE CAPACITY

Parts of Line	7/8"		Notes
	Type "DB"	Type "RB"	
1	22,700	17,520 *	Capacities shown are in pounds and working loads must not exceed the ratings on the capacity charts in this Crane Rating Manual. Study Operator's Manual for wire rope inspection procedures and one part of line applications.
2	45,400	35,040	
3	68,100	52,560	
4	90,800	70,080	
5	113,500	87,600	
6	136,200	105,120	
7	158,900	122,640	
8	181,600	140,160	
9	204,300	157,680	
10	227,000	175,200	
11	249,700	192,720	
12	272,400	210,240	
13	295,100	227,760	
14	317,800	245,280	
LBCE Type	Description		
DB	6 x 26 (6 x 19 Class) – Warrington Seale – Extra Improved Plow Steel – Preformed – Right Lay – Regular Lay – I.W.R.C.		
RB*	19 x 19 Rotation Resistant– Extra Extra Improved Plow Steel – Preformed – Right Lay – Regular Lay. Swaged – S.F. = 5:1		

* Use of swivel end with 1 part of line is not recommended.

ALLOWABLE COUNTERWEIGHTS

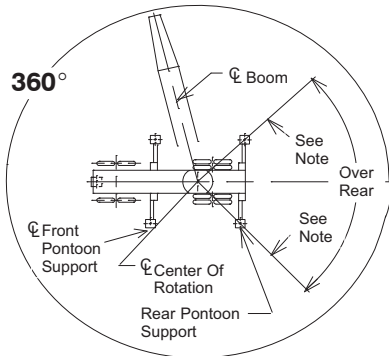
Counterweight Combinations (1)	Allowable boom lengths	
	Open throats	
	w/o Jib (ft)	With Jib (ft) (4)
0+0 (2)	50–150	PROHIBITED
A+0 (2)	50–190	
AB+0 (2)	50–210	
AB+A (2)	50–220	
ABC+0 (2)	50–240	50–210
ABC+A (2)	50–260	50–230

Notes:

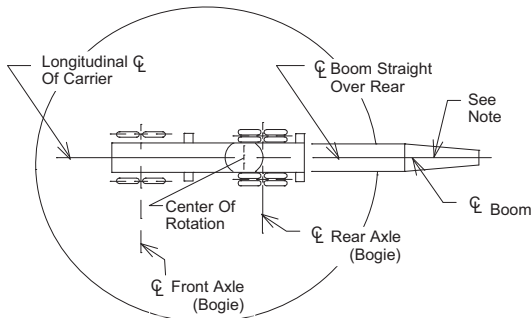
- Counterweight combinations are for a HC–238H II equipped with an open throat boom. Counterweight combinations must be used only as shown on this chart, otherwise crane may overturn or other damage may occur.
- "A" Upper Counterweight – 23,000#
"AB" Upper Counterweight – 42,330#
"ABC" Upper Counterweight – 63,440#
"A" Bumper Counterweight – 13,500#
- Do not swing over the side until outrigger beams are fully extended and outrigger jacks set with upper counterweights, or crane may overturn.
- Maximum jib length is 75 ft.

WORKING AREAS

Carrier On Outriggers



Carrier On Tires



Note:

- These Lines Determine The Limiting Position Of Any Load For Operation Within Working Areas Indicated.

LIFTOFF CAPABILITIES

Counterweight (upper + bumper)	Maximum Boom Over side (ft)	Maximum Boom Over Rear (ft)	Maximum Boom + Jib	
			Over Side	Over Rear
0+0 (3)	150	N/A	PROHIBITED	
A+0 (3)	190	N/A		
AB+0 (3)	210	N/A		
AB+A (3)	220	N/A		
ABC+0 (3)	240	N/A	210+75	210+75
ABC+A (4)	250	260	220+75	230+75

*Notes:

- 95% of available crane stability.
- Crane on firm and level surface.
- Maximum allowable boom based on liftoff over side.
- Maximum allowable boom based on liftoff as shown.
- Open throat booms 250ft and 260 ft in length require midpoint suspension pendants.
- Any boom length or boom + jib combination that is rated for liftoff over side may also be erected safely over rear.

LIFTOFF CAPABILITIES ON TIRES OVER THE REAR *

Counterweight (upper + bumper)	Boom (ft)	Boom + Jib (ft)
0+0	100	PROHIBITED
A+0	130	
AB+0	160	
AB+A	190	
ABC+0	190	150+75
ABC+A	210	170+75

*Notes:

- 95% of available crane stability.
- Crane on firm and level surface.
- Do not attempt to liftoff any boom or boom and jib combination over the side when on tires.

GENERAL WIND RESTRICTIONS GUIDE

WARNING

Failure to follow these wind speed restrictions may result in structural failure of the boom, which would cause property damage and/or bodily injury.

1. 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.
2. Wind speed is to be determined at the boom top section.

WIND SPEED CHART

Boom and Boom + Jib Lengths up to 250'	
DESCRIPTION	ALLOWABLE WINDSPEEDS IN M.P.H.
1. Normal Lifting Operation. (See Capacity Charts.)	0–20 m.p.h.
2. Reduced Operation. Capacities must be reduced by 20%.	21–30 m.p.h.
3. Reduced Operation. Capacities must be reduced by 40%.	31–40 m.p.h.
4. Reduced Operation. Capacities must be reduced by 70%.	41–45 m.p.h.
4. No Operation. Store Attachment On Ground.	Over 45 m.p.h.
Boom and Boom + Jib Lengths greater than 250'	
1. Normal Lifting Operation. (See Capacity Charts.)	0–20 m.p.h.
2. Reduced Operation. Capacities must be reduced by 35%.	21–30 m.p.h.
3. Reduced Operation. Capacities must be reduced by 60%.	31–40 m.p.h.
4. Reduced Operation. Capacities must be reduced by 80%.	41–45 m.p.h.
4. No Operation. Store Attachment On Ground.	Over 45 m.p.h.

LIVE MAST LIFTING CAPACITIES

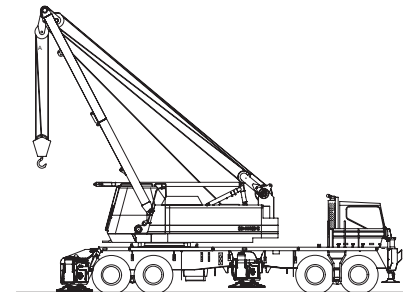
Load Radius (ft)	Mast Angle (deg)	On Tires (lbs)	On Outriggers (lbs)
10	71.2	30,000	50,000
11	68.9	30,000	50,000
12	66.5	30,000	50,000
13	64.1	30,000	50,000
14	61.6	30,000	50,000
15	59.1	30,000	50,000
16	56.5	30,000	50,000
17	53.8	30,000	50,000
18	51.0	29,300	50,000
19	48.1	27,200	50,000
20	45.1	25,300	50,000
21	41.9	23,700	50,000
22	38.5	22,200	49,300
23	34.8	20,900	45,400
24	30.7	19,800	42,100
25	26.0	18,700	39,300
26	20.5	17,800	36,700
27	12.7	16,900	34,500

CAUTION

1. Refer to operator's manual.
2. Live mast backstops must be in position and operative.
3. Use rear drum only. Reeve hoist line to drum over mast cross member.
4. Reeve hoist rope with three part of 0.875" diameter wire rope.
5. Do not swing upper when crane is on tires and upper equipped with "A", "AB", OR "ABC" counterweights.
6. Refer to "crane assembly component weights" for weights of components when lifting from live mast.

NOTES:

1. Refer to the Operator's Manual.
2. The crane shall be leveled on a firm supporting surface.
3. Capacities are based on 75% stability.
4. See Crane Assembly Component Weights chart for weight of components for crane assembly.
5. Rated capacities for 360° rotation.
6. Boom extensions may be handled with one hook, "A" and "B" counterweights must be handled with two hooks.
7. For crane assembly / disassembly only.

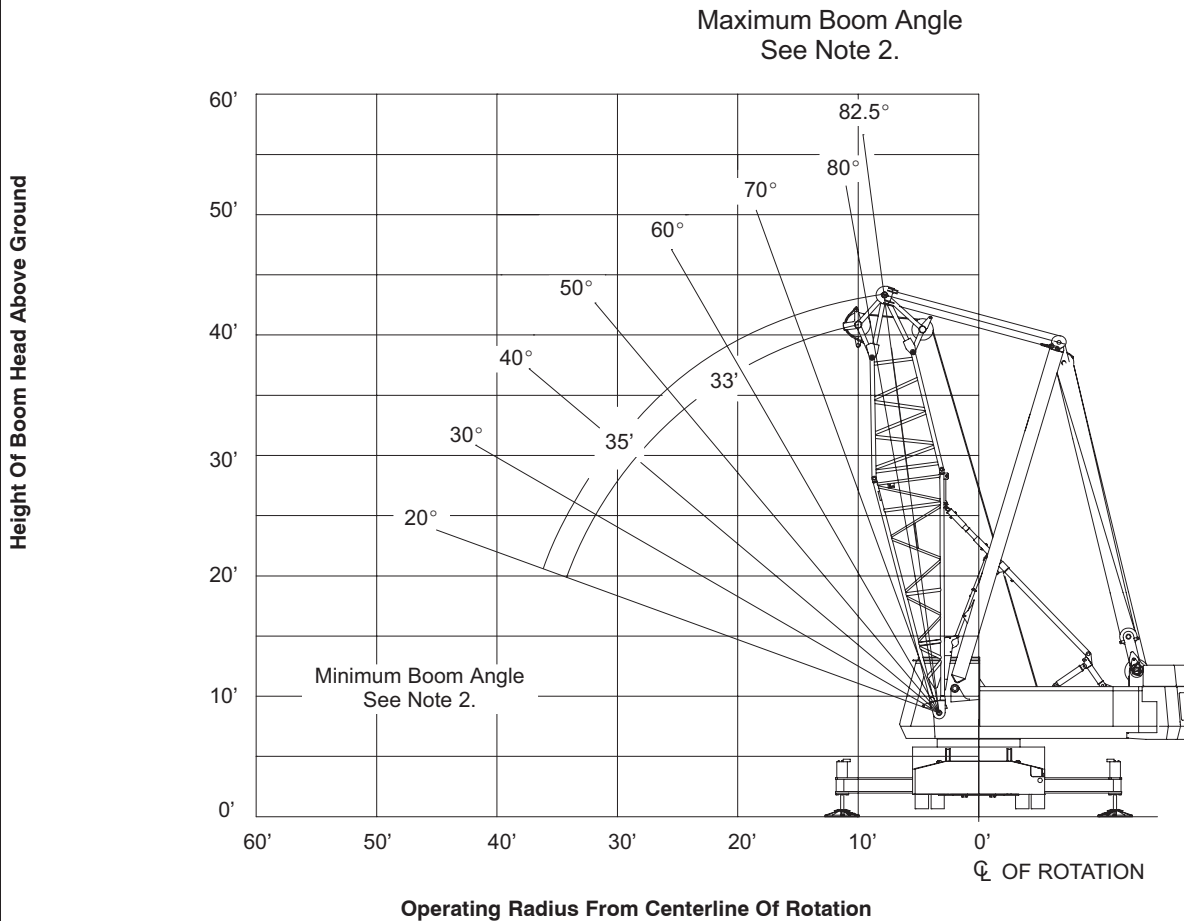


CRANE ASSEMBLY COMPONENT WEIGHTS

Component	Weight lb
1. 30' Top Section With 6 Sheave Head Machinery	4,890
2. 25' Top Section with 6 Sheave Head Machinery	4,242
3. 10' Boom Extension With Lifting Sheaves (Non-Luffing Attachment Extension)	2,610
4. 10' Boom Extension With Lifting Sheaves (Luffing Attachment Extension)	3,370
5. 5' Hammerhead With Head Machinery	3,500
6. 10' Tapered Hammerhead Extension	1,500
7. 5' Tip Extension Assembly	640
8. 20' Base Section (w/o 3 rd Drum)	3,195
• 3 rd Drum (w/o Rope)	2,000
• 900' of 0.88" Dia Type RB	990
• 3 rd Drum Deflector Sheave	430
9. Main Boom Extensions (Includes Boom Pins, Deflector Rollers and Pendants)	
• 5 Ft. Open Throat Extension	730
• 10 Ft. Extension	970
• 20 Ft. Extension	1,540
• 30 Ft. Extension	2,120
• 40 Ft. Extension	2,680
• 50 Ft. Extension	3,240
9 Upper Counterweights	
• Counterweight "A"	23,000
• Counterweight "B"	19,330
• Counterweight "C"	21,110
• Counterweight "AB"	42,330
• Counterweight "ABC"	63,440
10. Bumper Counterweight	
• Counterweight "A"	13,500
11. Outrigger Box, Beam and Jack Assemblies	
• Rear Assembly	9,950
• Front Assembly	8,980

