FMC

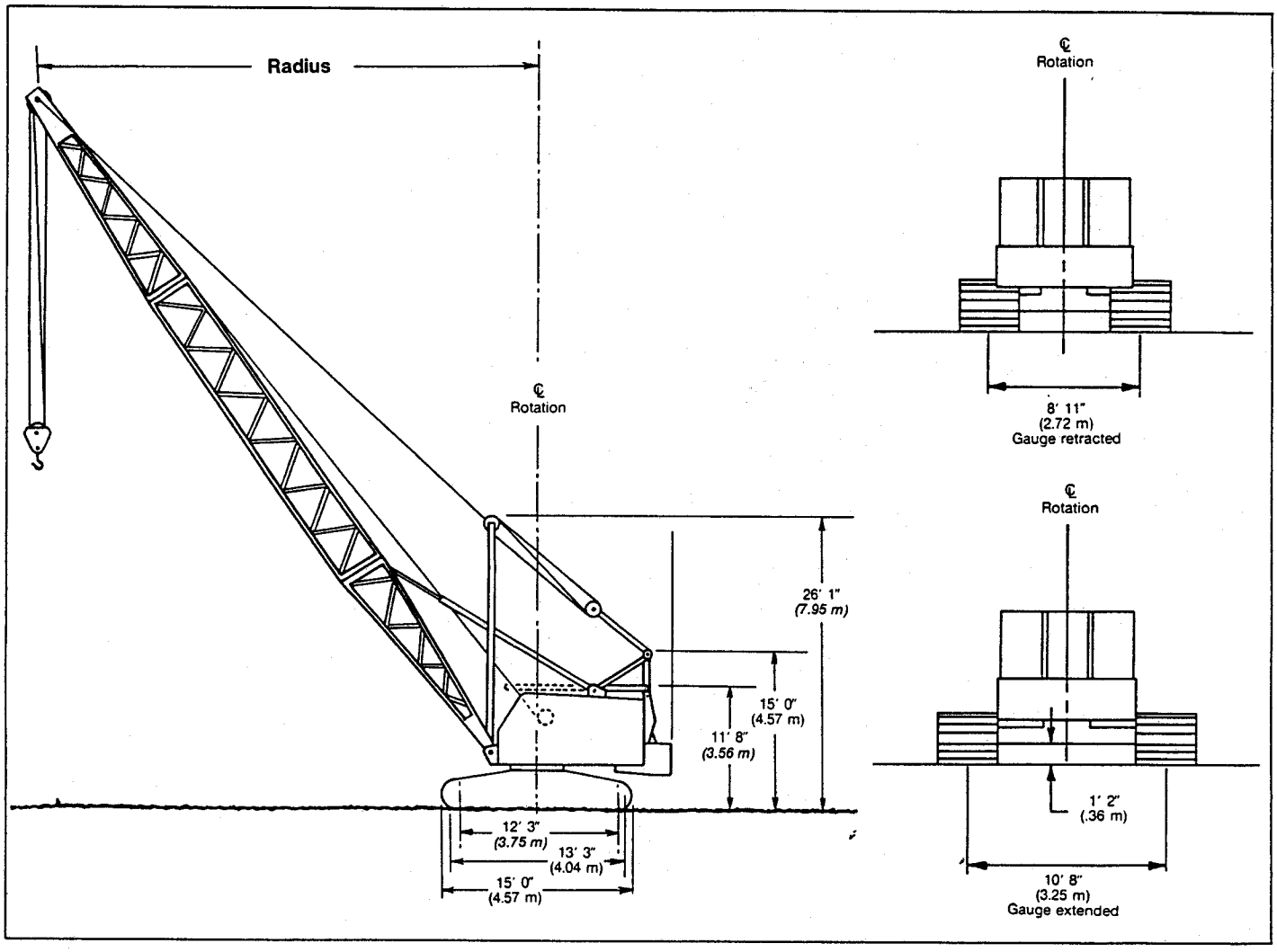
General Specifications

Link-Belt® 45-ton *(40.82 metric ton)*

Wire rope crawler crane

GENERAL INFORMATION ONLY

LS-108B



General Dimensions	Feet	*meters*
Basic boom lengths —	—	—
42" x 42" *(1.06 x 1.06 m)* tubular — open throat	40	*12.19*
34" x 34" *(0.86 x 0.86 m)* angle — open throat	40	*12.19*
42" x 42" *(1.06 x 1.06 m)* angle — open throat	40	*12.19*
Height boom hinge pin — angle boom	5' 6"	*1.68*
Radius boom hinge pin — angle boom	3' 2"	*0.97*
Height boom hinge pin — tubular boom	5' 6"	*1.68*
Radius boom hinge pin — tubular boom	4' 2"	*1.27*
Ground clearance under counterweight "A"	3' 10"	*1.17*
Ground clearance under counterweight "AB"	2' 10"	*0.86*
Tailswing of counterweight "A"	11' 4"	*3.45*
Tailswing of counterweight "AB"	11' 9"	*3.58*
Minimum ground clearance	1' 2"	*0.36*

General Dimensions								
Overall Width	24" *(0.61 m)* Shoes		30" *(0.76 m)* Shoes		36" *(0.91 m)* Shoes		42" *(1.06 m)* Shoes	
	Feet	*meters*	Feet	*meters*	Feet	*meters*	Feet	*meters*
Side frames extended	12' 8"	*3.86*	13' 2"	*4.01*	13' 8"	*4.16*	14' 2"	*4.32*
Side frames retracted	10' 11"	*3.33*	11' 5"	*3.48*	11' 11"	*3.63*	12' 5"①	*3.78*①

① Travel with side frames retracted when equipped with 42" *(1.06 m)* shoes not recommended due to the possibility of interference of shoes with lower flange of ring gear.

	Feet	*meters*
Height of boom live mast for travel with basic boom horizontal — 40' *(12.19 m)* tubular boom — 42" *(1.06 m)* x 42" *(1.06 m)*	14' 0"	*4.27*

#CR12776813.5
(Supersedes 1906767.5)

Printed in U.S.A.

Machine Working Weights — approximate

d on std. machine including GM4-71N diesel engine with friction clutch, eight conical hook rollers, swing brake, retractable high gantry, boom lowering clutch, plus the following components:	Std. 15′ 0″ *(4.57 m)* long lower			
	Ctwt. "A"		Ctwt. "AB"	
	Pounds	*kilograms*	Pounds	*kilograms*
Lifting Crane — includes power load lowering clutches on front and rear drums, necessary drum laggings, 10-part boomhoist reeving, independent swing/travel, 36″ *(0.91 m)* wide track shoes, and one of the following booms with necessary main load hoist wire rope. Note: 130′ *(39.62 m)* tubular boom weights include boom live mast.				
Basic 40′ *(12.19 m)* angle boom (42″ - *1.06 m*)	69,890	*31 702*	83,490	*37 871*
Max. 100′ *(30.48 m)* angle boom (42″ - *1.06 m*) (2 - 30′ extns.)	73,720	*33 439*	87,320	*39 608*
Basic 40′ *(12.19 m)* tubular boom (42″ - *1.06 m*)	69,730	*31 630*	83,330	*37 798*
Max. 130′ *(39.62 m)* tubular boom (42″ - *1.06 m*) (4 - 20′ & 1 - 10′ extns.)	—	—	89,650	*40 665*
Dragline — includes independent swing/travel, necessary drum laggings, hoist and inhaul wire ropes, fairlead, 30″ wide track shoes, and one of the following booms.				
Max. 60′ *(18.29 m)* angle boom (34″ - *0.86 m*)	69,880	*31 698*	—	—
Max. 60′ *(18.29 m)* tubular boom (42″ - *1.06 m*)	70,810	*32 119*	—	—
Clamshell — includes independent swing/travel, necessary drum laggings, holding and closing wire ropes, tagline, 30″ wide track shoes, and one of the following booms.				
Max. 60′ *(18.29 m)* angle boom (34″ - *0.86 m*)	69,470	*31 512*	—	—
Max. 60′ *(18.29 m)* tubular boom (42″ - *1.06 m*)	70,440	*31 952*	—	—

GENERAL INFORMATION ONL.

Weight Deductions for Transporting — approximate

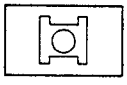
Deduct for removal of the following:	15′ 0″ *(4.57 m)* Long Lower	
	Pounds	*kilograms*
Crawler side frames with 24″ *(0.61 m)* shoes	15,400	*6 985*
with 30″ *(0.76 m)* shoes	16,500	*7 484*
with 36″ *(0.91 m)* shoes	17,200	*7 802*
with 42″ *(1.06 m)* shoes	20,050	*9 095*
terweight — "A"	12.000	*5 443*
— "AB"	25,600	*11 612*
Basic 40′ *(12.19 m)* tubular boom — 42″ x 42″ *(1.06 x 1.06 m)* w/boom live mast accessories	7,155	*3 246*
Basic 40′ *(12.19 m)* angle boom — 34″ x 34″ *(0.86 x 0.86 m)* w/accessories	4,885	*2 216*
Basic 40′ *(12.19 m)* angle boom — 42″ x 42″ *(1.06 x 1.06 m)* w/accessories	6,285	*2 851*

Ground Contact Area

Shoe Widths		Ground Contact Area	
Inches	*meters*	Sq. Inches	*sq. centimeters*
24	*0.61*	7,600	*49 044*
30	*0.76*	9,500	*61 305*
36	*0.91*	11,500	*74 212*
42	*1.06*	13,440	*86 731*

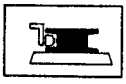
General Specifications

Mounting — crawler



Lower frame

All-welded, stress relieved, precision machined; line bored for traction shaft.

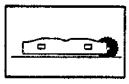


Hook roller path

Double-flanged, welded to lower frame: precision machined to accommodate hook roller mounting of revolving upperstructure on lower frame. Integral, internal swing (ring) gear with which swing pinion meshes.

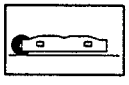
Crawler side frames

Power hydraulically extended/retracted, and removable without disconnecting track drive chains.



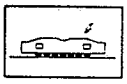
Track drive sprockets

Cast steel, heat treated; one per side frame. Track chain drive sprocket assembly involute splined to shaft which is mounted on bronze bushings; chain driven from sprocket on outer traction shaft. Track drive sprocket lugs mesh with shoe lugs.



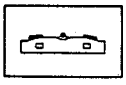
Track idler wheels

Cast steel, heated treated; mounted on bronze bushings. One track idler wheel per side frame. Heavy duty idler rollers mounted on anti-friction bearings are furnished with optional heavy duty track shoes.



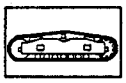
Track rollers

Nine rollers per side frame; heat treated, mounted on sintered iron bushings. Rollers equipped with dirt seals. *Optional* — track rollers with sealed for lifetime lubrication.



Track carrier rollers

Two cast iron track carrier rollers per side frame.



Tracks

Heat treated, self-cleaning, multiple hinged track shoes joined by one-piece full floating pins. 43 shoes per side frame. Standard; 30" *(0.76 m)* wide. *Optional*; 24" *(0.61 m)*, 36" *(0.91 m)*, 42" *(1.07 m)* wide track shoes and 30" *(0.76 m)* or 36" *(0.91 m)* wide heavy duty track shoes.

Track/chain adjustment — Track drive chain adjusted by positioning axle of chain drive sprocket with jack screw and shims. Track adjusted with threaded adjusting bolt attached to track idler (wheel) axle.

Independent travel

Standard. Four piece traction shaft; joined with splined, jaw-type couplings, mounted on bronze bushings in precision bored lower frame; powered by bevel gear drive enclosed in oil within lower frame. Includes two-speed travel.

Power hydraulic travel/steer — Travel/steer jaw clutches hydraulically engaged, spring-applied travel/steer/digging brakes simultaneously released by inter-connecting mechanical linkage.

Non-independent travel — *Optional*.

Power hydraulic travel/steer — Operator must manually shift swing/travel gears in upper deck gear compartment from swing to travel position prior to actuating combination swing/travel Speed-o-Matic® power hydraulic two-shoe clutches, to control travel/steer jaw clutches.

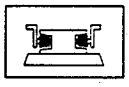
Travel speeds — Low; .79 m.p.h. *(1.27 km/hr.)*. High; 1.78 m.p.h. *(2.86 km/hr)*.

Gradeability — 30% permissible.

Revolving upperstructure

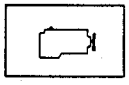
Frame

All-welded, stress relieved, precision machined, machinery side housings bolted on frame.



Hook rollers

Eight; adjustable, heat treated, conical, mounted on tapered roller bearings. Two equalized pairs mounted both front and rear.



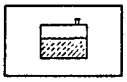
Engines

Full pressure lubrication, oil filter, oil cooler, air cleaner, fuel filter, hour meter, foot and hand throttles, and optional hand throttle (lever type on swing control lever).

