



A 100-HC

HYDRAULIC

**CRAWLER CRANE
GENERAL SPECIFICATIONS**





A 100-HC HYDRAULIC CRAWLER SPECIFICATIONS

LOWER MACHINERY

CARBODY: Heavy duty fabricated steel carbody is deep box construction with square axles for crawler side frames. Top is precision machined to support anti-friction bearing swing circle and multiple pass hydraulic swivel joint. Optional vertical hydraulic jacks are available for quick disassembly and loading on transporters.

CRAWLER SIDE FRAMES: High alloy steel tumbler yokes are welded to rigid fabricated structures to form the crawler side frames. Drive and idler tumblers are self cleaning design. Drive tumblers are bolted to planetary gear reducers. Idler sprockets are mounted on pressure grease lubricated bronze bearings. Large, hardened, cast steel lower track rollers are mounted on pressure lubricated bronze bearings. Rollers are closely spaced to prevent buckling of tread shoes between rollers. Wear resistant steel slide rails along the top of the side frame provide support for crawler treads. Crawler shoes are double wall, box section alloy steel castings with case hardened pins. Standard shoe width is 38 in. (965 mm); 44 in. (1,118 mm) are optional. Track adjustment is by means of hydraulic jack with holding and positioning by shims. Side frames are offset to permit raising maximum boom length. Side frames fit onto square axles on carbody and are positioned and secured by pin connected support bars. Automatic grease lubrication system for track rollers and idler tumblers. Optional hydraulic cylinders for easy, quick removal of side frames.

HYDRAULIC PROPEL: Variable displacement piston pumps drive variable speed high speed axial piston motors and planetary gear reducers, fully enclosed within clearance. Two speed travel is standard. Hydraulic travel brakes engage automatically when travel control is in neutral position and automatically release when travel function is engaged. With independent hydrostatic drive and control on each crawler track the machine is able to turn in its own length (counter-rotate) by powering the two crawlers in opposite directions. Two speed travel is accomplished with variable speed motors for high speed travel.

UPPER MACHINERY

ROTATING MACHINERY DECK: Welded from high strength steel, two longitudinal plate girders extend from the boom foot to the counterweight providing load transfer to the central tub and supporting all rotating machinery. A rigid central tub integral with the longitudinal girders and the boom foot supporting structure provides a mounting for the swing bearing. Accurate milling, boring and drilling are done on numerically controlled machines to insure accurate alignment of machinery. All decks are machined to receive counterweight beams for the optional "WorkHorse"™ attachment.

SWING BEARING: The crane upperworks rotates on a sealed, angular contact ball bearing that transmits all radial, axial and moment loads to the lower. An external cut full depth spur gear is integral with the bearing outer race and meshes with the machined swing pinion. The outer race is bolted to the crawler carbody and the inner race is doweled and bolted to the rotating upper. Bearing is remote automatic lubricated.

ENGINE: Standard is Cummins Model 6CTA8.3-240 turbocharged diesel engine, six cylinder, in line, 4.49 in. (114 mm) bore, 5.32 in. (135 mm) stroke, 504.5 cu. in. (8.3 liter) displacement, rated gross 240 BHP at 2200 RPM; 24 volt electric starting with 70 amp alternator. A High silencing muffler is mounted inside machinery cab.

FUEL TANK: 200 gallon (675 L) capacity.

PRIMARY DRIVE: Multiple hydraulic piston pump drive. (8 units plus one mounted on engine).

COUNTERWEIGHT: 51,000 lbs. (23,134 kg) two piece, fabricated: 31,000 lbs. (14,060 kg) basic counterweight with 20,000 lbs (9,072 kg) upper counterweight, pin connected to machinery deck. Counterweight is removed with hydraulic cylinders that attach to the machinery deck. Cylinders remain with counterweight when it is removed.

HYDROSTATIC SWING: Smooth and responsive swing, essential for placing heavy loads and for long boom operation, is provided with pressure controlled hydrostatic swing. A fixed displacement, high speed axial piston motor drives a multiple stage planetary gear reducer and the swing pinion. The entire swing assembly, including the motor, brake, planetary and pinion is preassembled and then bolted to the machinery deck. The multiple disc swing brake is spring set, hydraulic released and used as a parking brake.

The swing control is a torque sensitive control where maximum swing torque occurs at maximum control handle displacement and free coast occurs with

the control handle in the center or neutral position. Plugging (dynamic braking) is accomplished by moving the control handle past neutral.

POSITIVE SWING LOCK (OPTIONAL): An electrically actuated mechanical spud engages with the swing gear.

SECOND SWING MOTOR (OPTIONAL): For extra heavy duty swing such as continuous clamshell or other duty cycle service a second swing motor, planetary drive and pinion are available to improve bullgear life.

LOAD HOIST: Load hoisting is done with identical main and auxiliary hoist drums mounted in tandem and grooved for one inch (25 mm) rope. Each drum is hydraulically powered by a low-speed, high-torque radial piston motor. Drum speed is doubled at full rated line pull by diverting power from the propel pumps. Drum speed is further increased, at one half line pull, by a displacement shift, diverting flow of hydraulic fluid to only half of the motor's pistons. These speed ranges are in both hoisting and lowering loads. Free fall of the hook and multiple range operation of the hydraulic motor provide optimum performance under all load conditions. The drum service brake is a band type hydraulic set and spring released system. The parking brake is spring set hydraulically released. For added safety a parking dog engages a ratchet into the hoist drum. A band type friction clutch is available for free fall.

THIRD DRUM: The third drum assembly is a complete module, mounted in the boom inner section. Drum is hydraulically powered by a fixed displacement, high speed, axial piston motor driving through a multiple stage planetary gear reducer. Drum is grooved for 3/4 in. (19 mm) diameter rope. Braking is provided by a spring set, hydraulically released, multiple disc brake. The hydraulic motor control valve is equipped with a counterbalance valve to provide maximum protection in the event of loss of power. Controlled load lowering is a standard feature of the hydraulic system. Free fall on the third drum is not available.

BOOM HOIST: The single drum boom hoist is powered by a high speed axial piston hydraulic motor driving through a multiple disc brake into a multiple stage planetary reducer. The drum is supported on anti-friction bearings. The planetary gear box is mounted to the mast at one end. Multiple disc parking brake and locking dog are spring set, hydraulically released. Brake is set in neutral control lever position or when machine power is off.

The boom hoist control is done by a single lever. Precise metering gives infinite speed control throughout the full range of boom speed. A low range is also provided (at the operator's fingertip) for **VERY** precise positioning of the boom.

Controlled boom lowering is powered by the hydraulic system which is equipped with counterbalance valves to hydraulically lock the motor from rotation should the crane lose hydraulic power. In the event of loss of power the boom hoist brake would set and the dog would engage. The counterbalance valve also prevents long booms from over powering the engine in the lowering mode. An automatic boom hoist shut-off stops the boom hoisting operation at a pre-determined maximum boom angle.

The boom hoist drum is grooved to assure proper spooling and extended rope life.

BOOM SUSPENSION: A floating mast is raised and lowered by 17 parts of 3/4 in. (19 mm) boom hoist line. The mast foot and boom foot are "fiberglide" journals which provide long life with no maintenance.

Inner bail sheave assembly is attached to supports on the machinery deck. Outer bail sheaves are built into the floating mast. The bail sheaves are mounted on lubricated, sealed-for-life anti-friction bearings. Two parts 1 3/8 in. (35 mm) dia. fixed length pendants extend from the mast tip to the boom tip. Pendant lengths match boom center section lengths for quick change of boom length. Pendants remain on top of the boom when sections are removed.

59H BOOM: Boom is lightweight, pin-connected, 59 in. (1,499 mm) cross section with T-1 tubular chords and tubular lacing. Basic open throat boom is 50 ft. (15.2 m) long consisting of 25 ft. (7.6 m) inner and 25 ft. (7.6 m) outer with 4-sheave offset tip. A 5 ft. (1.5 m), 4-sheave hammerhead tip is an available option that is used for short boom lengths of 30 ft. (9.1 m). Center boom sections are available in 10 ft. (3 m), 20 ft. (6.1 m), and 40 ft. (12.2 m) lengths with matching pendants to extend total boom length to 240 ft. (73 m) with open throat tip and 230 ft. (70 m) with hammerhead tip.

The boom foot pin bearings are "fiberglide" journal bearings which require no maintenance yet provide long service life. Optional permanently lubricated



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sheaves are available in the boom inner section for handling counterweight, side frames, etc. when stripping or assembling the crane.

A boom angle indicator and anti-two block system are standard equipment.

BOOM STOPS: Shock absorbing boom stops with compression boots restrain the boom from overtopping.

NO. 9HL JIB: Lightweight jib is 40 ft. (12.2 m), two piece, pin connected with T-1 tubular steel chords and tubular lattice. Single 24 in. (610 mm) sheave is mounted on anti-friction bearings and grooved for 1 in. (25.4 m) single part whipline. Jib inserts with matching pendants are available in 10 ft. (3 m) and 20 ft. (6.1 m) lengths to extend the total jib length to 80 ft. (24.4 m) maximum. Jib mast, backstay line, frontstay pendants, rope spreader, jib security device and anti-two block system are included.

OPERATOR'S CAB: The 40 in. (1,015 mm) wide environmental operator's cab is of modular design, sound and weather insulated and isolation mounted for operator comfort. Entry is through the right hand sliding door which has a fixed window. The left hand window slides to open and the overhead window is hinged. The center portion of the windshield is removable. All windows are tinted safety glass or Lexan and set in rubber. With controls mounted on either side of the fully adjustable seat the operator has an excellent unrestricted view of the work area.

Gauges, switches and warning lights are conveniently located for ease of access without compromising forward visibility, instrumentation includes tachometer, fuel gauge, voltmeter, hydraulic oil temperature gauge and lights for engine water temperature, engine oil pressure, hydraulic oil filter bypass, hydraulic oil reservoir level and counterweight positions. Standard equipment includes cab heater, windshield wipers on the front and overhead windows, electric horn, circulating fan, deluxe seat and drum turning indicators. Air conditioning is optional.

MACHINERY CAB: Fiberglass cab completely encloses the operating machinery with access doors on both sides and very light weight. Cab is designed for easy removal. Cab is insulated for noise reduction and will meet or exceed future noise level standard of 78 DB at 21 ft. radius. Discharge air is louvered and directed for minimum noise level. Engine is mounted longitudinally in the R.H. walkway. Hydraulic oil cooler with hydraulically driven cooling fan, thermostatically controlled, is forward of the engine. Engine radiator with hydraulically driven fan is located in the L.H. walkway, to keep heat away from the operator, controlled by thermostat. Hydraulic valving is enclosed under the walkway for protection and easy maintenance.

DRIP PANS; HYDRAULIC SYSTEM: Hydraulic pumps are mounted on the Cummins engine pump drive on 16 inch (406 mm) centers providing room for service access and easy removal. The hydraulic reservoir is 100 gallon (3,785 L) capacity. Ten micron filtration is provided at the reservoir fill, discharge and charge pumps. An electric fill pump with non bypass filter is provided for filling the reservoir to reduce contamination. O-ring seals are used on all high pressure connections and most low pressure. Hydraulic valves and piping are enclosed under a hinged walkway where they are protected from damage, yet easily accessible. Large containment compartments (drip pans) with drain plugs safely catch and contain any hydraulic or engine oil leakage which can be drained at your convenience.

The main and auxiliary hoist and propel are a closed circuit using four variable displacement piston pumps. Hoist motors are two speed radial piston. Travel motors are two speed axial piston. A variable speed piston pump powers three fixed speed axial piston motors for boom hoist, swing and third drum. This same pump supplies the counterweight, side frame and jacking cylinders. A gear pump supplies the charge circuit. Two piston pumps supply the pilot circuit and horsepower management. A variable displacement piston pump driven from the front of the engine powers hydraulic cooling fans for the engine and the hydraulic system. Controls at the operators cab are hydraulic over hydraulic.

PERFORMANCE:

PUMP	TYPE	DISPL.	PSI	FLOW
Main Hoist	Piston	Variable	5,000 (345 bar)	55GPM (208 lpm)
Aux. Hoist	Piston	Variable	5,000 (345 bar)	55GPM (208 lpm)
Third Drum	Piston	Variable	4,000 (276 bar)	79GPM (300 lpm)
Travel	Piston	Variable	5,730 (395 bar)	55GPM (208 lpm)
Boom	Piston	Variable	4,000 (276 bar)	79GPM (300 lpm)
Swing	Piston	Variable	4,000 (276 bar)	45GPM (173 lpm)

MOTOR	TYPE	DISPL.
Main Hoist	Radial Piston	Two-speed
Aux. Hoist	Radial Piston	Two-speed
Third Drum	Axial Piston	Fixed
Travel	Axial Piston	Two-speed
Boom	Axial Piston	Fixed

Travel Speed 0 to 0.3 MPH (0.48 kmph) maximum, low range
 0 to 1.5 MPH (2.41 kmph) maximum, high range
 Swing Speed 2. 84 RPM maximum
 Gradeability 30%

HOISTING PERFORMANCE:

	SLP (pounds) at SLS (feet per minute)	SLP (kilograms) at SLS (meters per minute)
Standard Crane	31,000 lbs @ 90 FPM	14,060 kg @ 27.5 MPM
Utilizing Travel Pump	31,000 lbs @ 165 FPM	14,060 kg @ 50MPM
With Displacement Shift	7,000 lbs @ 200 FPM	3,175 kg @ 60.7 MPM
Utilizing Travel Pump With Displacement Shift	7,000 lbs @ 400 FPM	3,175 kg @ 121.5 MPM

NO LOAD SPEED:

Low Range		
1 Pump	112 FPM	34 MPM
2 Pumps	220 FPM	67 MPM
High Range		
1 Pump	216 FPM	66 MPM
2 Pumps	440 FPM	134 MPM



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ATTACHMENTS

WORKHORSE ATTACHMENT: The "WorkHorse"® is a capacity enhancing system that is easily controlled by the operator. This system increases the basic 110 Ton (110,000 kg) capacity of the crane to full range 125 Ton (113,400 kg) ratings. The operator simply activates a control in the operator's cab which moves the 51,000 lb. (23,134 kg) counterweight back 10 ft. (3 m), while the crane is under load. The crane remains entirely mobile with the counterweight in the extended position.

The "WorkHorse"® attachment consists of the following equipment:

- A. A specialized Load Moment Indicator (LMI).
- B. Two large hydraulic cylinders and controls to move the conventional counterweight 10 ft. (3 m) to the rear greatly increasing the cranes capability.
- C. A Counterweight Safety support hydraulically operated, using the counterweight removal cylinders. This support is extended below the counterweight and will prevent the machine from tipping backwards in case of a sling breaking, etc.
- D. Warning light and horn which is activated when the counterweight is extended or retracted.

The "WorkHorse"® attachment is used as follows:

- A. The crane is operated as a conventional Lattice Boom machine throughout its entire capacity range with no increase in machine weight or physical dimensions. All controls operate in a normal fashion for all functions.
- B. At the time that a load must be set beyond the radius of the crane with its conventional chart, the operator would check the area behind the machine and the area over the counterweight will swing and set the selector switch in the "WorkHorse"® mode.
- C. The crane is then operated in normal fashion to the point where the Load Moment Indicator indicates that the crane has used most of its capacity. The counterweight would then be extended hydraulically from the operator's cab. (see WorkHorse® manual) After the load is partially set in place, the counterweight is returned to its normal position.
- D. The crane is then operated in normal fashion until the attachment is again required.