WORKING RANGE DIAGRAM

35' HAMMERHEAD BOOM

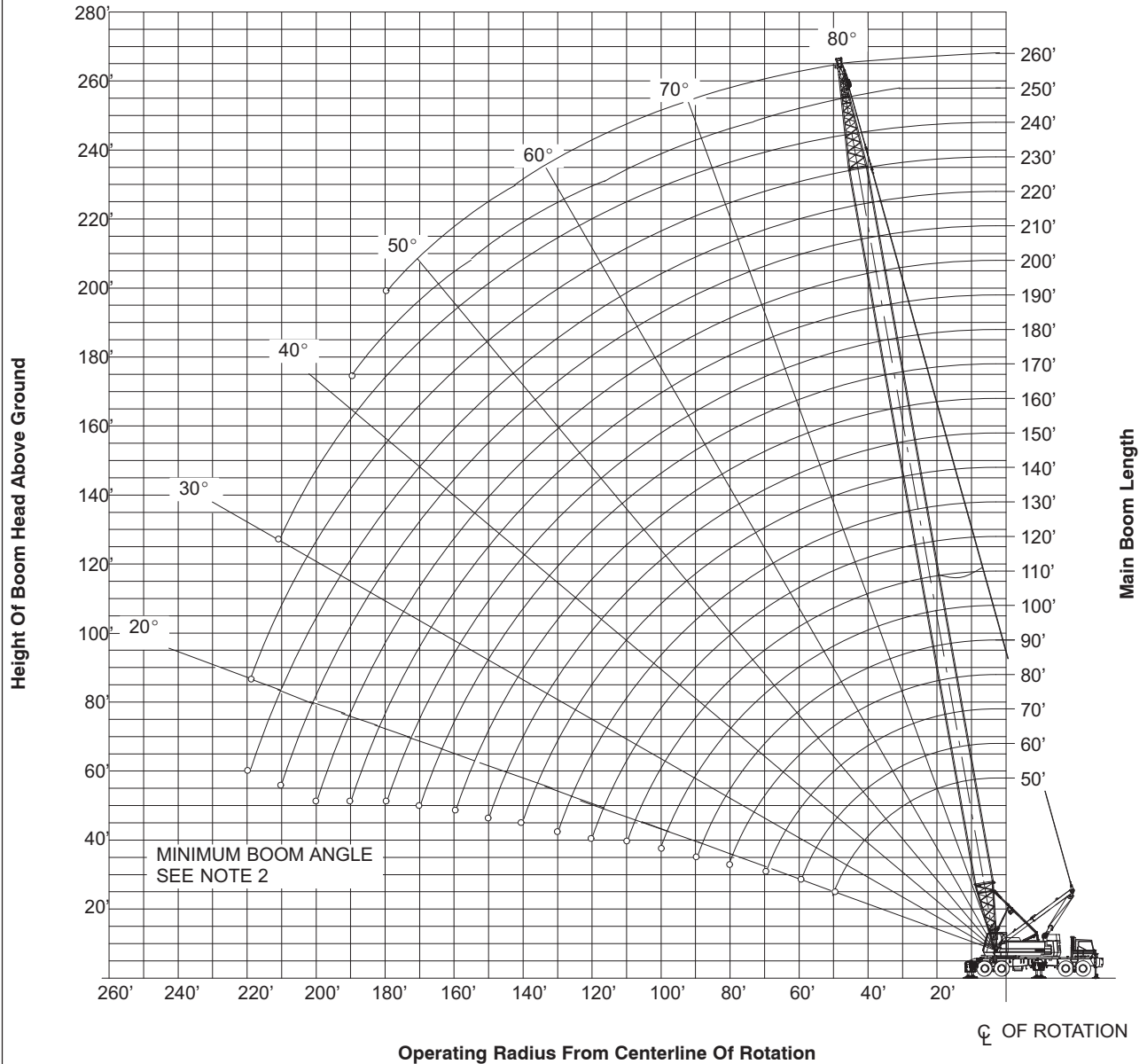


Notes:

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

WORKING RANGE DIAGRAM 50' TO 260' MAIN BOOM ON OUTRIGGERS

MAXIMUM BOOM ANGLE
SEE NOTE 2



Notes:

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

CAPACITIES FOR LIFTING WITH 10' BOOM EXTENSION

		360° ROTATION	
BOOM		On tires without counterweight	On outriggers with/without counterweight
Radius (ft.)	Angle (deg)		
10 – 12	78.4 – 73.6	45,000	45,000
13	71.1	39,500	45,000
14	68.6	34,900	45,000
15	66.1	31,200	45,000
16	63.4	28,200	45,000
17	60.7	25,600	45,000
18	57.9	23,300	45,000
19	55.0	21,400	45,000
20	51.9	19,700	45,000
25	33.3	13,600	45,000

1. Refer to Operator's Manual.
2. Use front drum only. Reeve hoist line under live mast cross member.
3. Reeve hoist rope with 2 parts of 7/8" diameter wire rope. See Operator's Manual for correct procedure.
4. Caution: Do not swing upper when crane is on tires and upper equipped with "A", "AB", or "ABC" upper counterweights.
5. Refer to "Crane Assembly Component Weights" for weights of components to be lifted.

CAPACITY DEDUCTIONS FOR LIFTING OFF MAIN BOOM HOOK WITH JIB INSTALLED

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

Jib Length (ft)	Capacity Deduction (lbs)
30'	2,000
45'	2,400
60'	3,200
75'	4,200

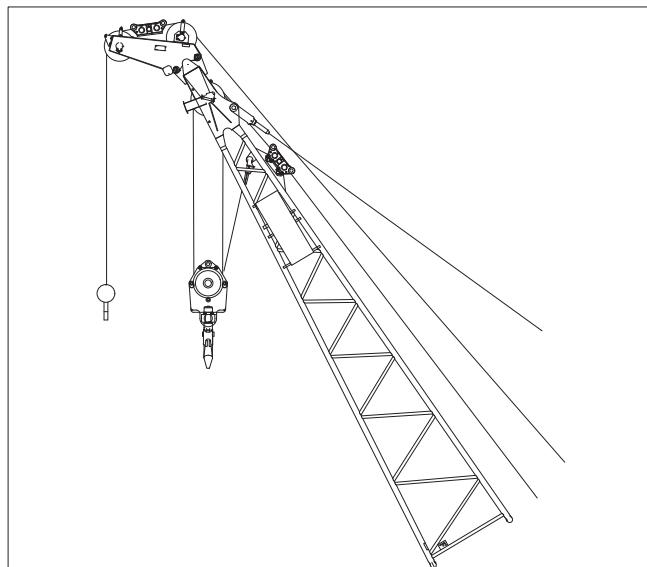
MAXIMUM ALLOWABLE CAPACITIES FOR 5' TIP EXTENSION

LIFTING CAPACITY TO BE THE SMALLEST OF THE FOLLOWING VALUES:

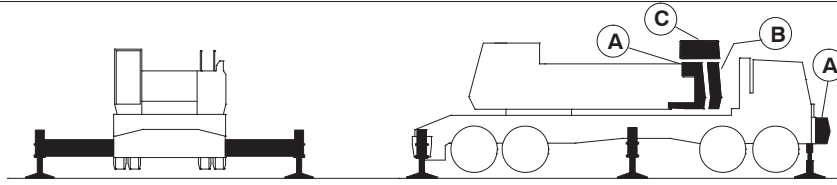
1. 18,000 lb (Maximum).
2. The standard crane lift capacity minus 700 lb for the boom length, tip extension load radius, and counterweight configuration in use on the crane.
3. The wire rope allowable pull from the Wire Rope Capacity Chart.

NOTES:

1. All notes are to be adhered to as listed on the standard lift crane capacity charts.
2. Reduce the main boom lift capacities by 700 lb when the 5' tip extension is installed.
3. The maximum boom length on which the 5' tip extension can be installed is 230'. Consult Operator's Manual.
4. Do not lift or suspend a load from the 5' tip extension and main boom at the same time.



30' Open Throat Boom Peak with 5' Tip Extension



Main Boom Capacities – On Outriggers – 35 Ft Hammerhead Boom						
Load Radius (ft)	Boom Angle (deg)	Counterweight Combinations – Upper + Bumper				
		360 Degree Rotation				
		0+0	A+0	AB+0	AB+A	ABC+0 ABC+A
10	82.0	PROHIBITED			300,000	PROHIBITED
11	80.2				267,700	
12	78.4				250,000	
13	76.6				237,100	
14	74.8				221,000	
15	72.9				206,900	
16	71.0				194,400	
17	69.1				183,300	
18	67.2				173,300	
19	65.2				164,300	
20	63.2				156,200	
25	52.3				124,600	
30	39.1				96,300	
35	17.6				63,900	

Main Boom Capacities – On Outriggers – 70 Ft Open Throat Tube Boom						
Load Radius (ft)	Boom Angle (deg)	Counterweight Combinations – Upper + Bumper				
		360 Degree Rotation				
		ABC+A	ABC+0	AB+A	AB+0	A+0 0 + 0
15.11	80.0	211,100	211,100	210,200	210,200	193,900 176,400
16	79.3	207,800	207,800	199,100	199,100	183,500 166,900
17	78.4	202,600	202,600	187,800	187,800	173,100 157,400
18	77.6	191,700	191,700	177,800	177,800	163,800 148,900
19	76.7	181,900	181,900	168,600	168,600	155,400 141,100
20	75.9	173,100	173,100	160,300	160,300	147,800 133,900
25	71.6	138,800	138,800	128,600	128,600	118,300 82,900
30	67.3	115,500	115,500	107,000	107,000	85,300 59,300
35	62.8	98,700	98,700	89,800	84,300	66,100 45,500
40	58.0	86,000	84,400	73,100	68,600	53,600 36,700
50	47.8	64,500	61,100	52,800	49,400	38,300 25,700
60	35.4	50,000	47,300	40,800	38,100	29,200 19,300
70	16.7	40,300	38,200	32,700	30,500	23,100 14,800

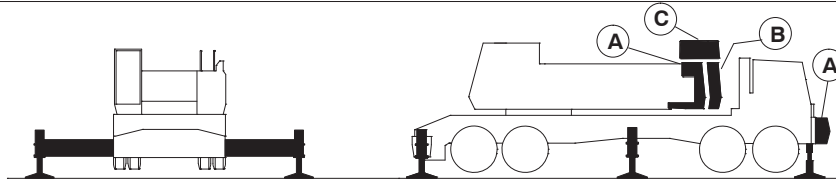
Main Boom Capacities – On Outriggers – 50 Ft Open Throat Tube Boom						
Load Radius (ft)	Boom Angle (deg)	Counterweight Combinations – Upper + Bumper				
		360 Degree Rotation				
		ABC+A	ABC+0	AB+A	AB+0	A+0 0 + 0
12	79.6	264,900	268,700	258,700	261,400	241,100 219,300
13	78.4	252,100	255,400	242,600	242,600	223,700 203,400
14	77.2	241,000	243,400	226,100	226,100	208,500 189,500
15	76.1	228,400	228,400	211,800	211,800	195,200 177,400
16	74.9	214,800	214,800	199,100	199,100	183,400 166,700
17	73.7	202,700	202,700	187,800	187,800	173,000 157,200
18	72.5	191,800	191,800	177,700	177,700	163,700 148,700
19	71.3	181,900	181,900	168,500	168,500	155,300 140,900
20	70.1	173,000	173,000	160,200	160,200	147,600 131,000
25	63.8	138,700	138,700	128,400	128,400	116,600 81,100
30	57.3	115,400	115,400	106,800	106,800	84,000 57,900
35	50.1	98,600	98,600	88,800	83,300	65,100 44,600
40	42.2	85,500	83,500	72,300	67,800	52,700 35,800
50	19.8	48,700	48,700	48,700	48,700	37,600 25,000

Main Boom Capacities – On Outriggers – 80 Ft Open Throat Tube Boom						
Load Radius (ft)	Boom Angle (deg)	Counterweight Combinations – Upper + Bumper				
		360 Degree Rotation				
		ABC+A	ABC+0	AB+A	AB+0	A+0 0 + 0
16.84	80.0	189,100	189,100	188,900	188,900	174,200 158,200
17	79.9	188,500	188,500	187,200	187,200	172,600 156,900
18	79.2	185,600	185,600	177,200	177,200	163,300 148,400
19	78.4	181,300	181,300	168,100	168,100	155,000 140,700
20	77.7	172,600	172,600	159,800	159,900	147,300 133,800
25	74.0	138,400	138,400	128,200	128,200	117,900 83,100
30	70.2	115,200	115,200	106,600	106,600	85,400 59,400
35	66.4	98,400	98,400	89,800	84,300	66,200 45,600
40	62.4	85,700	84,300	73,100	68,600	53,600 36,700
50	54.0	64,400	61,100	52,700	49,400	38,300 25,700
60	44.5	49,900	47,300	40,700	38,100	29,200 19,200
70	33.1	40,400	38,200	32,700	30,500	23,100 14,900
80	15.6	33,600	31,700	27,000	25,100	18,900 11,800

Main Boom Capacities – On Outriggers – 60 Ft Open Throat Tube Boom						
Load Radius (ft)	Boom Angle (deg)	Counterweight Combinations – Upper + Bumper				
		360 Degree Rotation				
		ABC+A	ABC+0	AB+A	AB+0	A+0 0 + 0
13.37	80.0	234,700	234,700	234,700	234,700	217,300 197,600
14	79.4	231,700	231,700	225,700	225,700	208,100 189,200
15	78.4	225,900	225,900	211,400	211,400	194,900 177,100
16	77.4	214,400	214,400	198,800	198,800	183,100 166,400
17	76.5	202,300	202,300	187,400	187,400	172,800 157,000
18	75.5	191,400	191,400	177,400	177,400	163,400 148,400
19	74.5	181,600	181,600	168,300	168,300	155,000 140,700
20	73.5	172,800	172,800	160,000	160,000	147,400 131,800
25	68.4	138,500	138,500	128,300	128,300	117,100 81,600
30	63.2	115,300	115,300	106,700	106,700	84,300 58,300
35	57.7	98,500	98,500	89,100	83,600	65,400 44,900
40	51.9	84,300	83,800	72,500	68,000	53,000 36,100
50	38.4	63,400	60,700	52,300	49,000	37,800 25,200
60	18.1	39,900	39,900	39,900	37,700	28,800 18,800

Main Boom Capacities – On Outriggers – 90 Ft Open Throat Tube Boom						
Load Radius (ft)	Boom Angle (deg)	Counterweight Combinations – Upper + Bumper				
		360 Degree Rotation				
		ABC+A	ABC+0	AB+A	AB+0	A+0 0 + 0
18.58	80.0	170,000	170,000	170,000	170,000	157,800 143,300
19	79.7	168,900	168,900	167,500	167,500	154,400 140,200
20	79.1	166,300	166,300	159,300	159,300	146,800 133,400
25	75.8	138,000	137,900	127,800	127,800	117,500 83,200
30	72.5	114,800	114,800	106,200	106,200	85,400 59,400
35	69.1	98,000	98,000	89,800	84,300	66,100 45,500
40	65.7	85,400	84,300	73,000	68,500	53,500 36,600
50	58.5	64,300	61,000	52,600	49,300	38,200 25,600
60	50.7	49,800	47,100	40,600	38,000	29,100 19,200
70	41.8	40,300	38,100	32,600	30,400	23,100 14,800
80	31.1	33,500	31,600	26,900	25,100	18,800 11,700
90	14.7	28,400	26,800	22,700	21,100	15,600 9,400

Note: Refer To Page 8 For “Capacity Deductions” Caused By Any Jib Attachment Or Tip Extension.