Specifications	GM4-71N	GM4-71N	GM4-71N ①	Cat. 3306-T	GM6-71N Ⓐ	GM6-71N ② Ⓐ	Cummins ③ N855-P190 Ⓐ
Number of cylinders	4	4	4	6	6	6	6
Bore and stroke — inches — *(mm)*	4¼ x 5 *108 x 127*	4¼ x 5 *108 x 127*	4¼ x 5 *108 x 127*	4¾ x 6 *121 x 152*	4¼ x 5 *108 x 127*	4¼ x 5 *108 x 127*	5½ x 6 *140 x 152*
Piston displacement — cu. in. — *(cm^3)*	284 *4 650*	284 *4 650*	284 *4 650*	638 *10 457*	426 *6 976*	426 *6 976*	855 *14 013*
High idle speed — r.p.m.	1,990	1,990	2,150	1,990	1,990	1,950	1,300
Engine r.p.m. @ full load speed	1,840	1,840	2,000	1,825	1,840	1,800	1,275
Net engine h.p. @ full load speed	110 *(82 027W)*	110 *(82 027W)*	125 *(93 213W)*	110 *(82 027W)*	125 *(93 213W)*	165 *(123 041W)*	67 *(49 962W)*
Peak torque — ft. lbs. — *(joules)* Peak torque — r.p.m.	351 *476* 1,200	351 476 1,200	372 *504* 1,200	356 *483* 1,300	420 *570* 1,000	532 721 1,200	
Electrical system Batteries	12-volt 2/6-volt	12-volt 2/6-volt	12-volt 1/12-volt	12-volt 2/12-volt	12-volt 1/12-volt	12-volt 1/12-volt	12-volt 2/12-volt
Clutch or Power Take-off	Friction — Twin Disc or Rockford	Hydraulic Coupling — Twin Disc	Disconnect between engine & converter	Friction — Twin Disc or Rockford	Friction — Twin Disc, or Rockford	Disconnect between engine & converter	Disconnect between engine & converter
Transmission —	—	—	—	—	—	—	—
No. chain wheel teeth	161	161	161	161	161	161	161
No. engine pinion teeth	17	17	28	17	17	21	26

① Single stage torque converter — Allison TCDOA435, 3.4:1 ratio
② Single stage torque converter — Allison TCDO 475, 2.82:1 ratio
③ Three stage torque converter — Twin Disc

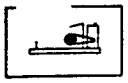
Ⓐ Special application engines — consult factory.



Fuel tank

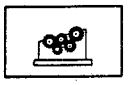
60 gallon *(227 L)* capacity fuel tank equipped with filler pipe, cap, and locking eye for padlock. *Optional* — auxiliary tank; 43 gallon *(163 L)*. Not available on machine with light plant or magnet generator

Power train



Transmission

FMC quadruple roller chain enclosed in oil tight chain case; pump driven oil stream lubrication with independent oil sump. Machine-cut teeth on engine pinion and chain wheel.



Machinery gear train

"Full-Function" design, two-directional power available to all operating shafts; shafts mounted on anti-friction bearings in precision bored machinery side housings. All operating functions independent of one another. Components such as gears, pinions, chain wheels, brake drums and clutch spiders — involute splined to shafts. Drum gear/clutch drum assemblies bolted together and mounted on shafts on anti-friction bearings. Machine-cut teeth on drum gears, pinions, spur gears and chain wheel.

Reduction shaft — Two piece shaft, mounted in side housings on anti-friction bearings, joined by involute splined coupling.

Drive pinions — Two-heat-treated, machine-cut teeth, involute splined to shaft. Pi[illegible]s mounted on shaft outside of m[illegible]iery side housings.

Principal operating functions

Control system

Speed-o-Matic® power hydraulic control system; a variable pressure system requiring no bleeding. Operating pressure transmitted to all two-shoe clutch cylinders, and other hydraulic cylinders as required. System includes constant displacement, engine driven, vane type hydraulic pump to provide flow of oil; accumulator to maintain system operating pressure, unloader valve to control pressure in accumulator, relief valve to limit maximum pressure buildup in system, full-flow filter with 40 micron disposable filter element, and variable pressure control valves to control drum clutches and other operating cylinders.

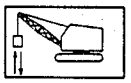
Independent travel

Standard. Spur gear driven; single bevel gear sp[illegible]t to horizontal travel shaft, single bevel g[illegible]lined to vertical travel shaft. Bevel gears enclosed in lubrication case.

Clutches — Speed-o-Matic power hydraulic two-shoe lined type; clutch drum 20" *(0.51 m)* diameter, 5" *(0.13 m)* wide.

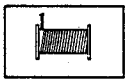
Travel non-independent of swing — *Optional.* Operator must manually shift swing/travel gears prior to actuating combination swing/travel Speed-o-Matic power hydraulic two-shoe clutches.

Clutches — Speed-o-Matic power hydraulic two-shoe lined type; clutch drum 20" *(0.51 m)* diameter, 5" *(0.13 m)* wide.



Load hoisting and lowering

"Full-Function", spur gear driven drums; tandem wire rope drums (third drum optional) fixed to shafts. Speed-o-Matic power hydraulic clutch control of all load hoisting/lowering functions.



Load hoist drums

Front and rear main operating drums — Two piece, removable, smooth or grooved lagging (depending on job application) bolted to brake drum and clamped to shaft. Shafts mounted in in-line bores on anti-friction bearings. Special extended length shafts required for, and supplied with, optional planetary drive units for drums.

Third operating drum — *Optional*; mounts forward of front operating drum. Functions as third operating drum with design and control similar to front and rear main operating drums. Two-piece, removable, 9" *(0.23 m)* or 11" *(0.28 m)* root diameter grooved lagging bolted to brake drum and clamped to shaft. Shaft mounted in in-line bores on anti-friction bearings.

Note: For dragline operation all wire rope and the lagging must be removed from third drum to avoid interference with inhaul rope (front drum). Minimum four wraps of inhaul rope must be left on anchor end of front drum to avoid inhaul rope interference with third drum brake enclosure. For crane/clamshell operations, quantity of front drum wire rope must be limited in some cases to avoid interference between front drum rope and third drum brake enclosure.

Drum clutches

Speed-o-Matic power hydraulic two-shoe clutches for control of all principal operating functions (except engine master clutch). Internal expanding, aluminum alloy, lined shoes. Clutch drums bolted to drum spur gears. Front and rear main operating drum clutches, swing clutches, travel clutches, boom hoist clutch, and boom lowering clutch are all interchangeable.

Load hoist clutches — Front and rear main operating drums. Clutch drum 20" *(0.51 m)* diameter, 5" *(0.13 m)* wide; effective lining area 212 square inches *(1 368 cm²)*. *Optional* — 6½" *(0.17 m)* wide front drum hoist/inhaul clutch. *Optional* third drum clutch drum 17¼" *(0.44 m)* diameter, 4" *(0.10 m)* wide; effective lining area 118 square inches *(761 cm²)*.

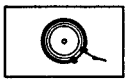
Load lowering clutches — Standard on front and rear main operating drums. Clutches identical to load hoist clutches. Not available on optional third operating drum.

Two-speed front & rear drums — *Optional*; gear driven, for load hoist only. Intermediate gears, installed on stub shafts in machinery side housings, convert Speed-o-Matic power hydraulic two-shoe load lowering clutches to high speed hoist clutches; includes required special extended drum shafts. Main load and jib load hoist wire rope speeds increased 100% over standard speeds. Note: Front and rear drum power load lowering clutches not available with two-speed drums. See note A.

Planetary drive units for front and rear drums — *Optional*; planetary drive units available for load hoisting on either or both drums and for load lowering or rear drum only; includes special extended drum shafts. Planetary drive units mount between spur gears and two-shoe clutch drums — available for increased or decreased load hoist or lowering rope speeds. Standard two-shoe hoist and power load lowering clutches provide standard rope speeds. Planetaries controlled by external contracting band brakes through push buttons mounted on clutch control levers. See note A.

Auxiliary two-shoe rear drum brake — *Optional*; internal expanding, Speed-o-Matic power hydraulic two-shoe brake; 20" *(0.51 m)* diameter, 5" *(0.13 m)* wide. Brake spider involute splined to shaft and brake drum bolted to anchor plate on machinery side housing. Auxiliary brake increases lining contact area by 212 square inches *(1 368 cm²)*. Pressure on rear drum brake foot pedal applies the standard mechanical brake and the auxiliary brake simultaneously. Mechanical linkage, in standard brake mechanism, actuates control mechanism of variable pressure valve to direct hydraulic pressure to the auxiliary brake cylinder. See note A.

Note A: Only one item — two-speed driven drum, planetary drive unit, or auxiliary two-shoe rear drum brake — can be mounted on the same shaft.

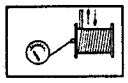


Drum brakes

Front and rear main, and optional third, operating drums — external contracting band; mechanically foot pedal applied. Foot pedals equipped with latch to permit locking brakes in "on" position. Brake drums involute splined to shafts.

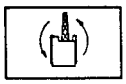
Front and rear main drums — Brakes 27" *(0.69 m)* diameter, 4½" *(0.11 m)* face width, effective lining area 304 square inches *(1 961 cm²)*.

Optional third drum — Brake 18" *(0.46 m)* diameter, 3" *(0.08 m)* face width; effective lining area 133 square inches *(858 cm²)*.



Drum rotation indicators

Standard for front and rear main operating drums; mounted on control stand. Dials actuated by flexible shafts from front and rear main operating drum shafts.



Swing system

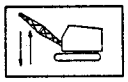
Swing independent of travel standard. Spur gear driven; single bevel gears (enclosed and running in oil) on horizontal and vertical swing shaft. Swing pinion, involute splined to vertical swing shaft, meshes with internal teeth of swing gear which is integral with hook roller path.

Swing clutches

Speed-o-Matic power hydraulic two-shoe lined type; clutch drum 20" *(0.51 m)* diameter, 5" *(0.13 m)* wide. *Optional* — 6½" *(0.17 m)* wide swing clutches for duty cycle work. Brake — Operator controlled, two-directional, external contracting band; spring applied, power hydraulically released. Brake drum splined to vertical swing shaft (or to vertical center drive shaft for swing on machine equipped with optional non-independent travel/swing).

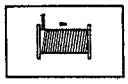
Transportation lock — Mechanically controlled pawl engages teeth of swing (ring) gear which is integral with hook roller path.

Swing speed — 4 r.p.m.



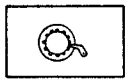
Boom hoist/lowering system

Independent, spur gear driven; single wire rope drum splined to shaft. Rope drum equipped with mechanical locking pawl.



Boomhoist drum

9" *(0.23 m)* root diameter, grooved; involute splined to shaft.

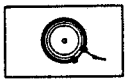


Boomhoist drum locking pawl

Operator controlled; spring applied, mechanically released.

Boom hoist clutch

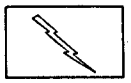
Speed-o-Matic power hydraulic two-shoe lined type; clutch drum 20" *(0.51 m)* diameter, 5" *(0.13 m)* face width.



Boom hoist/lowering brake

External contracting band; spring applied hydraulically released as hoist clutch or lowering clutch is engaged. Brake drum involute splined to shaft; brake drum 22" *(0.56 m)* diameter, 3" *(0.08 m)* face width.

Boomhoist limiting device — Provided to restrict hoisting boom beyond recommended minimum radius; located on exterior right-hand side of operator's cab. As boom reaches predetermined minimum radius, the boomhoist control lever is returned to neutral through a mechanical linkage, disengaging boomhoist clutch, while automatically applying boomhoist brake.

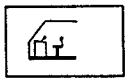


Electrical system

Battery; 12-volt. *Optional;* battery lighting system, including two sealed beam automotive type adjustable headlights on front of cab roof, one interior cab light and necessary wiring. *Optional;* extra sealed beam automotive type adjustable headlight mounted on boom. *Optional;* Onan independent light plant with single cylinder, four-cycle, air-cooled, diesel engine with remote electric starting; 3,000 watt, 120-volt, three wire single phase, 60 cycles A.D.; including wiring in conduit, three interior cab lights, trouble lamp with cord and two 300 watt adjustable floodlights on front of cab roof. Additional cab-mounted and boom-mounted floodlights available. **Note:** Independent light plant cannot be furnished in conjunction with third drum or magnet generator.

Magnet generator/control package — *Optional*; 15 kW Onan magnet generator, belt-driven off engine power take-off shaft, for use with 230 volt magnets; rheostat, controller, magnet "over-excitation' control button on swing lever, drop control button on rear drum control lever, and Rud-o-Matic Model 636 combination tagline/magnet cable take-up reel.

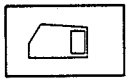
Optional — 22.5 kW magnet generator for use with 230 volt magnets, plus accessories as furnished with 15 kW Onan.