CLAMSHELL: For grapple or clamshell work a Rudomatic tagline winder is mounted in the boom inner section.

TRANSPORT PACKAGE (OPTIONAL): This package provides a fast and easy method to load this machine onto transport trailers in two hours with 180 ft. (54.9 M) boom. The procedure is as follows:

1. Lay the boom on the ground and connect the floating mast to the boom inner section. Remove load tackle and disconnect the boom from the inner section.
2. Remove the counterweight, lowering it to blocking with the two hydraulic cylinders.
3. Reeve a load block from the third drum or front drum and load the boom and counterweight onto trucks.
4. Using four vertical jacks fixed to the carbody raise the machine for side frame removal. With the four horizontal cylinders slide the side frames off and load them onto trucks.
5. Fully extend the four vertical carbody jacks, to provide clearance for a low boy trailer. Back the low boy under, parallel with the axles, and retract the vertical jacks.

This provides an overall maximum width of 11 ft. 5 in. (3.48 m). Maximum carbody width over jacks is 10 ft. 10 in. (3.3 m), approximately 13 ft. high, blocked, on an average 2 ft. lowboy. The main load will weigh 85,060 lbs. With the boom inner and the vertical jacks removed the weight is further reduced to 79,090 lbs.

NOTE: IN ACCORDANCE WITH OUR ESTABLISHED POLICY OF CONSTANT PRODUCT IMPROVEMENT AND VARYING MATERIAL CONDITIONS, SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AND WITHOUT INCURRING RESPONSIBILITY FOR MACHINES PREVIOUSLY SOLD.

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A 100-HC HYDRAULIC CRAWLER CRANE WorkHorse



LIFT RATINGS IN POUNDS

With 59H Open Throat Boom, 24' Floating Mast and 51,000 Pound Counterweight Fully Extended

Boom & Mast Length	Radius Feet	Boom Angle Degrees	Side Frames Retracted Pounds	Side Frames Extended Pounds	From Boom Pt. to Ground Feet
50' Boom	12	81.0	250,000*	250,000*	56
	15	77.5	220,620*	220,620*	55
	20	71.5	143,290	165,480*	54
	25	65.3	104,260	127,420	52
	30	58.8	81,610	97,880	49
24' Mast	35	51.7	66,760	79,210	46
	40	43.9	56,340	66,280	41
	50	22.3	42,510	49,600	25
60' Boom	14	80.6	236,210*	236,210*	66
	15	79.6	220,500*	220,500*	66
	20	74.7	143,310	165,390*	65
	25	69.6	104,240	127,440	63
	30	64.4	81,570	97,880	61
24' Mast	35	59.0	66,710	79,190	58
	40	53.2	56,310	66,260	54
	50	39.8	42,510	49,620	45
	60	20.3	33,800	39,280	27
70' Boom	16	80.3	203,170	206,570*	76
	20	76.9	143,320	165,300*	75
	25	72.7	104,220	127,460	73
	30	68.3	81,550	97,880	72
	35	63.8	66,680	79,190	69
24' Mast	40	59.1	56,290	66,240	67
	50	48.9	42,500	49,630	59
	60	36.7	33,810	39,310	48
	70	18.8	27,850	32,280	29
80' Boom	17	80.8	183,940	194,360*	86
	20	78.6	143,220	165,220*	85
	25	74.9	104,090	127,360	84
	30	71.1	81,410	97,750	82
	35	67.3	66,530	79,070	80
24' Mast	40	63.3	56,130	66,110	78
	50	54.9	42,330	49,480	72
	60	45.5	33,640	39,150	63
	70	34.2	27,740	32,140	51
90' Boom	80	17.5	23,340	27,090	30
	19	80.5	154,580	173,850*	95
	20	79.9	143,180	165,130*	95
	25	76.6	104,030	127,320	94
	30	73.3	81,350	97,700	93
24' Mast	35	69.9	66,460	79,020	91
	40	66.5	56,080	66,050	89
	50	59.3	42,280	49,440	84
	60	51.5	33,600	39,110	77
100' Boom	70	42.8	27,710	32,100	67
	80	32.2	23,340	27,090	54
	90	16.5	19,990	23,220	32
	20	80.9	143,060	165,040*	105
	25	78.0	103,870	127,190	104
24' Mast	30	75.0	81,180	97,560	103
	35	72.0	66,270	78,850	102
	40	69.0	55,890	65,860	100
	50	62.7	42,070	49,240	95

Boom & Mast Length	Radius Feet	Boom Angle Degrees	Side Frames Retracted Pounds	Side Frames Extended Pounds	From Boom Pt. to Ground Feet
100' Boom	60	56.0	33,380	38,910	89
	70	48.7	27,510	31,890	81
	80	40.5	23,150	26,920	71
	90	30.5	19,820	23,060	57
	100	15.6	17,170	20,020	33
110' Boom	22	80.7	124,190	149,880*	115
	25	79.1	103,710	127,050	115
	30	76.4	81,020	97,410	114
	35	73.7	66,100	78,700	112
	40	71.0	55,730	65,710	111
24' Mast	50	65.3	41,900	49,090	107
	60	59.4	33,210	38,750	101
	70	53.2	27,360	31,730	94
	80	46.3	22,990	26,770	86
120' Boom	90	38.5	19,660	22,910	75
	100	29.0	17,040	19,890	60
	110	14.8	14,910	17,450	34
	23	81.0	116,490	136,390*	125
	25	80.0	103,530	126,910	125
24' Mast	30	77.6	80,830	97,230	124
	35	75.1	65,900	78,520	123
	40	72.6	55,520	65,500	121
	50	67.5	41,680	48,880	117
130' Boom	60	62.2	32,970	38,520	113
	70	56.7	27,130	31,500	107
	80	50.7	22,770	26,550	99
	90	44.2	19,440	22,690	90
	100	36.8	16,820	19,680	78
24' Mast	110	27.8	14,700	17,240	62
	120	14.2	12,950	15,240	36
	25	80.8	103,370	122,990*	135
	30	78.5	80,670	97,070	134
140' Boom	35	76.3	65,720	78,360	133
	40	74.0	55,370	65,350	132
	50	69.3	41,520	48,730	128
	60	64.5	32,810	38,370	124
	70	59.5	26,990	31,350	119
24' Mast	80	54.2	22,620	26,410	112
	90	48.6	19,300	22,560	104
	100	42.4	16,690	19,550	94
	110	35.3	14,560	17,110	81
150' Boom	120	26.6	12,830	15,120	65
	130	13.6	11,360	13,450	37
	27	80.6	92,710	110,670*	145
	30	79.4	80,470	96,900	144
	35	77.3	65,510	78,180	143
24' Mast	40	75.2	55,160	65,140	142
	50	70.9	41,290	48,520	139
	60	66.5	32,570	38,150	135
	70	61.9	26,760	31,110	130
160' Boom	80	57.2	22,390	26,180	124
	90	52.1	19,060	22,330	117
	100	46.7	16,450	19,320	108
	110	40.8	14,330	16,880	98
	27	80.6	92,710	110,670*	145

Boom & Mast Length	Radius Feet	Boom Angle Degrees	Side Frames Retracted Pounds	Side Frames Extended Pounds	From Boom Pt. to Ground Feet
140' Boom (cont.)	120	34.0	12,590	14,890	84
	130	25.6	11,120	13,210	67
	140	13.1	9,880	11,800	38
	28	80.8	87,970	97,490*	155
150' Boom	30	80.1	80,270	96,700	154
	40	76.2	65,300	77,980	153
	50	72.2	54,960	64,940	152
	60	68.1	41,080	48,320	149
	70	63.9	32,360	37,940	146
24' Mast	80	59.6	26,560	30,900	141
	90	55.0	22,190	25,990	136
	100	50.2	18,860	22,140	129
	110	45.0	16,240	19,120	122
160' Boom	120	39.3	14,130	16,680	112
	130	32.8	12,390	14,690	101
	140	24.8	10,930	13,020	87
	150	12.7	9,680	11,600	69
	160	12.7	8,610	10,380	39
170' Boom	30	80.7	80,080	84,040*	165
	35	78.9	65,090	77,800	164
	40	77.1	54,740	64,740	163
	50	73.3	40,850	48,100	160
	60	69.6	32,120	37,710	157
24' Mast	70	65.7	26,320	30,660	152
	80	61.7	21,950	25,760	147
	90	57.5	18,620	21,900	141
	100	53.2	15,990	18,870	134
180' Boom	110	48.5	13,880	16,440	126
	120	43.5	12,130	14,440	116
	130	38.0	10,670	12,770	105
	140	31.7	9,430	11,350	90
	150	24.0	8,360	10,140	71
24' Mast	160	12.3	7,430	8,870*	40
	31	80.9	73,340*	73,340*	175
	35	79.6	64,880	72,400*	174
	40	77.8	54,540	64,520	173
190' Boom	50	74.3	40,650	47,910	170
	60	70.8	31,920	37,510	167
	70	67.2	26,140	30,460	163
	80	63.5	21,760	25,570	159
	90	59.6	18,430	21,710	153
24' Mast	100	55.6	15,810	18,690	147
	110	51.4	13,690	16,260	139
	120	47.0	11,950	14,260	131
	130	42.1	10,490	12,590	120
200' Boom	140	36.8	9,250	11,180	108
	150	30.7	8,180	9,960	93
	160	23.2	7,260	8,780*	73
	170	11.9	6,440	7,530*	41
	27	80.6	92,710	110,670*	145

(Continued)



LIFT RATINGS IN POUNDS (cont'd)

With 59H Open Throat Boom, 24' Floating Mast and 51,000 Pound Counterweight Fully Extended

Boom & Mast Length	Radius Feet	Boom Angle Degrees	Side Frames Retracted Pounds	Side Frames Extended Pounds	From Boom Pt. to Ground Feet
180' Boom 24' Mast	33	80.8	64,040*	64,040*	184
	35	80.1	63,580*	63,580*	184
	40	78.5	54,330	62,550*	183
	50	75.2	40,420	47,690	181
	60	71.9	31,670	37,280	178
	70	68.5	25,900	30,220	174
	80	65.1	21,520	25,350	170
	90	61.5	18,190	21,480	165
	100	57.8	15,560	18,450	159
	110	53.9	13,440	16,010	152
	120	49.9	11,690	14,010	144
	130	45.6	10,240	12,350	135
	140	40.9	8,990	10,920	124
	150	35.7	7,920	9,710	111
	160	29.8	6,990	8,430*	96
	170	22.5	6,180	7,270*	75
	180	11.5	5,470	6,210*	42
190' Boom 24' Mast	34	81.0	55,980*	55,980*	194
	35	80.7	55,700*	55,700*	194
	40	79.1	54,110	54,810*	193
	50	76.0	40,190	47,470	191
	60	72.9	31,440	37,060	188
	70	69.7	25,690	29,990	185
	80	66.5	21,300	25,120	181
	90	63.1	17,960	21,260	176
	100	59.7	15,340	18,230	170
	110	56.1	13,220	15,800	164
	120	52.4	11,480	13,800	157
	130	48.5	10,010	12,120	149
	140	44.3	8,760	10,700	139
	150	39.8	7,700	9,410*	128
	160	34.8	6,770	8,120*	115
	170	29.0	5,960	6,970*	98
	180	21.9	5,240	5,960*	77
	190	11.2	4,610	5,040*	43
200' Boom 24' Mast	36	80.8	49,280*	49,280*	204
	40	79.7	48,570*	48,570*	203
	50	76.7	39,950	45,540*	201
	60	73.8	31,200	36,830	199
	70	70.8	25,440	29,750	195
	80	67.7	21,060	24,900	192
	90	64.6	17,710	21,010	187
	100	61.3	15,080	17,980	182
	110	58.0	12,960	15,550	176
200' Boom 24' Mast	120	54.6	11,220	13,540	169
	130	51.0	9,750	11,870	162
	140	47.2	8,500	10,440*	153
	150	43.1	7,440	8,960*	143
	160	38.7	6,500	7,670*	131
	170	33.8	5,690	6,550*	118
	180	28.3	4,980	5,580*	101
	190	21.4	4,340	4,700*	79
	200	10.9	3,780	3,910*	144
210' Boom 24' Mast	38	80.7	43,610*	43,610*	214
	40	80.2	43,270*	43,270*	214
	50	77.4	39,730	40,510*	212
	60	74.6	30,970	36,610	209
	70	71.7	25,240	29,530	206
	80	68.8	20,850	24,690	202
	90	65.9	17,510	20,820	198
	100	62.8	14,870	17,780	193
	110	59.7	12,750	15,340	188
	120	56.5	11,010	13,340	182
	130	53.1	9,540	11,660	174
	140	49.6	8,300	10,140*	166
	150	46.0	7,230	8,670*	157
	160	42.0	6,300	7,390*	147
	170	37.7	5,490	6,270*	135
	180	33.0	4,770	5,290*	121
	190	27.5	4,130	4,420*	103
	200	20.8	3,560	3,650*	81
	210	10.7	2,960*	2,960*	45
220' Boom 24' Mast	39	80.9	38,720*	38,720*	224
	40	80.6	38,510*	38,510*	224
	50	78.0	35,940*	35,940*	222
	60	75.3	30,730	33,690*	219
	70	72.6	25,000	29,290	217
	80	69.8	20,610	24,460	213
	90	67.0	17,260	20,570	209
	100	64.2	14,630	17,540	205
	110	61.2	12,510	15,100	199
	120	58.2	10,750	13,080	193
	130	55.1	9,280	11,380*	187
	140	51.8	8,040	9,660*	179
	150	48.4	6,970	8,190*	171
	160	44.8	6,040	6,920*	161
	170	41.0	5,230	5,820*	151
	180	36.8	4,500	4,850*	138
230' Boom 24' Mast	41	80.8	34,060*	34,060*	234
	50	78.5	32,230*	32,230*	232
	60	75.9	29,760*	29,760*	230
	70	73.4	24,780	26,690*	227
	80	70.7	20,380	24,230	224
	90	68.1	17,030	20,350	220
	100	65.4	14,390	17,310	216
	110	62.6	12,270	14,860	211
	120	59.7	10,520	12,860	205
	130	56.8	9,060	10,990*	199
	140	53.8	7,810	9,270*	192
	150	50.6	6,730	7,810*	184
	160	47.3	5,800	6,540	175
	170	43.8	4,980	5,430*	165
	180	40.0	4,260	4,470*	154
	190	36.0	3,630	3,630*	141
	200	31.5	2,870*	2,870*	126
	210	26.3	2,210*	2,210*	108
	220	19.9	1,610*	1,610*	84
	230	10.2	1,090*	1,090*	47
240' Boom 24' Mast	42	80.9	29,830*	29,830*	244
	50	79.0	27,070*	27,070*	242
	60	76.5	25,030*	25,030*	240
	70	74.1	22,350*	22,350*	237
	80	71.6	20,140	21,080*	234
	90	69.0	16,780	19,180*	231
	100	66.4	14,150	17,070	227
	110	63.8	12,010	14,610	222
	120	61.1	10,260	12,500*	217
	130	58.3	8,790	10,480*	211
	140	55.5	7,540	8,770*	204
	150	52.5	6,470	7,310*	197
	160	49.5	5,540	6,050*	189
	170	46.2	4,720	4,960*	180
	180	42.8	4,000	4,000*	169
	190	39.2	3,160*	3,160*	158
	200	35.2	2,410*	2,410*	145
	210	30.8	1,760*	1,760*	129
	220	25.7	1,170*	1,170*	110

