

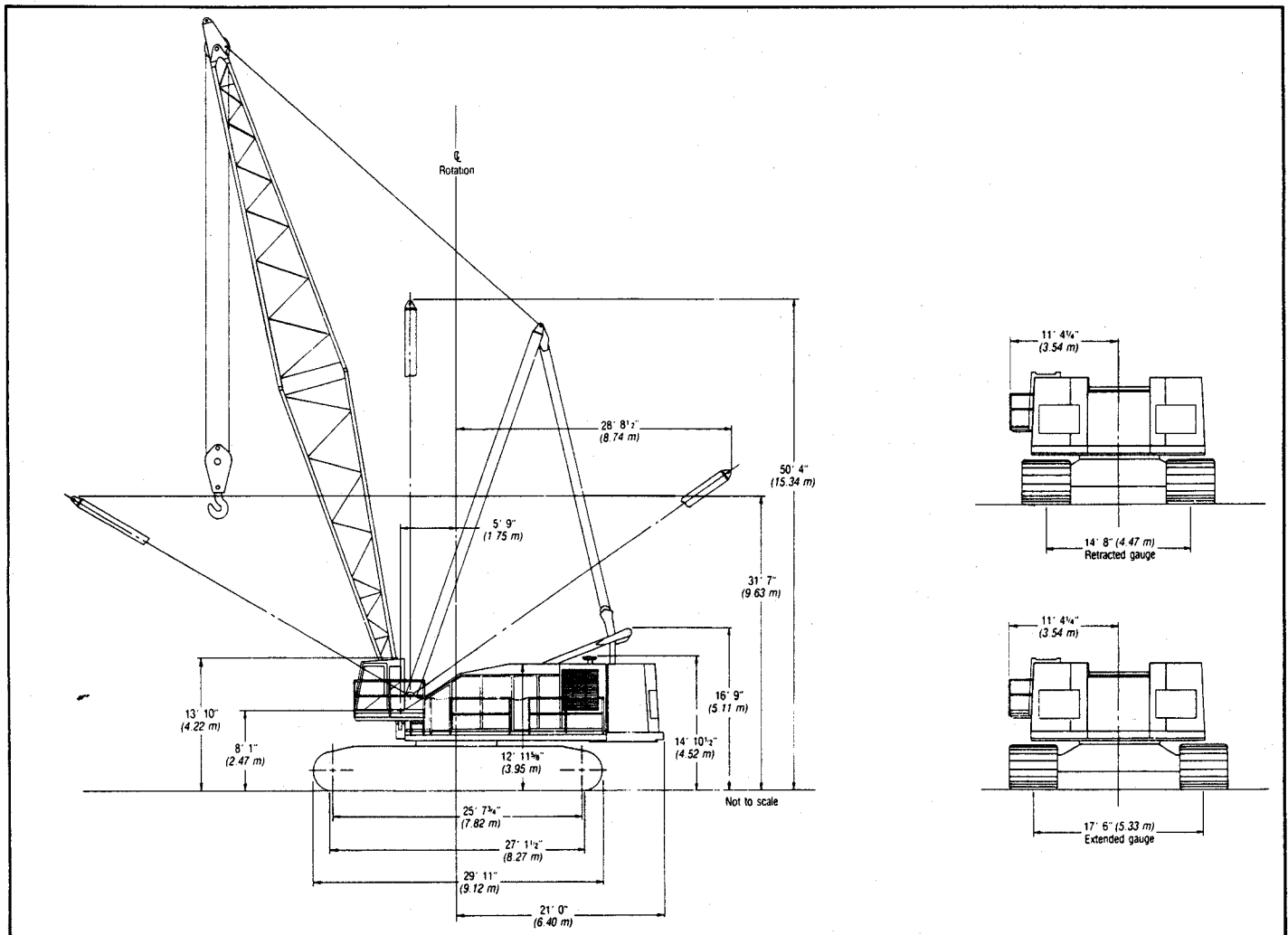
General Specifications

Link-Belt® 250-ton (226.75 metric ton)