Main Boom Capacities – On Outriggers – 100 Ft Open Throat Tube Boom

Load Radius (ft)	Boom Angle (deg)	Counterweight Combinations – Upper + Bumper					
		360 Degree Rotation					
		ABC+A	ABC+0	AB+A	AB+0	A+0	0 + 0
20.32	80.0	153,300	153,300	153,300	153,300	144,000	129,700
25	77.3	137,400	137,400	127,300	127,300	117,100	83,200
30	74.3	114,300	114,300	105,800	105,800	85,300	59,300
35	71.3	97,600	97,600	89,700	84,200	66,100	45,500
40	68.3	85,000	84,100	72,900	68,300	53,400	36,500
50	61.9	64,200	60,800	52,500	49,100	38,100	25,500
60	55.2	49,700	47,000	40,500	37,800	28,900	19,000
70	47.9	40,200	38,000	32,500	30,300	22,900	14,700
80	39.6	33,400	31,500	26,800	24,900	18,700	11,600
90	29.5	28,300	26,700	22,600	21,000	15,500	9,300
100	14.0	24,300	22,900	19,300	17,800	12,900	7,400

Main Boom Capacities – On Outriggers – 110 Ft Open Throat Tube Boom

Load Radius (ft)	Boom Angle (deg)	Counterweight Combinations – Upper + Bumper					
		360 Degree Rotation					
		ABC+A	ABC+0	AB+A	AB+0	A+0	0 + 0
22.05	80.0	139,600	139,600	139,600	139,600	132,300	107,900
25	78.4	134,000	134,000	126,800	126,800	116,600	83,300
30	75.8	113,900	113,900	105,400	105,400	85,200	59,300
35	73.1	97,200	97,200	89,500	84,000	65,900	45,400
40	70.3	84,600	84,000	72,700	68,200	53,300	36,400
50	64.7	64,000	60,600	52,300	48,900	37,900	25,300
60	58.8	49,500	46,800	40,300	37,600	28,800	18,900
70	52.4	40,000	37,800	32,300	30,100	22,700	14,500
80	45.5	33,200	31,300	26,600	24,700	18,500	11,500
90	37.7	28,100	26,500	22,500	20,800	15,300	9,100
100	28.1	24,200	22,700	19,200	17,700	12,800	7,300
110	13.3	21,100	19,700	16,500	15,200	10,800	5,800

Main Boom Capacities – On Outriggers – 120 Ft Open Throat Tube Boom

Load Radius (ft)	Boom Angle (deg)	Counterweight Combinations – Upper + Bumper					
		360 Degree Rotation					
		ABC+A	ABC+0	AB+A	AB+0	A+0	0 + 0
23.79	80.0	126,700	126,700	126,700	126,700	122,100	91,900
25	79.4	125,100	125,100	125,100	125,100	116,100	83,300
30	77.0	113,400	113,400	104,900	104,900	85,200	59,200
35	74.5	96,800	96,800	89,400	83,900	65,800	45,200
40	72.0	84,200	83,800	72,600	68,000	53,100	36,300
50	66.9	63,800	60,400	52,100	48,700	37,700	25,100
60	61.6	49,200	46,600	40,100	37,400	28,600	18,700
70	56.0	39,800	37,600	32,100	29,900	22,500	14,300
80	50.1	33,000	31,100	26,400	24,500	18,400	11,300
90	43.5	27,900	26,300	22,300	20,600	15,100	8,900
100	36.0	24,000	22,500	19,000	17,500	12,600	7,100
110	26.9	20,900	19,600	16,300	15,000	10,600	5,700
120	12.7	18,300	17,100	14,100	12,900	9,000	4,500

Main Boom Capacities – On Outriggers – 130 Ft Open Throat Tube Boom

Load Radius (ft)	Boom Angle (deg)	Counterweight Combinations – Upper + Bumper					
		360 Degree Rotation					
		ABC+A	ABC+0	AB+A	AB+0	A+0	0 + 0
25.53	80.0	116,000	116,000	116,000	116,000	113,100	79,900
30	78.0	110,200	110,200	104,500	104,500	85,000	59,100
35	75.7	96,300	96,300	89,100	83,800	65,700	45,100
40	73.4	83,800	83,600	72,400	67,800	52,900	36,100
50	68.8	63,600	60,200	51,900	48,500	37,500	24,900
60	64.0	49,000	46,300	39,900	37,200	28,300	18,500
70	59.0	39,600	37,400	31,900	29,600	22,500	14,100
80	53.7	32,800	30,900	26,200	24,300	18,100	11,000
90	48.0	27,700	26,000	22,100	20,400	14,900	8,700
100	41.7	23,700	22,400	18,800	17,300	12,400	6,900
110	34.6	20,700	19,400	16,100	14,800	10,400	5,500
120	25.8	18,100	16,900	14,000	12,800	8,800	4,300
130	12.2	15,900	14,800	12,100	11,000	7,400	3,300

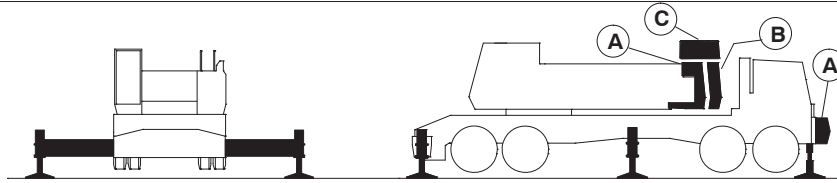
Main Boom Capacities – On Outriggers – 140 Ft Open Throat Tube Boom

Load Radius (ft)	Boom Angle (deg)	Counterweight Combinations – Upper + Bumper					
		360 Degree Rotation					
		ABC+A	ABC+0	AB+A	AB+0	A+0	0 + 0
27.26	80.0	105,500	105,500	105,500	105,500	100,700	70,300
30	78.9	102,900	102,900	102,900	102,900	84,900	59,000
35	76.8	95,900	95,800	88,600	83,600	65,500	44,900
40	74.7	83,300	83,300	72,200	67,600	52,800	36,000
50	70.4	63,400	60,000	51,700	48,300	37,300	24,700
60	66.0	48,800	46,100	39,700	37,000	28,100	18,300
70	61.4	39,300	37,100	31,600	29,400	22,200	13,900
80	56.6	32,500	30,600	25,900	24,000	17,900	10,800
90	51.6	27,400	25,800	21,800	20,200	14,700	8,500
100	46.1	23,500	22,200	18,500	17,100	12,200	6,700
110	40.1	20,500	19,200	15,900	14,600	10,200	5,300
120	33.3	17,900	16,700	13,700	12,500	8,600	4,100
130	24.8	15,700	14,700	11,900	10,800	7,200	3,100
140	11.8	13,900	12,900	10,400	9,400	6,000	2,200

Main Boom Capacities – On Outriggers – 150 Ft Open Throat Tube Boom

Load Radius (ft)	Boom Angle (deg)	Counterweight Combinations – Upper + Bumper					
		360 Degree Rotation					
		ABC+A	ABC+0	AB+A	AB+0	A+0	0 + 0
29	80.0	96,800	96,800	96,800	96,800	89,800	62,700
30	79.6	95,900	95,900	95,900	95,900	84,800	58,900
35	77.7	91,700	91,700	88,200	83,400	65,400	44,800
40	75.7	82,900	82,900	72,000	67,400	52,600	35,800
50	71.7	63,200	59,800	51,500	48,100	37,100	24,500
60	67.6	48,500	45,900	39,400	36,800	27,900	18,100
70	63.4	39,100	36,900	31,400	29,200	22,000	13,700
80	59.1	32,300	30,400	25,700	23,800	17,700	10,600
90	54.5	27,200	25,500	21,600	19,900	14,500	8,300
100	49.7	23,200	21,900	18,300	16,800	12,000	6,500
110	44.5	20,200	18,900	15,700	14,300	10,000	5,000
120	38.7	17,700	16,500	13,500	12,300	8,300	3,800
130	32.1	15,500	14,400	11,700	10,600	7,000	2,900
140	24.0	13,700	12,700	10,200	9,200	5,800	2,000
150	11.4	12,100	11,200	8,800	7,900	4,800	—

Note: Refer To Page 8 For “Capacity Deductions” Caused By Any Jib Attachment Or Tip Extension.



Main Boom Capacities – On Outriggers – 160 Ft Open Throat Tube Boom

Load Radius (ft)	Boom Angle (deg)	Counterweight Combinations – Upper + Bumper					
		360 Degree Rotation					
		ABC+A	ABC+0	AB+A	AB+0	A+0	0 + 0
30.74	80.0	88,100	88,100	88,100	88,100	81,100	PROHIBITED
35	78.4	85,100	85,100	85,100	83,200	65,200	
40	76.6	81,400	81,400	71,800	67,200	52,400	
50	72.9	62,900	59,600	51,200	47,900	36,900	
60	69.1	48,300	45,600	39,200	36,500	27,700	
70	65.2	38,800	36,600	31,100	28,900	21,800	
80	61.2	32,000	30,100	25,400	23,500	17,400	
90	57.0	26,900	25,300	21,400	19,700	14,200	
100	52.7	23,000	21,700	18,000	16,600	11,700	
110	48.0	20,000	18,700	15,400	14,100	9,700	
120	43.0	17,400	16,200	13,200	12,000	8,100	
130	37.4	15,300	14,200	11,400	10,400	6,700	
140	31.1	13,400	12,400	9,900	8,900	5,600	
150	23.2	11,900	10,900	8,600	7,700	4,600	
160	11.0	10,500	9,600	7,500	6,600	3,700	

Main Boom Capacities – On Outriggers – 180 Ft Open Throat Tube Boom

Load Radius (ft)	Boom Angle (deg)	Counterweight Combinations – Upper + Bumper					
		360 Degree Rotation					
		ABC+A	ABC+0	AB+A	AB+0	A+0	0 + 0
34.21	80.0	72,100	72,100	72,100	72,100	67,200	PROHIBITED
35	79.7	72,100	72,100	72,100	72,100	64,900	
40	78.1	71,000	71,000	71,000	67,100	52,000	
50	74.8	62,400	59,100	50,700	47,400	36,500	
60	71.5	47,800	45,100	38,700	36,000	27,200	
70	68.1	38,300	36,100	30,600	28,400	21,300	
80	64.7	31,500	29,600	24,900	23,000	16,900	
90	61.1	26,400	24,700	20,800	19,200	13,700	
100	57.4	22,400	21,200	17,500	16,100	11,200	
110	53.5	19,500	18,100	14,900	13,600	9,200	
120	49.4	16,900	15,700	12,700	11,500	7,500	
130	45.1	14,700	13,600	10,900	9,800	6,200	
140	40.4	12,900	11,900	9,400	8,400	5,000	
150	35.2	11,400	10,400	8,100	7,200	4,000	
160	29.3	10,000	9,100	7,000	6,100	3,200	
170	21.9	8,800	8,000	6,000	5,200	2,400	
180	10.4	7,800	7,000	5,100	4,300	—	

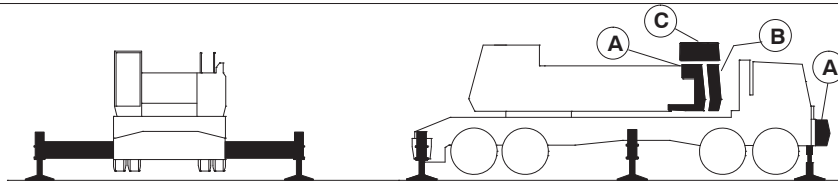
Main Boom Capacities – On Outriggers – 170 Ft Open Throat Tube Boom

Load Radius (ft)	Boom Angle (deg)	Counterweight Combinations – Upper + Bumper					
		360 Degree Rotation					
		ABC+A	ABC+0	AB+A	AB+0	A+0	0 + 0
32.47	80.0	81,000	81,000	81,000	81,000	73,600	PROHIBITED
35	79.1	79,200	79,200	79,200	79,200	65,000	
40	77.4	76,100	76,100	71,500	67,300	52,200	
50	73.9	62,700	59,300	51,000	47,600	36,700	
60	70.4	48,000	45,400	39,000	36,300	27,400	
70	66.8	38,600	36,400	30,900	28,700	21,500	
80	63.0	31,700	29,800	25,200	23,300	17,200	
90	59.2	26,600	25,000	21,100	19,400	14,000	
100	55.2	22,700	21,400	17,800	16,300	11,400	
110	51.0	19,700	18,400	15,100	13,800	9,400	
120	46.5	17,100	15,900	13,000	11,800	7,800	
130	41.6	15,000	13,900	11,200	10,100	6,400	
140	36.3	13,200	12,200	9,700	8,700	5,300	
150	30.1	11,600	10,700	8,400	7,400	4,300	
160	22.5	10,300	9,400	7,200	6,400	3,400	
170	10.7	9,100	8,300	6,200	5,400	2,700	

Main Boom Capacities – On Outriggers – 190 Ft Open Throat Tube Boom

Load Radius (ft)	Boom Angle (deg)	Counterweight Combinations – Upper + Bumper					
		360 Degree Rotation					
		ABC+A	ABC+0	AB+A	AB+0	A+0	0 + 0
35.95	80.0	63,300	63,300	63,300	63,300	61,800	PROHIBITED
40	78.8	62,500	62,500	62,500	62,500	51,800	
50	75.7	59,800	58,800	50,500	47,100	36,200	
60	72.5	47,500	44,800	38,500	35,800	26,900	
70	69.3	38,100	35,900	30,400	28,100	21,000	
80	66.1	31,200	29,300	24,600	22,700	16,700	
90	62.7	26,100	24,400	20,600	18,900	13,400	
100	59.3	22,400	20,900	17,300	15,800	10,900	
110	55.7	19,200	17,900	14,600	13,300	8,900	
120	52.0	16,600	15,400	12,400	11,200	7,300	
130	48.0	14,500	13,400	10,600	9,500	5,900	
140	43.8	12,600	11,600	9,100	8,100	4,700	
150	39.3	11,100	10,100	7,800	6,900	3,800	
160	34.3	9,700	8,900	6,700	5,800	2,900	
170	28.5	8,600	7,700	5,700	4,900	2,200	
180	21.3	7,500	6,700	4,800	4,100	—	
190	10.1	6,500	5,900	4,100	3,300	—	

Note: Refer To Page 8 For “Capacity Deductions” Caused By Any Jib Attachment Or Tip Extension.