LIFT RATINGS IN KILOGRAMS

With 59H Open Throat Boom, 7.3M Floating Mast and 23,134 Kg Counterweight Fully Extended

Boom & Mast Length	Radius Meters	Boom Angle Degrees	Side Frames Retracted Kilograms	Side Frames Extended Kilograms	From Boom Pt. to Ground Meters
15.2 M Boom 7.3 M Mast	3.7	81.0	113,400*	113,400*	17
	4.0	79.7	113,400*	113,400*	17
	4.5	77.8	101,670*	101,670*	17
	5.0	75.8	88,390	91,510*	17
	5.5	73.8	75,960	83,170*	17
	6.0	71.9	66,550	76,260*	17
	7.0	67.8	53,230	65,380*	16
	8.0	63.7	44,240	53,770	16
	9.0	59.4	37,800	45,400	15
	10.0	54.9	32,920	39,230	14
	11.0	50.1	29,120	34,480	14
	12.0	44.9	26,070	30,700	13
	13.0	39.2	23,560	27,640	12
	14.0	32.7	21,470	25,120	10
	15.0	24.7	19,670	22,960	8
18.3 M Boom 7.3 M Mast	4.3	80.6	107,140*	107,140*	20
	4.5	79.8	101,620*	101,620*	20
	5.0	78.2	88,430	91,470*	20
	5.5	76.6	75,970	83,130*	20
	6.0	75.0	66,560	76,220*	20
	7.0	71.7	53,230	65,340*	19
	8.0	68.4	44,230	53,780	19
	9.0	64.9	37,790	45,400	19
	10.0	61.4	32,900	39,230	18
	11.0	57.7	29,090	34,460	17
	12.0	53.9	26,060	30,690	17
	13.0	49.9	23,550	27,620	16
	14.0	45.6	21,450	25,110	15
	15.0	41.0	19,670	22,970	14
	16.0	35.9	18,130	21,140	13
	17.0	30.0	16,810	19,560	11
	18.0	22.8	15,640	18,180	9
21.3 M Boom 7.3 M Mast	4.9	80.3	92,160	93,700*	23
	5.0	79.9	88,440	91,420*	23
	5.5	78.6	75,990	83,080*	23
	6.0	77.2	66,570	76,180*	23
	7.0	74.4	53,230	65,310*	23
	8.0	71.6	44,220	53,770	22
	9.0	68.7	37,780	45,410	22
	10.0	65.8	32,890	39,240	21
	11.0	62.8	29,080	34,460	21
	12.0	59.7	26,050	30,690	20
	13.0	56.5	23,540	27,620	20
	14.0	53.2	21,440	25,120	19
	15.0	49.8	19,660	22,970	18
	16.0	46.1	18,130	21,140	17
	17.0	42.2	16,810	19,570	16
	18.0	38.0	15,640	18,190	15
	19.0	33.4	14,620	16,980	14
	20.0	28.0	13,700	15,910	12

(Continued)

**LIFT RATINGS IN KILOGRAMS (cont'd)****With 59H Open Throat Boom, 7.3M Floating Mast and 23,134 Kg Counterweight Fully Extended**

Boom & Mast Length	Radius Meters	Boom Angle Degrees	Side Frames Retracted Kilograms	Side Frames Extended Kilograms	From Boom Pt. to Ground Meters
24.4 M Boom	5.2	80.8	83,430	88,160*	26
	5.5	80.0	75,950	83,030*	26
	6.0	78.8	66,530	76,140*	26
	7.0	76.4	53,170	65,280*	26
	8.0	74.0	44,160	53,730	25
	9.0	71.5	37,720	45,350	25
	10.0	69.0	32,830	39,180	25
	11.0	66.4	29,000	34,400	24
	12.0	63.8	25,990	30,620	24
	13.0	61.2	23,470	27,550	23
	14.0	58.5	21,370	25,050	23
	15.0	55.6	19,580	22,900	22
	16.0	52.7	18,060	21,080	21
	17.0	49.7	16,730	19,500	21
7.3 M Mast	18.0	46.5	15,570	18,130	20
	19.0	43.1	14,540	16,910	19
	20.0	39.5	13,620	15,830	17
	22.0	31.3	12,090	14,020	15
	24.0	20.4	10,810	12,540	10
27.4 M Boom	5.8	80.5	70,110	78,850*	29
	6.0	80.1	66,510	76,110*	29
	7.0	77.9	53,160	65,240*	29
	8.0	75.8	44,130	53,700	29
	9.0	73.6	37,680	45,330	28
	10.0	71.4	32,800	39,160	28
	11.0	69.2	28,980	34,380	28
	12.0	66.9	25,960	30,600	27
	13.0	64.6	23,440	27,520	27
	14.0	62.3	21,350	25,030	26
	15.0	59.9	19,560	22,890	26
	16.0	57.4	18,030	21,060	25
	17.0	54.9	16,700	19,480	24
	18.0	52.3	15,550	18,110	24
7.3 M Mast	19.0	49.6	14,520	16,890	23
	20.0	46.8	13,610	15,820	22
	22.0	40.7	12,090	14,000	20
	24.0	33.7	10,810	12,550	17
	26.0	25.1	9,730	11,300	14
30.5 M Boom	6.1	80.9	64,890	74,860*	32
	7.0	79.2	53,090	65,210*	32
	8.0	77.2	44,050	53,640	32
	9.0	75.3	37,610	45,260	32
	10.0	73.3	32,720	39,090	31
	11.0	71.4	28,890	34,310	31
	12.0	69.4	25,880	30,520	31
	13.0	67.3	23,360	27,440	30
	14.0	65.3	21,250	24,940	30
	15.0	63.2	19,470	22,800	29
	16.0	61.0	17,940	20,980	29
	17.0	58.9	16,610	19,390	28
	18.0	56.6	15,450	18,010	27
	19.0	54.3	14,430	16,810	27
7.3 M Mast	20.0	52.0	13,510	15,730	26
	22.0	47.0	12,000	13,910	24
	24.0	41.6	10,710	12,460	22
	26.0	35.5	9,650	11,230	20
	28.0	28.3	8,750	10,180	16
	30.0	18.7	7,970	9,280	12
33.5 M Boom	6.7	80.7	56,330	67,980*	35
	7.0	80.2	53,020	65,180*	35
	8.0	78.4	43,980	53,580	35
	9.0	76.7	37,530	45,190	35
	10.0	74.9	32,640	39,030	34
	11.0	73.1	28,810	34,240	34
	12.0	71.3	25,810	30,440	34
	13.0	69.5	23,280	27,360	33
	14.0	67.7	21,180	24,880	33
	15.0	65.8	19,390	22,730	33
	16.0	63.9	17,860	20,900	32
	17.0	62.0	16,530	19,310	32
	18.0	60.0	15,370	17,940	31
	19.0	58.0	14,340	16,730	30
7.3 M Mast	20.0	56.0	13,430	15,650	30
	22.0	51.7	11,920	13,830	28
33.5 M Boom (cont.)	24.0	47.2	10,650	12,400	27
	26.0	42.3	9,580	11,160	25
	28.0	36.9	8,670	10,110	22
	30.0	30.7	7,900	9,220	19
	32.0	23.0	7,230	8,440	15
36.6 M Boom	7.0	81.0	52,840	61,860*	38
	8.0	79.4	43,890	53,510	38
	9.0	77.8	37,450	45,120	38
	10.0	76.2	32,550	38,950	38
	11.0	74.6	28,710	34,150	37
	12.0	72.9	25,710	30,350	37
	13.0	71.3	23,180	27,270	37
	14.0	69.6	21,070	24,780	36
	15.0	67.9	19,300	22,640	36
	16.0	66.2	17,760	20,810	35
	17.0	64.5	16,430	19,220	35
	18.0	62.7	15,260	17,840	35
	19.0	61.0	14,230	16,620	34
	20.0	59.1	13,320	15,550	33
7.3 M Mast	22.0	55.4	11,820	13,720	32
	24.0	51.5	10,550	12,300	31
	26.0	47.3	9,480	11,060	29
	28.0	42.9	8,570	10,010	27
	30.0	38.0	7,800	9,120	24
	32.0	32.6	7,130	8,350	22
	34.0	26.1	6,530	7,670	18
	36.0	17.6	6,010	7,070	13
39.6 M Boom	7.6	80.8	46,880	55,780*	41
	8.0	80.2	43,810	53,420	41
	9.0	78.7	37,380	45,050	41
	10.0	77.3	32,470	38,880	41
	11.0	75.8	28,640	34,080	40
	12.0	74.3	25,640	30,280	40
	13.0	72.8	23,110	27,190	40
	14.0	71.2	21,010	24,720	40
	15.0	69.7	19,220	22,570	39
	16.0	68.2	17,680	20,730	39
	17.0	66.6	16,360	19,150	38
	18.0	65.0	15,190	17,770	38
	19.0	63.4	14,160	16,560	37
	20.0	61.7	13,320	15,480	37
7.3 M Mast	22.0	58.4	11,760	13,660	36
	24.0	54.9	10,480	12,240	34
	26.0	51.3	9,410	11,000	33
	28.0	47.5	8,520	9,960	31
	30.0	43.4	7,740	9,060	29
	32.0	39.0	7,060	8,280	27
	34.0	34.1	6,480	7,610	24
	36.0	28.5	5,960	7,020	21
	38.0	21.5	5,500	6,490	16
42.7 M Boom	8.2	80.6	42,050	50,200*	44
	9.0	79.6	37,300	44,970	44
	10.0	78.2	32,380	38,800	44
	11.0	76.8	28,540	34,000	44
	12.0	75.4	25,540	30,190	43
	13.0	74.0	23,020	27,100	43
	14.0	72.6	20,910	24,630	43
	15.0	71.2	19,120	22,480	42
	16.0	69.8	17,580	20,640	42
	17.0	68.3	16,250	19,050	42
	18.0	66.9	15,080	17,660	41
	19.0	65.4	14,060	16,460	41
	20.0	63.9	13,220	15,380	40
	22.0	60.9	11,660	13,550	39
7.3 M Mast	24.0	57.8	10,380	12,130	38
	26.0	54.5	9,300	10,890	37
	28.0	51.1	8,410	9,850	35
	30.0	47.6	7,630	8,950	33
	32.0	43.8	6,950	8,180	32
	34.0	39.8	6,370	7,510	29
	36.0	35.3	5,850	6,920	27
	38.0	30.3	5,380	6,380	23
	40.0	24.4	4,970	5,910	20
	42.0	16.7	4,600	5,480	14
45.7 M Boom	8.5	80.8	39,900	44,220*	47
	9.0	80.3	37,210	43,990*	47
	10.0	79.0	32,290	38,720	47
	11.0	77.7	28,440	33,910	47
	12.0	76.4	25,450	30,100	47
	13.0	75.1	22,920	27,010	46
	14.0	73.8	20,810	24,530	46
	15.0	72.5	19,030	22,390	46
	16.0	71.2	17,490	20,550	45
	17.0	69.9	16,160	18,960	45
	18.0	68.5	14,990	17,580	45
	19.0	67.2	13,960	16,360	44
	20.0	65.8	13,130	15,280	44
	22.0	63.0	11,560	13,450	43
7.3 M Mast	24.0	60.2	10,280	12,040	42
	26.0	57.2	9,220	10,810	40
	28.0	54.2	8,310	9,760	39
	30.0	51.0	7,530	8,860	38
	32.0	47.7	6,870	8,100	36
	34.0	44.2	6,270	7,420	34
	36.0	40.4	5,750	6,820	32
	38.0	36.4	5,290	6,290	29
	40.0	31.9	4,880	5,820	26
	42.0	26.7	4,500	5,390	22
	44.0	20.4	4,170	5,010	18
48.8 M Boom	9.1	80.7	36,330	38,030*	50
	10.0	79.7	32,190	37,680*	50
	11.0	78.5	28,340	33,820	50
	12.0	77.3	25,360	30,000	50
	13.0	76.1	22,820	26,910	49
	14.0	74.9	20,710	24,440	49
	15.0	73.6	18,920	22,280	49
	16.0	72.4	17,380	20,440	49
	17.0	71.2	16,040	18,850	48
	18.0	69.9	14,880	17,470	48
	19.0	68.7	13,850	16,250	47
	20.0	67.4	13,020	15,170	47
	22.0	64.8	11,450	13,340	46
	24.0	62.2	10,180	11,940	45
7.3 M Mast	26.0	59.5	9,110	10,700	44
	28.0	56.7	8,200	9,650	43
	30.0	53.8	7,420	8,750	41
	32.0	50.9	6,750	7,980	40
	34.0	47.8	6,160	7,300	38
	36.0	44.5	5,650	6,710	36
	38.0	41.0	5,180	6,180	34
	40.0	37.3	4,770	5,710	31
	42.0	33.2	4,390	5,280	



LIFT RATINGS IN KILOGRAMS (cont'd)

With 59H Open Throat Boom, 7.3M Floating Mast and 23,134 Kg Counterweight Fully Extended