Operator's cab

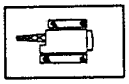
Full-vision, equipped with safety glass panels. Operator's door is hinged. Front window rolls up to overhead storage area. Standard equipment includes dry chemical fire extinguisher, machinery guards, and bubble-type level. Steel window covers, sound reduction material, electrical windshield wiper, cab heater, Lexan windows and defroster fan are optional. **Note:** Steel window covers available for standard cab only. Sound reduction material available for standard and 4' *(1.22 m)* elevated cabs only.

Elevated cabs — *Optional*; operator's cabs 2' *(0.61 m)*, 4' *(1.22 m)* and 7' *(2.13 m)* higher than standard are available. Upper portions of 2' *(0.61 m)* and 4' *(1.22 m)* cabs hinged to facilitate reducing overall travel height. Upper portion of 7' *(2.13 m)* cab has hydraulic lines equipped with quick-disconnect fittings to facilitate removal of upper cab portion to reduce overall travel height.



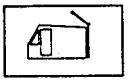
Machinery cab

Hinged doors for machinery access, roof-top ladder, skid-resistant finish on roof, and electric horn warning device.



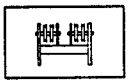
Catwalks

Optional; available along operator's side and/or right-hand side of cab, with overhead hand grab rails.



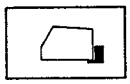
Gantry

Mounted to revolving upperstructure frame to support boom suspension system. Retractable; used with all booms. *Optional:* Speed-o-Matic power hydraulic cylinder for raising/ lowering retractable gantry.



Gantry ball

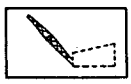
Contains four sheaves on non-metallic bushings for 10-part boomhoist reeving with angle booms, or four sheaves mounted on anti-friction bearings for 10-part boomhoist reeving with tubular boom. *Optional:* Additional sheave furnished for 12-part boomhoist rope reeving.



Counterweight

Removable and held in position by "T" bolts. Counterweight "A", 12,000 lbs. *(5 534 kg)*; used for lifting crane, dragline, clamshell, and magnet service. Counterweight "AB", 25,600 lbs. *(11 612 kg)*; used for lifting crane service only, two-piece to permit counterweight reduction to "A".

Booms and jibs



Tubular boom

Two-piece 40' *(12.19 m)* basic length; 42" *(1.07 m)* wide, 42" *(1.07 m)* deep at centerline of connections. Alloy steel, round tubular main chords 2¼" *(57.15 mm)* outside diameter. Maximum boom length 130' *(39.62 m)*.

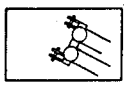
Boom base section — 20′ *(6.10 m)* long; boomfeet 2¼″ *(57.15 mm)* wide on 50″ *(1) centers.

Boom extensions — Available in 10′ *(3.05 m)*, 15′ *(4.57 m)* and 20′ *(6.10 m)* lengths with appropriate length pendants.

Boom connections — External pin connected.

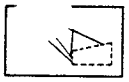
Boom top section — Open throat; 20′ *(6.10 m)* long.

Boompoint machinery — Three 18″ *(0.46 m)* root diameter head sheaves mounted on anti-friction bearings. *Optional;* four sheaves.



Boomhoist bridle

For tubular boom; serves as connection between boom pendants and boomhoist wire rope reeving.
— **Without boom live mast** — Equipped with 12″ *(0.30 m)* root diameter sheaves, mounted on anti-friction bearings; 5 sheaves required for standard 10-part boomhoist reeving, 6 sheaves required for optional 12-part boomhoist reeving.
— **With boom live mast** — Equipped with 12″ *(0.30 m)* root diameter sheaves, mounted on non-metallic bushings; 6 sheaves required for standard 12-part boomhoist reeving.



Boom live mast

Optional; For tubular boom only; 20′ 6″ *(6.11 m)* long from center of head shaft to mounting pin; mounts on front of frame on boomfoot adaptor. Supports boomhoist bridle and boom midpoint suspension pendants. Mast hydraulically extendible from 17′ 6″ *(5.19 m)* to 20′ 6″ *(6.11 m)* length. Mast can be used as short boom for machine assembly or disassembly, but it may not be used for general crane service. Two 9½″ *(0.24 m)* root diameter auxiliary hoist sheaves mounted on non-metallic bushings enable mast to be used as short boom for machine assembly or disassembly.

Live mast stops — Integral with boom stops — spring cushioned bumper ends.

Boom midpoint suspension pendants — Standard with optional boom live mast; connect at 80′ *(24.38 m)* point on boom.

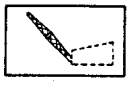
Jib

Tubular; two-piece, 20′ *(6.10 m)* basic length; 24″ *(0.61 m)* deep, 24″ *(0.61 m)* wide at connections. Main tubular chords alloy steel, 1′ *3.10 mm)* outside diameter.

Base section — 10′ *(3.05 m)* long; mounted on lugs at tip end of boom top section.

Jib extensions — Available in 10′ *(3.05 m)* lengths.

Tip section — 10′ *(3.05 m)* long; equipped with one 12″ *(0.30 m)* root diameter sheave mounted on anti-friction bearings.



Angle boom

Two piece, 40′ *(12.14 m)* basic length; 34″ x 34″ *(0.86 x 0.86 m)* wide at center-line of connections. Main chord angles high strength low alloy steel; base section 3½″ x 3½″ x ⅜″ *(88.90 x 88.90 x 9.53 mm)*; top section and extensions — 3½″ x 3½″ x 5/16″ *(88.90 x 88.90 x 7.94 mm)*. Maximum boom length 100′ *(30.48 m)*.

Boom base section — 20′ *(6.10 m)* long; boomfeet 1⅝″ *(41.28 mm)* wide on 38″ *(0.97 m)* centers.

Boom extensions — Available in 5′ *(1.52 m)*, 10′ *(3.05 m)*, and 20′ *(6.10 m)* lengths with appropriate length pendants.

Boom connections — External pin connected. *Optional* — Bolted connections.

Boom top section — Open throat; 20′ *(6.10 m)* long.

Boompoint machinery — Three 18″ *(0.46 m)* root diameter head sheaves mounted on anti-friction bearings. *Optional* — four sheaves, or one wide flared sheave for dragline.

Jib

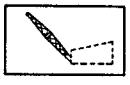
Angular; two-piece 20′ *(6.10 m)* basic length; 18″ *(0.46 m)* deep, 22¾″ *(0.58 m)* wide at connections. Main angle chords alloy steel, base section 2″ x 2″ x ¼″ *(50.80 x 50.80 x 6.35 mm)*; tip section and extensions 2″ x 2″ x 3/16″ *(50.80 x 50.80 x 4.76 mm)*.

Base section — 10′ *(3.05 m)* long; mounted on boom head shaft.

Jib extensions — Available in 10′ *(3.05 m)* lengths.

Jib connections — Bolted connections.

Tip section — 10′ *(3.05 m)* long; equipped with one 15⅞″ *(0.40 m)* root diameter sheave mounted on anti-friction bearings.



Angle boom

Two-piece, 40′ *(12.19 m)* basic length, 42″ x 42″ *(1.06 m x 1.06 m)* wide at centerline of connections. Main chord angles high strength low alloy steel 4″ x 4″ x 5/16″ *(101.60 x 101.60 x 7.94 mm)*. Maximum boom length 130′ *(39.62 m)*.

Boom base section — 20′ *(6.10 m)* long; boomfeet 1⅝″ *(41.28 mm)* wide on 38″ *(0.97 m)* centers.

Boom extensions — Available in 10′ *(3.05 m)*, 20′ *(6.10 m)* and 30′ *(9.14 m)* lengths with appropriate length pendants.

Boom connections — In-line pin connected.

Boom top section — Open throat; 20′ *(6.10 m)* long.

Boompoint machinery — Three 18″ *(0.46 m)* root diameter head sheaves mounted on anti-friction bearings. *Optional* — Two sheaves, or one wide flared sheave for dragline; either sheave arrangement is standard with roller type sheave guards.

Jib

Tubular; two-piece, 20′ *(6.10 m)* basic length; 24″ *(0.61 m)* deep, 30″ *(0.76 m)* wide at connections. Main tubular chords alloy steel, 1½″ *(38.10 mm)* outside diameter.

Base section — 10′ *(3.05 m)* long; mounted on lugs at tip end of boom top section.

Jib extensions — Available in 10′ *(3.05 m)* lengths.

Jib connections — In-line pin connected.

Tip section — 10′ *(3.05 m)* long; equipped with one 15¼″ *(0.39 m)* root diameter sheave mounted on anti-friction bearings.

Item applicable to both booms and jibs

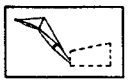
Boom stops

Dual, tubular, lever type with spring cushioned bumper ends for 42″ *(1.06 m)* angle boom and 42″ *(1.06 m)* tubular boom. Fixed, dual, tubular type with spring cushioned bumper ends for 34″ *(0.86 m)* angle boom.

Boompoint sheave guards — Fabricated round steel guards standard for both angle and tubular booms. *Optional* for either 34″ *(0.86 m)* angle or 42″ *(1.06 m)* tubular booms — roller type guards. With three or four head sheaves, installation of roller type guards does not permit use of center sheave(s). On 42″ *(1.06 m)* angle boom containing one or two sheaves, roller guards are standard. Roller guards not available on boom when equipped with jib.

Hoist line deflector rollers — to deflect main drum load hoist line over top side of boom; also required when third drum load hoist line passes over top side of boom. Rollers mounted on anti-friction bearings.

— **Angle booms** — for 34" *(0.86 m)* boom; one roller standard. Recommended optional rollers — two through 65" *(19.81 m)* boom length, three through 85' *(25.91 m)*.
— **Tubular Boom** — for 42" *(1.06 m)* boom; one roller standard. Recommended optional rollers — two through 125' *(38.10 m)* boom length, three through 130' *(39.62 m)*.



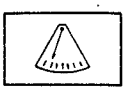
Jib mast

10' *(3.05 m)* high, mounted on base of jib tip section. Two deflector sheaves, mounted on anti-friction bearings, mounted within mast to guide whipline.

Jib staylines — Front staylines are attached between top of jib mast and peak of jib. Appropriate length pendants are added to front staylines as jib length increases. Rear staylines are attached between top of jib mast and base of boom top section. Adjustment of rear stayline length determines jib angle to boom.

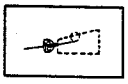
Jib stops — Telescoping type; pinned from jib mast to boom top section and from jib mast to jib base section.

Auxiliary equipment



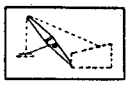
Boom angle indicator

Standard with either crane boom. Pendulum type mounted on left side of boom base section.



Fairlead

Optional. Full-revolving type with barrel, sheaves and guide rollers mounted on anti-friction bearings.



Tagline

Optional; spring wound drum type mounted on crane boom. Rud-o-Matic model 648, single barrel with 20" *(0.51 m)* reel for 60' *(18.29 m)* boom using 1 yd. *(0.76 m³)* to 1½ yd. *(1.15 m³)* clamshell buckets. Also available — Morin Tagmaster, Model BR.

Link-Belt® LS-108B Performance Specifications

Boom live mast — lifting capacities when used as short boom①.

Extended mast only Load radius②		Lifting capacities③			
		Upper without counterweight		Upper with "A" or "AB" counterweight	
Feet	*meters*	Pounds	*kilograms*	Pounds	*kilograms*
10	*3.05*	36,000*	*16 330**	36,000*	*16 330**
13	*3.96*	32,000*	*14 515**	32,000*	*14 515**
15	*4.57*	29,000*	*13 154**	29,000*	*13 154**
18	*5.49*	25,600	*11 612*	27,000*	*12 247**
20	*6.10*	21,750	*9 866*	23,000*	*10 433**

①Boom live mast must be in extended 20' 6" *(6.25 m)* long position when used as short boom. Mast backstops must be in place and operative. Use of live mast as boom is intended for machine assembly or disassembly only — not for general crane service.
②Mast must not be operated at a radius of less than 9' 5" *(2.87 m)* under any circumstances.
③Requires 3 parts of ¾" *(19 mm)* diameter Type "N" wire rope.
*Based on factors other than those which would cause a tipping condition.

Wire rope and rope drum data

Main load hoist wire rope length — using ¾" *(19 mm)* diameter wire rope.