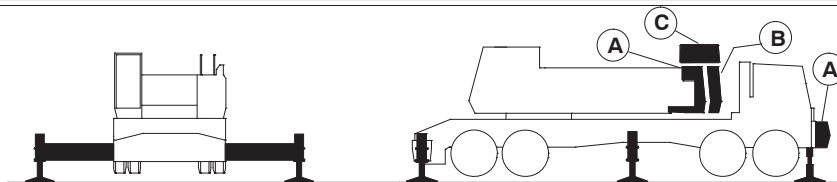
Main Boom Capacities – On Outriggers – 200 Ft Open Throat Tube Boom							
Load Radius (ft)	Boom Angle (deg)	Counterweight Combinations – Upper + Bumper					
		360 Degree Rotation					
		ABC+A	ABC+0	AB+A	AB+0	A+0	0 + 0
37.68	80.0	56,000	56,000	56,000	56,000	PROHIBITED	
40	79.3	55,300	55,300	55,300	55,300		
50	76.4	53,200	53,200	50,300	46,900		
60	73.4	47,200	44,600	38,200	35,500		
70	70.4	37,800	35,600	30,100	27,900		
80	67.3	30,900	29,000	24,300	22,400		
90	64.2	25,800	24,100	20,300	18,700		
100	61.0	22,100	20,600	17,000	15,500		
110	57.6	18,900	17,600	14,300	13,000		
120	54.2	16,300	15,100	12,200	11,000		
130	50.6	14,200	13,100	10,400	9,300		
140	46.7	12,400	11,300	8,800	7,800		
150	42.7	10,800	9,900	7,500	6,600		
160	38.3	9,500	8,600	6,400	5,500		
170	33.4	8,300	7,500	5,400	4,600		
180	27.7	7,200	6,500	4,600	3,800		
190	20.7	6,300	5,600	3,800	3,100		
200	9.9	5,200	4,800	3,100	2,400		

Main Boom Capacities – On Outriggers – 220 Ft Open Throat Tube Boom							
Load Radius (ft)	Boom Angle (deg)	Counterweight Combinations – Upper + Bumper					
		360 Degree Rotation					
		ABC+A	ABC+0	AB+A	AB+0	A+0	0 + 0
41.16	80.0	43,500	43,500	43,500	PROHIBITED		
50	77.7	41,600	41,600	41,600			
60	75.0	37,700	37,700	37,700			
70	72.3	33,900	33,900	29,600			
80	69.5	30,400	28,500	23,800			
90	66.7	25,200	23,600	19,800			
100	63.8	21,500	20,100	16,400			
110	60.9	18,400	17,000	13,800			
120	57.9	15,800	14,600	11,600			
130	54.7	13,600	12,500	9,800			
140	51.5	11,800	10,800	8,300			
150	48.1	10,200	9,300	7,000			
160	44.5	8,900	8,000	5,800			
170	40.6	7,700	6,900	4,800			
180	36.4	6,700	5,900	4,000			
190	31.8	5,700	5,000	3,200			
200	26.4	4,900	4,200	2,500			
210	19.8	4,200	3,500	---			
220	9.4	3,000	2,900	---			

Main Boom Capacities – On Outriggers – 210 Ft Open Throat Tube Boom							
Load Radius (ft)	Boom Angle (deg)	Counterweight Combinations – Upper + Bumper					
		360 Degree Rotation					
		ABC+A	ABC+0	AB+A	AB+0	A+0	0 + 0
39.42	80.0	49,500	49,500	49,500	49,500	PROHIBITED	
40	79.8	49,500	49,500	49,500	49,500		
50	77.1	47,300	47,300	47,300	46,600		
60	74.2	42,300	42,300	38,000	35,300		
70	71.4	37,500	35,300	29,800	27,600		
80	68.5	30,600	28,800	24,100	22,200		
90	65.5	25,500	23,900	20,000	18,400		
100	62.5	21,800	20,300	16,700	15,200		
110	59.4	18,600	17,300	14,000	12,700		
120	56.1	16,000	14,800	11,900	10,700		
130	52.8	13,900	12,800	10,100	9,000		
140	49.3	12,100	11,100	8,600	7,500		
150	45.6	10,500	9,600	7,200	6,300		
160	41.6	9,200	8,300	6,100	5,200		
170	37.3	8,000	7,200	5,100	4,300		
180	32.5	6,900	6,200	4,300	3,500		
190	27.0	6,000	5,300	3,500	2,800		
200	20.2	5,200	4,500	2,800	2,100		
210	9.6	4,100	3,800	2,200	---		

Main Boom Capacities – On Outriggers – 230 Ft Open Throat Tube Boom							
Load Radius (ft)	Boom Angle (deg)	Counterweight Combinations – Upper + Bumper					
		360 Degree Rotation					
		ABC+A	ABC+0	AB+A	AB+0	A+0	0 + 0
42.89	80.0	38,700	38,700	PROHIBITED			
50	78.2	37,200	37,200				
60	75.6	33,700	33,700				
70	73.1	30,300	30,300				
80	70.4	27,300	27,300				
90	67.8	24,300	23,300				
100	65.0	20,100	19,800				
110	62.3	17,400	16,800				
120	59.4	15,100	14,300				
130	56.5	13,100	12,200				
140	53.4	11,300	10,500				
150	50.3	9,700	9,000				
160	46.9	8,300	7,700				
170	43.4	7,100	6,600				
180	39.7	6,000	5,600				
190	35.6	5,000	4,700				
200	31.0	4,100	3,900				
210	25.8	3,200	3,200				
220	19.3	2,500	2,500				

Note: Refer To Page 8 For “Capacity Deductions” Caused By Any Jib Attachment Or Tip Extension.



Main Boom Capacities – On Outriggers – 240 Ft Open Throat Tube Boom

Load Radius (ft)	Boom Angle (deg)	Counterweight Combinations – Upper + Bumper					
		360 Degree Rotation					
		ABC+A	ABC+0	AB+A	AB+0	A+0	0 + 0
44.63	80.0	34,600	34,600	PROHIBITED			
50	78.7	33,500	33,500				
60	76.2	30,100	30,100				
70	73.8	27,100	27,100				
80	71.3	24,400	24,400				
90	68.7	21,000	21,000				
100	66.1	18,200	18,200				
110	63.5	15,700	15,700				
120	60.8	13,500	13,500				
130	58.0	11,600	11,600				
140	55.2	9,900	9,900				
150	52.2	8,400	8,400				
160	49.1	7,100	7,100				
170	45.9	5,900	5,900				
180	42.5	4,900	4,900				
190	38.8	3,900	3,900				
200	34.8	3,100	3,100				
210	30.4	2,300	2,300				

Main Boom Capacities – On Outriggers – 260 Ft Open Throat Tube Boom

Load Radius (ft)	Boom Angle (deg)	Counterweight Combinations – Upper + Bumper					
		360 Degree Rotation					
		ABC+A	ABC+0	AB+A	AB+0	A+0	0 + 0
48.1	80.0	27,500	PROHIBITED				
50	79.6	27,000					
60	77.3	24,300					
70	75.1	21,100					
80	72.8	19,000					
90	70.4	16,800					
100	68.1	14,200					
110	65.7	12,000					
120	63.2	10,100					
130	60.7	8,400					
140	58.2	6,900					
150	55.6	5,600					
160	52.8	4,500					
170	50.0	3,400					
180	47.1	2,500					

Main Boom Capacities – On Outriggers – 250 Ft Open Throat Tube Boom

Load Radius (ft)	Boom Angle (deg)	Counterweight Combinations – Upper + Bumper					
		360 Degree Rotation					
		ABC+A	ABC+0	AB+A	AB+0	A+0	0 + 0
46.37	80.0	30,900	PROHIBITED				
50	79.2	30,100					
60	76.8	27,100					
70	74.4	24,400					
80	72.0	21,200					
90	69.6	18,500					
100	67.2	15,900					
110	64.6	13,500					
120	62.1	11,500					
130	59.5	9,700					
140	56.8	8,100					
150	54.0	6,700					
160	51.1	5,500					
170	48.1	4,400					
180	44.9	3,400					
190	41.6	2,600					

Note: Refer To Page 8 For “Capacity Deductions” Caused By Any Jib Attachment Or Tip Extension.

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Jib Capacities

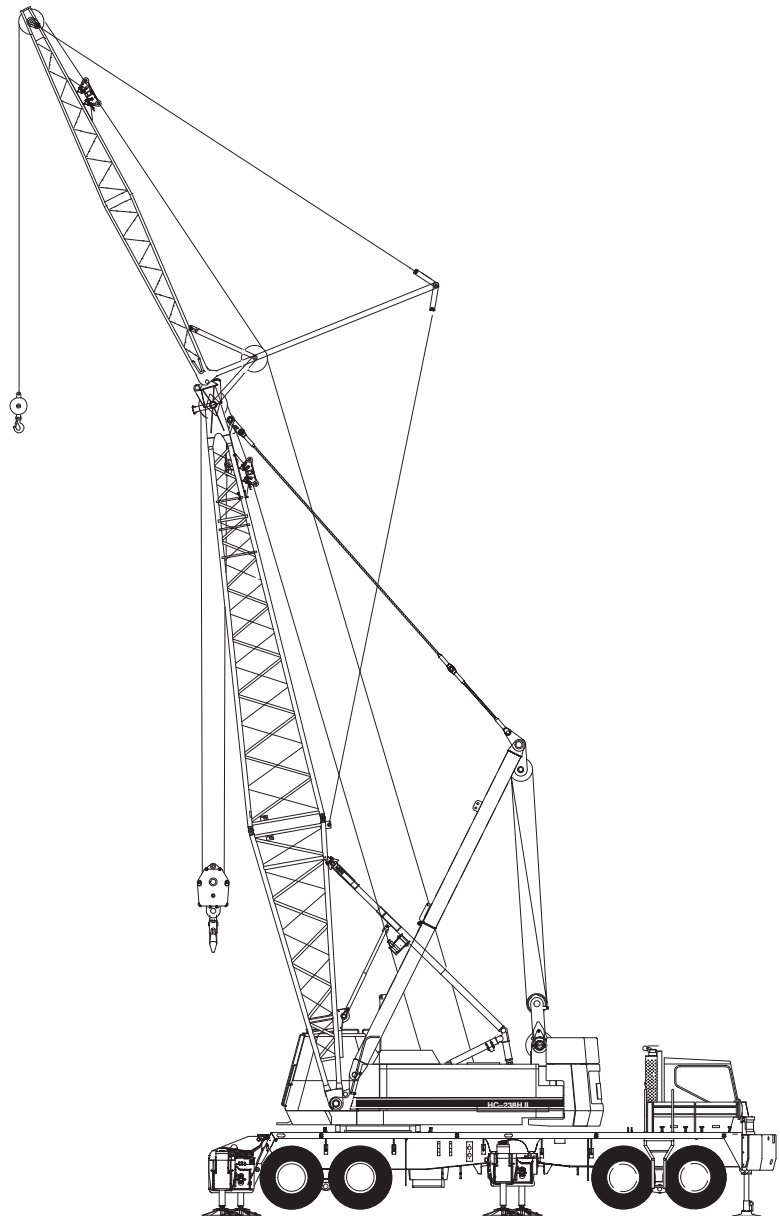
Hydraulic Lattice Boom Truck Crane

HC-238H II 150-ton (136 metric ton) HYLAB Series

Tube Boom + Jib

- 50' – 230' (15.24 – 70.10 m)
Open Throat Boom
- 30' – 75' (9.14 – 22.86 m) Jib
- On Fully Extended Outriggers
- 360° Rotation
- "ABC" + "A" Counterweight Options

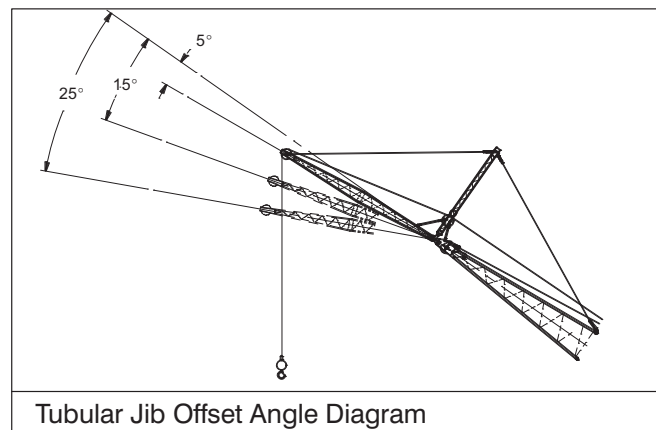
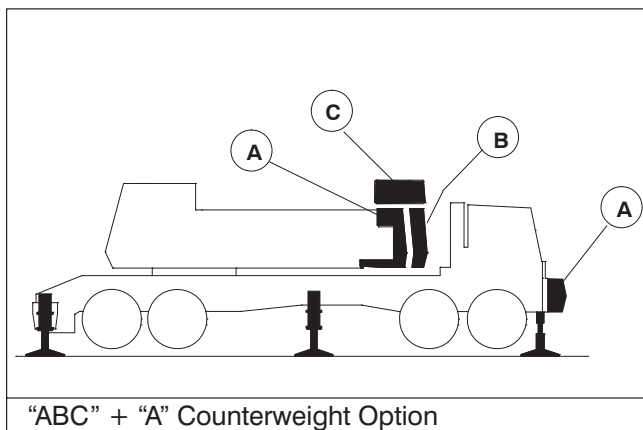
Note: ABC + 0 capacities are published in the Crane Rating Manual only.