Boom & Mast Length	Radius Meters	Boom Angle Degrees	Side Frames Retracted Kilograms	Side Frames Extended Kilograms	From Boom Pt. to Ground Meters	
51.8 M Boom	44.0	34.3	3,980	4,820	31	
	46.0	30.1	3,670	4,470	28	
	48.0	25.3	3,390	4,130*	24	
(cont.)	50.0	19.4	3,130	3,750*	19	
54.9 M Boom	10.1	80.8	29,050*	29,050*	56	
	11.0	79.8	28,150	28,740*	56	
	12.0	78.7	25,170	28,430*	56	
	13.0	77.7	22,630	26,720	56	
	14.0	76.6	20,510	24,260	55	
	15.0	75.5	18,720	22,100	55	
	16.0	74.4	17,190	20,260	55	
	17.0	73.3	15,850	18,670	55	
	18.0	72.2	14,680	17,280	54	
	19.0	71.1	13,640	16,060	54	
	20.0	70.0	12,830	14,970	54	
	22.0	67.8	11,260	13,250	53	
	24.0	65.5	9,980	11,750	52	
	26.0	63.2	8,910	10,510	51	
	28.0	60.8	8,010	9,470	50	
7.3 M Mast	30.0	58.4	7,230	8,570	49	
	32.0	55.9	6,550	7,790	47	
	34.0	53.3	5,960	7,110	46	
	36.0	50.7	5,450	6,520	44	
	38.0	47.9	4,980	5,990	43	
	40.0	45.0	4,570	5,520	41	
	42.0	42.0	4,200	5,090	39	
	44.0	38.7	3,850	4,700	36	
	46.0	35.2	3,550	4,360	34	
	48.0	31.4	3,280	3,970*	31	
	50.0	27.1	3,010	3,600*	27	
	52.0	22.0	2,780	3,260*	23	
	54.0	15.5	2,570	2,950*	17	
	57.9 M Boom	10.4	81.0	25,390*	25,390*	59
		11.0	80.3	25,210*	25,210*	59
12.0		79.3	24,890*	24,890*	59	
13.0		78.3	22,530	24,500*	59	
14.0		77.3	20,420	24,110*	59	
15.0		76.3	18,620	22,000	58	
16.0		75.3	17,080	20,160	58	
17.0		74.2	15,740	18,560	58	
18.0		73.2	14,580	17,180	57	
19.0		72.2	13,540	15,960	57	
20.0		71.1	12,730	14,870	57	
22.0		69.0	11,160	13,150	56	
24.0		66.9	9,880	11,650	55	
26.0		64.7	8,810	10,410	54	
28.0		62.5	7,910	9,360	53	
7.3 M Mast	30.0	60.2	7,130	8,460	52	
	32.0	57.9	6,450	7,690	51	
	34.0	55.5	5,870	7,020	50	
	36.0	53.1	5,340	6,420	48	
	38.0	50.6	4,880	5,880	47	
	40.0	48.0	4,470	5,420	45	
	42.0	45.2	4,090	4,990	43	
	44.0	42.3	3,750	4,600	41	
	46.0	39.3	3,450	4,210*	39	
	48.0	36.1	3,180	3,830*	36	
	50.0	32.5	2,910	3,460*	33	
	52.0	28.6	2,680	3,140*	30	
	54.0	24.1	2,470	2,830*	26	
	56.0	18.7	2,270	2,550*	120	
	61.0 M Boom	11.0	80.8	22,350*	22,350*	62
12.0		79.9	22,050*	22,050*	62	
13.0		78.9	21,700*	21,700*	62	
14.0		77.9	20,320	21,190*	62	
15.0		77.0	18,520	20,850*	61	
16.0		76.0	16,970	20,060	61	
17.0		75.0	15,630	18,460	61	
18.0		74.1	14,460	17,070	61	
19.0		73.1	13,420	15,850	60	
20.0		72.1	12,620	14,760	60	
22.0		70.1	11,060	13,050	59	
7.3 M Mast		24.0	68.1	9,770	11,550	59
		26.0	66.1	8,700	10,300	58
		28.0	64.0	7,790	9,250	57
		30.0	61.9	7,010	8,350	56
	32.0	59.7	6,340	7,580	55	
	34.0	57.5	5,750	6,900	53	
	36.0	55.2	5,220	6,300	52	
	38.0	52.9	4,760	5,770	51	
	40.0	50.5	4,350	5,300	49	
	42.0	48.0	3,970	4,870	47	
	44.0	45.4	3,640	4,440*	45	
	46.0	42.7	3,330	4,010*	43	
	48.0	39.8	3,050	3,620*	41	
	50.0	36.8	2,800	3,270*	38	
	52.0	33.5	2,560	2,950*	36	
54.0	29.9	2,340	2,650*	32		
56.0	25.9	2,140	2,370*	29		
58.0	21.1	1,960	2,120*	24		
60.0	15.0	1,780	1,880*	18		
64.0 M Boom	11.6	80.7	19,780*	19,780*	65	
	12.0	80.3	19,640*	19,640*	65	
	13.0	79.4	19,330*	19,330*	65	
	14.0	78.5	18,870*	18,870*	65	
	15.0	77.6	18,420	18,430*	65	
	16.0	76.7	16,880	18,140*	64	
	17.0	75.8	15,540	17,560*	64	
	18.0	74.8	14,360	16,970	64	
	19.0	73.9	13,330	15,750	64	
	20.0	73.0	12,530	14,660	63	
	22.0	71.1	10,960	12,950	63	
	24.0	69.2	9,680	11,450	62	
	26.0	67.3	8,600	10,210	61	
	28.0	65.3	7,690	9,160	60	
	30.0	63.3	6,920	8,270	59	
32.0	61.3	6,250	7,490	58		
7.3 M Mast	34.0	59.2	5,650	6,810	57	
	36.0	57.1	5,130	6,210	56	
	38.0	54.9	4,670	5,680	54	
	40.0	52.7	4,250	5,210	53	
	42.0	50.4	3,880	4,760*	51	
	44.0	48.1	3,250	4,300*	50	
	46.0	45.6	3,240	3,870*	48	
	48.0	43.0	2,960	3,490*	46	
	50.0	40.3	2,700	3,140*	43	
	52.0	37.5	2,470	2,820*	41	
	54.0	34.4	2,250	2,520*	38	
	56.0	31.1	2,050	2,250*	35	
	58.0	27.4	1,870	2,000*	31	
	60.0	23.1	1,690	1,760*	27	
	62.0	18.0	1,540	1,550*	22	
64.0	10.7	1,340*	1,340*	14		
67.1 M Boom	11.9	80.9	17,560*	17,560*	68	
	12.0	80.8	17,560*	17,560*	68	
	13.0	79.9	17,280*	17,280*	68	
	14.0	79.1	16,730*	16,730*	68	
	15.0	78.2	16,430*	16,430*	68	
	16.0	77.3	15,910*	15,910*	67	
	17.0	76.4	15,420	15,660*	67	
	18.0	75.6	14,250	15,160*	67	
	19.0	74.7	13,220	14,930*	67	
	20.0	73.8	12,420	14,560	66	
	22.0	72.0	10,850	12,850	66	
	24.0	70.2	9,560	11,350	65	
	26.0	68.3	8,500	10,110	64	
	28.0	66.5	7,590	9,050	64	
	30.0	64.6	6,810	8,150	63	
32.0	62.7	6,130	7,370	62		
34.0	60.8	5,540	6,690	61		
36.0	58.8	5,020	6,100	59		
38.0	56.7	4,550	5,570	58		
40.0	54.7	4,140	5,060*	57		
42.0	52.5	3,760	4,540*	55		
44.0	50.4	3,430	4,080*	54		
7.3 M Mast	46.0	48.1	3,120	3,660*	52	
	48.0	45.8	2,840	3,280*	50	
	50.0	43.3	2,580	2,930*	48	
	52.0	40.8	2,340	2,610*	46	
	54.0	38.0	2,130	2,320*	43	
	56.0	35.2	1,930	2,050*	41	
	58.0	32.1	1,740	1,800*	38	
	60.0	28.7	1,570	1,570*	34	
	62.0	24.9	1,360*	1,360*	30	
	64.0	20.4	1,170*	1,170*	25	
	70.1 M Boom	12.5	80.8	15,450*	15,450*	71
		13.0	80.4	15,210*	15,210*	71
		14.0	79.5	14,960*	14,960*	71
		15.0	78.7	14,730*	14,730*	71
		16.0	77.9	14,290*	14,290*	71
17.0		77.0	13,800*	13,800*	70	
18.0		76.2	13,580*	13,580*	70	
19.0		75.3	12,630*	12,630*	70	
20.0		74.5	12,320	12,410*	70	
22.0		72.8	10,760	11,970*	69	
24.0		71.1	9,470	11,250	68	
26.0		69.3	8,390	10,000	68	
28.0		67.6	7,480	8,950	67	
30.0		65.8	6,700	8,050	66	
32.0		64.0	6,020	7,270	65	
34.0	62.2	5,440	6,590	64		
36.0	60.3	4,910	5,990	63		
38.0	58.4	4,450	5,450*	62		
40.0	56.4	4,030	4,880*	60		
42.0	54.4	3,660	4,370*	59		
44.0	52.4	3,320	3,900*	58		
46.0	50.3	3,010	3,480*	56		
48.0	48.1	2,740	3,110*	54		
50.0	45.9	2,470	2,760*	52		
52.0	43.6	2,240	2,440*	50		
54.0	41.1	2,020	2,150*	48		
56.0	38.6	1,830	1,890*	46		
58.0	35.9	1,630*	1,630*	43		
60.0	33.0	1,410*	1,410*	40		
62.0	29.8	1,190*	1,190*	37		
64.0	26.3	1,000*	1,000*	33		
73.2 M Boom	12.8	80.9	13,530*	13,530*	74	
	13.0	80.8	13,500*	13,500*	74	
	14.0	80.0	12,670*	12,670*	74	
	15.0	79.2	11,920*	11,920*	74	
	16.0	78.4	11,780*	11,780*	74	
	17.0	77.6	11,650*	11,650*	74	
	18.0	76.8	11,020*	11,020*	73	
	19.0	76.0	10,930*	10,930*	73	
	20.0	75.2	10,850*	10,850*	73	
	22.0	73.5	10,250*	10,250*	72	
	24.0	71.9	9,350	9,730*	72	
	26.0	70.2	8,280	9,270*	71	
	28.0	68.6	7,360	8,830	70	
	30.0	66.9	6,590	7,940	69	
	32.0	65.1	5,910	7,160	68	
34.0	63.4	5,320	6,480	67		
36.0	61.6	4,790	5,860*	66		
38.0	59.8	4,330	5,220*	65		
40.0	58.0	3,920	4,650*	64		
42.0	56.1	3,540	4,140*	63		
44.0	54.2	3,200	3,670*	61		
46.0	52.3	2,900	3,270*	60		
48.0	50.3	2,610	2,880*	58		
50.0	48.2	2,350	2,530*	56		
52.0	46.0	2,120	2,230*	55		
54.0	43.8	1,900	1,930*	53		
56.0	41.5	1,670*	1,670*	50		
58.0	39.1	1,420*	1,420*	48		
60.0	36.5	1,200*	1,200*	45		



CRANE RATING DATA

WARNING

These lift ratings are invalid if the crane has been modified or altered by use of other than **GENUINE AMERICAN PARTS** as such modifications or alterations may affect its capacity or safe operation. See American Crane Corporation Service Bulletin #259.

The ratings in this chart are for planning purposes only. Only those ratings specifically assigned to a crane and mounted in the operator's cab or in the Operator's Manual should be used for actual operation.

Ratings in this chart are in POUNDS (Kgs) and do not exceed the percentage of tipping specified for this crane by ANSI B30.5. All ratings require that the crane be standing level on a firm uniformly supporting surface.

Do not lift loads in excess of those shown on this chart. Lifting loads in excess of those shown or operation not in accordance with good operating practice, including limitations shown on page 3499 of Operator's Manual, can cause tipping, structural damage or catastrophic failure.

Asterisk (*) areas on this chart indicate ratings which are limited by strength of material or factors other than stability (tipping).

"RADIUS IN FEET" is the horizontal distance at ground level from the crane centerline of rotation to a vertical line through the center of gravity of the suspended load.

When using the main boom fall with jib in place, the main fall ratings must be reduced by the jib effective weight shown on the jib rating chart plus twice the weight of all suspended blocks, slings, rope, etc., at the jib fall. See Appendix A.

When using the main boom fall with boom tip extension in place, the main fall ratings must be reduced by the weight of the boom tip extension plus twice the weight of all suspended blocks, slings, rope, etc., at the boom tip extension fall. See Appendix A.

Blocks, slings, buckets and other load carrying devices are considered part of the load. The weight of standard hoisting ropes for the rating at a given radius has been calculated as part of the boom point load and need not be considered in determining net allowable loads. See Appendix A.

This chart was developed exclusively for use with a boom only. Under no circumstances are these ratings to be interpreted for use with a jib.

Ratings shown on this chart make no allowance for such factors as out of plumb loads, wind, poor soil conditions, improper inflation of rubber tires and dynamic effects due to excessive operating speeds. The user (operator) must exercise judgement to make allowance for these conditions. See page 3499 of Operator's Manual for detailed information.

No account is taken of the wind force on the load. This effect, which can be substantial for loads with large surface areas, must be considered by the user. In any wind it is strongly recommended that taglines be used to control the load.

MAST HOIST LINE is 17 parts of .75 inch (19 mm) diameter 6 x 26, WS, FW, RAL, IWRC, EIPS wire rope with a minimum breaking strength of 58,800 pounds (26,672 Kg).

PENDANT SUSPENSION LINE is 2 parts of 1.375 inch (35 mm) diameter EEIPS wire rope with a minimum breaking strength of 211,000 pounds (95,710 Kg).

MAIN LOAD LINE is 1 inch (25 mm) diameter 6 x 25, RRL, IWRC, EIPS wire rope with a minimum breaking strength of 103,400 pounds (46,901 Kg).

Erection "OVER THE END" is with the boom over the idler end with idler tumblers blocked (See Operator's Manual for blocking instructions). Erection "OVER THE SIDE" is with the boom 90° to the side frames and with the side frames extended. Blocks, slings and other load carrying devices must be on the ground during erection.

**LOAD HOISTING INFORMATION**

Maximum Lifting Capacity in Pounds	Minimum Parts of Line	Maximum Hoisting Distance in Feet	
		Main (Front)	Aux. (rear)
250,000	9	160	160
236,000	8	180	180
206,500	7	200	200
177,000	6	240	240
147,500	5	290	290
118,000	4	360	360
88,500	3	480	480
59,000	2	730	730
29,500	1	1,460	1,460

Maximum Lifting Capacity in Kilograms	Minimum Parts of Line	Maximum Hoisting Distance in Meters	
		Main (Front)	Aux. (rear)
113,400	9	49	49
107,049	8	55	55
93,668	7	61	61
80,287	6	73	73
66,906	5	88	88
53,524	4	110	110
40,143	3	146	146
26,762	2	223	223
13,381	1	445	445

BOOM COMPOSITION CHART

Boom Length		25' (7.6 M) 59H Inner	10' (3.0 M) 59H Center	20' (6.1 M) 59H Center	40' (12.2 M) 59H Center	25' (7.6 M) 59H Outer
Feet	Meters					
50	15.2	1	0	0	0	1
60	18.3	1	1	0	0	1
70	21.3	1	0	1	0	1
80	24.4	1	1	1	0	1
90	27.4	1	0	0	1	1
100	30.5	1	1	0	1	1
110	33.5	1	0	1	1	1
120	36.6	1	1	1	1	1
130	39.6	1	0	0	2	1
140	42.7	1	1	0	2	1

Boom Length		25' (7.6 M) 59H Inner	10' (3.0 M) 59H Center	20' (6.1 M) 59H Center	40' (12.2 M) 59H Center	25' (7.6 M) 59H Outer
Feet	Meters					
150	45.7	1	0	1	2	1
160	48.8	1	1	1	2	1
170	51.8	1	0	0	3	1
180	54.9	1	1	0	3	1
190	57.9	1	0	1	3	1
200	61.0	1	1	1	3	1
210	64.0	1	0	0	4	1
220	67.1	1	1	0	4	1
230	70.1	1	0	1	4	1
240	73.2	1	1	1	4	1

MAXIMUM BOOM & JIB SELF-ERECTION DATA

Jib	Over the End				Over the Side			
	Boom Length		Jib Length		Boom Length		Jib Length	
	Feet	Meters	Feet	Meters	Feet	Meters	Feet	Meters
#9HL	240	73.2	0	0.0	230	70.1	0	0.0
	230	70.1	40	12.2	220	67.1	0	0.0
	220	67.1	80	24.4	210	64.0	40	12.2
	—	—	—	—	200	61.0	50	15.2
	—	—	—	—	190	57.9	60	18.3
	—	—	—	—	180	54.9	70	21.3
	—	—	—	—				