Parts of line	Boom lengths													
	40' *(12.19 m)*		50' *(15.24 m)*		60' *(18.29 m)*		70' *(21.34 m)*		80' *(24.38 m)*		90' *(27.43 m)*		100' *(30.48 m)*	
	Feet	*meters*	Feet	*meters*	Feet	*meters*	Feet	*meters*	Feet	*meters*	Feet	*meters*	Feet	*meters*
1	95	*28.96*	115	*35.05*	135	*41.15*	155	*47.24*	175	*53.34*	195	*59.44*	215	*65.53*
2	140	*42.67*	170	*51.82*	200	*60.96*	230	*70.10*	260	*79.25*	290	*88.39*	320	*97.54*
3	185	*56.39*	225	*68.58*	265	*80.77*	305	*92.96*	345	*105.16*	385	*117.35*	425	*129.54*
4	230	*70.10*	280	*85.34*	330	*100.58*	380	*115.82*	430	*131.06*	480	*146.30*	530	*161.54*
5	275	*83.82*	335	*102.11*	395	*120.40*	455	*138.68*	515	*156.97*	575	*175.26*	635	*193.55*
6	320	*97.54*	390	*118.87*	460	*140.21*	530	*161.54*	600	*182.88*	670	*204.22*	740	*225.55*
7	365	*111.25*	445	*135.64*	525	*160.02*	605	*184.40*	685	*208.79*	765	*233.17*		
8	410	*124.97*	500	*152.40*	590	*179.83*	680	*207.26*	770	*234.70*				

Parts of line	Boom lengths					
	110' *(33.53 m)*		120' *(36.58 m)*		130' *(39.62 m)*	
	Feet	*meters*	Feet	*meters*	Feet	*meters*
1	235	*71.63*	255	*77.72*	275	*83.82*
2	350	*106.68*	380	*115.82*	410	*124.97*
3	465	*141.73*	505	*153.92*	545	*166.12*
4	580	*176.78*	630	*192.02*	680	*207.26*
5	695	*211.84*	755	*230.12*	815	*248.41*
6	810	*246.89*				

Jib load hoist rope lengths (whipline) — using ⅝" *(16 mm)* diameter wire rope.

Jib Length	Parts of line	Boom lengths													
		40' *(12.19 m)*		50' *(15.24 m)*		60' *(18.29 m)*		70' *(21.34 m)*		80' *(24.38 m)*		90' *(27.43 m)*		100' *(30.48 m)*	
		Feet	*meters*	Feet	*meters*	Feet	*meters*	Feet	*meters*	Feet	*meters*	Feet	*meters*	Feet	*meters*
20' *(6.10 m)*	1	135	*41.15*	155	*47.24*	175	*53.34*	195	*59.44*	215	*65.53*	235	*71.63*	255	*77.72*
	2	200	*60.96*	230	*70.10*	260	*79.25*	290	*88.39*	320	*97.54*	350	*106.68*	380	*115.82*
30' *(9.14 m)*	1	155	*47.24*	175	*53.34*	195	*59.44*	215	*65.53*	235	*71.63*	255	*77.72*	285	*86.86*
	2	230	*70.10*	260	*79.25*	290	*88.39*	320	*97.54*	350	*106.68*	380	*115.82*	410	*124.97*
40' *(12.19 m)*	1	175	*53.34*	195	*59.44*	215	*65.53*	235	*71.63*	255	*77.72*	275	*83.82*	295	*89.92*
	2	260	*79.25*	290	*88.39*	320	*97.54*	350	*106.68*	380	*115.82*	410	*124.97*	440	*134.11*
50' *(15.24 m)*	1	195	*59.44*	215	*65.53*	235	*71.63*	255	*77.72*	275	*83.82*	295	*89.92*	315	*96.01*
	2	290	*88.39*	320	*97.54*	350	*106.68*	380	*115.82*	410	*124.97*	440	*134.11*	470	*143.26*

GENERAL INFORMATION ONLY

LS-108B performance specifications

GENERAL INFORMATION ONLY

[C]e rope and rope drum data — (continued)

Jib load hoist rope lengths (whipline) — (continued)

Jib length	Parts of line	Boom lengths 110′ (33.53 m) Feet	110′ (33.53 m) meters	120′ (36.58 m) Feet	120′ (36.58 m) meters	130′ (39.62 m) Feet	130′ (39.62 m) meters
20′ (6.10 m)	1	275	83.82	295	89.92	315	96.01
	2	410	124.97	440	134.11	470	143.26
30′ (9.14 m)	1	295	89.92	315	96.01	335	102.11
	2	440	134.11	470	143.26	500	152.40
40′ (12.19 m)	1	315	96.01	335	102.11	355	108.20
	2	470	143.26	500	152.40	530	161.54
50′ (15.24 m)	1	335	102.11	355	108.20	375	114.30
	2	500	152.40	530	161.54	560	170.69

Dragline wire rope lengths — using ¾″ (19 mm) diameter wire rope for hoist, and ⅞″ (22 mm) diameter wire rope for inhaul.

Function	Parts of line	Boom lengths 40′ (12.19 m) Feet	40′ (12.19 m) meters	45′ (13.72 m) Feet	45′ (13.72 m) meters	50′ (15.24 m) Feet	50′ (15.24 m) meters	55′ (16.76 m) Feet	55′ (16.76 m) meters	60′ (18.29 m) Feet	60′ (18.29 m) meters
Hoist	1	95	28.96	105	32.00	115	35.05	125	38.10	135	41.15
Inhaul	1	52	15.85	58	17.68	64	19.51	70	21.34	76	23.16

Clamshell wire rope lengths — using ¾″ (19 mm) diameter wire rope.

[F]unction	Parts of line	Boom lengths 40′ (12.19 m) Feet	40′ (12.19 m) meters	45′ (13.72 m) Feet	45′ (13.72 m) meters	50′ (15.24 m) Feet	50′ (15.24 m) meters	55′ (16.76 m) Feet	55′ (16.76 m) meters	60′ (18.29 m) Feet	60′ (18.29 m) meters
Holding	1	105	32.00	115	35.05	125	38.10	135	41.15	145	44.20
Closing	1	140	42.67	150	45.72	160	48.77	170	51.82	180	54.86

Drum wire rope capacities

Wire rope layer	Front or rear drum — 13¼″ (0.34 m) root diameter smooth lagging ¾″ (19 mm) wire rope: Rope per layer Feet	meters	Total wire rope Feet	meters	Front drum — 15¼″ (0.39 m) root diameter grooved lagging ¾″ (19 mm) wire rope: Rope per layer Feet	meters	Total wire rope Feet	meters	Front drum — 15¼″ (0.39 m) root diameter grooved lagging ⅞″ (22 mm) wire rope: Rope per layer Feet	meters	Total wire rope Feet	meters
1	54	16.46	54	16.46	49	14.94	49	14.94	50	15.24	50	15.24
2	60	18.29	114	34.75	55	16.76	104	31.70	55	16.76	105	32.00
3	64	19.50	178	54.25	58	17.68	162	49.38	60	18.29	165	50.29
4	69	21.03	247	75.28	64	19.51	226	68.88	66	20.12	231	70.41
5	74	22.56	321	97.84	68	20.73	294	89.61	72	21.95	303	92.35
6	78	23.77	399	121.61	73	22.25	367	111.86				
7	82	24.99	481	146.60								

Wire rope layer	Rear drum — 15¼″ (0.39 m) root diameter grooved lagging ¾″ (19 mm) wire rope: Rope per layer Feet	meters	Total wire rope Feet	meters	Third drum — 9″ (0.23 m) root diameter grooved lagging ⅝″ (16 mm) wire rope: Rope per layer Feet	meters	Total wire rope Feet	meters	Boom hoist drum — 9″ (0.23 m) root diameter grooved lagging ⅝″ (16 mm) wire rope: Rope per layer Feet	meters	Total wire rope Feet	meters
1	58	17.68	58	17.68	35	10.67	35	10.67	25	7.62	25	7.62
2	63	19.20	121	36.88	43	13.10	78	23.77	26	7.92	51	15.54
3	69	21.03	190	57.91	47	14.33	125	38.10	31	9.45	82	24.99
4	74	22.55	264	80.46	53	16.15	178	54.25	32	9.75	114	34.74
5	79	24.07	343	104.55	57	17.37	235	71.62	38	11.58	152	46.32
6	85	25.91	428	130.45	62	18.90	297	90.52	38	11.58	190	57.91
7									45	13.71	235	71.62
8									43	13.11	278	84.73
9									46	14.02	324	98.75
10									49	14.93	373	113.69

LS-108B performance specifications

GENERAL INFORMATION ONL

Wire rope and rope drum data — (continued)

Rope size and type —

Wire rope application	Size and type used
Boomhoist	5/8" *(16 mm)* diameter, Type "N"
Main load hoist	3/4" *(19 mm)* diameter, Type "N"
Jib load hoist (1-part)	5/8" *(16 mm)* diameter, Type "P"
Jib load hoist (2-part)	5/8" *(16 mm)* diameter, Type "N"
Third drum	5/8" *(16 mm)* diameter, Type "N"
Boom pendants	1 1/4" *(32 mm)* diameter, Type "N"
Boom midpoint suspension pendants	1" *(25 mm)* diameter, Type "N"
Jib frontstay line	5/8" *(16 mm)* diameter, Type "N"
Jib backstay line	5/8" *(16 mm)* diameter, Type "N"
Dragline hoist	3/4" *(19 mm)* diameter, Type "N"
Dragline inhaul	7/8" *(22 mm)* diameter, Type "M"
Clamshell holding	3/4" *(19 mm)* diameter, Type "N"
Clamshell closing	3/4" *(19 mm)* diameter, Type "N"
Tagline	5/16" *(8 mm)* diameter, Type "N"

Wire rope types

Type "M" — 6 x 25 (6 x 19 class) filler wire, extra improved plow steel, preformed, independent wire rope center, right lay, lang lay.

Type "N" — 6 x 25 (6 x 19 class), filler wire, extra improved plow steel, preformed, independent wire rope center, right lay, regular lay.

Type "P" — 19 x 7 non-rotating extra improved plow steel, preformed, wire rope center core.

Available line speed and line pull① — based on GM 4-71N② diesel engine with friction clutch developing maximum net horsepower as defined by P.C.S.A. Standard No. 1

Front drum								Rear drum							
Attachment	Root diameter	Wire rope diameter		Line speed — first layer		Line pull — first layer		Attachment	Root diameter	Wire rope diameter		Line speed — first layer		Line pull — first layer	
		Inches	*mm*	F.p.m.	*m/min*	Pounds	*kilograms*			Inches	*mm*	F.p.m.	*m/min*	Pounds	*kilograms*
Crane	13 1/4" *(0.34 m)*	3/4	*19*	150	*45.72*	23,000	*10 433*	Crane	13 1/4" *(0.34 m)*	3/4	*19*	150	*45.77*	22,400	*10 161*
Clamshell (Closing)	15 1/4" *(0.34 m)*	3/4	*19*	171	*52.12*	20,100	*9 117*	Dragline, clamshell	15 1/4" *(0.39 m)*	3/4	*19*	171	*52.12*	19,600	*8 981*
Dragline (Inhaul)	15 1/4" *(0.39 m)*	7/8	*22*	173	*52.73*	20,000	*9 072*								

Third drum						
Root diameter	Wire rope diameter		Line speed — first layer		Line pull — first layer	
	Inches	*mm*	F.p.m.	*m/min*	Pounds	*kilograms*
9" *(0.23 m)*	5/8	*16*	123	*37.49*	10,000	*4 536*

Permissible line speed and line pull① — based on wire rope strength, single part line.

Front drum								Rear drum							
Attachment	Root diameter	Wire rope diameter		Line speed — first layer		Line pull — first layer		Attachment	Root diameter	Wire rope diameter		Line speed — first layer		Line pull — first layer	
		Inches	*mm*	F.p.m.	*m/min*	Pounds	*kilograms*			Inches	*mm*	F.p.m.	*m/min*	Pounds	*kilograms*
Crane	13 1/4" *(0.34 m)*	3/4	*19*	150	*45.72*	16,800	*7 620*	Crane	13 1/4" *(0.34 m)*	3/4	*19*	150	*45.72*	16,800	*7 620*
Clamshell (Closing)	15 1/4" *(0.39 m)*	3/4	*19*	171	*52.12*	16,800	*7 620*	Dragline, clamshell	15 1/4" *(0.39 m)*	3/4	*19*	171	*52.12*	16,800	*7 620*
Dragline (Inhaul)	15 1/4" *(0.39 m)*	7/8	*22*	173	*52.73*	22,700	*10 297*								

Third drum						
Root diameter	Wire rope diameter		Line speed — first layer		Line pull — first layer	
	Inches	*mm*	F.p.m.	*m/min*	Pounds	*kilograms*
9" *(0.23 m)*	5/8	*16*	123	*37.49*	10,000	*4 536*

①Maximum permissible load on single part of line — 11,700 lbs. *(5 307 kg)* for 5/8" *(16 mm)* diameter Type "N" wire rope; 7,600 lbs. *(3 447 kg)* for 5/8" *(16 mm)* diameter Type "P"; 16,800 lbs. *(7 620 kg)* for 3/4" *(19 mm)* Type "N"; 22,700 lbs. *(10 297 kg)* for 7/8" *(22 mm)* diameter Type "N" or "M".

②Data applicable only to GM 4-71N diesel engine package with friction clutch. If required, similar data for other engine packages available from Sales Office.