Wire rope crawler crane/excavator

LS-718

GENERAL INFORMATION ONLY

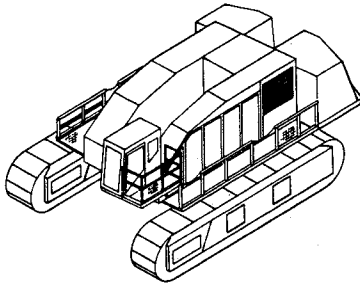


General dimensions	Feet	meters
Basic boom length	—	—
long range boom	100' 0"	30.48
heavy duty boom	70' 0"	21.34
Overall width with 50" (1.27 m) shoes	—	—
side frames extended	21' 8"	6.61
side frames retracted	18' 10"	5.74
Overall width with 60" (1.52 m) shoes	—	—
side frames extended	22' 6"	6.86
side frames retracted	19' 8"	6.00
Overall width of counterweight	19' 2"	5.84
Clearance under counterweights	4' 11"	1.50
Minimum ground clearance	11 ⁵ / ₈ "	0.30

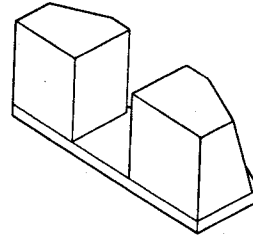
General dimensions	Feet	meters
Width of upper without operator's cab and catwalk	12' 0"	3.66
Width of upper with operator's cab and catwalk	18' 0"	5.49
Tailswing of counterweights	21' 0"	6.40
Overall height	—	—
cab (over engine air cleaner)	14' 10 ¹ / ₈ "	4.52
retractable gantry raised	16' 9"	5.11
Overall width of machine with either 50" (1.23 m) or 60" (1.52 m) track shoes	—	—
— with operator's cab and catwalk	22' 9 ¹ / ₂ "	6.95
— without catwalks on operator's cab	22' 6"	6.86

Weights for transporting — approximate

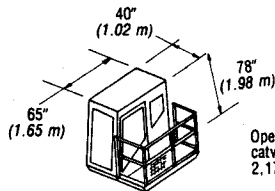
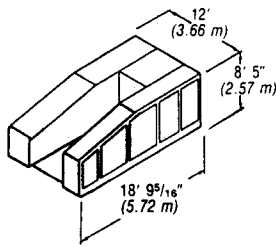
GENERAL INFORMATION ONLY



Complete basic machine including retractable gantry (2,500 lbs. — 1,134 kg) and gantry backstays (1,036 lbs. — 470 kg) counterweight cylinder (900 lbs. — 408 kg), boom stops (1,670 lbs. — 757 kg), 18-part boomhoist bail (1,450 — 658 kg), front and rear drum with 2 1/4" (0.54 m) smooth laggings, load lowering clutches, and drum locking pawls, 1,655' (504 m) of 1 1/4" (31.75 mm) wire rope (4,782 lbs. — 2,169 kg) on one drum, catwalks both sides, and "AB" counterweight:
 With 50" (1.27 m) shoes—385,300 lbs. (174,772 kg)
 With 60" (1.52 m) shoes—395,900 lbs. (179,580 kg)

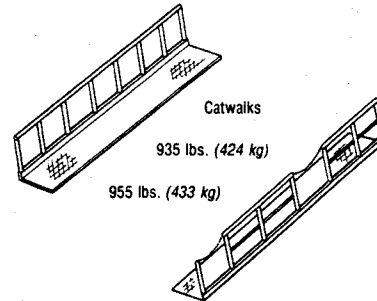


"A" counterweight 60,000 lbs. (27,216 kg)
 "AB" counterweight 134,500 lbs. (61,009 kg)

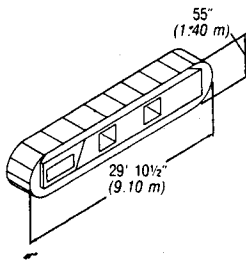


Operator's cab with catwalks and support — 2,170 lbs. (984 kg)