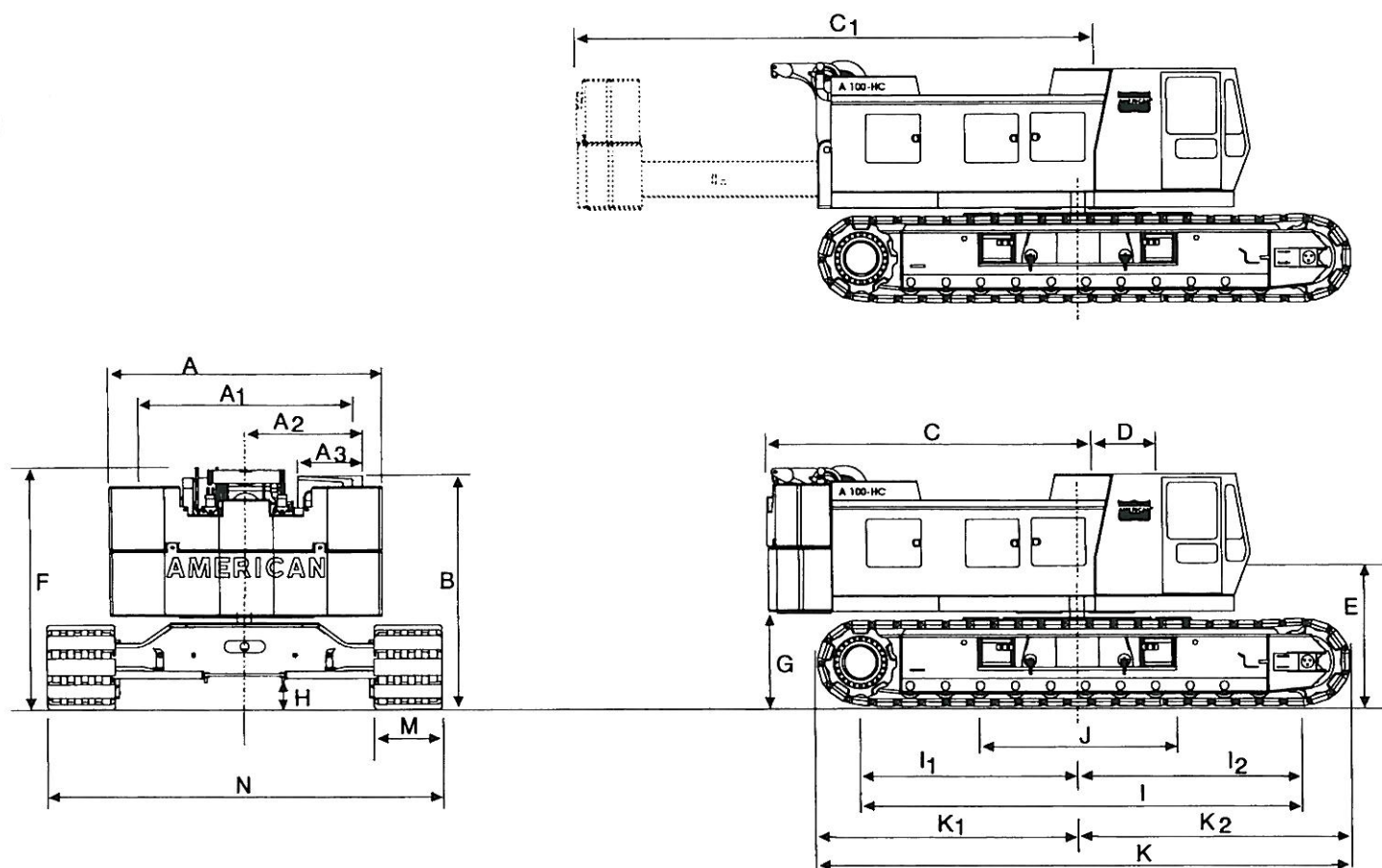
WEIGHTS**LBS. KG**

Lifting Crane with standard counterweight, 50' (15.2 mm) boom with offset tip, transport package, 3rd drum and 38" (965 mm) shoes	209,740	95,137
Lifting crane equipped as above and 44" (1,117 mm) shoes	213,030	96,629
Counterweight Including:	52,150	
Basic	31,000	
Overlay	20,000	
2 Removal Cylinders	1,150	
Crane boom outer (five sheave)	3,260	1,480
Crane boom inner (and misc.)	4,345	1,971
Crawler side frames 38" (965 mm) shoes	70,590	32,020
Crawler Side Frames 44" (1,117 mm) shoes ..	73,880	33,500
Travel weight includes upper, carbody, transportation package, boom inner, counterweight handling sheaves and third drum	83,740	37,985
Second swing motor	580	263

GROUND PRESSURES

Lifting crane with 50 ft. (15.2 mm) boom with offset tip and standard counterweight.

38" (965 mm) shoes	44" (1,117 mm) shoes
10.5 PSI	9.03 PSI

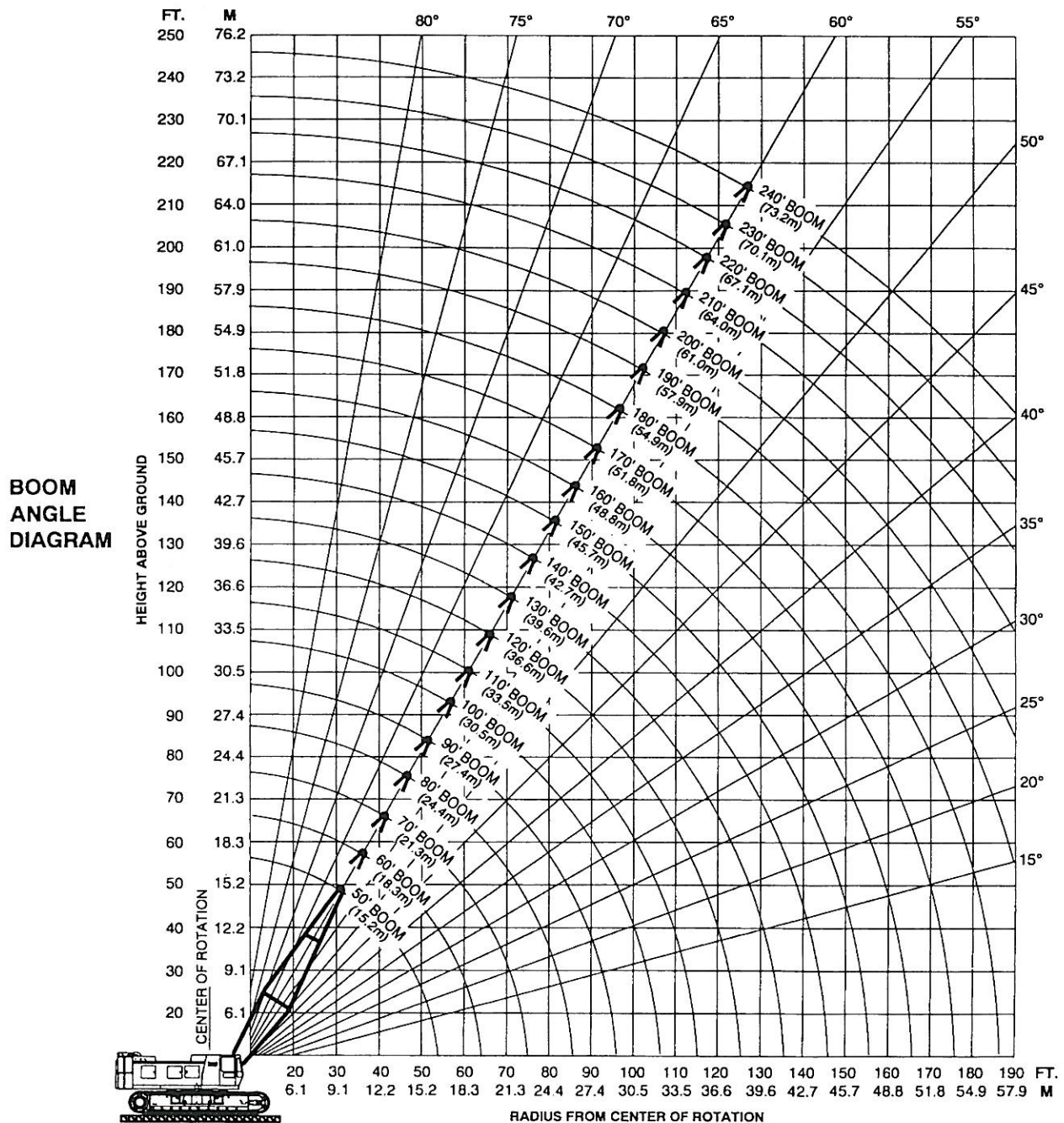


A 100-HCW WorkHorse GENERAL DIMENSIONS

		FEET	MM			FEET	MM
A	Width of counterweight	14'-0"	4,267	I ₂	Center of idler tumbler to center of rotation	10' 11-5/8"	3,342
A ₁	Width of machinery cab	11'-5"	3,480	J	Width of carbody (including vertical jacks)	10'-10"	3,300
A ₂	Centerline of machine to outside of operator's cab	6'-0"	1,829	K	Overall length of crawlers	24' 7-9/16"	7,507
A ₃	Width of operator's cab	3'-4"	1,016	K ₁	Over drive tumbler to center of rotation	12' 0-1/2"	3,670
B	Height overoperator's cab	12'-0"	3,658	K ₂	Over idler tumbler to center of rotation	12' 7-1/16"	3,836
C	Tail swing w/WorkHorse retracted	16'-3"	4,953	M	Width of tread shoe (standard)	38"	965
C ₁	Tail swing w/WorkHorse extended	26'-3"	8,001		(optional)	44"	1,118
D	Center rotation to boom feet	3'-6"	1,066	N	Overall width of crawlers		
E	Ground to center of boom foot	6'-8"	2,032		38" (966 mm) shoes retracted	15'-2"	4,623
F	Height over boom hoist	12' 3-9/16"	3,748		38" (966 mm) shoes extended	18'-5"	5,613
G	Ground to bottom of counterweight	4' 6-3/4"	1,391		44" (1,118 mm) shoes retracted	15'-8"	4,775
H	Minimum ground clearance	1' 7-1/2"	495		44" (1,118 mm) shoes extended	18'-11"	5,766
I	Center to center of crawler tumbler	20' 10-5/16"	6,358	N ₁	Lengthover crawleraxles	15'-2"	4,623
I ₁	Center of drive tumbler to center of rotation	9' 10-3/4"	3,016				



AMERICAN MODEL A 100-HCW WORKING RANGES



LP9603

FORM No. A 100-WH-3

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A 100-HC HYDRAULIC CRAWLER CRANE

LIFT RATINGS IN POUNDS

With 59H Open Throat Boom, 24' Floating Mast and 51,000 Pound Counterweight Fully Retracted

Boom & Mast Length	Radius Feet	Boom Angle Degrees	Side Frames Retracted Pounds	Side Frames Extended Pounds	From Boom Pt. to Ground Feet
50' Boom	12	81.0	250,000*	250,000*	56
	15	77.5	180,380	220,000*	55
	20	71.5	113,920	147,800	54
	25	65.3	82,690	103,810	52
	30	58.8	64,520	79,600	49
24' Mast	35	51.7	52,680	64,230	46
	40	43.9	44,310	53,680	41
	50	22.3	33,220	39,950	25
60' Boom	14	80.6	204,080	220,000*	66
	15	79.6	180,490	220,000*	66
	20	74.7	113,950	147,890	65
	25	69.6	82,680	103,850	63
	30	64.4	64,480	79,610	61
24' Mast	35	59.0	52,660	64,220	58
	40	53.2	44,270	53,680	54
	50	39.8	33,220	39,970	45
	60	20.3	26,250	31,480	27
70' Boom	16	80.3	161,850	206,570*	76
	20	76.9	113,970	147,960	75
	25	72.7	82,690	103,880	73
	30	68.3	64,460	79,620	72
	35	63.8	52,650	64,220	69
24' Mast	40	59.1	44,250	53,680	67
	50	48.9	33,210	39,980	59
	60	36.7	26,300	31,500	48
	70	18.8	21,470	25,760	29
80' Boom	17	80.8	146,560	194,360*	86
	20	78.6	113,890	147,940	85
	25	74.9	82,570	103,800	84
	30	71.1	64,320	79,520	82
	35	67.3	52,500	64,100	80
24' Mast	40	63.3	44,090	53,550	78
	50	54.9	33,040	39,830	72
	60	45.5	26,150	31,350	63
	70	34.2	21,350	25,660	51
	80	17.5	17,820	21,450	30
90' Boom	19	80.5	122,960	161,540	95
	20	79.9	113,850	147,910	95
	25	76.6	82,530	103,770	94
	30	73.3	64,260	79,480	93
	35	69.9	52,450	64,050	91
24' Mast	40	66.5	44,040	53,510	89
	50	59.3	32,990	39,790	84
	60	51.5	26,120	31,310	77
	70	42.8	21,320	25,630	67
	80	32.2	17,820	21,450	54
100' Boom	90	16.5	15,130	18,270	32
	20	80.9	113,740	147,850	105
	25	78.0	82,380	103,660	104
	30	75.0	64,090	79,350	103
	35	72.0	52,270	63,880	102
24' Mast	40	69.0	43,860	53,350	100
	50	62.7	32,770	39,590	95
	60	56.0	25,920	31,110	89

Boom & Mast Length	Radius Feet	Boom Angle Degrees	Side Frames Retracted Pounds	Side Frames Extended Pounds	From Boom Pt. to Ground Feet
100' Boom	70	48.7	21,130	25,450	81
	80	40.5	17,630	21,270	71
	90	30.5	14,960	18,110	57
	100	15.6	12,830	15,600	33
	(cont.)				
110' Boom	22	80.7	98,620	126,330	115
	25	79.1	82,230	103,530	115
	30	76.4	63,930	79,210	114
	35	73.7	52,110	63,730	112
	40	71.0	43,690	53,200	111
24' Mast	50	65.3	32,610	39,440	107
	60	59.4	25,770	30,950	101
	70	53.2	20,980	25,310	94
	80	46.3	17,480	21,130	86
	90	38.5	14,800	17,960	75
120' Boom	100	29.0	12,700	15,470	60
	110	14.8	10,990	13,470	34
	23	81.0	92,290	117,560	125
	25	80.0	82,080	103,400	125
	30	77.6	63,740	79,050	124
24' Mast	35	75.1	51,930	63,550	123
	40	72.6	43,490	53,020	121
	50	67.5	32,380	39,230	117
	60	62.2	25,550	30,720	113
	70	56.7	20,750	25,090	107
130' Boom	80	50.7	17,250	20,910	99
	90	44.2	14,580	17,740	90
	100	36.8	12,480	15,260	78
	110	27.8	10,780	13,260	62
	120	14.2	9,370	11,610	36
140' Boom	25	80.8	81,910	103,250	135
	30	78.5	63,580	78,910	134
	35	76.3	51,770	63,390	133
	40	74.0	43,330	52,870	132
	50	69.3	32,230	39,080	128
24' Mast	60	64.5	25,400	30,570	124
	70	59.5	20,610	24,950	119
	80	54.2	17,110	20,770	112
	90	48.6	14,440	17,600	104
	100	42.4	12,350	15,130	94
150' Boom	110	35.3	10,640	13,130	81
	120	26.6	9,250	11,490	65
	130	13.6	8,070	10,110	37
	27	80.6	73,350	91,760	145
	30	79.4	63,380	78,740	144
24' Mast	35	77.3	51,580	63,210	143
	40	75.2	43,120	52,680	142
	50	70.9	32,000	38,870	139
	60	66.5	25,190	30,340	135
	70	61.9	20,370	24,730	130
160' Boom	80	57.2	16,870	20,540	124
	90	52.1	14,200	17,370	117
	100	46.7	12,110	14,900	108
	110	40.8	10,410	12,900	98
	120	34.0	9,010	11,260	84