MEMBER PCSA POWER CRANE AND SHOVEL ASSOCIATION

FMC Corporation

Cable Crane & Excavator Division
1[illegible] Sixth Street Southwest
P[illegible] Box 2108
Cedar Rapids Iowa 52406

GENERAL INFORMATION ONLY

Link-Belt® cranes & excavators
manufactured in: Cedar Rapids Iowa
Lexington & Bowling Green Kentucky
Ontario Canada • Milan Italy
Queretaro Mexico & Nagoya Japan (under license)

Link-Belt® LS-108B lifting crane capacities

PCSA Class 10-132
Refer to **Notes** page 2

Boom — tubular; 42" x 42" (1.06 x 1.06 m) with open throat top section, retractable high gantry, 1¼" (31.75 m) dia. boom pendants, boom live mast and boom midpoint suspension pendants as required.

Crawler — 10'8" (3.25 m) gauge extended, 8'11" (2.72 m) gauge retracted; 15'0" (4.57 m) over-all length.

Counterweights — Ctwt. "A"; 11,240# (5,098 kg) **or** ② 12,000# (5,443 kg). Ctwt. "AB"; 24,850# (11,272 kg) **or** ② 25,600# (11,612 kg).
② Depending on engine used.

Boom						Side Frames Extended				Side Frames Retracted	
	Radius		Angle	Boom Point Height ①		Ctwt. "A"		Ctwt. "AB"		Ctwt. "A" Only	
Length	Feet	Meters	Degree	Feet	Meters	Pounds	Kilograms	Pounds	Kilograms	Pounds	Kilograms
40' (12.19 m)	10	3.05	81.7	45' 1"	13.74	76,800	34,836	90,000*	40,824*	57,500	26,082
	11	3.35	80.2	44' 11"	13.69	63,000	28,577	90,000	40,824	48,500	22,000
	12	3.66	78.8	44' 8"	13.62	53,300	24,177	76,300	34,610	41,800	18,960
	13	3.96	77.3	44' 6"	13.56	46,100	20,911	66,200	30,028	36,800	16,692
	14	4.27	75.8	44' 4"	13.51	40,600	18,416	58,300	26,445	32,800	14,878
	15	4.57	74.3	44' 0"	13.41	36,300	16,466	52,100	23,633	29,500	13,381
	16	4.88	72.9	43' 8"	13.31	32,700	14,833	47,100	21,365	26,800	12,156
	17	5.18	71.3	43' 5"	13.23	29,800	13,517	42,900	19,459	24,500	11,113
	18	5.49	69.8	43' 0"	13.11	27,300	12,383	39,400	17,872	22,600	10,251
	19	5.79	68.3	42' 8"	13.01	25,200	11,431	36,400	16,511	20,900	9,480
	20	6.10	66.7	42' 4"	12.90	23,400	10,614	33,800	15,332	19,500	8,845
	25	7.62	58.7	39' 8"	12.09	17,000	7,711	24,800	11,249	14,400	6,532
	30	9.14	49.8	36' 1"	11.00	13,300	6,033	19,500	8,845	11,300	5,126
	35	10.67	39.7	31' 0"	9.45	10,800	4,899	16,000	7,258	9,200	4,173
	40	12.19	26.5	23' 5"	7.14	9,000	4,082	13,400	6,078	7,700	3,493
50' (15.24 m)	12	3.66	81.0	54' 11"	16.74	53,100	24,086	76,200	34,564	41,700	18,915
	13	3.96	79.9	54' 8"	16.66	46,000	20,866	66,000	29,938	36,600	16,602
	14	4.27	78.7	54' 6"	16.61	40,500	18,371	58,200	26,400	32,600	14,787
	15	4.57	77.5	54' 4"	16.56	36,100	16,375	52,000	23,587	29,300	13,290
	16	4.88	76.4	54' 1"	16.48	32,600	14,787	47,000	21,319	26,600	12,066
	17	5.18	75.2	53' 10"	16.41	29,600	13,427	42,800	19,414	24,400	11,068
	18	5.49	74.0	53' 7"	16.33	27,100	12,293	39,300	17,826	22,400	10,161
	19	5.79	72.8	53' 4"	16.25	25,000	11,340	36,200	16,420	20,800	9,435
	20	6.10	71.6	52' 11"	16.13	23,200	10,524	33,600	15,241	19,300	8,754
	25	7.62	65.4	51' 0"	15.54	16,800	7,620	24,700	11,204	14,200	6,441
	30	9.14	58.9	48' 4"	14.73	13,100	5,942	19,300	8,754	11,100	5,035
	35	10.67	52.0	44' 11"	13.69	10,600	4,808	15,800	7,167	9,000	4,082
	40	12.19	44.3	40' 5"	12.32	8,800	3,992	13,200	5,988	7,500	3,402
	50	15.24	23.7	25' 7"	7.80	6,400	2,903	9,900	4,491	5,400	2,449
60' (18.29 m)	15	4.57	79.6	64' 6"	19.66	35,900	16,284	51,800	23,496	29,200	13,245
	16	4.88	78.7	64' 4"	19.61	32,400	14,697	46,800	21,228	26,500	12,020
	17	5.18	77.7	64' 1"	19.53	29,500	13,381	42,600	19,323	24,200	10,977
	18	5.49	76.7	63' 11"	19.48	27,000	12,247	39,100	17,736	22,200	10,070
	19	5.79	75.7	63' 7"	19.38	24,900	11,295	36,100	16,375	20,600	9,344
	20	6.10	74.7	63' 5"	19.33	23,000	10,433	33,500	15,196	19,100	8,664
	25	7.62	69.7	61' 10"	18.85	16,700	7,575	24,500	11,113	14,000	6,350
	30	9.14	64.5	59' 8"	18.19	12,900	5,851	19,100	8,664	10,900	4,944
	35	10.67	59.1	57' 0"	17.37	10,400	4,717	15,600	7,076	8,800	3,992
	40	12.19	53.4	57' 8"	17.58	8,600	3,901	13,000	5,897	7,300	3,311
	50	15.24	40.3	44' 4"	13.51	6,200	2,812	9,700	4,400	5,200	2,359
	60	18.29	21.6	27' 7"	8.41	4,700	2,132	7,500	3,402	3,900	1,769
70' (21.34 m)	15	4.57	81.1	74' 8"	22.76	35,800	16,239	51,600	23,406	29,000	13,154
	16	4.88	80.3	74' 6"	22.71	32,300	14,651	46,600	21,138	26,300	11,930
	17	5.18	79.5	74' 4"	22.66	29,300	13,290	42,400	19,233	24,000	10,886
	18	5.49	78.6	74' 1"	22.58	26,800	12,156	38,900	17,645	22,100	10,025
	19	5.79	77.8	73' 10"	22.50	24,700	11,204	35,900	16,284	20,400	9,253
	20	6.10	77.0	73' 8"	22.45	22,900	10,387	33,300	15,105	18,900	8,573
	25	7.62	72.7	72' 4"	22.05	16,500	7,484	24,300	11,023	13,800	6,260
	30	9.14	68.4	70' 7"	21.51	12,700	5,761	18,900	8,573	10,700	4,854
	35	10.67	63.9	68' 5"	20.85	10,200	4,627	15,400	6,985	8,600	3,901
	40	12.19	59.2	65' 8"	20.02	8,400	3,810	12,800	5,806	7,100	3,221
	50	15.24	49.1	58' 5"	17.81	6,000	2,722	9,500	4,309	5,000	2,268
	60	18.29	37.2	47' 10"	14.58	4,500	2,041	7,300	3,311	3,700	1,678
	70	21.34	20.0	29' 5"	8.97	3,500	1,588	5,900	2,676	2,800	1,270
80' (24.38 m)	20	6.10	78.6	83' 11"	25.58	22,700	10,297	33,200	15,060	18,700	8,482
	25	7.62	74.9	82' 10"	25.25	16,300	7,394	24,100	10,932	13,600	6,169
	30	9.14	71.2	81' 2"	24.74	12,500	5,670	18,700	8,482	10,500	4,763
	35	10.67	67.4	79' 4"	24.18	10,000	4,536	15,200	6,895	8,400	3,810
	40	12.19	63.4	77' 0"	23.47	8,200	3,720	12,700	5,761	6,900	3,130
	50	15.24	55.1	71' 1"	21.67	5,800	2,631	9,300	4,218	4,800	2,177
	60	18.29	45.8	62' 10"	19.15	4,300	1,950	7,100	3,221	3,500	1,588
	70	21.34	34.7	51' 0"	15.54	3,300	1,497	5,700	2,586	2,600	1,179
	80	24.38	18.7	31' 1"	9.47	2,500	1,134	4,600	2,087	1,900	862

① Measured from center of boom peak sheave to ground.

(continued)

GENERAL INFORMATION ONLY

LS-108B lifting crane capacities

Refer to Notes below

Boom						Side Frames Extended				Side Frames Retracted	
	Radius		Angle	Boom Point Height ①		Ctwt. "A"		Ctwt. "AB"		Ctwt. "A" Only	
Length	Feet	Meters	Degree	Feet	Meters	Pounds	Kilograms	Pounds	Kilograms	Pounds	Kilograms
90' (27.34 m)	20	6.10	79.9	94' 1"	28.68	22,500	10,206	33,000	14,969	18,600	8,437
	25	7.62	76.6	93' 1"	28.37	16,200	7,348	23,900	10,841	13,400	6,078
	30	9.14	73.3	91' 8"	27.94	12,300	5,579	18,500	8,392	10,300	4,672
	35	10.67	70.0	90' 1"	27.46	9,800	4,445	15,000	6,804	8,200	3,720
	40	12.19	66.6	88' 1"	26.85	8,000	3,629	12,500	5,670	6,600	2,994
	50	15.24	59.4	83' 0"	25.30	5,600	2,540	9,100	4,128	4,600	2,087
	60	18.29	51.7	76' 1"	23.19	4,100	1,860	6,900	3,130	3,300	1,497
	70	21.34	43.0	66' 11"	20.40	3,100	1,406	5,400	2,449	2,400	1,089
	80	24.38	32.6	54' 0"	16.46	2,300	1,043	4,400	1,996	1,700	771
	90	27.34	17.6	32' 8"	9.96	1,700	771	3,600	1,633	1,200	544
100' (30.48 m)	20	6.10	80.9	104' 5"	31.83	22,300	10,115	32,800	14,878	Not Applicable	
	25	7.62	78.0	103' 4"	31.49	16,000	7,258	23,700	10,750		
	30	9.14	75.1	102' 2"	31.14	12,200	5,534	18,300	8,301		
	35	10.67	72.1	100' 7"	30.66	9,600	4,355	14,800	6,713		
	40	12.19	69.0	98' 11"	30.15	7,800	3,538	12,300	5,579		
	50	15.24	62.7	94' 5"	28.78	5,400	2,449	8,900	4,037		
	60	18.29	56.1	88' 6"	26.97	3,900	1,769	6,700	3,039		
	70	21.34	48.9	80' 10"	24.64	2,900	1,315	5,200	2,359		
	80	24.38	40.7	70' 8"	21.54	2,100	953	4,200	1,905		
	90	27.34	30.9	56' 11"	17.35	1,500	680	3,300	1,497		
	100	30.48	16.7	34' 2"	10.42	1,100	499	2,700	1,225		
110' (33.53 m)	25	7.62	79.1	113' 6"	34.59	15,800	7,167	23,500	10,660		
	30	9.14	76.4	112' 5"	34.27	12,000	5,443	18,100	8,210		
	35	10.67	73.7	111' 1"	33.86	9,400	4,264	14,600	6,623		
	40	12.19	71.0	109' 6"	33.38	7,600	3,447	12,100	5,489		
	50	15.24	65.4	105' 6"	32.16	5,200	2,359	8,700	3,946		
	60	18.29	59.5	100' 4"	30.58	3,700	1,678	6,500	2,948		
	70	21.34	53.3	93' 8"	28.55	2,700	1,225	5,000	2,268		
	80	24.38	46.4	85' 2"	25.96	1,900	862	3,900	1,769		
	90	27.34	38.7	74' 4"	22.66	1,300	590	3,100	1,406		
	100	30.48	29.4	59' 7"	18.16	800	363	2,500	1,134		
	110	33.53	15.9	35' 7"	10.84	500	227	2,000	907		
120' (36.58 m)	25	7.62	80.0	123' 8"	37.69	Not Applicable		23,400	10,614		
	30	9.14	77.6	122' 8"	37.39			17,900	8,119		
	35	10.67	75.1	121' 6"	37.03			14,400	6,532		
	40	12.19	72.6	120' 0"	36.58			11,900	5,398		
	50	15.24	67.6	116' 5"	35.48			8,500	3,856		
	60	18.29	62.3	111' 8"	34.04			6,300	2,858		
	70	21.34	56.8	105' 10"	32.26			4,800	2,177		
	80	24.38	50.8	98' 6"	30.02			3,700	1,678		
	90	27.34	44.4	89' 5"	27.26			2,900	1,315		
	100	30.48	37.0	77' 9"	23.70			2,300	1,043		
	110	33.53	28.2	62' 1"	18.92			1,700	771		
	120	36.58	15.2	37' 0"	11.28			1,300	590		
130' (39.62 m)	30	9.14	78.6	132' 11"	40.51			17,700	8,029		
	35	10.67	76.3	131' 10"	40.18			14,200	6,441		
	40	12.19	74.0	130' 6"	39.78			11,700	5,307		
	50	15.24	69.4	127' 2"	38.76			8,300	3,765		
	60	18.29	64.6	122' 11"	37.47			6,100	2,767		
	70	21.34	59.6	117' 7"	35.84			4,600	2,087		
	80	24.38	54.3	111' 1"	33.86			3,500	1,588		
	90	27.34	48.7	103' 2"	31.45			2,700	1,225		
	100	30.48	42.5	93' 4"	28.45			2,000	907		
	110	33.53	35.5	81' 1"	24.71			1,500	680		
	120	36.58	27.0	64' 7"	19.68			1,100	499		
	130	39.62	14.6	38' 4"	11.68			700	318		

① Measured from center of boom peak sheave to ground.