Basic upper with front and rear drums with load lowering clutches and drum locking pawls but no laggings or wire rope; with turntable bearing disconnect mechanism; without boom stops, retractable gantry and gantry backstays, and 18-part boomhoist bail:
 73,100 lbs. (33,158 kg)

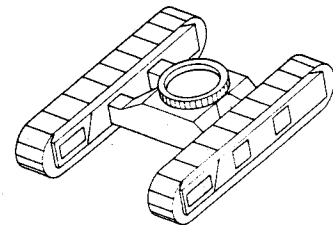


Catwalks
 935 lbs. (424 kg)
 955 lbs. (433 kg)

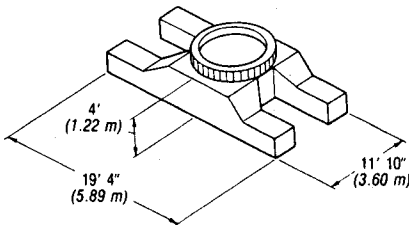


One crawler side frame
 With 50" (1.27 m) shoes — 57,160 lbs. (25,928 kg)
 With 60" (1.52 m) shoes — 62,460 lbs. (28,332 kg)

Complete crawler mounting with turntable bearing
 50" (1.27 m) shoes — 158,040 lbs. (71,687 kg)
 60" (1.52 m) shoes — 168,460 lbs. (76,413 kg)



Lower frame with turntable bearing
 43,720 lbs. (19,831 kg)



	Pounds	kg
35' (10.67 m) heavy duty and/or long range boom base section complete with deflector roller, 4 connecting pins, and boom angle indicator	6,500	2 948
35' (10.67 m) heavy duty boom top section complete with deflector rollers, 6 head sheaves with wire rope guards, and basic boom suspension pendants	9,350	4 241
50' (15.24 m) jib for heavy duty boom, including jib mast and staylines	4,210	1 910
120' (36.58 m) jib for heavy duty boom, including jib mast and staylines	6,910	3 134
20' (6.10 m) long range boom mid-section	1,794	814
45' (13.72 m) long range boom top section complete with deflector rollers, 2 head sheaves with wire rope guards, and basic boom suspension pendants	5,840	2 649
30' (9.14 m) jib for long range boom, including jib mast and staylines	2,010	912
100' (30.48 m) jib for long range boom, including jib mast and staylines	3,900	1 769
Boom live mast complete with boomhoist bridle and 18-part, 1,065' (325 m) boomhoist wire rope	9,550	4 331
Fairleader	2,460	1 116
Tagline winder with mounting plate and 200' (60.96 m) tagline wire rope	1,450	658

Machine working weights — approximate

Machine with 70' (21.34 m) heavy duty boom, boom live mast, 50" (1.27 m) shoes, and "AB" counterweight	410,700 lbs. (186 294 kg)
Machine with 100' (30.48 m) long range boom, boom live mast, 50" (1.27 m) shoes, and "AB" counterweight	409,000 lbs. (185 522 kg)

General Specifications

Mounting — crawler



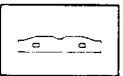
Lower frame

All-welded, precision machined surfaces for turntable bearing and cover plates.



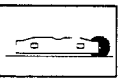
Turntable bearing

Ball bearing type; outer race with external swing (ring) gear bolted to lower frame. Inner race provides "Quick Disconnect" capability for dismantling revolving upperstructure.



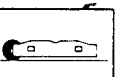
Crawler side frames

All-welded, precision machined. Positioned on cross axles by dowels and held in place with two patented, adjustable wedgепacks per side frame. Optional quick disconnect fittings on travel motor hydraulic lines provided to facilitate removal of side frames. Optional — two hydraulic cylinders on lower frame provided to extend/retract, or assist in removing, side frames.



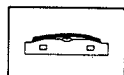
Track drive sprockets

Cast steel, heat treated; one per side frame. Track drive sprocket assembly involute splined to shaft, mounted on anti-friction bearings and powered by hydraulic motor(s) through double reduction gear drive.



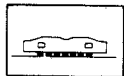
Track idler wheels

Cast steel, heat treated. Mounted on two bronze bushings.