Boom & Mast Length	Radius Feet	Boom Angle Degrees	Side Frames Retracted Pounds	Side Frames Extended Pounds	From Boom Pt. to Ground Feet
140' Boom (cont.)	130	25.6	7,830	9,880	67
	140	13.1	6,840	8,720	38
	28	80.8	69,530	86,950	155
	30	80.1	63,180	78,570	154
	35	78.1	51,380	63,010	153
150' Boom	40	76.2	42,920	52,490	152
	50	72.2	31,790	38,670	149
	60	68.1	24,980	30,140	146
	70	63.9	20,180	24,540	141
	80	59.6	16,670	20,350	136
24' Mast	90	55.0	14,000	17,180	129
	100	50.2	11,900	14,700	122
	110	45.0	10,200	12,700	112
	120	39.3	8,810	11,060	101
	130	32.8	7,640	9,690	87
160' Boom	140	24.8	6,630	8,520	69
	150	12.7	5,770	7,520	39
	30	80.7	62,990	78,410	165
	35	78.9	51,180	62,830	164
	40	77.1	42,700	52,300	163
24' Mast	50	73.3	31,560	38,450	160
	60	69.6	24,760	29,910	157
	70	65.7	19,940	24,310	152
	80	61.7	16,430	20,120	147
	90	57.5	13,760	16,940	141
170' Boom	100	53.2	11,650	14,460	134
	110	48.5	9,950	12,450	126
	120	43.5	8,550	10,810	116
	130	38.0	7,380	9,440	105
	140	31.7	6,380	8,270	90
24' Mast	150	24.0	5,530	7,280	71
	160	12.3	4,780	6,400	40
	31	80.9	59,980	73,340*	175
	35	79.6	50,980	62,630	174
	40	77.8	42,500	52,110	173
180' Boom	50	74.3	31,360	38,260	170
	60	70.8	24,570	29,710	167
	70	67.2	19,760	24,130	163
	80	63.5	16,240	19,930	159
	90	59.6	13,570	16,760	153
24' Mast	100	55.6	11,470	14,270	147
	110	51.4	9,770	12,270	139
	120	47.0	8,370	10,630	131
	130	42.1	7,200	9,260	120
	140	36.8	6,210	8,100	108
180' Boom	150	30.7	5,350	7,100	93
	160	23.2	4,610	6,240	73
	170	11.9	3,960	5,470	41
	33	80.8	55,060	64,040*	184
	35	80.1	50,780	62,430	184
24' Mast	40	78.5	42,290	51,920	183
	50	75.2	31,120	38,040	181

(Continued)

FORM No. A100-CR-3



LIFT RATINGS IN POUNDS

With 59H Open Throat Boom, 24' Floating Mast and 51,000 Pound Counterweight Fully Retracted

Boom & Mast Length	Radius Feet	Boom Angle Degrees	Side Frames Retracted Pounds	Side Frames Extended Pounds	From Boom Pt. to Ground Feet
180' Boom	60	71.9	24,350	29,480	178
	70	68.5	19,520	23,900	174
	80	65.1	16,010	19,700	170
	90	61.5	13,330	16,530	165
	100	57.8	11,220	14,030	159
	110	53.9	9,520	12,030	152
	120	49.9	8,110	10,380	144
	130	45.6	6,950	9,010	135
	140	40.9	5,940	7,840	124
	150	35.7	5,090	6,840	111
24' Mast	160	29.8	4,340	5,970	96
	170	22.5	3,690	5,220	75
	180	11.5	3,130	4,560	42
190' Boom	34	81.0	52,630	55,980*	194
	35	80.7	50,570	55,700*	194
	40	79.1	42,070	51,710	193
	50	76.0	30,900	37,820	191
	60	72.9	24,130	29,260	188
	70	69.7	19,310	23,700	185
	80	66.5	15,780	19,480	181
	90	63.1	13,100	16,300	176
	100	59.7	11,000	13,810	170
	110	56.1	9,300	11,810	164
24' Mast	120	52.4	7,900	10,170	157
	130	48.5	6,720	8,790	149
	140	44.3	5,720	7,620	139
	150	39.8	4,870	6,620	128
	160	34.8	4,120	5,760	115
	170	29.0	3,470	4,990	98
	180	21.9	2,900	4,330	77
	190	11.2	2,390	3,740	43
200' Boom	36	80.8	48,430	49,280*	204
	40	79.7	41,860	48,570*	203
	50	76.7	30,660	37,610	201
	60	73.8	23,900	29,020	199
	70	70.8	19,060	23,460	195
	80	67.7	15,540	19,250	192
	90	64.6	12,850	16,060	187
	100	61.3	10,740	13,570	182
	110	58.0	9,040	11,560	176
	120	54.6	7,640	9,910	169
24' Mast	130	51.0	6,460	8,530	162
200' Boom	140	47.2	5,460	7,360	153
	150	43.1	4,610	6,370	143
	160	38.7	3,850	5,490	131
	170	33.8	3,200	4,730	118
	180	28.3	2,630	4,070	101
	190	21.4	2,120	3,480	79
	200	10.9	1,670	2,950	44
210' Boom	38	80.7	43,610*	43,610*	214
	40	80.2	41,640	43,270*	214
	50	77.4	30,440	37,390	212
	60	74.6	23,690	29,090	209
	70	71.7	18,860	23,260	206
	80	68.8	15,330	19,050	202
	90	65.9	12,650	15,860	198
	100	62.8	10,530	13,360	193
	110	59.7	8,830	11,350	188
	120	56.5	7,430	9,710	182
24' Mast	130	53.1	6,250	8,330	174
	140	49.6	5,250	7,160	166
	150	46.0	4,400	6,160	157
	160	42.0	3,650	5,290	147
	170	37.7	3,000	4,530	135
	180	33.0	2,430	3,860	121
	190	27.5	1,910	3,260	103
	200	20.8	1,460	2,740	81
	210	10.7	1,070	2,280	45
220' Boom	39	80.9	38,720*	38,720*	224
	40	80.6	38,510*	38,510*	224
	50	78.0	30,210	35,940*	222
	60	75.3	23,460	28,880	219
	70	72.6	18,620	23,030	217
	80	69.8	15,090	18,820	213
	90	67.0	12,400	15,620	209
	100	64.2	10,290	13,120	205
	110	61.2	8,590	11,110	199
	120	58.2	7,170	9,450	193
24' Mast	130	55.1	5,990	8,070	187
	140	51.8	4,990	6,900	179
	150	48.4	4,140	5,910	171
	160	44.8	3,390	5,030	161
	170	41.0	2,740	4,280	151
	180	36.8	2,160	3,600	138
220' Boom	41	80.8	34,060*	34,060*	234
	50	78.5	29,970	32,230*	232
	60	75.9	23,230	28,650	230
	70	73.4	18,400	22,820	227
	80	70.7	14,860	18,590	224
	90	68.1	12,170	15,400	220
	100	65.4	10,050	12,890	216
	110	62.6	8,350	10,880	211
	120	59.7	6,940	9,230	205
	130	56.8	5,770	7,850	199
24' Mast	140	53.8	4,760	6,680	192
	150	50.6	3,900	5,670	184
	160	47.3	3,150	4,800	175
	170	43.8	2,490	4,030	165
	180	40.0	1,920	3,360	154
	190	36.0	1,410	2,770	141
	200	31.5	—	2,230	126
	210	26.3	—	1,760	108
	220	19.9	—	1,330	84
240' Boom	42	80.9	29,830*	29,830*	244
	50	79.0	27,070*	27,070*	242
	60	76.5	23,010	25,030*	240
	70	74.1	18,150	22,350*	237
	80	71.6	14,620	18,360	234
	90	69.0	11,920	15,150	231
	100	66.4	9,810	12,650	227
	110	63.8	8,090	10,630	222
	120	61.1	6,680	8,970	217
	130	58.3	5,500	7,590	211
24' Mast	140	55.5	4,500	6,420	204
	150	52.5	3,640	5,410	197
	160	49.5	2,890	4,540	189
	170	46.2	2,230	3,770	180
	180	42.8	1,660	3,100	169
	190	39.2	1,140	2,510	158
	200	35.2	—	1,960	145
	210	30.8	—	1,490	129
	220	25.7	—	1,060	110

LIFT RATINGS IN KILOGRAMS

With 59H Open Throat Boom, 7.3M Floating Mast and 23,134 Kg Counterweight Fully Retracted

Boom & Mast Length	Radius Meters	Boom Angle Degrees	Side Frames Retracted Kilograms	Side Frames Extended Kilograms	From Boom Pt. to Ground Meters
15.2 M Boom	3.7	81.0	113,400*	113,400*	17
	4.0	79.7	100,000*	100,000*	17
	4.5	77.8	84,120	100,000*	17
	5.0	75.8	70,380	91,510*	17
	5.5	73.8	60,440	80,170	17
	6.0	71.9	52,910	68,860	17
	7.0	67.8	42,230	53,610	16
	8.0	63.7	35,070	43,790	16
	9.0	59.4	29,890	36,930	15
	10.0	54.9	26,020	31,850	14
7.3 M Mast	11.0	50.1	22,960	27,950	14
	12.0	44.9	20,510	24,870	13
	13.0	39.2	18,500	22,360	12
	14.0	32.7	16,820	20,270	10
	15.0	24.7	15,380	18,500	8
18.3 M Boom	4.3	80.6	92,570	100,093*	20
	4.5	79.8	84,170	100,000*	20
	5.0	78.2	70,410	91,470*	20
	5.5	76.6	60,460	80,210	20
	6.0	75.0	52,930	68,910	20
	7.0	71.7	42,230	53,630	19
	8.0	68.4	35,060	43,790	19
	9.0	64.9	29,880	36,940	19
	10.0	61.4	26,000	31,850	18
	11.0	57.7	22,940	27,940	17
7.3 M Mast	12.0	53.9	20,500	24,870	17
	13.0	49.9	18,480	22,350	16
	14.0	45.6	16,800	20,260	15
	15.0	41.0	15,380	18,510	14
	16.0	35.9	14,150	17,010	13
	17.0	30.0	13,100	15,710	11
	18.0	22.8	12,160	14,580	9
21.3 M Boom	4.9	80.3	73,410	93,700*	23
	5.0	79.9	70,440	91,420*	23
	5.5	78.6	60,470	80,250	23
	6.0	77.2	52,950	68,940	23
	7.0	74.4	42,230	53,650	23
	8.0	71.6	35,060	43,800	22
	9.0	68.7	29,870	36,950	22
	10.0	65.8	26,000	31,850	21
	11.0	62.8	22,940	27,940	21
	12.0	59.7	20,490	24,870	20
7.3 M Mast	13.0	56.5	18,470	22,350	20
	14.0	53.2	16,800	20,270	19
	15.0	49.8	15,370	18,510	18
	16.0	46.1	14,140	17,010	17
	17.0	42.2	13,110	15,720	16
	18.0	38.0	12,180	14,580	15
	19.0	33.4	11,350	13,590	14
	20.0	28.0	10,620	12,730	12

(Continued)



LIFT RATINGS IN KILOGRAMS (cont'd)

With 59H Open Throat Boom, 7.3M Floating Mast and 23,134 Kg Counterweight Fully Retracted

Boom & Mast Length	Radius Meters	Boom Angle Degrees	Side Frames Retracted Kilograms	Side Frames Extended Kilograms	From Boom Pt. to Ground Meters
24.4 M Boom	5.2	80.8	66,480	88,160*	26
	5.5	80.0	60,450	80,250	26
	6.0	78.8	52,910	68,930	26
	7.0	76.4	42,180	53,620	26
	8.0	74.0	35,000	43,770	25
	9.0	71.5	29,810	36,900	25
	10.0	69.0	25,930	31,800	25
	11.0	66.4	22,880	27,880	24
	12.0	63.8	20,420	24,820	24
	13.0	61.2	18,400	22,290	23
	14.0	58.5	16,720	20,200	23
	15.0	55.6	15,290	18,440	22
	16.0	52.7	14,070	16,950	21
	17.0	49.7	13,050	15,650	21
7.3 M Mast	18.0	46.5	12,110	14,520	20
	19.0	43.1	11,280	13,530	19
	20.0	39.5	10,550	12,670	17
	22.0	31.3	9,300	11,170	15
	24.0	20.4	8,260	9,940	10
27.4 M Boom	5.8	80.5	55,770	73,270	29
	6.0	80.1	52,900	68,930	29
	7.0	77.9	42,160	53,600	29
	8.0	75.8	34,980	43,750	29
	9.0	73.6	29,780	36,880	28
	10.0	71.4	25,910	31,780	28
	11.0	69.2	22,850	27,850	28
	12.0	66.9	20,390	24,790	27
	13.0	64.6	18,380	22,270	27
	14.0	62.3	16,700	20,190	26
	15.0	59.9	15,270	18,430	26
	16.0	57.4	14,040	16,920	25
	17.0	54.9	13,030	15,620	24
	18.0	52.3	12,090	14,500	24
7.3 M Mast	19.0	49.6	11,270	13,500	23
	20.0	46.8	10,540	12,670	22
	22.0	40.7	9,290	11,170	20
	24.0	33.7	8,270	9,950	17
	26.0	25.1	7,400	8,920	14
30.5 M Boom	6.1	80.9	51,590	67,070	32
	7.0	79.2	42,090	53,560	32
	8.0	77.2	34,910	43,690	32
	9.0	75.3	29,700	36,820	32
	10.0	73.3	25,840	31,710	31
	11.0	71.4	22,770	27,780	31
	12.0	69.4	20,310	24,720	31
	13.0	67.3	18,290	22,200	30
	14.0	65.3	16,600	20,100	30
	15.0	63.2	15,170	18,340	29
	16.0	61.0	13,960	16,840	29
	17.0	58.9	12,940	15,540	28
	18.0	56.6	12,000	14,410	27
	19.0	54.3	11,190	13,420	27
7.3 M Mast	20.0	52.0	10,450	12,580	26
	22.0	47.0	9,200	11,080	24
	24.0	41.6	8,170	9,850	22
	26.0	35.5	7,320	8,840	20
	28.0	28.3	6,590	7,980	16
	30.0	18.7	5,960	7,240	12
33.5 M Boom	6.7	80.7	44,730	57,310	35
	7.0	80.2	42,020	53,510	35
	8.0	78.4	34,840	43,630	35
	9.0	76.7	29,630	36,750	35
	10.0	74.9	25,760	31,640	34
	11.0	73.1	22,700	27,710	34
	12.0	71.3	20,240	24,660	34
	13.0	69.5	18,220	22,130	33
	14.0	67.7	16,530	20,030	33
	15.0	65.8	15,100	18,270	33
	16.0	63.9	13,870	16,760	32
	17.0	62.0	12,870	15,460	32
	18.0	60.0	11,940	14,340	31
	19.0	58.0	11,110	13,340	30
7.3 M Mast	20.0	56.0	10,380	12,510	30
	22.0	51.7	9,130	11,010	28
Boom & Mast Length	Radius Meters	Boom Angle Degrees	Side Frames Retracted Kilograms	Side Frames Extended Kilograms	From Boom Pt. to Ground Meters
33.5 M Boom	24.0	47.2	8,110	9,800	27
	26.0	42.3	7,250	8,780	25
	28.0	36.9	6,520	7,910	22
	30.0	30.7	5,900	7,180	19
	32.0	23.0	5,360	6,540	17
(cont.)	7.0	81.0	41,860	53,320	38
	8.0	79.4	34,760	43,570	38
	9.0	77.8	29,540	36,690	38
	10.0	76.2	25,680	31,570	38
	11.0	74.6	22,610	27,630	37
	12.0	72.9	20,140	24,570	37
	13.0	71.3	18,120	22,040	37
	14.0	69.6	16,430	19,940	36
	15.0	67.9	15,000	18,180	36
	16.0	66.2	13,770	16,670	35
	17.0	64.5	12,780	15,370	35
	18.0	62.7	11,840	14,230	35
	19.0	61.0	11,010	13,300	34
	20.0	59.1	10,280	12,420	33
36.6 M Boom	22.0	55.4	9,020	10,910	32
	24.0	51.5	8,000	9,700	31
	26.0	47.3	7,140	8,680	29
	28.0	42.9	6,410	7,810	27
	30.0	38.0	5,800	7,080	24
	32.0	32.6	5,260	6,450	22
	34.0	26.1	4,780	5,890	18
	36.0	17.6	4,360	5,390	13
7.3 M Mast	7.6	30.8	37,150	46,830	41
	8.0	80.2	34,690	43,490	41
	9.0	78.7	29,480	36,630	41
	10.0	77.3	25,620	31,500	41
	11.0	75.8	22,540	27,550	40
	12.0	74.3	20,070	24,510	40
	13.0	72.8	18,050	21,970	40
	14.0	71.2	16,360	19,870	40
	15.0	69.7	14,930	18,110	39
	16.0	68.2	13,700	16,600	39
	17.0	66.6	12,710	15,300	38
	18.0	65.0	11,770	14,170	38
	19.0	63.4	10,940	13,240	37
	20.0	61.7	10,210	12,350	37
39.6 M Boom	22.0	58.4	8,960	10,860	36
	24.0	54.9	7,940	9,630	34
	26.0	51.3	7,080	8,610	33
	28.0	47.5	6,360	7,760	31
	30.0	43.4	5,730	7,020	29
	32.0	39.0	5,190	6,380	27
	34.0	34.1	4,720	5,830	24
	36.0	28.5	4,310	5,340	21
	38.0	21.5	3,940	4,910	16
7.3 M Mast	8.2	80.6	33,270	41,620	44
	9.0	79.6	29,390	36,560	44
	10.0	78.2	25,530	31,420	44
	11.0	76.8	22,450	27,470	44
	12.0	75.4	19,970	24,420	43
	13.0	74.0	17,960	21,890	43
	14.0	72.6	16,260	19,790	43
	15.0	71.2	14,830	18,010	42
	16.0	69.8	13,590	16,500	42
	17.0	68.3	12,610	15,200	42
	18.0	66.9	11,670	14,060	41
	19.0	65.4	10,850	13,150	41
	20.0	63.9	10,110	12,260	40
	22.0	60.9	8,860	10,760	39
42.7 M Boom	24.0	57.8	7,830	9,530	38
	26.0	54.5	6,970	8,510	37
	28.0	51.1	6,250	7,650	35
	30.0	47.6	5,630	6,920	33
	32.0	43.8	5,080	6,280	32
	34.0	39.8	4,610	5,730	29
	36.0	35.3	4,200	5,240	27
	38.0	30.3	3,820	4,800	23
	40.0	21.1	3,190	4,110	20
	42.0	16.7	3,190	4,060	14
7.3 M Mast	8.2	80.9	27,210	33,270*	53
	10.0	80.3	25,260	31,160	53
	11.0	79.2	22,170	27,200	53
	12.0	78.0	19,710	24,170	53
	13.0	76.9	17,670	21,620	53
	14.0	75.8	15,980	19,510	52
	15.0	74.6	14,540	17,740	52
	16.0	73.5	13,300	16,220	52
	17.0	72.3	12,330	14,920	51
	18.0	71.2	11,390	13,780	51
	19.0	70.0	10,560	12,870	51
	20.0	68.8	9,830	11,550	50
	22.0	66.4	8,580	10,480	50
	24.0	64.0	7,550	9,250	49
51.8 M Boom	26.0	61.5	6,690	8,230	48
	28.0	58.9	5,960	7,370	46
	30.0	56.3	5,340	6,640	45
	32.0	53.6	4,800	6,000	44
	34.0	50.8	4,320	5,440	42
	36.0	47.8	3,910	4,960	40
	38.0	44.8	3,540	4,520	38
	40.0	41.5	3,200	4,120	36
	42.0	38.0	2,910	3,780	34
7.3 M Mast	9.4	80.9	27,210	33,270*	53
	10.0	80.3	25,260	31,160	53
	11.0	79.2	22,170	27,200	53
	12.0	78.0	19,710	24,170	53
	13.0	76.9	17,670	21,620	53
	14.0	75.8	15,980	19,510	52
	15.0	74.6	14,540	17,740	52
	16.0	73.5	13,300	16,220	52
	17.0	72.3	12,330	14,920	51
	18.0	71.2	11,390	13,780	51
	19.0	70.0	10,560	12,870	51
	20.0	68.8	9,830	11,550	50
	22.0	66.4	8,580	10,480	50
	24.0	64.0	7,550	9,250	49