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.

TUBULAR JIB NOTES FOR OPEN THROAT BOOM

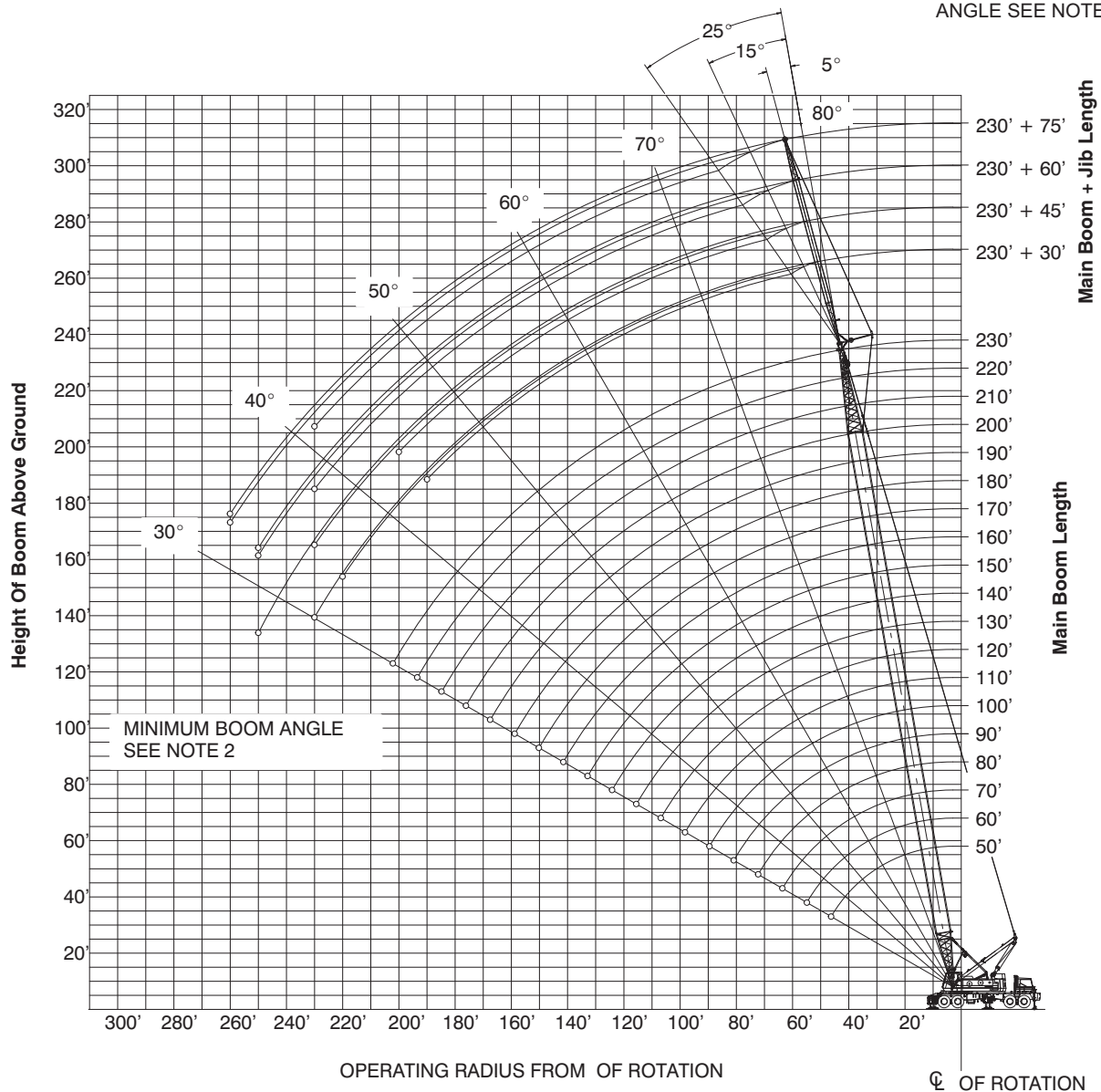
1. Capacities are for a HC – 238H II Truck Crane with “ABC + 0” (63,440 lb + 0) and “ABC+A” (63,440 lb + 13,500 lb) Counterweight. Verify crane counterweight configuration and consult proper jib capacity chart prior to lifting loads.
2. Capacities are for Truck Crane working areas for 360°, described on the working area chart found in the General Information Section of the Crane Rating Manual and are based on crane standing level on outriggers on firm supporting surface.
3. Capacities are limited to a LBCE 62” x 70” tubular boom with an open throat and a LBCE 24” x 32” cross-section jib with jib mast properly assembled.
4. Two parts of 7/8” Diameter Type “N”, Type “DB”, or Type “RB” wire rope are required for maximum lift.
5. Capacities are for 30’, 45’, 60’, and 75’ jib lengths only.
6. A jib cannot be used on open throat boom lengths longer than 230’.
7. The least stable condition is over the side.
8. All capacities are in pounds and are not more than 85% of the tipping loads. Those capacities in the shaded areas are governed by factors other than those that would cause a tipping condition.
9. A deduction must be made from the jib capacities for the weight of the following: Main boom hook block or hook ball, jib hook block or hook ball, slings, grapple, load weighing devices, etc.



WORKING RANGE DIAGRAM

50' TO 230' OPEN THROAT BOOM WITH 30'–75' JIB

MAXIMUM BOOM
ANGLE SEE NOTE 2



Notes:

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

HC-238H II - w/ 62" x 70" Tube Boom, w/ 24" x 32" Tube Jib, w/ ABC + A Cwtwt

General Use Only. Refer to the Tubular Jib Notes for Open Throat Boom before operating the machine.														
General Use Only. Refer to the Tubular Jib Notes for Open Throat Boom before operating the machine.														
Boom Length (ft)	Jib Length (ft)	Jib Load Radius (ft)	Jib Angle to Boom											
			5 Degrees			15 Degrees			25 Degrees					
			Boom Angle (deg)	Jib Pt Height (ft)	Jib Capacity ABC + A (lbs)	Boom Angle (deg)	Jib Pt Height (ft)	Jib Capacity ABC + A (lbs)	Boom Angle (deg)	Jib Pt Height (ft)	Jib Capacity ABC + A (lbs)			
60	75	35	79.2	140.1	20,300				60.8	112.1	9,100	64.7	109.1	7,100
60	75	40	77.1	138.7	18,600				55.2	103.9	8,200	58.9	100.7	6,600
60	75	50	72.7	135.5	14,700		134.6	11,300						
60	75	60	68.1	131.4	12,100	78.0	130.5	9,600						
60	75	70	63.5	126.3	10,300	68.7	125.4	8,300						
60	75	80	58.5	120.1	8,900	63.7	119.1	7,300						
60	75	90	53.3	112.6	7,800	58.4	111.6	6,500						
60	75	100	47.7	103.5	6,900	52.7	102.4	5,900						
60	75	110	41.4	92.3	6,200	46.3	91.0	5,300						
60	75	120	34.1	78.0	5,700	38.9	76.4	4,900						
70	30	23.26	80.0	106.8	24,000									
70	30	25	79.0	106.5	24,000									
70	30	30	76.1	105.2	24,000	78.9	104.6	24,000						
70	30	35	73.2	103.7	24,000	76.0	103.0	24,000						
70	30	40	70.2	101.8	24,000	73.0	101.2	24,000						
70	30	50	64.0	97.3	24,000	66.8	96.6	22,900						
70	30	60	57.5	91.3	24,000	60.2	90.6	22,300						
70	30	70	50.5	83.6	22,600	53.1	82.9	19,600						
70	30	80	42.5	73.6	20,800	45.0	72.7	17,500						
70	30	90	33.0	59.9	18,400									
70	45	27.14	80.0	121.0	24,000									
70	45	30	78.6	120.3	24,000									
70	45	35	76.0	118.9	24,000	79.8	118.0	22,300						
70	45	40	73.5	117.3	24,000	77.2	116.4	20,200						
70	45	50	68.2	113.3	22,400	71.9	112.4	17,000						
70	45	60	62.8	108.2	18,700	66.4	107.3	14,700						
70	45	70	57.0	101.8	16,000	60.5	100.9	13,000						
70	45	80	50.8	93.9	14,000	54.3	92.9	11,700						
70	45	90	43.9	83.9	12,500	47.3	82.8	10,600						
70	45	100	36.0	71.0	11,300	39.2	69.6	9,800						
70	60	31.03	80.0	135.5	24,000									
70	60	35	78.2	134.5	22,600									
70	60	40	76.0	133.1	22,100									
70	60	50	71.4	129.6	17,700	75.8	128.6	13,400						
70	60	60	66.7	125.2	14,800	71.0	124.2	11,600						
70	60	70			12,700	66.0	118.7	10,200						
60	75	35	79.2	140.1	20,300									
60	75	40	77.1	138.7	18,600									
60	75	50	72.7	135.5	14,700									
60	75	60	68.1	131.4	12,100	78.0	130.5	9,600						
60	75	70	63.5	126.3	10,300	68.7	125.4	8,300						
60	75	80	58.5	120.1	8,900	63.7	119.1	7,300						
60	75	90	53.3	112.6	7,800	58.4	111.6	6,500						
60	75	100	47.7	103.5	6,900	52.7	102.4	5,900						
60	75	110	41.4	92.3	6,200	46.3	91.0	5,300						
60	75	120	34.1	78.0	5,700	38.9	76.4	4,900						
70	30	23.26	80.0	106.8	24,000									
70	30	25	79.0	106.5	24,000									
70	30	30	76.1	105.2	24,000	78.9	104.6	24,000						
70	30	35	73.2	103.7	24,000	76.0	103.0	24,000						
70	30	40	70.2	101.8	24,000	73.0	101.2	24,000						
70	30	50	64.0	97.3	24,000	66.8	96.6	22,900						
70	30	60	57.5	91.3	24,000	60.2	90.6	22,300						
70	30	70	50.5	83.6	22,600	53.1	82.9	19,600						
70	30	80	42.5	73.6	20,800	45.0	72.7	17,500						
70	30	90	33.0	59.9	18,400									
70	45	27.14	80.0	121.0	24,000									
70	45	30	78.6	120.3	24,000									
70	45	35	76.0	118.9	24,000	79.8	118.0	22,300						
70	45	40	73.5	117.3	24,000	77.2	116.4	20,200						
70	45	50	68.2	113.3	22,400	71.9	112.4	17,000						
70	45	60	62.8	108.2	18,700	66.4	107.3	14,700						
70	45	70	57.0	101.8	16,000	60.5	100.9	13,000						
70	45	80	50.8	93.9	14,000	54.3	92.9	11,700						
70	45	90	43.9	83.9	12,500	47.3	82.8	10,600						
70	45	100	36.0	71.0	11,300	39.2	69.6	9,800						
70	60	31.03	80.0	135.5	24,000									
70	60	35	78.2	134.5	22,600									
70	60	40	76.0	133.1	22,100									
70	60	50	71.4	129.6	17,700	75.8	128.6	13,400						
70	60	60	66.7	125.2	14,800	71.0	124.2	11,600						
70	60	70			12,700	66.0	118.7	10,200						
60	75	35	79.2	140.1	20,300									
60	75	40	77.1	138.7	18,600									
60	75	50	72.7	135.5	14,700									
60	75	60	68.1	131.4	12,100	78.0	130.5	9,600						
60	75	70	63.5	126.3	10,300	68.7	125.4	8,300						
60	75	80	58.5	120.1	8,900	63.7	119.1	7,300						
60	75	90	53.3	112.6	7,800	58.4	111.6	6,500						
60	75	100	47.7	103.5	6,900	52.7	102.4	5,900						
60	75	110	41.4	92.3	6,200	46.3	91.0	5,300						
60	75	120	34.1	78.0	5,700	38.9	76.4	4,900						
70	30	23.26	80.0	106.8	24,000									
70	30	25	79.0	106.5	24,000									
70	30	30	76.1	105.2	24,000	78.9	104.6	24,000						
70	30	35	73.2	103.7	24,000	76.0	103.0	24,000						
70	30	40	70.2	101.8	24,000	73.0	101.2	24,000						
70	30	50	64.0	97.3	24,000	66.8	96.6	22,900						
70	30	60	57.5	91.3	24,000	60.2	90.6	22,300						
70	30	70	50.5	83.6	22,600	53.1	82.9	19,600						
70	30	80	42.5	73.6	20,800	45.0	72.7							