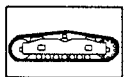
Track carrier slide rails

Tracks slide on rails; on top of each side frame.



Track rollers

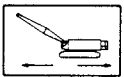
Thirteen double flange, heat treated rollers per side frame; each mounted on two bronze bushings.



Tracks

Heat treated, self-cleaning, multiple hinged track shoes joined by two-piece full floating pins. 53 shoes per side frame. Standard — 50" (1.27 m) wide; optional — 60" (1.52 m) wide shoes.

Track adjustment — Idler wheel adjusted by means of hydraulic cylinder and hand pump. Idler wheel shaft held in position with shims after adjustment is made.



Independent hydraulic travel/steering

Power transmitted from hydraulic motors through gear reduction unit into track drive sprocket.

Travel motors — An axial piston motor is bolted to a speed reducer at inner drive end of each crawler side frame. Power is transmitted through the speed reducer to a final drive planetary. Output of final planetary is splined to track drive sprocket.

One variable displacement axial piston pump delivers power to each travel motor.

Steering is provided through the travel motors which can be powered simultaneously or individually for straight-line travel (forward or reverse), pivot or differential turns, or the tracks can be counter rotated for spin turns.

Travel speeds — Low, 0.31 m.p.h.; high, 0.78 m.p.h.

Parking brake — Multiple disc type brakes; one located between each hydraulic travel motor and the speed reducer input. Spring applied, hydraulically released; brakes automatically set when both travel levers are in neutral or when engine is shut down.

Gradeability — 30% permissible based on efficient engine/gear box lubrication.

GENERAL INFORMATION ONLY

Ground contact area and ground bearing pressure

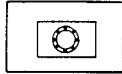
Shoes	50" (1.27 m)	60" (1.52 m)
Ground contact area	35,805 sq. in. (23.09 m ²)	39,060 sq. in. (25.19 m ²)
Ground bearing pressure 70' (21.34 m) heavy duty boom, no load	11.5 p.s.i. (0.81 kg/cm ²)	10.7 p.s.i. (0.75 kg/cm ²)
Ground bearing pressure 100' (30.48 m) long range boom, no load	11.4 p.s.i. (0.80 kg/cm ²)	10.7 p.s.i. (0.75 kg/cm ²)

Revolving upperstructure



Frame

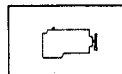
All welded, stress relieved, precision machined.



Turntable bearing

Turntable bearing — Patented quick disconnect bearing. Complete bearing is mounted on top of lower frame carbody. External tooth ring (swing) gear is integral with bearing outer race. Bearing inner race has snap ring groove on inner side of race.

Upperstructure mounting adaptor and snap ring. Snap ring, and its hydraulic actuating cylinder, as mounted to adaptor. Engagement of snap ring with groove on inner side of bearing inner race permits attachment of upperstructure to crawler mounting.

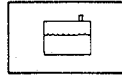


Engines

Full pressure lubrication, oil filter, oil cooler, air cleaner, fuel filter, hour meter, hand throttle, foot throttle, tachometer and overheat alarm.

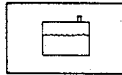
Engine master clutch — Double-acting hydraulic cylinder connected to master clutch disconnect control lever; operator controlled through solenoid valves. Cylinder disconnects master clutch between engine and torque converter.

Load hoist torque converter — Twin Disc Model 4-MO-2018-1 with modulating clutch.



Fuel tank

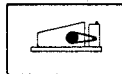
300 gal. (1 136 liters) capacity; equipped with fuel sight level gauge, flame arrester, and filler pipe cap with locking eye for padlock.



Hydraulic oil reservoir

100 gallon (379 liters) capacity; for travel, boomhoist and swing. Torque converter oil reservoir — 45 gallon (170 liters) capacity.

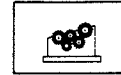
Power train



Transmissions

Load hoist functions — Power transmitted from one torque converter through 5-strand roller chain to drum shafts for load hoist/lowering function. Chain fully enclosed and running in oil. Idler sprocket, mounted on anti-friction bearings and attached to inside of chain case, provides chain adjustment.