(Continued)



LIFT RATINGS IN KILOGRAMS (cont'd)

With 59H Open Throat Boom, 7.3M Floating Mast and 23,134 Kg Counterweight Fully Retracted

Boom & Mast Length	Radius Meters	Boom Angle Degrees	Side Frames Retracted Kilograms	Side Frames Extended Kilograms	From Boom Pt. to Ground Meters	
51.8 M Boom	44.0	34.3	2,640	3,470	31	
	46.0	30.1	2,390	3,180	28	
	48.0	25.3	2,170	2,920	24	
(cont.)	50.0	19.4	1,960	2,680	19	
54.9 M Boom	10.1	80.8	24,980	29,050*	56	
	11.0	79.8	22,080	27,110	56	
	12.0	78.7	19,600	24,080	56	
	13.0	77.7	17,570	21,530	56	
	14.0	76.6	15,870	19,410	55	
	15.0	75.5	14,430	17,640	55	
	16.0	74.4	13,200	16,130	55	
	17.0	73.3	12,240	14,820	55	
	18.0	72.2	11,290	13,680	54	
	19.0	71.1	10,460	12,780	54	
	20.0	70.0	9,720	11,890	54	
	22.0	67.8	8,470	10,380	53	
	24.0	65.5	7,430	9,150	52	
	26.0	63.2	6,570	8,120	51	
	7.3 M Mast	28.0	60.8	5,850	7,270	50
		30.0	58.4	5,230	6,530	49
		32.0	55.9	4,680	5,890	47
		34.0	53.3	4,210	5,330	46
		36.0	50.7	3,800	4,840	44
38.0		47.9	3,420	4,400	43	
40.0		45.0	3,100	4,020	41	
42.0		42.0	2,790	3,670	39	
44.0		38.7	2,520	3,350	36	
46.0		35.2	2,280	3,070	34	
57.9 M Boom	48.0	31.4	2,060	2,810	31	
	50.0	27.1	1,840	2,560	27	
	52.0	22.0	1,660	2,340	23	
	54.0	15.5	1,490	2,150	17	
	10.4	81.0	23,880	25,390*	59	
	11.0	80.3	21,990	25,210*	59	
	12.0	79.3	19,510	23,990	59	
	13.0	78.3	17,470	21,440	59	
	14.0	77.3	15,770	19,320	59	
	15.0	76.3	14,330	17,540	58	
	16.0	75.3	13,210	16,020	58	
	17.0	74.2	12,130	14,710	58	
	18.0	73.2	11,190	13,580	57	
	19.0	72.2	10,360	12,680	57	
	20.0	71.1	9,620	11,790	57	
	22.0	69.0	8,360	10,280	56	
	24.0	66.9	7,330	9,040	55	
	26.0	64.7	6,480	8,030	54	
	7.3 M Mast	28.0	62.5	5,750	7,170	53
30.0		60.2	5,120	6,430	52	
32.0		57.9	4,580	5,780	51	
34.0		55.5	4,110	5,230	50	
36.0		53.1	3,690	4,740	48	
38.0		50.6	3,320	4,300	47	
40.0		48.0	2,990	3,920	45	
42.0		45.2	2,690	3,570	43	
44.0		42.3	2,410	3,250	41	
46.0		39.3	2,170	2,960	39	
61.0 M Boom	48.0	36.1	1,950	2,710	36	
	50.0	32.5	1,740	2,460	33	
	52.0	28.6	1,560	2,250	30	
	54.0	24.1	1,390	2,050	26	
	56.0	18.7	1,230	1,860	20	
	11.0	80.8	21,890	22,350*	62	
	12.0	79.9	19,410	22,050*	62	
	13.0	78.9	17,370	21,350	62	
	14.0	77.9	15,670	19,230	62	
	15.0	77.0	14,220	17,450	61	
	16.0	76.0	13,100	15,920	61	
	17.0	75.0	12,030	14,610	61	
	18.0	74.1	11,090	13,470	61	
	19.0	73.1	10,250	12,580	60	
	61.0 M Boom (cont.)	20.0	72.1	9,510	11,680	60
		22.0	70.1	8,260	10,180	59
		24.0	68.1	7,230	8,950	59
		26.0	66.1	6,370	7,920	58
		28.0	64.0	5,630	7,050	57
30.0		61.9	5,010	6,310	56	
32.0		59.7	4,470	5,680	55	
34.0		57.5	4,000	5,120	53	
36.0		55.2	3,570	4,630	52	
38.0		52.9	3,200	4,190	51	
40.0		50.5	2,870	3,800	49	
42.0		48.0	2,570	3,450	47	
44.0		45.4	2,300	3,140	45	
46.0		42.7	2,050	2,850	43	
48.0		39.8	1,830	2,580	41	
50.0		36.8	1,630	2,350	38	
52.0		33.5	1,440	2,130	36	
54.0		29.9	1,260	1,920	32	
56.0		25.9	1,100	1,740	29	
58.0	21.1	-	1,570	24		
60.0	15.0	-	1,400	18		
64.0 M Boom	11.6	80.7	19,780*	19,780*	65	
	12.0	80.3	19,310	19,640*	65	
	13.0	79.4	17,270	19,330*	65	
	14.0	78.5	15,560	18,870*	65	
	15.0	77.6	14,130	17,350	65	
	16.0	76.7	13,020	15,830	64	
	17.0	75.8	11,940	14,520	64	
	18.0	74.8	11,000	13,370	64	
	19.0	73.9	10,170	12,490	64	
	20.0	73.0	9,430	11,600	63	
	22.0	71.1	8,160	10,080	63	
	24.0	69.2	7,130	8,850	62	
	26.0	67.3	6,270	7,820	61	
	28.0	65.3	5,540	6,960	60	
	30.0	63.3	4,920	6,230	59	
	32.0	61.3	4,380	5,590	58	
	7.3 M Mast	34.0	59.2	3,900	5,020	57
		36.0	57.1	3,480	4,530	56
		38.0	54.9	3,110	4,100	54
40.0		52.7	2,780	3,710	53	
42.0		50.4	2,470	3,360	51	
44.0		48.1	2,210	3,050	50	
46.0		45.6	1,960	2,750	48	
48.0		43.0	1,740	2,500	46	
50.0		40.3	1,530	2,250	43	
52.0		37.5	1,350	2,040	41	
67.1 M Boom	54.0	34.4	1,170	1,830	38	
	56.0	31.1	1,010	1,650	35	
	58.0	27.4	-	1,480	31	
	60.0	23.1	-	1,310	27	
	62.0	18.0	-	1,170	22	
	64.0	10.7	-	1,030	14	
	11.9	80.9	17,560*	17,560*	68	
	12.0	80.8	17,560*	17,560*	68	
	13.0	79.9	17,170	17,280*	68	
	14.0	79.1	15,460	16,730*	68	
	15.0	78.2	14,020	16,430*	68	
	16.0	77.3	12,910	15,720	67	
	17.0	76.4	11,840	14,410	67	
	18.0	75.6	10,890	13,260	67	
	19.0	74.7	10,060	12,390	67	
	20.0	73.8	9,320	11,500	66	
	22.0	72.0	8,050	9,980	66	
	24.0	70.2	7,020	8,740	65	
	26.0	68.3	6,160	7,720	64	
28.0	66.5	5,430	6,860	64		
30.0	64.6	4,800	6,110	63		
32.0	62.7	4,260	5,470	62		
34.0	60.8	3,780	4,910	61		
36.0	58.8	3,370	4,430	59		
67.1 M Boom (cont.)	20.0	72.1	9,510	11,680	60	
	22.0	70.1	8,260	10,180	59	
	24.0	68.1	7,230	8,950	59	
	26.0	66.1	6,370	7,920	58	
	28.0	64.0	5,630	7,050	57	
	30.0	61.9	5,010	6,310	56	
	32.0	59.7	4,470	5,680	55	
	34.0	57.5	4,000	5,120	53	
	36.0	55.2	3,570	4,630	52	
	38.0	52.9	3,200	4,190	51	
	40.0	50.5	2,870	3,800	49	
	42.0	48.0	2,570	3,450	47	
	44.0	45.4	2,300	3,140	45	
	46.0	42.7	2,050	2,850	43	
	48.0	39.8	1,830	2,580	41	
	50.0	36.8	1,630	2,350	38	
	52.0	33.5	1,440	2,130	36	
	54.0	29.9	1,260	1,920	32	
	56.0	25.9	1,100	1,740	29	
58.0	21.1	-	1,570	24		
60.0	15.0	-	1,400	18		
70.1 M Boom	12.5	80.8	15,450*	15,450*	71	
	13.0	80.4	15,210*	15,210*	71	
	14.0	79.5	14,960*	14,960*	71	
	15.0	78.7	13,910	14,730*	71	
	16.0	77.9	12,810	14,290*	71	
	17.0	77.0	11,730	13,800*	70	
	18.0	76.2	10,790	13,160	70	
	19.0	75.3	9,950	12,290	70	
	20.0	74.5	9,210	11,390	70	
	22.0	72.8	7,960	9,880	69	
	24.0	71.1	6,920	8,650	68	
	26.0	69.3	6,060	7,620	68	
	28.0	67.6	5,320	6,750	67	
	30.0	65.8	4,700	6,010	66	
	32.0	64.0	4,150	5,360	65	
	34.0	62.2	3,680	4,810	64	
	36.0	60.3	3,260	4,320	63	
	38.0	58.4	2,890	3,880	62	
	40.0	56.4	2,550	3,480	60	
42.0	54.4	2,260	3,140	59		
44.0	52.4	1,980	2,820	58		
46.0	50.3	1,730	2,530	56		
48.0	48.1	1,510	2,270	54		
50.0	45.9	1,300	2,030	52		
52.0	43.6	1,120	1,820	50		
54.0	41.1	-	1,610	48		
56.0	38.6	-	1,430	46		
58.0	35.9	-	1,250	43		
60.0	33.0	-	1,090	40		
73.2 M Boom	12.8	80.9	13,530*	13,530*	74	
	13.0	80.8	13,500*	13,500*	74	
	11.0	80.0	12,670*	12,670*	74	
	15.0	79.2	11,920*	11,920*	74	
	16.0	78.4	11,780*	11,780*	74	
	17.0	77.6	11,640	11,650*	74	
	18.0	76.8	10,690	11,020*	73	
	19.0	76.0	9,850	10,930*	73	
	20.0	75.2	9,110	10,850*	73	
	22.0	73.5	7,840	9,780	72	
	24.0	71.9	6,810	8,540	72	
	26.0	70.2	5,940	7,510	71	
	28.0	68.6	5,210	6,640	70	
	30.0	66.9	4,590	5,900	69	
	32.0	65.1	4,040	5,260	68	
	34.0	63.4	3,560	4,700	67	
	36.0	61.6	3,140	4,200	66	
	38.0	59.8	2,770	3,760	65	
	40.0	58.0	2,440	3,380	64	
42.0	56.1	2,140	3,020	63		
44.0	54.2	1,860	2,700	61		
46.0	52.3	1,620	2,420	60		
48.0	50.3	1,390	2,150	58		
50.0	48.2	1,180	1,910	56		
52.0	46.0	1,000	1,700	55		
54.0	43.8	-	1,490	53		
56.0	41.5	-	1,310	50		
58.0	39.1	-	1,130	48		



CRANE RATING DATA

WARNING

These lift ratings are invalid if the crane has been modified or altered by use of other than **GENUINE AMERICAN PARTS** as such modifications or alterations may affect its capacity or safe operation. See American Crane Corporation Service Bulletin #259.