HC-238H II - w/ 62" x 70" Tube Boom, w/ 24" x 32" Tube Jib, w/ ABC + A Cwtwt

General Use Only. Refer to the Tubular Jib Notes for Open Throat Boom before operating the machine.											
General Use Only. Refer to the Tubular Jib Notes for Open Throat Boom before operating the machine.											
Boom Length (ft)	Jib Length (ft)	Jib Load Radius (ft)	Jib Angle to Boom						Jib Angle to Boom		
			5 Degrees			15 Degrees			25 Degrees		
			Boom Angle (deg)	Jib Pt Height (ft)	Jib Capacity ABC + A (lbs)	Boom Angle (deg)	Jib Pt Height (ft)	Jib Capacity ABC + A (lbs)	Boom Angle (deg)	Jib Pt Height (ft)	Jib Capacity ABC + A (lbs)
90	30	110	30.0	65.3	17,900						
90	45	30.62	80.0	140.7	24,000						
90	45	35	78.1	139.6	24,000						
90	45	40	76.0	138.3	24,000						
90	45	50	71.6	134.9	22,600						
90	45	60	67.1	130.7	21,400						
90	45	70	62.4	125.5	18,400						
90	45	80	57.5	119.2	16,200						
90	45	90	52.2	111.6	14,400						
90	45	100	46.6	102.4	13,000						
90	45	110	40.3	91.1	11,900						
90	45	120	33.0	76.8	11,000						
90	60	34.5	80.0	155.2	24,000						
90	60	35	79.8	155.1	24,000						
90	60	40	77.9	153.8	22,500						
90	60	50	74.0	150.9	19,900						
90	60	60	69.9	147.1	16,700						
90	60	70	65.8	142.5	14,300						
90	60	80	61.5	137.1	12,600						
90	60	90	57.1	130.5	11,200						
90	60	100	52.3	122.8	10,000						
90	60	110	47.2	113.7	9,100						
90	60	120	41.7	102.6	8,400						
90	60	130	35.3	89.0	7,700						
90	60	140	27.7	71.3	7,200						
90	75	38.38	80.0	170.0	20,300						
90	75	40	79.4	169.7	20,100						
90	75	50	75.9	167.1	17,300						
90	75	60	72.3	163.8	14,400						
90	75	70	68.6	159.7	12,300						
90	75	80	64.8	154.9	10,700						
90	75	90	60.8	149.3	9,400						
90	75	100	56.7	142.7	8,400						
90	75	110	52.4	134.9	7,600						
90	75	120	47.8	125.8	6,900						
90	75	130	42.7	115.1	6,300						
90	75	130	42.7	115.1	6,300						
80	45	100	42.0	87.6	12,200	45.1	86.4	10,400	47.6	8,600	
80	45	110	34.4	73.9	11,100	37.3	72.5	9,700			
80	60	32.76	80.0	145.3	24,000						
80	60	35	79.1	144.8	23,300						
80	60	40	77.0	143.5	22,600						
80	60	50	72.8	140.3	18,800	76.8	139.2	13,900			
80	60	60	68.4	136.2	15,800	72.5	135.2	12,100			
80	60	70	64.0	131.3	13,500	67.9	130.2	10,600			
80	60	80	59.3	125.3	11,800	63.2	124.2	9,500			
80	60	90	54.3	118.1	10,500	58.2	116.9	8,600			
80	60	100	49.0	109.5	9,400	52.9	108.2	7,900			
80	60	110	43.2	99.0	8,600	47.0	97.6	7,300			
80	60	120	36.7	86.0	7,900	40.2	84.4	6,800			
80	60	130	28.7	69.0	7,300						
80	75	36.65	80.0	160.2	20,400						
80	75	40	78.7	159.4	20,000						
80	75	50	75.0	156.6	16,500	79.6	155.5	12,000			
80	75	60	71.1	153.1	13,700	75.7	152.0	10,300			
80	75	70	67.1	148.8	11,600	71.7	147.7	9,000			
80	75	80	63.0	143.6	10,100	67.5	142.5	8,000			
80	75	90	58.7	137.4	8,900	63.2	136.3	7,200			
80	75	100	54.2	130.2	7,900	58.7	129.0	6,500			
80	75	110	49.4	121.6	7,100	53.8	120.3	5,900			
80	75	120	44.2	111.4	6,500	48.5	110.0	5,500			
80	75	130	38.4	99.0	5,900	42.6	97.4	5,100			
80	75	140	31.7	83.4	5,500	35.6	81.3	4,800			
90	30	26.74	80.0	126.5	24,000						
90	30	30	78.4	125.8	24,000						
90	30	35	76.0	124.6	24,000						
90	30	40	73.6	123.1	24,000	78.4	123.9	24,000			
90	30	50	68.6	119.4	24,000	75.9	122.4	24,000			
90	30	60	63.4	114.6	24,000	70.9	118.7	24,000			
90	30	70	57.9	108.7	24,000	65.7	113.9	22,600			
90	30	80	52.1	101.3	22,600	60.2	107.9	22,200			
90	30	90	45.8	92.2	21,900	54.3	100.5	19,900			
90	30	100	38.6	80.6	19,700	47.9	91.3	18,100			
90	30	100	38.6	80.6	19,700	40.6	79.7	16,700			

HC-238H II - w/ 62" x 70" Tube Boom, w/ 24" x 32" Tube Jib, w/ ABC + A Ctwrt

General Use Only. Refer to the Tubular Jib Notes for Open Throat Boom before operating the machine.												
Boom Length (ft)	Jib Length (ft)	Jib Load Radius (ft)	Jib Angle to Boom									
			5 Degrees			15 Degrees			25 Degrees			
			Boom Angle (deg)	Jib Pt Height (ft)	Jib Capacity ABC + A (lbs)	Boom Angle (deg)	Jib Pt Height (ft)	Jib Capacity ABC + A (lbs)	Boom Angle (deg)	Jib Pt Height (ft)	Jib Capacity ABC + A (lbs)	
150	75		69.1	216.4	12,500	72.2	215.0	9,100	75.2	211.3	6,400	
150	75		66.3	212.0	11,200	69.5	210.5	8,300	72.3	206.7	6,000	
150	75		63.5	206.9	10,200	66.6	205.5	7,700	69.4	201.5	5,600	
150	75		60.6	201.2	9,300	63.7	199.7	7,200	66.4	195.7	5,300	
150	75		57.6	194.8	8,500	60.7	193.3	6,700	63.4	189.1	5,000	
150	75		54.5	187.7	7,900	57.5	186.1	6,300	60.2	181.7	4,800	
150	75		51.3	179.6	7,300	54.2	178.0	5,900	56.8	173.4	4,600	
150	75		47.9	170.6	6,900	50.8	168.9	5,600	53.3	164.0	4,400	
150	75		44.3	160.4	6,400	47.1	158.5	5,300	49.5	153.4	4,200	
150	75		40.4	148.7	6,000	43.2	146.7	5,100	45.5	141.1	4,000	
150	75		36.2	135.3	5,700	38.9	133.0	4,800				
150	75		31.4	119.4	5,400							
150	75		25.9	99.7	5,200							
160	30	38.89	80.0	195.5	24,000	78.1	192.2	24,000	79.5	190.5	22,500	
160	30	40	79.7	195.2	24,000	75.0	189.4	24,000	76.3	187.6	21,300	
160	30	50	76.6	193.0	24,000	71.8	185.9	24,000	73.1	184.1	20,000	
160	30	60	73.5	190.1	24,000	68.6	181.9	23,600	69.9	180.0	19,000	
160	30	70	70.4	186.7	24,000	65.3	177.1	22,500	66.5	175.2	18,000	
160	30	80	67.1	182.6	24,000	61.9	171.6	22,500	63.1	169.6	17,100	
160	30	90	63.8	177.9	24,000	58.3	165.3	20,600	59.5	163.2	16,200	
160	30	100	60.4	172.4	23,300	54.6	158.0	17,900	55.8	155.9	15,500	
160	30	110	56.9	166.1	20,300	50.7	149.8	15,700	51.8	147.4	14,900	
160	30	120	53.3	158.9	17,700	46.6	140.2	13,800	47.6	137.7	14,000	
160	30	130	49.4	150.7	15,500	42.1	129.1	12,200				
160	30	140	45.3	141.2	13,600	37.2	116.0	10,800				
160	30	150	40.8	130.1	12,100							
160	30	160	36.0	117.2	10,700							
160	30	170	30.4	101.4	9,500							
160	45	42.77	80.0	209.6	24,000	77.2	204.1	20,100	79.1	201.5	13,700	
160	45	50	78.0	208.0	24,000	74.3	200.9	18,200	76.2	198.3	12,700	
160	45	60	75.1	205.3	24,000	71.3	197.1	16,600	73.2	194.4	11,900	
160	45	70	72.2	202.1	23,000	68.2	192.7	15,300	70.1	189.9	11,200	
160	45	80	69.2	198.3	22,500	65.1	187.7	14,200	66.9	184.8	10,600	
160	45	90	66.2	193.9	20,700	61.9	181.9	13,200	63.7	179.0	10,100	
160	45	100	63.1	188.9	18,800							
160	45	110	60.0	183.1	17,200							
160	45	120	56.7	176.6	15,800							

General Use Only. Refer to the Tubular Jib Notes for Open Throat Boom before operating the machine.												
Boom Length (ft)	Jib Length (ft)	Jib Load Radius (ft)	Jib Angle to Boom									
			5 Degrees			15 Degrees			25 Degrees			
			Boom Angle (deg)	Jib Pt Height (ft)	Jib Capacity ABC + A (lbs)	Boom Angle (deg)	Jib Pt Height (ft)	Jib Capacity ABC + A (lbs)	Boom Angle (deg)	Jib Pt Height (ft)	Jib Capacity ABC + A (lbs)	
150	45	41.04	80.0	199.8	24,000							
150	45	50	77.3	197.7	24,000	79.5	196.5	22,000				
150	45	60	74.3	194.9	24,000	76.5	193.7	19,600	78.5	191.1	13,500	
150	45	70	71.3	191.5	22,500	73.4	190.3	17,700	75.4	187.7	12,500	
150	45	80	68.1	187.5	22,200	70.3	186.3	16,200	72.2	183.6	11,700	
150	45	90	64.9	182.8	19,900	67.0	181.6	14,900	69.0	178.9	11,000	
150	45	100	61.6	177.4	18,000	63.7	176.3	13,800	65.6	173.4	10,400	
150	45	110	58.2	171.3	16,400	60.3	170.1	12,800	62.1	167.1	9,900	
150	45	120	54.7	164.3	15,100	56.8	163.1	12,100	58.5	160.0	9,400	
150	45	130	51.0	156.3	14,000	53.0	155.1	11,400	54.7	151.8	9,000	
150	45	140	47.1	147.2	13,100	49.1	145.9	10,800	50.7	142.5	8,700	
150	45	150	42.9	136.7	12,200	44.8	135.3	10,300				
150	45	160	38.3	124.5	11,300	40.2	122.9	9,800				
150	45	170	33.2	110.0	10,100							
150	45	180	27.2	91.9	9,000							
150	60	44.92	80.0	214.3	24,000	78.5	209.2	14,700	78.2	202.8	9,300	
150	60	50	78.6	213.1	22,400	75.7	206.0	13,300	75.3	199.1	8,600	
150	60	60	75.8	210.5	21,800	72.8	202.3	12,100	72.3	194.7	8,100	
150	60	70	73.0	207.4	18,900	69.8	198.1	11,100	69.2	189.7	7,600	
150	60	80	70.1	203.7	16,700	66.8	193.2	10,300	66.1	184.0	7,200	
150	60	90	67.2	199.4	15,000	63.7	187.6	9,500	62.8	177.6	6,800	
150	60	100	64.2	194.5	13,500	60.5	181.2	8,900	59.4	170.3	6,500	
150	60	110	61.1	189.0	12,300	57.2	174.1	8,400	55.8	162.0	6,200	
150	60	120	57.9	182.7	11,300	53.7	166.0	7,900	52.1	152.6	6,000	
150	60	130	54.6	175.6	10,500	50.0	156.8	7,500	48.0	141.8	5,800	
150	60	140	51.2	167.5	9,700	46.1	146.3	7,100				
150	60	150	47.5	158.4	9,100							
150	60	160	43.6	148.1	8,600							
150	60	170	39.4	136.1	8,100	41.8	134.3	6,800				
150	60	180	34.8	122.2	7,700	37.1	120.1	6,600				
150	60	190	29.5	105.3	7,300							
150	75	48.8	80.0	229.1	19,300	77.6	222.2	11,000	77.9	215.3	6,900	
150	75	50	79.7	228.9	19,300	75.0	218.9	10,000				
150	75	60	77.1	226.5	18,500							
150	75	70	74.5	223.6	16,000							
150	75	80	71.8	220.3	14,000							

HC-238H II - w/ 62" x 70" Tube Boom, w/ 24" x 32" Tube Jib, w/ ABC + A Cwtwt

General Use Only. Refer to the Tubular Jib Notes for Open Throat Boom before operating the machine.

General Use Only. Refer to the Tubular Jib Notes for Open Throat Boom before operating the machine.