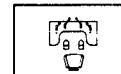
Swing function. Swing power is provided by hydrostatic transmission. A variable volume pump and fixed volume motor drive a planetary speed reducer.



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 load hoist, swing, and boomhoist 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. Chain wheel and pinion fully enclosed and running in oil. Hydraulic motors used for boomhoist and swing drive.

Principal operating functions

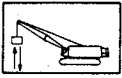


Control system

Speed-o-Matic® power hydraulic control system; a variable pressure system requiring no bleeding. Operating pressure is transmitted through oil to all 2-shoe clutch cylinders, and other hydraulic cylinders as required. System includes a constant displacement, engine driven, gear type hydraulic pump to provide constant flow of oil, an accumulator to maintain system operating pressure, relief valve to control excessive pressure build-up in system, full-flow filter with 40 micron disposable filter element, and variable pressure control valves to control drum clutches, travel and boomhoist and swing variable displacement hydraulic pumps, swing brake, and drum brakes.

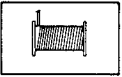
Engine specifications	GM 8V-92TA	Cummins KT 1150-C 450
Number of cylinders	8	6
Bore and stroke — inches	4.84 x 5	6¼ x 6¼
— (mm)	(122.94 x 127.00)	(158.75 x 158.75)
Piston displacement — cu. in.	735	1,150
— (cm ³)	(12 047)	(18 849)
Peak torque	—	—
— ft. lbs. at engine pinion	1,247 at 1,400 r.p.m.	1,350 at 1,500 r.p.m.
— (kg-m)	(172.46)	(186.71)
Horsepower	450 at 2,100 r.p.m.	450 at 2,100 r.p.m.
	336 (kW) at 2,100 r.p.m.	335 (kW) at 2,100 r.p.m.

GENERAL INFORMATION ONLY



Load hoisting and lowering

Independent load hoisting and lowering is powered from the load hoist converter. Initially, actuating the front and/or rear drum control lever engages the 2-shoe hydraulically operated clutch. Further movement of control lever engages torque converter modulating clutch. Degree of movement of the control lever determines the degree of modulating clutch engagement. The load may be held stationary, or hoisted/lowered at variable speeds by varying engagement of the modulating clutch. Optional third drum is operated by an independent control lever which automatically locks the modulating clutch in "full on" position. Third drum hoist speed is then controlled by varying engine speed to produce desired torque converter output rather than using the modulating clutch.



Load hoist drums

Front and rear main operating drums; two-piece 21 $\frac{1}{4}$ " (0.54 m) root diameter smooth laggings bolted to brake drums. Optional; two-piece 25 $\frac{1}{4}$ " (0.65 m) grooved laggings for clamshell or dragline.

Third operating drum — *Optional*; mounts forward of front operating drum. One-piece, 14 $\frac{7}{8}$ " (0.38 m) root diameter smooth lagging keyed to brake drum and mounted on anti-friction bearings. Third drum required for tower and Heavy Lift attachments. (Third drum lagging need not be removed for dragline operation.)

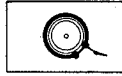


Drum clutches

Speed-o-Matic power hydraulic two-shoe clutches for control of load hoisting/lowering on the front and rear main operating drums and for load hoisting on the optional third drum. Internal expanding, cast iron, lined shoes. Clutch drums are bolted to spur gears with clutch spiders splined to drum shafts.

Load hoist clutches — Front and rear main operating drums. Clutch drums 37" (0.94 m) diameter, 5 $\frac{1}{2}$ " (0.14 m) wide; effective lining area 501 square inches (3 233 cm²). Optional third drum clutch drum — 23" (0.58 m) diameter, 6" (0.15 m) wide; effective lining area 242 square inches (1 562 cm²).

Load lowering devices — Front and rear main operating drums; power load lowering through Speed-o-Matic controlled clutches. Clutch drums 37" (0.94 m) diameter, 5 $\frac{1}{2}$ " (0.14 m) wide; effective lining area 501 square inches (3 233 cm²). Lowering against the torque converter is also possible. Optional third drum — low speed planetary drive unit (required for tower and Heavy Lift attachments); hydraulically controlled by external contracting band brake.