Notes — lifting crane capacities

1. The capacities included in this chart are the maximum allowable, and are based on machine standing level on firm supporting surface under ideal job conditions.
2. Capacities are based on 75% of minimum tipping loads unless marked with an asterisk (*).
   Asterisk indicates capacities based on factors other than those which would cause a tipping condition.
3. Capacities are based on freely suspended loads and make no allowance for such factors as the effect of wind, sudden stopping of loads, supporting surface conditions, and operating speeds. Operator must reduce load ratings to take such conditions into account. Deduction from rated capacities must be made for weight of hook block, weighted ball/hook, sling, spreader bar, or other suspended gear.
4. 42" (.51 m) Tubular Boom with Open Throat Top Section — for lifting 90,000# (4,082 kg), 6-part load hoist line (¾" — 19.05 mm, Type "N" wire rope) is required. Check parts of line required for all capacities.
5. Retractable high gantry must be fixed in raised position for all capacities on this chart.
6. Least stable condition is over the side.
7. Operation with ctwt. "AB" — with side frames retracted — not permitted.
8. Main boom length must not exceed 130' (39.62 m), and jib must not be mounted on boom longer than 110' (33.53 m). Maximum jib length permitted on 110' (33.53 m) main boom — 40' (12.19 m).
9. Maximum boom/jib combination permitted — 110' (33.53 m) boom plus 40' (12.19 m) jib, or 100' (30.48 m) boom plus 50' (15.24 m) jib. Maximum jib length permitted — 50' (15.24 m).
10. When picking maximum 130' (39.62 m) main boom off ground, boom must be

(continued)

picked over end of crawler mounting to avoid exceeding backward stability.

11. Boom live mast fixed in extended 20'6" (6.25 m) position, with live mast stops in position and operative, may be used (not required) for all boom lengths. Boom midpoint suspension pendants, in conjunction with boom live mast, may only be used with boom lengths exceeding 80' (24.38 m).
12. When using boom live mast as short boom, maximum lifting capacity of live mast is 25,600# (11,612 kg) at radii from 9'5" (2.87 m) minimum to 20' (6.10 m) maximum with mast fixed in extended 20'6" (6.25 m) long position with live mast stops in position and operative.
    Note: Use of live mast as a short boom is intended for machine assembly or disassembly. It is not to be used for general crane service.
13. To determine capacities for intermediate boom lengths not shown on this chart, use the capacity for the next longer boom length shown — for actual angle or radius at which boom/load are being worked.
14. These capacities apply only to the machine as originally manufactured and normally equipped by FMC Corporation, Crane and Excavator Division.

Maximum boom and boom/jib ① machine can lift off ground unassisted — without load.

Std. Machine Equipped with Appropriate Counterweight	42" x 42" (1.06 x 1.06 m) Tubular Boom							
	Ctwt. "A"				Ctwt. "AB"			
	Boom		Boom + Jib		Boom		Boom + Jib	
	Feet	Meters	Feet	Meters	Feet	Meters	Feet	Meters
Over Ends:								
Side frames extended	110	33.53	80 + 50	24.38 + 15.24	130	39.62	110+ 40	33.53 + 12.19
Side frames retracted	100	30.48	90 + 30	27.43 + 9.14	—	—	—	—
Over Sides:								
Side frames extended	100	30.48	80 + 40	24.38 + 12.19	110	33.53	80 + 50	24.38 + 9.14
Side frames retracted	90	27.43	80 + 30	24.38 + 9.14	—	—	—	—

① Hook blocks on ground and machine level on firm supporting surface.

Maximum boom and boom/jib machine can lift off ground and travel ② with — boom horizontal ③ without load.

Std. Machine Equipped with Appropriate Counterweight	42" x 42" (1.06 x 1.06 m) Tubular Boom							
	Ctwt. "A"				Ctwt. "AB"			
	Boom		Boom + Jib		Boom		Boom + Jib	
	Feet	Meters	Feet	Meters	Feet	Meters	Feet	Meters
Over Ends:								
Side frames extended	90	27.43	70 + 50	21.34 + 15.24	120	36.58	90 + 50	27.43 + 15.24
Side frames retracted	90	27.43	70 + 50	21.34 + 15.24	—	—	—	—
Over Sides:								
Side frames extended	90	27.43	60 + 50	18.29 + 15.24	110	33.53	80 + 50	24.38 + 15.24
Side frames retracted	80	24.38	50 + 50	15.24 + 15.24	—	—	—	—

② Based on firm, level supporting surface and minimum travel speed.
③ Equipped with 45-ton (40.82 metric ton), 500# (227 kg) hook block and 8½-ton (7.71 metric ton), 600# (272 kg) ball with swivel hook — carried at boom and jib points.

GENERAL INFORMATION ONLY

LS-108B jib capacities

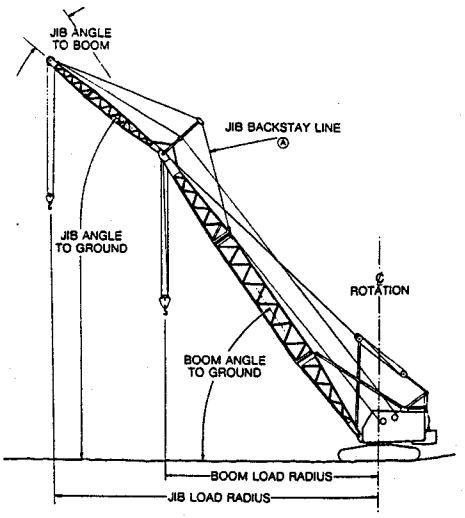
Boom — tubular; 42" x 42" (1.06 x 1.06 m) with open throat top section, retractable high gantry, 1¼" (31.75 m) dia. boom pendants, boom live mast and boom midpoint suspension pendants as required.

Jib — tubular; 24" x 24" (.61 x .61 m).

Crawler — 10'8" (3.25 m) gauge extended, 8'11" (2.72 m) gauge retracted; 15'0" (4.57 m) over-all length.

Counterweights — same as lifting crane.

Jib Angle to Ground	Jib Lengths							
	20' (6.10 m)		30' (9.14 m)		40' (12.19 m)		50' (15.24 m)	
	Pounds	Kilograms	Pounds	Kilograms	Pounds	Kilograms	Pounds	Kilograms
80°	12,000	5,443	10,000	4,536	8,000	3,629	6,000	2,722
65°	10,000	4,536	8,000	3,629	6,000	2,722	4,000	1,814
50°	8,000	3,629	6,000	2,722	4,000	1,814	3,000	1,361
35°	7,500	3,402	5,500	2,495	3,500	1,588	2,000	907
20°	7,500	3,402	5,500	2,495	3,500	1,588	2,000	907



Notes — tubular jib capacities

1. Capacities shown are maximum allowable.
2. Use jib with 10'0" (3.05 m) high jib mast in proper working position.
3. To determine jib angle to ground, deduct jib angle to boom from the boom angle to ground.
4. Jib backstay line Ⓐ is anchored at base of boom top section.
5. Jib angle to boom must not exceed 30°.
6. Determining machine jib capacities:
   a. Add length of boom plus length of jib being used.
   b. Determine jib load radius.
   c. Refer to lifting crane capacity chart and select boom length that corresponds to combined boom/jib length (6-a) and radius (6-b).
   d. Jib capacity is equal to the lifting crane capacity for the boom length (6-c) and radius (6-c) — unless restricted by the

(continued)

maximum jib capacities shown in above chart.

e. If total boom/jib length (6-c) exceeds the longest boom length listed in lifting crane capacity chart, deduct 200# (90.72 kg) from the longest boom length shown for the required radius (6-b).

f. Jib capacity is the resulting figure unless restricted by the maximum jib capacities shown in above chart.

7. Determining lifting crane capacities with jib mounted on boom:

a. When handling load off main boom peak sheaves, the following reductions in rated lifting crane capacities must be made to compensate for jib weight —
20′ (6.10 m) jib — 1,600# (726 kg)
30′ (9.14 m) jib — 1,900# (862 kg)
40′ (12.19 m) jib — 2,200# (998 kg)
50′ (15.24 m) jib — 2,500# (1,134 kg)

LS-108B dragline/clamshell/magnet capacities

Refer to **Notes** below

Boom — tubular; 42″ x 42″ (1.06 x 1.06 m) with open throat top section, retractable high gantry, 1¼″ (31.75 m) dia. boom pendants, boom live mast and boom midpoint suspension pendants as required.

Crawler — 10′8″ (3.25 m) gauge extended, 8′11″ (2.72 m) gauge retracted; 15′0″ (4.57 m) over-all length.

Counterweights — 11,240# (5,098 kg) or 12,000# (5,443 kg) ctwt. "A" only — depending on engine used.

Boom						Side Frames Extended — Ctwt. "A" Only			
	Radius		Angle	Boom Point Height ①		Dragline		Clamshell & Magnet	
Length	Feet	Meters	Degree	Feet	Meters	Pounds	Kilograms	Pounds	Kilograms
40′ (12.19 m)	10	3.05	81.7	45′ 1″	13.74	—	—	13,600	6,169
	11	3.35	80.2	44′ 11″	13.69	—	—	↕	↕
	12	3.66	78.8	44′ 8″	13.62	—	—		
	13	3.96	77.3	44′ 6″	13.56	—	—		
	14	4.27	75.8	44′ 4″	13.51	—	—		
	15	4.57	74.3	44′ 0″	13.41	—	—		
	16	4.88	72.9	43′ 8″	13.31	—	—		
	17	5.18	71.3	43′ 5″	13.23	—	—		
	18	5.49	69.3	43′ 0″	13.11	—	—		
	19	5.79	68.3	42′ 8″	13.01	—	—		
	20	6.10	66.7	42′ 4″	12.90	—	—		
	25	7.62	58.7	39′ 8″	12.09	11,800	5,352	13,600	6,169
	30	9.14	49.8	36′ 1″	11.00	11,800	5,352	12,000	5,443
	35	10.67	39.7	31′ 0″	9.45	10,800	4,899	9,700	4,400
	40	12.19	26.5	23′ 5″	7.14	—	—	8,100	3,674
50′ (15.24 m)	12	3.66	81.0	54′ 11″	16.74	—	—	13,600	6,169
	13	3.96	79.9	54′ 8″	16.66	—	—	↕	↕
	14	4.27	78.7	54′ 6″	16.61	—	—		
	15	4.57	77.5	54′ 4″	16.56	—	—		
	16	4.88	76.4	54′ 1″	16.48	—	—		
	17	5.18	75.2	53′ 10″	16.41	—	—		
	18	5.49	74.0	53′ 7″	16.33	—	—		
	19	5.79	72.8	53′ 4″	16.25	—	—		
	20	6.10	71.6	52′ 11″	16.13	—	—		
	25	7.62	65.4	51′ 0″	15.54	—	—	13,600	6,169
	30	9.14	58.9	48′ 4″	14.73	11,800	5,352	11,800	5,352
	35	10.67	52.0	44′ 11″	13.69	10,600	4,808	9,500	4,309
	40	12.19	44.3	40′ 5″	12.32	8,800	3,992	7,900	3,583
	50	15.24	23.7	25′ 7″	7.80	—	—	5,800	2,631
60′ (18.29 m)	15	4.57	79.6	64′ 6″	19.66	—	—	13,600	6,169
	16	4.88	78.7	64′ 4″	19.61	—	—	↕	↕
	17	5.18	77.7	64′ 1″	19.53	—	—		
	18	5.49	76.7	63′ 11″	19.48	—	—		
	19	5.79	75.7	63′ 7″	19.38	—	—		
	20	6.10	74.7	63′ 5″	19.33	—	—		
	25	7.62	69.7	61′ 10″	18.85	—	—	13,600	6,169
	30	9.14	64.5	59′ 8″	18.19	—	—	11,600	5,262
	35	10.67	59.1	57′ 0″	17.37	10,400	4,717	9,400	4,264
	40	12.19	53.4	53′ 8″	17.58	8,600	3,901	7,700	3,493
	50	15.24	40.3	44′ 4″	13.51	6,200	2,812	5,600	2,540
	60	18.29	21.6	27′ 7″	8.41	—	—	4,200	1,905

① Measured from center of boom peak sheave to ground.