The ratings in this chart are for planning purposes only. Only those ratings specifically assigned to a crane and mounted in the operator's cab or in the Operator's Manual should be used for actual operation.

Ratings in this chart are in POUNDS (Kgs) and do not exceed the percentage of tipping specified for this crane by ANSI B30.5. All ratings require that the crane be standing level on a firm uniformly supporting surface.

Do not lift loads in excess of those shown on this chart. Lifting loads in excess of those shown or operation not in accordance with good operating practice, including limitations shown on page 3499 of Operator's Manual, can cause tipping, structural damage or catastrophic failure.

Asterisk (*) areas on this chart indicate ratings which are limited by strength of material or factors other than stability (tipping).

"RADIUS IN FEET" is the horizontal distance at ground level from the crane centerline of rotation to a vertical line through the center of gravity of the suspended load.

When using the main boom fall with jib in place, the main fall ratings must be reduced by the jib effective weight shown on the jib rating chart plus twice the weight of all suspended blocks, slings, rope, etc., at the jib fall. See Appendix A.

When using the main boom fall with boom tip extension in place, the main fall ratings must be reduced by the weight of the boom tip extension plus twice the weight of all suspended blocks, slings, rope, etc., at the boom tip extension fall. See Appendix A.

Blocks, slings, buckets and other load carrying devices are considered part of the load. The weight of standard hoisting ropes for the rating at a given radius has been calculated as part of the boom point load and need not be considered in determining net allowable loads. See Appendix A.

This chart was developed exclusively for use with a boom only. Under no circumstances are these ratings to be interpreted for use with a jib.

Ratings shown on this chart make no allowance for such factors as out of plumb loads, wind, poor soil conditions, improper inflation of rubber tires and dynamic effects due to excessive operating speeds. The user (operator) must exercise judgement to make allowance for these conditions. See page 3499 of Operator's Manual for detailed information.

No account is taken of the wind force on the load. This effect, which can be substantial for loads with large surface areas, must be considered by the user. In any wind it is strongly recommended that taglines be used to control the load.

MAST HOIST LINE is 17 parts of .75 inch (19 mm) diameter 6 x 26, WS, FW, RAL, IWRC, EIPS wire rope with a minimum breaking strength of 58,800 pounds (26,672 Kg).

I PENDANT SUSPENSION LINE is 2 parts of 1.375 inch (35 mm) diameter EEIPS wire rope with a minimum breaking strength of 211,000 pounds (95,710 Kg).

MAIN LOAD LINE is 1 inch (25 mm) diameter 6 x 25, RRL, IWRC, EIPS wire rope with a minimum breaking strength of 103,400 pounds (46,901 Kg).

Erection "OVER THE END" is with the boom over the idler end with idler tumblers blocked (See Operator's Manual for blocking instructions). Erection "OVER THE SIDE" is with the boom 90° to the side frames and with the side frames extended. Blocks, slings and other load carrying devices must be on the ground during erection.

**LOAD HOISTING INFORMATION**

Maximum Lifting Capacity in Pounds	Minimum Parts of Line	Maximum Hoisting Distance in Feet	
		Main (Front)	Aux. (rear)
250,000	9	160	160
236,000	8	180	180
206,500	7	200	200
177,000	6	240	240
147,500	5	290	290
118,000	4	360	360
88,500	3	480	480
59,000	2	730	730
29,500	1	1,460	1,460

Maximum Lifting Capacity in Kilograms	Minimum Parts of Line	Maximum Hoisting Distance in Meters	
		Main (Front)	Aux. (rear)
113,400	9	49	49
107,049	8	55	55
93,668	7	61	61
80,287	6	73	73
66,906	5	88	88
53,524	4	110	110
40,143	3	146	146
26,762	2	223	223
13,381	1	445	445

BOOM COMPOSITION CHART

Boom Length		25' (7.6 M) 59H Inner	10' (3.0 M) 59H Center	20' (6.1 M) 59H Center	40' (12.2 M) 59H Center	25' (7.6 M) 59H Outer
Feet	Meters					
50	15.2	1	0	0	0	1
60	18.3	1	1	0	0	1
70	21.3	1	0	1	0	1
80	24.4	1	1	1	0	1
90	27.4	1	0	0	1	1
100	30.5	1	1	0	1	1
110	33.5	1	0	1	1	1
120	36.6	1	1	1	1	1
130	39.6	1	0	0	2	1
140	42.7	1	1	0	2	1

Boom Length		25' (7.6 M) 59H Inner	10' (3.0 M) 59H Center	20' (6.1 M) 59H Center	40' (12.2 M) 59H Center	25' (7.6 M) 59H Outer
Feet	Meters					
150	45.7	1	0	1	2	1
160	48.8	1	1	1	2	1
170	51.8	1	0	0	3	1
180	54.9	1	1	0	3	1
190	57.9	1	0	1	3	1
200	61.0	1	1	1	3	1
210	64.0	1	0	0	4	1
220	67.1	1	1	0	4	1
230	70.1	1	0	1	4	1
240	73.2	1	1	1	4	1

MAXIMUM BOOM & JIB SELF-ERECTION DATA

Jib	Over the End				Over the Side			
	Boom Length		Jib Length		Boom Length		Jib Length	
	Feet	Meters	Feet	Meters	Feet	Meters	Feet	Meters
#9HL	240	73.2	0	0.0	230	70.1	0	0.0
	230	70.1	40	12.2	220	67.1	0	0.0
	220	67.1	80	24.4	210	64.0	40	12.2
	—	—	—	—	200	61.0	50	15.2
	—	—	—	—	190	57.9	60	18.3
	—	—	—	—	180	54.9	70	21.3

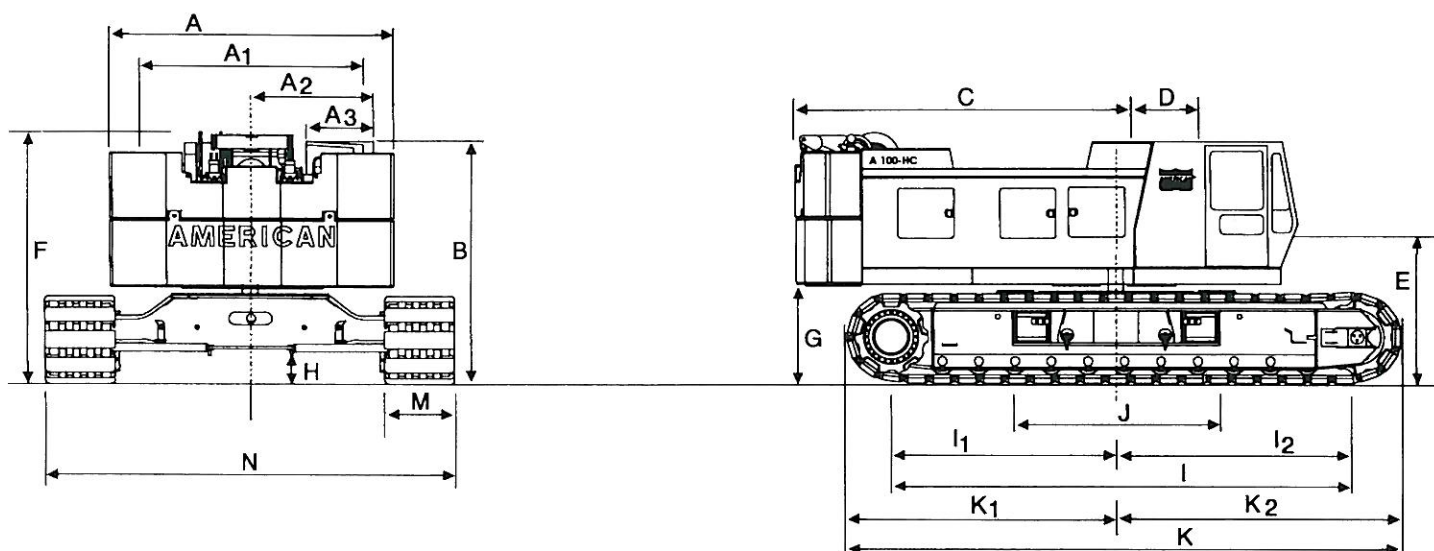
WEIGHTS

	LBS.	KG
Lifting Crane with standard counterweight, 50' (15.2 mm) boom with offset tip, transport package, 3rd drum and 38" (965 mm) shoes	209,740	95,137
Lifting crane equipped as above and 44" (1,117 mm) shoes	213,030	96,629
Counterweight Including:	52,150	
Basic	31,000	
Overlay	20,000	
2 Removal Cylinders	1,150	
Crane boom outer (five sheave)	3,260	1,480
Crane boom inner (and misc.)	4,345	1,971
Crawler side frames 38" (965 mm) shoes	70,590	32,020
Crawler Side Frames 44" (1,117 mm) shoes ..	73,880	33,500
Travel weight includes upper, carbody, transportation package, boom inner, counterweight handling sheaves and third drum	83,740	37,985
Second swing motor	580	263

GROUND PRESSURES

Lifting crane with 50 ft. (15.2 mm) boom with offset tip and standard counterweight.

38" (965 mm) shoes	44" (1,117 mm) shoes
10.5 PSI	9.03 PSI

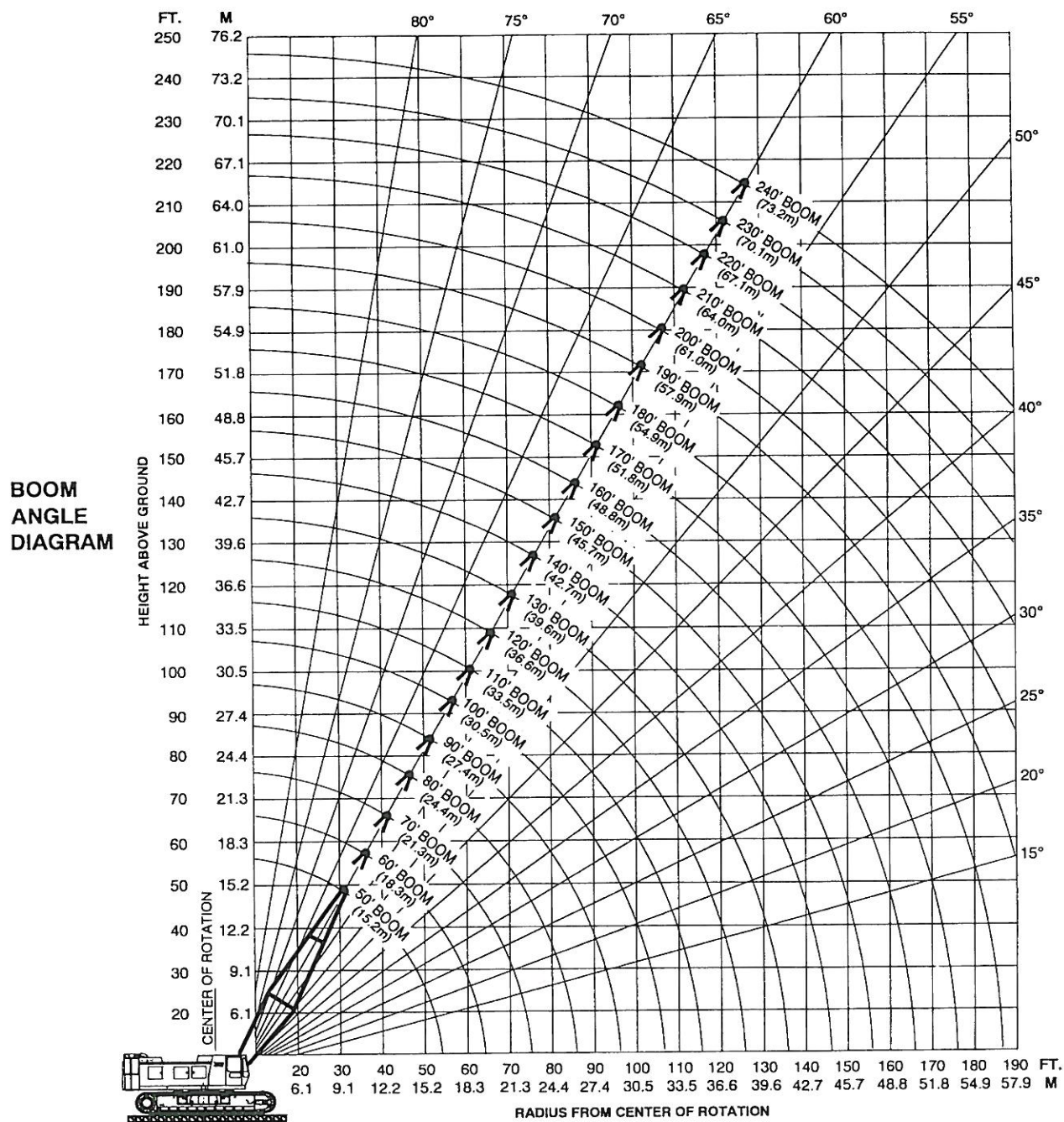


A 100-HC HYDRAULIC CRAWLER CRANE GENERAL DIMENSIONS

		FEET	MM			FEET	MM
A	Width of counterweight	14'-0"	4,267	I ₂	Center of idler tumbler to center of rotation	10' 11-5/8"	3,342
A ₁	Width of machinery cab	11'-5"	3,480	J	Width of carbody (including vertical jacks)	10'-10"	3,300
A ₂	Centerline of machine to outside of operator's cab	6'-0"	1,829	K	Overall length of crawlers	24' 7-9/16"	7,507
A ₃	Width of operator's cab	3'-4"	1,016	K ₁	Over drive tumbler to center of rotation	12' 0-1/2"	3,670
B	Height overoperator's cab	12'-0"	3,658	K ₂	Over idler tumbler to center of rotation	12' 7-1/16"	3,836
C	Tail swing w/WorkHorse retracted	16'-3"	4,953	M	Width of tread shoe (standard)	38"	965
D	Center rotation to boom feet	3'-6"	1,066		(optional)	44"	1,118
E	Ground to center of boom foot	6'-8"	2,032	N	Overall width of crawlers		
F	Height over boom hoist	12' 3-9/16"	3,748		38" (966 mm) shoes retracted	15'-2"	4,623
G	Ground to bottom of counterweight.....	4' 6-3/4"	1,391		38" (966 mm) shoes extended	18'-5"	5,613
H	Minimum ground clearance	1' 7-1/2"	495		44" (1,118 mm) shoes retracted.....	15'-8"	4,775
I	Center to center of crawler tumblers	20' 10-5/16"	6,358		44" (1,118 mm) shoes extended	18'-11"	5,766
I ₁	Center of drive tumbler to center of rotation	9' 10-3/4"	3,016	N ₁	Lengthover crawleraxles	15'-2"	4,623



AMERICAN MODEL A 100-HC WORKING RANGES



LP9603

FORM No. A 100-CR-3

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