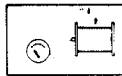
Drum brakes

Front and rear main drums — dual, external contracting band brakes; hydraulically controlled. Brake drums 36" (0.91 m) diameter, 5 $\frac{1}{2}$ " (0.14 m) wide; effective lining area 441 square inches (2 846 cm²) per brake. Optional third drum — single, external contracting band brake. Brake drum 20" (0.51 m) diameter, 5" (0.13 m) wide; effective lining area 223 square inches (1 439 cm²). Brakes spring applied, hydraulically released. Automatic brake; standard on third drum, optional on front and rear drums.



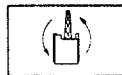
Drum locking pawls

Standard on front and rear main, and optional third drums; spring applied, hydraulically released. Pawls engage ratchet teeth integral with drum flanges.



Drum rotation indicators

Standard on boomhoist drum, optional for two main load hoist drums. Pulsating buttons, recessed in the drum clutch control lever handles, indicate to operator when rope drums are rotating in either direction. Manually adjustable to compensate for number of parts of load line.

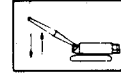


Swing system

Consists of a closed loop hydrostatic transmission and two stage planetary speed reducer. The transmission is powered by a variable volume pump and fixed volume motor, thus swing speed is proportioned by engine speed. The swing drive pinion is splined to the planetary output shaft.

Swing lock — Double tooth pawl meshes with swing (ring) gear teeth; hydraulically engaged/disengaged. Swing mechanism equipped with sensing device and hydraulic lock-out to prevent engagement of swing lock during swing cycle.

Maximum swing speed — 1.2 r.p.m.



Independent hydraulic boomhoist/lowering

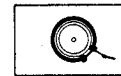
Power is from the engine-driven variable displacement hydraulic pump. The hydraulic pump drives the bi-directional, fixed displacement hydraulic motor powering the boomhoist rope drum in either direction for raising or lowering boom. The circuit between pump and hydraulic motor is charged with filtered oil. Hydraulic oil is routed through engine mounted oil cooler to assist in maintaining proper oil temperature.

Boomhoist drum — 15 $\frac{1}{4}$ " (0.38 m) root diameter, grooved drum; bolted to brake drum.



Boomhoist drum locking pawl

Operator controlled; spring applied, hydraulically released. Fixes boom at desired operating angle.



Boom hoist/lowering brake

External contracting band, spring applied, hydraulically released. Drum lagging bolted to brake drum. 24" (0.61 m) diameter, 5" (0.13 m) wide brake drum; effective lining area 253 square inches (1 633 cm²).

GENERAL INFORMATION ONLY

Boomhoist limiting device — Provided to restrict hoisting boom above recommended minimum radius; located at bottom end of telescoping boom stop. Electrical switch, contacted by boom stop when boom is in near vertical position, actuates hydraulic solenoid valve which shuts off hydraulic pressure in line to boom hoist motor. As pressure is shut off, boom hoist brake is spring applied.



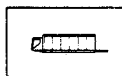
Electrical system

24-volt negative ground system includes four maintenance free 12-volt batteries, warning horn, 50-amp alternator, and heavy duty start. *Optional*; Onan independent light plant with twin cylinder, four cycle, air-cooled, diesel engine with remote electric starting; 6,000 watt, 120-volt, three wire single phase, 60 cycles A.C., includes wiring in conduit, three interior cab lights, trouble lamp with cord and two 500 watt adjustable flood lights on front of cab roof. Additional cab-mounted and boom-mounted floodlights available.



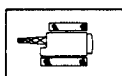
Operator's cab

Full-vision, modular type cab with sliding door. All windows equipped with tinted safety glass. Standard equipment includes catwalk with hand rails alongside operator's cab, catwalk access ladder, dry chemical fire extinguisher and electric horn warning device.



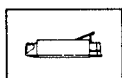
Machinery cab

Equipped with hinged doors on both sides and rear, removable panels and doors on top for machinery access and inspection. Catwalks run length of operator's and machinery cabs. Skid resistant finish on roof.