Boom Length (ft)	Jib Length (ft)	Jib Load Radius (ft)	Jib Angle to Boom					
			5 Degrees			15 Degrees		
			Boom Angle (deg)	Jib Pt Height (ft)	Jib Capacity ABC + A (lbs)	Boom Angle (deg)	Jib Pt Height (ft)	Jib Capacity ABC + A (lbs)
170	60	50	79.6	233.6	23,700			
170	60	60	77.1	231.3	22,400	79.5	229.8	15,300
170	60	70	74.5	228.4	20,300	77.0	227.0	13,900
170	60	80	71.9	225.1	18,000	74.4	223.7	12,700
170	60	90	69.3	221.2	16,100	71.7	219.8	11,700
170	60	100	66.6	216.8	14,600	69.0	215.4	10,800
170	60	110	63.8	211.9	13,300	66.2	210.4	10,100
170	60	120	61.0	206.3	12,300	63.4	204.8	9,400
170	60	130	58.1	200.0	11,400	60.4	198.6	8,900
170	60	140	55.1	193.1	10,600	57.4	191.5	8,400
170	60	150	52.0	185.2	9,900	54.3	183.7	8,000
170	60	160	48.7	176.5	9,300	51.0	174.9	7,600
170	60	170	45.3	166.7	8,700	47.5	164.9	7,200
170	60	180	41.6	155.6	8,300	43.7	153.7	6,900
170	60	190	37.6	142.8	7,800	39.7	140.8	6,700
170	60	200	33.2	128.0	6,900			
170	60	210	28.1	110.2	6,100			
170	75	52.27	80.0	248.8	18,900			
170	75	60	78.2	247.1	18,400			
170	75	70	75.8	244.5	17,100	78.7	243.0	11,500
170	75	80	73.3	241.4	15,100	76.2	240.0	10,400
170	75	90	70.9	237.9	13,400	73.8	236.4	9,500
170	75	100	68.4	233.9	12,100	71.2	232.4	8,800
170	75	110	65.8	229.3	11,000	68.7	227.8	8,100
170	75	120	63.2	224.2	10,100	66.1	222.7	7,600
170	75	130	60.6	218.5	9,300	63.4	217.0	7,100
170	75	140	57.8	212.2	8,600	60.6	210.6	6,700
170	75	150	55.0	205.2	8,000	57.7	203.5	6,300
170	75	160	52.0	197.3	7,400	54.8	195.6	5,900
170	75	170	49.0	188.6	7,000	51.6	186.8	5,600
170	75	180	45.7	178.9	6,600	48.4	177.0	5,400
170	75	190	42.3	168.0	6,200	44.9	166.0	5,100
170	75	200	38.6	155.6	5,900	41.1	153.4	4,900
170	75	210	34.6	141.3	5,600	37.0	138.9	4,700
170	75	220	30.0	124.6	5,300			
180	30	42.36	80.0	215.2	24,000	79.2	212.8	24,000
180	30	50	77.9	213.6	24,000			

Boom Length (ft)	Jib Length (ft)	Jib Load Radius (ft)	Jib Angle to Boom					
			5 Degrees			15 Degrees		
			Boom Angle (deg)	Jib Pt Height (ft)	Jib Capacity ABC + A (lbs)	Boom Angle (deg)	Jib Pt Height (ft)	Jib Capacity ABC + A (lbs)
180	30	60	75.1	211.0	24,000	76.4	210.2	24,000
180	30	70	72.3	207.9	24,000	73.6	207.1	24,000
180	30	80	69.4	204.3	24,000	70.7	203.5	24,000
180	30	90	66.5	200.1	24,000	67.8	199.3	23,100
180	30	100	63.5	195.2	22,700	64.8	194.4	22,500
180	30	110	60.4	189.7	19,700	61.7	188.9	20,100
180	30	120	57.2	183.5	17,100	58.5	182.6	17,400
180	30	130	53.9	176.4	14,900	55.2	175.6	15,200
180	30	140	50.5	168.4	13,100	51.7	167.5	13,300
180	30	150	46.8	159.4	11,500	48.0	158.4	11,700
180	30	160	43.0	149.1	10,100	44.1	148.1	10,300
180	30	170	38.8	137.2	8,900	39.9	136.1	9,100
180	30	180	34.1	123.3	7,900			
180	30	190	28.9	106.5	6,900			
180	45	46.25	80.0	229.3	24,000	78.3	224.9	20,900
180	45	50	79.0	228.5	24,000	75.7	222.0	19,000
180	45	60	76.4	226.1	24,000	73.0	218.5	17,500
180	45	70	73.8	223.2	24,000	70.3	214.6	16,100
180	45	80	71.2	219.8	22,500	67.5	210.1	15,000
180	45	90	68.5	215.8	22,400	64.7	205.0	14,000
180	45	100	65.7	211.3	20,300	61.8	199.2	13,200
180	45	110	62.9	206.2	18,600	58.8	192.7	12,400
180	45	120	60.0	200.5	17,100	55.6	185.5	11,800
180	45	130	57.0	194.0	15,200	52.4	177.4	11,200
180	45	140	53.9	186.8	13,400	48.9	168.2	10,700
180	45	150	50.6	178.7	11,800	45.3	157.9	9,400
180	45	160	47.2	169.6	10,400	41.4	146.1	8,400
180	45	170	43.6	159.4	9,200	37.1	132.4	7,400
180	45	180	39.8	147.7	8,200			
180	45	190	35.5	134.2	7,200			
180	45	200	30.8	118.2	6,400			
180	60	50.13	80.0	243.8	24,000	77.5	237.4	14,100
180	60	60	77.6	241.6	22,300			
180	60	70	75.2	238.9	21,000	79.8	234.1	9,600
180	60	80	72.7	235.7	18,600	77.2	230.9	9,000
180	60	90	70.2	232.0	16,700	74.7	227.2	8,500
180	60	100	67.6	227.8	15,100	72.1	222.9	8,000

HC-238H II - w/ 62" x 70" Tube Boom, w/ 24" x 32" Tube Jib, w/ ABC + A Cwtwt

General Use Only. Refer to the Tubular Jib Notes for Open Throat Boom before operating the machine.

Boom Length (ft)	Jib Length (ft)	Jib Load Radius (ft)	Jib Angle to Boom								
			5 Degrees			15 Degrees			25 Degrees		
			Boom Angle (deg)	Jib Pt Height (ft)	Jib Capacity ABC + A (lbs)	Boom Angle (deg)	Jib Pt Height (ft)	Jib Capacity ABC + A (lbs)	Boom Angle (deg)	Jib Pt Height (ft)	Jib Capacity ABC + A (lbs)
180	60	110	65.0	223.1	13,800	67.3	221.7	10,300	69.4	218.1	7,600
180	60	120	62.3	217.8	12,700	64.6	216.3	9,700	66.7	212.7	7,200
180	60	130	59.6	211.9	11,800	61.8	210.4	9,100	63.9	206.7	6,900
180	60	140	56.8	205.3	11,000	59.0	203.8	8,600	61.0	199.9	6,600
180	60	150	53.8	198.0	10,300	56.0	196.5	8,200	58.0	192.4	6,300
180	60	160	50.8	189.9	9,600	53.0	188.3	7,800	54.8	184.1	6,100
180	60	170	47.6	180.8	9,100	49.8	179.1	7,400	51.5	174.7	5,900
180	60	180	44.2	170.6	8,400	46.3	168.8	7,100	48.0	164.2	5,700
180	60	190	40.6	159.2	7,500	42.7	157.2	6,900			
180	60	200	36.8	146.0	6,600	38.8	143.9	6,600			
180	60	210	32.4	130.8	5,800						
180	60	220	27.5	112.5	5,200						
180	75	54.01	80.0	258.7	18,700						
180	75	60	78.6	257.4	18,300						
180	75	70	76.3	254.9	17,700	79.1	253.4	11,700			
180	75	80	74.0	251.9	15,600	76.8	250.5	10,600	79.4	246.7	7,200
180	75	90	71.7	248.6	13,900	74.4	247.1	9,700	77.0	243.3	6,700
180	75	100	69.3	244.7	12,500	72.0	243.2	9,000	74.6	239.3	6,300
180	75	110	66.8	240.4	11,400	69.6	238.9	8,300	72.1	234.9	5,900
180	75	120	64.4	235.5	10,400	67.1	234.0	7,800	69.6	229.9	5,600
180	75	130	61.8	230.1	9,600	64.5	228.6	7,300	67.0	224.4	5,300
180	75	140	59.2	224.1	8,900	61.9	222.5	6,800	64.3	218.2	5,100
180	75	150	56.6	217.5	8,300	59.2	215.8	6,400	61.6	211.4	4,800
180	75	160	53.8	210.1	7,700	56.4	208.4	6,100	58.7	203.8	4,600
180	75	170	50.9	202.0	7,300	53.5	200.2	5,800	55.7	195.4	4,500
180	75	180	47.9	193.0	6,800	50.5	191.1	5,500	52.6	186.1	4,300
180	75	190	44.8	182.9	6,400	47.3	180.9	5,300	49.4	175.6	4,100
180	75	200	41.4	171.6	6,100	43.9	169.5	5,100	45.8	163.8	4,000
180	75	210	37.8	158.9	5,800	40.2	156.6	4,900			
180	75	220	33.9	144.3	5,300	36.2	141.7	4,700			
180	75	230	29.4	127.1	4,700						
190	30	44.1	80.0	225.0	24,000						
190	30	50	78.4	223.8	24,000	79.7	223.0	24,000			
190	30	60	75.8	221.4	24,000	77.1	220.6	24,000	78.3	218.8	22,000
190	30	70	73.1	218.4	24,000	74.4	217.7	24,000	75.5	215.8	20,800
190	30	80	70.4	215.0	24,000	71.6	214.2	24,000	72.8	212.3	19,800
190	30	90	67.6	211.0	24,000	68.9	210.2	23,700	70.0	208.3	18,900

HC-238H II - w/ 62" x 70" Tube Boom, w/ 24" x 32" Tube Jib, w/ ABC + A Cwtwt

General Use Only. Refer to the Tubular Jib Notes for Open Throat Boom before operating the machine.

General Use Only. Refer to the Tubular Jib Notes for Open Throat Boom before operating the machine.

Boom Length (ft)	Jib Length (ft)	Jib Load Radius (ft)	Jib Angle to Boom					
			5 Degrees			15 Degrees		
			Boom Angle (deg)	Jib Pt Height (ft)	Jib Capacity ABC + A (lbs)	Boom Angle (deg)	Jib Pt Height (ft)	Jib Capacity ABC + A (lbs)
200	60	110	67.0	245.2	14,800	69.2	243.8	10,800
200	60	120	64.6	240.5	13,600	66.7	239.0	10,200
200	60	130	62.1	235.1	12,600	64.2	233.6	9,600
200	60	140	59.6	229.2	11,800	61.7	227.7	9,100
200	60	150	57.0	222.7	11,000	59.1	221.2	8,600
200	60	160	54.3	215.5	10,100	56.4	213.9	8,200
200	60	170	51.5	207.6	8,900	53.6	206.0	7,800
200	60	180	48.6	198.9	7,800	50.6	197.1	7,500
200	60	190	45.6	189.1	6,900	47.6	187.3	7,100
200	60	200	42.4	178.3	6,000	44.3	176.4	6,300
200	60	210	39.0	166.1	5,200	40.8	164.1	5,500
200	60	220	35.2	152.3	4,600	37.0	150.0	4,700
200	60	230	31.1	136.2	3,900			
200	75	57.48	80.0	278.4	18,100	77.8	271.3	11,000
200	75	60	79.5	277.8	17,900	75.6	268.2	10,100
200	75	70	77.3	275.5	17,400	73.4	264.6	9,400
200	75	80	75.2	272.8	16,500			
200	75	90	73.0	269.7	14,800	75.6	268.2	10,100
200	75	100	70.8	266.2	13,400	73.4	264.6	9,400
200	75	110	68.6	262.2	12,200	71.2	260.7	8,700
200	75	120	66.4	257.8	11,100	68.9	256.2	8,100
200	75	130	64.1	252.9	10,300	66.6	251.3	7,600
200	75	140	61.7	247.4	9,500	64.2	245.8	7,200
200	75	150	59.3	241.4	8,900	61.8	239.8	6,800
200	75	160	56.8	234.9	8,300	59.3	233.2	6,400
200	75	170	54.3	227.6	7,800	56.7	225.9	6,100
200	75	180	51.6	219.7	7,300	54.0	217.9	5,800
200	75	190	48.9	211.0	6,900	51.3	209.1	5,600
200	75	200	46.0	201.3	6,200	48.4	199.4	5,300
200	75	210	43.0	190.7	5,400	45.3	188.6	5,100
200	75	220	39.8	178.7	4,700	42.0	176.5	4,900
200	75	230	36.3	165.3	4,100	38.5	162.8	4,300
200	75	240	32.5	149.9	3,500			
200	75	250	28.3	131.9	3,000			
210	30	47.57	80.0	244.7	24,000	78.2	241.2	24,000
210	30	50	79.4	244.2	24,000			
210	30	60	77.0	242.0	24,000			

Boom Length (ft)	Jib Length (ft)	Jib Load Radius (ft)	Jib Angle to Boom					
			5 Degrees			15 Degrees		
			Boom Angle (deg)	Jib Pt Height (ft)	Jib Capacity ABC + A (lbs)	Boom Angle (deg)	Jib Pt Height (ft)	Jib Capacity ABC + A (lbs)
210	30	70	74.5	239.3	24,000	75.7	238.5	24,000
210	30	80	72.1	236.2	24,000	73.2	235.4	24,000
210	30	90	69.6	232.6	24,000	70.7	231.8	24,000
210	30	100	67.0	228.5	22,100	68.1	227.6	22,300
210	30	110	64.4	223.8	18,900	65.5	223.0	19,300
210	30	120	61.7	218.5	16,200	62.8	217.7	16,600
210	30	130	59.0	212.7	14,100	60.1	211.8	14,400
210	30	140	56.1	206.2	12,200	57.2	205.3	12,500
210	30	150	53.2	198.9	10,600	54.3	198.0	10,800
210	30	160	50.2	190.8	9,200	51.2	189.9	9,400
210	30	170	47.0	181.8	8,000	48.0	180.8	8,200
210	30	180	43.6	171.7	7,000	44.7	170.6	7,100
210	30	190	40.0	160.2	6,000	41.0	159.1	6,200
210	30	200	36.2	147.2	5,200	37.1	146.0	5,300
210	30	210	31.9	132.0	4,400			
210	30	220	26.9	113.8	3,800			
210	45	51.46	80.0	258.8	24,000			
210	45	60	78.1	257.0	24,000	79.7	255.8	22,100
210	45	70	75.8	254.4	24,000	77.4	253.2	20,200
210	45	80	73.4	251.5	24,000	75.1	250.2	18,600
210	45	90	71.1	248.0	22,400	72.7	246.8	17,300
210	45	100	68.7	244.1	22,400	70.3	242.9	16,100
210	45	110	66.3	239.7	19,200	67.9	238.5	15,100
210	45	120	63.8	234.8	16,600	65.4	233.6	14,200
210	45	130	61.3	229.4	14,400	62.9	228.1	13,400
210	45	140	58.7	223.3	12,500	60.2	222.0	12,700
210	45	150	56.0	216.6	10,900	57.5	215.3	11,300
210	45	160	53.2	209.2	9,500	54.8	207.9	9,900
210	45	170	50.4	201.1	8,300	51.9	199.7	8,600
210	45	180	47.4	192.0	7,300	48.8	190.5	7,500
210	45	190	44.2	181.9	6,300	45.7	180.4	6,500
210	45	200	40.8	170.6	5,500	42.3	169.0	5,700
210	45	210	37.2	157.8	4,700	38.6	156.1	4,900
210	45	220	33.3	143.1	4,000			
210	45	230	28.9	125.9	3,400			
210	60	55.34	80.0	273.4	21,600			
210	60	60	79.0	272.4	21,300			

HC-238H II - w/ 62" x 70" Tube Boom, w/ 24" x 32" Tube Jib, w/ ABC + A Cwtwt

General Use Only. Refer to the Tubular Boom before operating the machine.