Notes — dragline/clamshell/magnet capacities

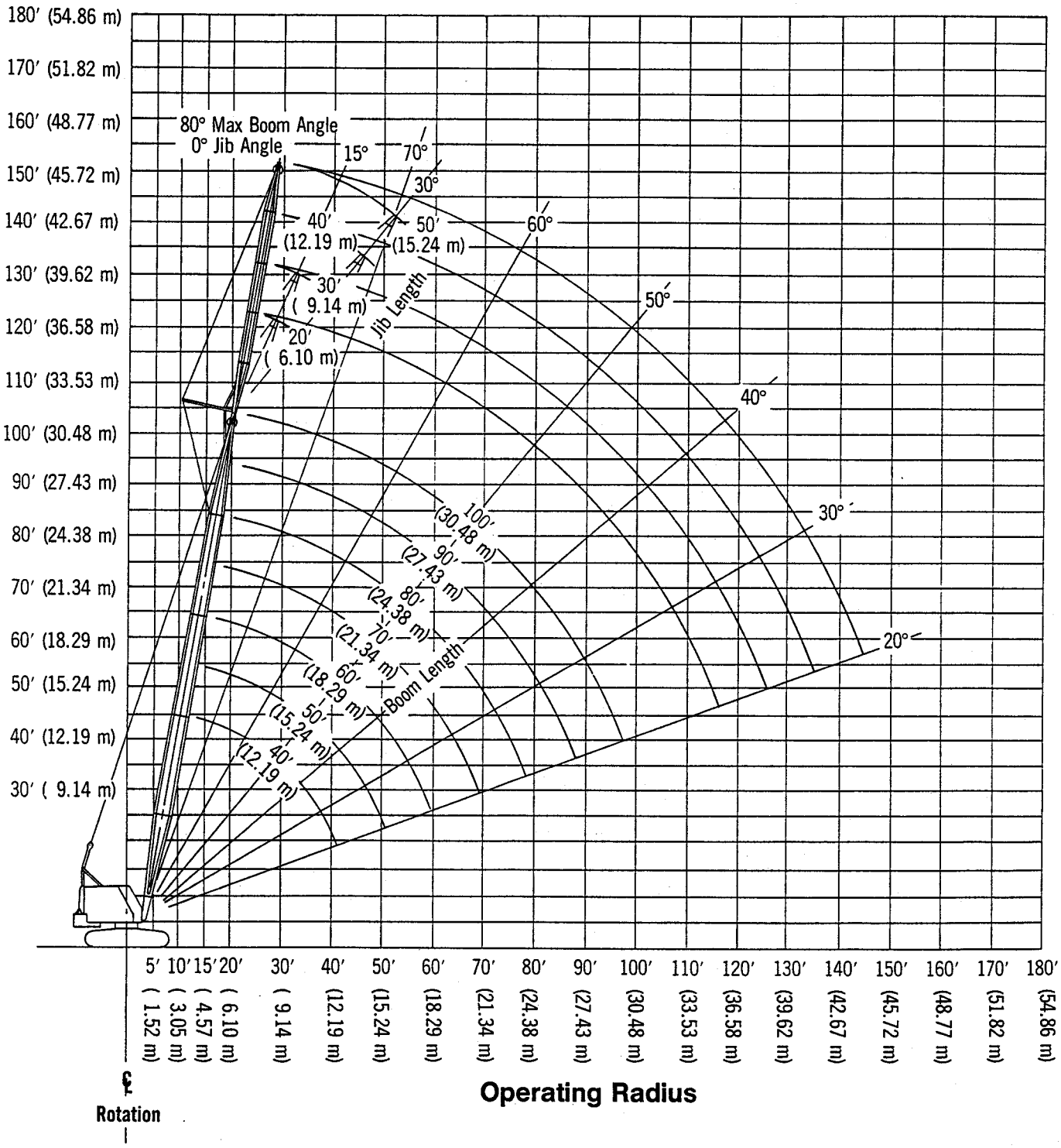
1. The capacities included in this chart are the maximum allowable, and are based on machine standing level on firm supporting surface under ideal job conditions.
2. Capacities are based on not more than 75% of minimum tipping loads for dragline; 67½% for clamshell/magnet.
3. Capacities are maximum recommended by Commercial Standard CS90-58 and PCSA Standard #1. User must make allowances for soft or uneven supporting surfaces, rapid cycle operations, bucket suction or other unfavorable conditions which may require smaller buckets or magnets for most efficient operation.
4. Weight of bucket or magnet, plus load, should not exceed these capacities.
5. Dragline operation with boom angle less than 35° is not recommended.
6. Boom length for dragline/clamshell/magnet operation should not exceed 60′ (18.29 m).
7. Refer notes #5, 6, and 14 under "Notes — lifting crane capacities."

LS-108B boom/jib working ranges

Boom — tubular; 42" x 42" (1.06 x 1.06 m) with open throat top section, retractable high gantry, 1¼" (31.75 m) dia. boom pendants, boom live mast and boom midpoint suspension pendants as required.

Jib — tubular; 24" x 24" (.61 x .61 m).

Crawler — 10'8" (3.25 m) gauge extended, 8'11" (2.72 m) gauge retracted; 15'0" (4.57 m) over-all length.



We are constantly improving our products and therefore reserve the right to change designs and specifications.

GENERAL INFORMATION ONLY

Link-Belt® LS-108B lifting crane capacities

PSCA Class 10-132
Refer to **Notes** Page 3

Boom — angle: 34″ *(0.86 m)* wide, 34″ *(0.86 m)* deep with open throat top section, retractable high gantry and 1¼″ *(32 mm)* diameter boom pendants.

Jib — angle: 22¾″ *(0.58 m)* wide x 18″ *(0.46 m)* deep.

Mounting — crawler: 10′8″ *(3.25 m)* gauge extended, 8′11″ *(2.72 m)* gauge retracted; 15′0″ *(4.57 m)* over-all length.

Counterweights — Refer to charts below.

Engine	Counterweights			
	"A"		"AB"	
	Pounds	*kilograms*	Pounds	*kilograms*
GM 4-71N (all) GM 6-71N (with friction clutch)	12,000	*5 443*	25,600	*11 612*
GM 6-71N (with torque converter) CAT 3306T Cummins N855-P190	11,240	*5 098*	24,850	*11 272*

Maximum angle boom or boom + jib machine can lift off ground ① unassisted, without load.

	Counterweight "A"				Counterweight "AB" ②			
	Boom		Boom + jib		Boom		Boom + jib	
	Feet	*meters*	Feet	*meters*	Feet	*meters*	Feet	*meters*
Over ends —								
Side frames extended	100	*30.48*	90 + 30	*27.43 + 9.14*	100	*30.48*	100 + 40	*30.48 + 12.19*
Side frames retracted	100	*30.48*	90 + 30	*27.43 + 9.14*	—	—	—	—
Over sides —								
Side frames extended	100	*30.48*	80 + 40	*24.38 + 12.19*	100	*30.48*	100 + 40	*30.48 + 12.19*
Side frames retracted	90	*27.43*	80 + 30	*24.38 + 9.14*	—	—	—	—

Maximum angle boom and boom + jib machine can lift off ground ① unassisted and travel with, without load. Based on boom horizontal ③ and minimum travel speed on firm, level supporting surface.

	Counterweight "A"				Counterweight "AB" ②			
	Boom		Boom + jib		Boom		Boom + jib	
	Feet	*meters*	Feet	*meters*	Feet	*meters*	Feet	*meters*
Over ends —								
Side frames extended	90	*27.43*	70 + 40	*21.34 + 12.19*	100	*30.48*	90 + 40	*27.43 + 12.19*
Side frames retracted	90	*27.43*	70 + 40	*21.34 + 12.19*	—	—	—	—
Over sides —								
Side frames extended	80	*24.38*	60 + 40	*18.29 + 12.19*	100	*30.48*	80 + 40	*24.38 + 12.19*
Side frames retracted	80	*24.38*	50 + 40	*15.24 + 12.19*	—	—	—	—

① Hook blocks on ground.
② With counterweight "AB", machine must not be operated with side frames retracted.
③ Hook blocks carried at boom and jib points. Based on 45-ton *(40.8 metric ton)* 3-sheave, 500 lbs. *(227 kg)* hook block and 8½-ton *(7.7 metric ton)* single sheave, 600 lbs. *(272 kg)* ball with swivel hook.

GENERAL INFORMATION ONLY

Caution: This material is supplied for reference only. Operator must refer to in-cab capacity plate to determine allowable machine lifting capacities and operating procedures.

CR12796813.5
(Supersedes 1192767.5)

Printed in U.S.A.

LS-108B lifting crane capacities

Refer to **Notes** page 3.

Boom — angle: 34″ *(0.86 m)* wide, 34″ *(0.86 m)* deep with open throat top section retractable high gantry and 1¼″ *(32 mm)* diameter boom pendants.

Mounting — crawler: 10′8″ *(3.25 m)* gauge extended, 8′11″ *(2.72 m)* gauge retracted; 15′0″ *(4.57 m)* over-all length.

Counterweights — Refer to charts page 1.