Boom Length (ft)	Jib Length (ft)	Jib Load Radius (ft)	Jib Angle to Boom					
			5 Degrees			15 Degrees		
			Boom Angle (deg)	Jib Pt Height (ft)	Jib Capacity ABC + A (lbs)	Boom Angle (deg)	Jib Pt Height (ft)	Jib Capacity ABC + A (lbs)
210	60	70	76.8	270.0	20,800	78.9	268.5	14,900
210	60	80	74.7	267.2	20,200	76.7	265.7	13,700
210	60	90	72.4	263.9	18,400	74.5	262.5	12,700
210	60	100	70.2	260.3	16,700	72.3	258.8	11,800
210	60	110	67.9	256.2	15,300	70.0	254.7	11,100
210	60	120	65.6	251.6	14,100	67.7	250.1	10,400
210	60	130	63.3	246.5	13,100	65.3	245.0	9,800
210	60	140	60.9	240.9	12,200	62.9	239.4	9,300
210	60	150	58.4	234.7	11,200	60.4	233.2	8,800
210	60	160	55.8	227.9	9,800	57.8	226.3	8,400
210	60	170	53.2	220.5	8,600	55.2	218.8	8,000
210	60	180	50.5	212.2	7,500	52.4	210.5	7,700
210	60	190	47.7	203.2	6,600	49.6	201.4	6,900
210	60	200	44.7	193.2	5,700	46.6	191.3	6,000
210	60	210	41.5	182.0	4,900	43.4	180.0	5,200
210	60	220	38.2	169.5	4,300	40.0	167.4	4,500
210	60	230	34.5	155.3	3,600	36.3	153.0	3,800
210	60	240	30.5	138.9	3,100			
210	75	59.22	80.0	288.2	17,700	78.2	281.7	11,200
210	75	60	79.8	288.1	17,700	76.1	278.7	10,300
210	75	70	77.8	285.8	17,200	74.0	275.3	9,600
210	75	80	75.7	283.2	16,700	71.9	271.4	8,900
210	75	90	73.7	280.2	15,200	69.7	267.2	8,300
210	75	100	71.5	276.8	13,800	67.5	262.5	7,800
210	75	110	69.4	273.0	12,500	65.2	257.2	7,400
210	75	120	67.2	268.8	11,500	62.9	251.5	7,000
210	75	130	65.0	264.1	10,600	60.5	245.2	6,600
210	75	140	62.8	258.9	9,900	58.1	238.3	6,300
210	75	150	60.5	253.2	9,200	55.6	230.8	6,000
210	75	160	58.1	246.9	8,600	52.9	222.5	5,700
210	75	170	55.7	240.1	8,100	50.2	213.4	5,500
210	75	180	53.2	232.6	7,600	47.4	203.4	5,200
210	75	190	50.6	224.3	6,700	44.4	192.3	4,700
210	75	200	48.0	215.3	5,900	41.2	179.9	4,100
210	75	210	45.1	205.4	5,100	37.7	165.9	3,500
210	75	220	42.2	194.4	4,400			
210	75	230	39.0	182.2	3,800			
210	75	240	35.6	168.4	3,200			

General Use Only. Refer to the Tubular Jib Notes for Open Throat Boom before operating the machine.

Boom Length (ft)	Jib Length (ft)	Jib Load Radius (ft)	Jib Angle to Boom					
			5 Degrees			15 Degrees		
			Boom Angle (deg)	Jib Pt Height (ft)	Jib Capacity ABC + A (lbs)	Boom Angle (deg)	Jib Pt Height (ft)	Jib Capacity ABC + A (lbs)
210	75	250	31.9	152.7	2,700			
210	75	260	27.7	134.3	2,200			
220	30	49.31	80.0	254.5	24,000	78.7	251.5	24,000
220	30	50	79.8	254.4	24,000	76.3	248.9	24,000
220	30	60	77.5	252.3	24,000	73.9	245.9	24,000
220	30	70	75.2	249.7	24,000	71.5	242.5	24,000
220	30	80	72.8	246.7	24,000	69.1	238.5	22,300
220	30	90	70.4	243.3	24,000	66.6	234.1	19,000
220	30	100	68.0	239.3	21,800	64.0	229.1	16,300
220	30	110	65.5	234.9	18,600	61.4	223.5	14,100
220	30	120	62.9	229.9	16,000	58.7	217.3	12,200
220	30	130	60.3	224.4	13,800	56.0	210.5	10,600
220	30	140	57.7	218.2	11,900	53.1	202.9	9,200
220	30	150	54.9	211.4	10,300	50.1	194.4	7,900
220	30	160	52.1	203.8	8,900	47.0	185.0	6,900
220	30	170	49.1	195.4	7,700	43.7	174.5	5,900
220	30	180	46.0	186.0	6,700	40.1	162.6	5,000
220	30	190	42.7	175.6	5,700	36.3	149.1	4,300
220	30	200	39.2	163.8	4,900			
220	30	210	35.4	150.3	4,100			
220	30	220	31.2	134.7	3,500			
220	30	230	26.4	116.1	2,800			
220	45	53.19	80.0	288.7	24,000	77.9	263.6	20,500
220	45	60	78.5	267.3	24,000	75.7	260.7	19,000
220	45	70	76.3	264.8	24,000	73.4	257.4	17,600
220	45	80	74.1	261.9	24,000	71.1	253.7	16,400
220	45	90	71.8	258.7	22,500	68.8	249.5	15,400
220	45	100	69.5	254.9	22,100	66.4	244.8	14,500
220	45	110	67.2	250.7	18,900	64.0	239.6	13,700
220	45	120	64.9	246.0	16,300	61.5	233.8	12,600
220	45	130	62.4	240.8	14,100	58.9	227.4	11,000
220	45	140	60.0	235.1	12,200	56.3	220.4	9,600
220	45	150	57.4	228.8	10,600	53.6	212.7	8,300
220	45	160	54.8	221.8	9,200	50.8	204.2	7,200
220	45	170	52.1	214.1	8,000	47.8	194.7	6,300
220	45	180	49.3	205.6	7,000			
220	45	190	46.4	196.2	6,000			

HC-238H II - w/ 62" x 70" Tube Boom, w/ 24" x 32" Tube Jib, w/ ABC + A Cwtwt

General Use Only. Refer to the Tubular Jib Notes for Open Throat Boom before operating the machine.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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Boom Length (ft)	Jib Length (ft)	Jib Load Radius (ft)	Jib Angle to Boom						Jib Angle to Boom																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
			5 Degrees			15 Degrees			25 Degrees																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
			Boom Angle (deg)	Jib Pt Height (ft)	Jib Capacity ABC + A (lbs)	Boom Angle (deg)	Jib Pt Height (ft)	Jib Capacity ABC + A (lbs)	Boom Angle (deg)	Jib Pt Height (ft)	Jib Capacity ABC + A (lbs)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	200	220	220	45	200	43.3	185.8	5,200	44.7	184.3	5,400	57.07	

HC-238H II - w/ 62" x 70" Tube Boom, w/ 24" x 32" Tube Jib, w/ ABC + A Cwtwt

General Use Only. Refer to the Tubular Jib Notes for Open Throat Boom before operating the machine.

General Use Only. Refer to the Tubular Jib Notes for Open Throat Boom before operating the machine.

Boom Length (ft)	Jib Length (ft)	Jib Load Radius (ft)	Jib Angle to Boom					
			5 Degrees			15 Degrees		
			Boom Angle (deg)	Jib Pt Height (ft)	Jib Capacity ABC + A (lbs)	Boom Angle (deg)	Jib Pt Height (ft)	Jib Capacity ABC + A (lbs)
230	45	120	65.8	257.1	16,000	67.3	255.9	14,900
230	45	130	63.5	252.2	13,800	65.0	250.9	14,100
230	45	140	61.2	246.7	11,900	62.6	245.4	12,400
230	45	150	58.8	240.7	10,300	60.2	239.4	10,700
230	45	160	56.3	234.0	8,900	57.7	232.7	9,300
230	45	170	53.7	226.8	7,700	55.2	225.4	8,100
230	45	180	51.1	218.8	6,700	52.5	217.4	7,000
230	45	190	48.4	210.0	5,700	49.7	208.6	6,000
230	45	200	45.5	200.4	4,900	46.9	198.8	5,100
230	45	210	42.5	189.6	4,100	43.8	188.0	4,300
230	45	220	39.3	177.7	3,400	40.6	176.0	3,600
230	45	230	35.8	164.2	2,800	37.1	162.4	3,000
230	45	240	32.0	148.8	2,200			
230	45	250	27.7	130.8	1,700			
230	60	58.81	80.0	293.1	20,200	79.7	289.1	15,300
230	60	60	79.8	292.8	20,200	77.7	286.5	14,100
230	60	70	77.8	290.6	19,600			
230	60	80	75.7	288.0	19,000	79.5	283.0	9,500
230	60	90	73.7	285.0	18,400	77.4	280.0	9,000
230	60	100	71.6	281.6	17,700	75.6	276.6	8,500
230	60	110	69.5	277.8	16,200	73.6	272.7	8,100
230	60	120	67.4	273.6	15,000	71.4	268.4	7,800
230	60	130	65.2	269.0	13,900	69.3	263.7	7,400
230	60	140	63.0	263.9	12,200	67.1	258.5	7,100
230	60	150	60.8	258.2	10,600	64.9	252.8	6,900
230	60	160	58.5	252.1	9,200	62.7	246.5	6,600
230	60	170	56.1	245.4	8,000	60.4	239.7	6,400
230	60	180	53.7	238.0	6,900	58.0	233.7	6,200
230	60	190	51.2	230.0	6,000	55.5	226.3	6,000
230	60	200	48.6	221.2	5,100	53.0	219.4	6,000
230	60	210	45.9	211.6	4,300	50.4	214.9	5,700
230	60	220	43.0	201.0	3,600	47.6	205.0	4,900
230	60	230	40.0	189.2	3,000	44.7		
230	60	240	36.8	176.0	2,400	41.7		
230	60	250	33.3	161.2	1,900	38.4		
230	75	62.69	80.0	307.9	16,900			
230	75	70	78.6	306.4	16,600			

Boom Length (ft)	Jib Length (ft)	Jib Load Radius (ft)	Jib Angle to Boom					
			5 Degrees			15 Degrees		
			Boom Angle (deg)	Jib Pt Height (ft)	Jib Capacity ABC + A (lbs)	Boom Angle (deg)	Jib Pt Height (ft)	Jib Capacity ABC + A (lbs)
230	75	80	76.7	303.9	16,100	79.0	302.3	11,500
230	75	90	74.7	301.2	15,700	77.1	299.6	10,700
230	75	100	72.8	298.0	14,600	75.1	296.4	9,900
230	75	110	70.8	294.5	13,300	73.1	292.9	9,200
230	75	120	68.8	290.5	12,200	71.1	288.9	8,700
230	75	130	66.8	286.2	11,300	69.1	284.6	8,100
230	75	140	64.7	281.4	10,500	67.0	279.8	7,700
230	75	150	62.6	276.2	9,800	64.9	274.5	7,300
230	75	160	60.5	270.5	9,100	62.7	268.8	6,900
230	75	170	58.3	264.3	8,200	60.5	262.5	6,600
230	75	180	56.0	257.5	7,100	58.2	255.7	6,300
230	75	190	53.7	250.1	6,100	55.9	248.3	6,000
230	75	200	51.3	242.1	5,300	53.4	240.2	5,700
230	75	210	48.8	233.3	4,500	50.9	231.4	4,900
230	75	220	46.2	223.8	3,800	48.3	221.7	4,200
230	75	230	43.5	213.3	3,200	45.6	211.1	3,500
230	75	240	40.7	201.7	2,600	42.7	199.4	2,900
230	75	250	37.6	188.9	2,100	39.6	186.4	2,300
230	75	260	34.4	174.5	1,600	36.3	171.8	1,800

Link-Belt Construction Equipment Company

Lexington, Kentucky

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