Boom						Side frames extended				Side frames retracted	
	Radius		Angle	Boom point height ①		Ctwt. "A"		Ctwt. "AB"		Ctwt. "A" Only	
Length	Feet	*meters*	Degree	Feet	*meters*	Pounds	*kilograms*	Pounds	*kilograms*	Pounds	*kilograms*
40′ *(12.19 m)*	10	*3.05*	80.2	44′ 11″	*13.69*	77,650	*35 222*	90,000•	*40 824•*	57,920	*26 273*
	12	*3.66*	77.2	44′ 6″	*13.56*	53,870	*24 435*	76,920	*34 890*	42,140	*19 115*
	15	*4.57*	72.8	43′ 9″	*13.34*	36,640	*16 620*	52,540	*23 832*	29,690	*13 467*
	20	*6.10*	65.1	41′ 10″	*12.75*	23,590	*10 700*	34,070	*15 454*	19,610	*8 895*
	25	*7.62*	56.9	39′ 0″	*11.89*	17,170	*7 788*	24,990	11 335	14,430	*6 545*
	30	*9.14*	47.9	35′ 3″	*10.74*	13,360	*6 060*	19,590	*8 886*	11,290	*5 121*
	35	*10.67*	37.3	29′ 9″	*9.07*	10,830	*4 912*	16,010	*7 262*	9,170	*4 160*
	40	*12.19*	22.9	21′ 2″	*6.45*	9,030	*4 096*	13,460	*6 105*	7,650	*3 470*
50′ *(15.24 m)*	12	*3.66*	79.8	54′ 9″	*16.69*	53,680	*24 349*	76,730	*34 805*	41,900	*19 006*
	15	*4.57*	76.3	54′ 2″	*16.51*	36,420	*16 520*	52,320	*23 732*	29,440	*13 354*
	20	*6.10*	70.3	52′ 8″	*16.05*	23,350	*10 592*	33,830	*15 345*	19,350	*8 777*
	25	*7.62*	64.1	50′ 6″	*15.39*	16,920	*7 675*	24,740	*11 222*	14,170	*6 428*
	30	*9.14*	57.5	47′ 9″	*14.55*	13,100	*5 942*	19,330	*8 768*	11,020	*4 999*
	35	*10.67*	50.4	44′ 2″	*13.46*	10,570	*4 795*	15,750	*7 144*	8,900	*4 037*
	40	*12.19*	42.5	39′ 4″	*11.99*	8,760	*3 974*	13,200	*5 988*	7,370	*3 343*
	50	*15.24*	20.5	23′ 0″	*7.01*	6,370	*2 889*	9,810	*4 450*	5,330	*2 418*
60′ *(18.29 m)*	15	*4.57*	78.6	64′ 4″	*19.61*	36,210	*16 425*	52,110	*23 637*	29,190	*13 241*
	20	*6.10*	73.7	63′ 2″	*19.25*	23,110	*10 483*	33,590	*15 236*	19,090	*8 659*
	25	*7.62*	68.7	61′ 5″	*18.72*	16,670	*7 562*	24,490	*11 109*	13,910	*6 310*
	30	*9.14*	63.4	59′ 3″	*18.06*	12,840	*5 824*	19,080	*8 655*	10,750	*4 876*
	35	*10.67*	57.9	56′ 5″	*17.20*	10,310	*4 677*	15,490	*7 026*	8,630	*3 915*
	40	*12.19*	52.1	52′ 11″	*16.13*	8,500	*3 856*	12,930	*5 865*	7,100	*3 221*
	50	*15.24*	38.7	43′ 0″	*13.11*	6,100	*2 767*	9,540	*4 327*	5,060	*2 295*
	60	*18.29*	18.7	24′ 9″	*7.54*	4,580	*2 077*	7,390	*3 352*	3,750	*1 701*
70′ *(21.34 m)*	15	*4.57*	80.3	74′ 6″	*22.71*	36,020	*16 339*	51,890	*23 537*	28,980	*13 145*
	20	*6.10*	76.1	73′ 5″	*22.38*	22,900	*10 387*	33,350	*15 128*	18,870	*8 559*
	25	*7.62*	71.8	72′ 0″	*21.95*	16,460	*7 466*	24,240	*10 995*	13,680	*6 205*
	30	*9.14*	67.5	70′ 2″	*21.39*	12,620	*5 724*	18,820	*8 537*	10,520	*4 772*
	35	*10.67*	62.9	67′ 10″	*20.67*	10,080	*4 572*	15,230	*6 908*	8,400	*3 810*
	40	*12.19*	58.2	65′ 0″	*19.81*	8,270	*3 751*	12,670	*5 747*	6,870	*3 116*
	50	*15.24*	48.0	57′ 6″	*17.53*	5,870	*2 663*	9,270	*4 205*	4,820	*2 186*
	60	*18.29*	35.7	46′ 5″	*14.15*	4,340	*1 969*	7,120	*3 230*	3,510	*1 592*
	70	*21.34*	17.3	26′ 4″	*8.03*	3,290	*1 492*	5,630	*2 554*	2,600	*1 179*
80′ *(24.38 m)*	20	*6.10*	77.8	83′ 9″	*25.53*	22,470	*10 192*	33,110	*15 019*	18,580	*8 428*
	25	*7.62*	74.2	82′ 6″	*25.15*	16,000	*7 258*	23,990	*10 882*	13,380	*6 069*
	30	*9.14*	70.4	80′ 11″	*24.66*	12,160	*5 516*	18,560	*8 419*	10,220	*4 636*
	35	*10.67*	66.5	78′ 11″	*24.05*	9,610	*4 359*	14,970	*6 790*	8,090	*3 670*
	40	*12.19*	62.6	76′ 11″	*23.45*	7,800	*3 538*	12,410	*5 629*	6,560	*2 976*
	50	*15.24*	54.2	70′ 5″	*21.46*	5,390	*2 445*	9,010	*4 087*	4,510	*2 046*
	60	*18.29*	44.7	61′ 10″	*18.85*	3,860	*1 751*	6,850	*2 985*	3,200	*1 452*
	70	*21.34*	33.3	48′ 6″	*14.78*	2,800	*1 270*	5,360	*2 431*	2,290	*1 039*
	80	*24.38*	16.2	27′ 10″	*8.48*	2,030	*921*	4,270	*1 937*	1,620	*735*
90′ *(27.43 m)*	20	*6.10*	79.2	93′ 11″	*28.63*	22,390	*10 156*	32,870	*14 910*	18,320	*8,310*
	25	*7.62*	76.0	92′ 10″	*28.29*	15,920	*7 221*	23,740	*10 768*	13,120	*5,951*
	30	*9.14*	72.6	91′ 5″	*27.86*	12,070	*5 475*	18,310	*8 305*	9,950	*4,513*
	35	*10.67*	69.3	89′ 9″	*27.36*	9,520	*4 318*	14,710	*6 672*	7,820	*3,547*
	40	*12.19*	65.8	87′ 8″	*26.72*	7,710	*3 497*	12,140	*5 507*	6,290	*2,853*
	50	*15.24*	58.6	82′ 5″	*25.12*	5,300	*2 404*	8,740	*3 964*	4,240	*1,923*
	60	*18.29*	50.8	75′ 4″	*22.96*	3,770	*1 710*	6,580	*2 985*	2,920	*1,325*
	70	*21.34*	42.0	65′ 10″	*20.06*	2,710	*1 229*	5,090	*2 309*	2,010	*912*
	80	*24.38*	31.4	52′ 5″	*15.98*	1,940	*880*	4,000	*1 814*	1,340	*608*
	90	*27.43*	15.2	29′ 2″	*8.89*	1,350	*612*	3,160	*1 433*	830	*376*
100′ *(30.48 m*	20	*6.10*	80.3	104′ 2″	*31.75*	22,150	*10 047*	32,630	*14 801*	Not Applicable	
	25	*7.62*	77.4	103′ 2″	*31.45*	15,670	*7 108*	23,490	*10 655*		
	30	*9.14*	74.4	101′ 10″	*31.04*	11,820	*5 362*	18,050	*8 187*		
	35	*10.67*	71.4	100′ 4″	*30.58*	9,260	*4 200*	14,450	*6 555*		
	40	*12.19*	68.4	98′ 6″	*30.02*	7,440	*3 511*	11,880	*5 389*		
	50	*15.24*	62.1	93′ 11″	*28.63*	5,030	*2 282*	8,470	*3 842*		
	60	*18.29*	55.4	87′ 10″	*26.77*	3,500	*1 588*	6,310	*2 862*		
	70	*21.34*	48.1	79′ 11″	*24.36*	2,440	*1 107*	4,820	*2 186*		
	80	*24.38*	39.8	69′ 6″	*21.18*	1,670	*758*	3,730	*1 692*		
	90	*27.43*	29.7	55′ 2″	*16.82*	1,070	*485*	2,890	*1 311*		
	100	*30.48*	14.4	30′ 5″	*9.27*	610	*277*	2,230	*1 012*		

① Measured vertically from center of boom peak sheave to ground.

GENERAL INFORMATION ONLY

Notes — lifting crane capacities

1. The capacities included in this chart are the maximum allowable, and are based on machine standing level on firm supporting surface under ideal job conditions.

2. Capacities are based on 75% of minimum tipping loads unless marked with an asterisk (*).
   a. Asterisk indicates capacities based on factors other than those which would cause a tipping condition.

3. Capacities are based on freely suspended loads and make no allowance for such factors as the effect of wind, sudden stopping of loads, supporting surface conditions and operating speeds. Operator must reduce load ratings to take such conditions into account. Deduction from rated capacities must be made for weight of hook block, weighted ball/hook, sling, spreader bar, or other suspended gear.

4. 34" *(0.86 m)* angle boom with open throat top section — for lifting 90,000 lbs. *(4,082 kg)*, 6-part load hoist line ¾" *(19 mm)* Type "N" wire rope is required. Check parts of line required for all capacities.

5. Retractable high gantry must be fixed in raised position for all capacities on this chart.

6. Least stable rated condition is over the side.

7. Operation with counterweight "AB" — with side frames retracted — not permitted.

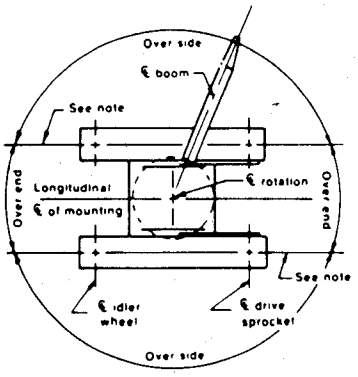
8. Main boom length must not exceed 100' *(30.48 m)*, and jib must not be mounted on boom longer than 100' *(30.48 m)*. Maximum jib length permitted — 40' *(12.19 m)*. Maximum boom/jib combination permitted — 100' *(30.48 m)* boom plus 40' *(12.19 m)* jib.

9. Determining lifting crane capacities with jib mounted on boom:
   a. When handling load off main boom peak sheaves, the following reductions in rated lifting crane capacities must be made to compensate for jib weight —
   20' *(6.10 m)* jib — 1,600 lbs. *(726 kg)*
   30' *(9.14 m)* jib — 1,900 lbs. *(862 kg)*
   40' *(12.19 m)* jib — 2,200 lbs. *(998 kg)*

10. To determine capacities for intermediate boom lengths not shown on this chart, use the capacity for the next longer boom length shown — for actual angle or radius at which boom/load are being worked.

11. These capacities apply only to the machine as originally manufactured and normally equipped by FMC Corporation, Cable Crane and Excavator Division.

LS-108B working areas



Note These lines determine the limiting position of any load for operation within working areas indicated

LS-108B dragline/clamshell/magnet capacities

Refer to **Notes** below

Boom — angle: 34″ *(0.86 m)* wide, 34″ *(0.86 m)* deep with open throat top section, retractable high gantry and 1¼″ *(32 mm)* diameter boom pendants.

Mounting — crawler: 10′8″ *(3.25 m)* gauge extended, 8′11″ *(2.72 m)* gauge retracted; 15′0″ *(4.57 m)* over-all length.

Counterweights — 11,240# *(5,098 kg)* or 12,000# *(5,443 kg)* ctwt. "A" only — depending on engine used.

Boom						Side frames extended — Ctwt. "A" Only			
	Radius		Angle	Boom point height ①		Dragline		Clamshell & Magnet	
Length	Feet	*meters*	Degree	Feet	*meters*	Pounds	*kilograms*	Pounds	*kilograms*
	10	*3.05*	80.2	44′ 11″	*13.69*	—	—	13,600	*6 169*
	12	*3.66*	77.2	44′ 6″	*13.56*	—	—	↑	↑
	15	*4.57*	72.8	43′ 9″	*13.34*	—	—	↕	↕
40′	20	*6.10*	65.1	41′ 10″	*12.75*	—	—	↓	↓
(12.19 m)	25	*7.62*	56.9	39′ 0″	*11.89*	11,800	*5 352*	13,600	*6 169*
	30	*9.14*	47.9	35′ 3″	*10.74*	11,800	*5 352*	12,000	*5 443*
	35	*10.67*	37.3	29′ 9″	*9.07*	10,830	*4 912*	9,750	*4 423*
	40	*12.19*	22.9	21′ 2″	*6.45*	—	—	8,120	*3 683*
	12	*3.66*	79.8	54′ 9″	*16.69*	—	—	13,600	*6 169*
	15	*4.57*	76.3	54′ 2″	*16.51*	—	—	↑	↑
	20	*6.10*	70.3	52′ 8″	*16.05*	—	—	↕	↕
50′	25	*7.62*	64.1	50′ 6″	*15.39*	—	—	↓	↓
(15.24 m)	30	*9.14*	57.5	47′ 9″	*14.55*	11,800	*5 352*	13,600	*6 169*
	35	*10.67*	50.4	44′ 2″	*13.46*	10,570	*4 795*	11,800	*5 352*
	40	*12.19*	42.5	39′ 4″	*11.99*	8,760	*3 974*	9,510	*4 314*
	50	*15.24*	20.5	23′ 0″	*7.01*	—	—	7,880	*3 574*
	15	*4.57*	78.6	64′ 4″	*19.61*	—	—	5,740	*2 604*
	20	*6.10*	73.7	63′ 2″	*19.25*	—	—	13,600	*6 169*
	25	*7.62*	68.7	61′ 5″	*18.72*	—	—	13,600	*6 169*
60′	30	*9.14*	63.4	59′ 3″	*18.06*	—	—	13,600	*6 169*
(18.29 m)	35	*10.67*	57.9	56′ 5″	*17.20*	10,310	*4 677*	11,560	*5 244*
	40	*12.19*	52.1	52′ 11″	*16.13*	8,500	*3 856*	9,290	*4 214*
	50	*15.24*	38.7	43′ 0″	*13.11*	6,100	*2 767*	7,650	*3 470*
	60	*18.29*	18.7	24′ 9″	*7.54*	—	—	5,500	*2 495*
								4,120	*1 869*

① Measured vertically from center of boom peak sheave to ground.

Notes — dragline/clamshell/magnet capacities

1. The capacities included in this chart are the maximum allowable, and are based on machine standing level on firm supporting surface under ideal job conditions.
2. Capacities are based on not more than 75% of minimum tipping loads for dragline; 67½% for clamshell/magnet.
3. Capacities are maximum recommended by Commercial Standard CS90-58 and PCSA Standard #1. User must make allowances for soft or uneven supporting surfaces, rapid cycle operations, bucket suction or other unfavorable conditions which may require smaller buckets or magnets for most efficient operation.
4. Weight of bucket or magnet, plus load, should not exceed these capacities.
5. Dragline operation with boom angle less than 35° is not recommended.
6. Boom length for dragline/clamshell/magnet operation should not exceed 60′ *(18.29 m)*.
7. Refer to notes #5, 6, 10 and 11 under "Notes — lifting crane capacities."

GENERAL INFORMATION ONLY

We are constantly improving our products and therefore reserve the right to change designs and specifications.

LS-108B boom/jib working ranges

Boom — angle: 34″ *(0.86 m)* wide, 34″ *(0.86 m)* deep with open throat top section, retractable high gantry and 1¼″ *(32 mm)* diameter boom pendants.

Jib — angle: 22¾″ *(0.58 m)* wide x 18″ *(0.46 m)* deep.

Mounting — crawler: 10′8″ *(3.25 m)* gauge extended, 8′11″ *(2.72 m)* gauge retracted; 15′0″ *(4.57 m)* over-all length.