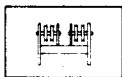
Catwalks

Fabricated steel, bolted in place along both sides of cab; complete with hand rails.



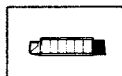
Gantry

Retractable type; raised and lowered with optional double acting hydraulic cylinder, powered by Speed-o-Matic power hydraulic pump. Gantry pinned in raised working position or lowered traveling position.



Gantry ball

Contains eight 15" (0.38 m) root diameter sheaves, mounted on anti-friction bearings to accommodate standard 18-part boomhoist wire rope reeving.



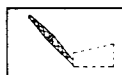
Counterweight

"A" counterweight consists of a steel plate pinned to the rear of the revolving upperstructure. "AB" counterweight consists of "A" counterweight plus two additional steel counterweights held in place by dowel/socket on top of "A" counterweight.

"A" counterweight — 60,000 lbs. (27 216 kg).
"AB" counterweight — 134,500 lbs. (61 009 kg).

Counterweight removal device — Optional; link connects counterweight to a double acting hydraulic cylinder which is connected to retractable gantry; gantry or counterweight is raised or lowered by the cylinder. Cylinder control valve located at left rear of machinery cab. Lowering counterweight to ground requires minimum of 24" (0.61 m) high cribbing on ground.

Booms and jibs



Heavy duty boom

Two-piece, 70' (21.34 m) basic length; 100" (2.54 m) wide, 85" (2.16 m) deep at centerline of connections. Alloy steel, round tubular main chords 5 1/4" (0.13 m) outside diameter. Maximum boom length 290' (88.39 m). Heavy duty boom also functions as the tower for the tower attachment and/or the mast for the Heavy Lift attachment.

Base section — 35' (10.67 m) long, boom feet 4 1/2" (0.11 m) wide on 84" (2.13 m) centers. Alloy steel, round tubular main chords 5 1/4" (0.14 m) outside diameter.

Boom extensions — Available in 20' (6.10 m), 30' (9.14 m), 40' (12.19 m) and 50' (15.34 m) lengths with appropriate length dual pendants.

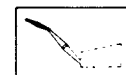
Boom connections — In-line pin connected.

Top section — Open throat, 35' (10.67 m) long; mounted 1.6" (12" — 0.30 m, at head machinery) off centerline of boom.

Boompint machinery — Six 28 3/8" (0.72 m) root diameter sheaves or optional three 4 1/4" (1.05 m) root diameter wide mouth sheaves for crane service. *Optional*; two 4 1/4" (1.05 m) root diameter wide mouth sheaves for clamshell or one 4 1/4" (1.05 m) root diameter wide mouth sheave for dragline. All sheaves mounted on anti-friction bearings.

Boompint sheave guards — Upper sheave guard; single tubular guard, for crane/dragline/clamshell service, bolted to top side of boom head. Lower sheave guards — for crane; round steel rods between each sheave, bolted to underneath side of boom head. For dragline/clamshell — tubular roller guards mounted on anti-friction bearings; two for dragline, four for clamshell.

Deflector rollers — Deflect load hoist wire rope off boom to avoid chafing; steel rollers mounted on anti-friction pillow block bearings. One mounted on boom base section; one on each 20' (6.10 m), 30' (9.14 m) and 40' (12.19 m) boom extension; two on each 50' (15.24 m) extension and the 35' (10.67 m) open throat top section. A pair of deflector sheaves, which mount directly to the top section boom chords, are standard equipment.



Jib

Two piece, 50' (15.24 m) basic length for heavy duty boom; 48" (1.22 m) wide, 39" (0.99 m) deep at connections. Main tubular chords alloy steel, 2 1/2" (63.50 mm) outside diameter. Maximum boom/jib combination 240' (73.15 m) boom, 120' (38.58 m) jib. Jib also functions as Heavy Lift attachment jib.

GENERAL INFORMATION ONLY

Base section — 20' (6.10 m) long; mounted to bracket on top section of boom.

Jib extensions — Available in 20' (6.10 m) and 30' (9.14 m) lengths.

Jib connections — In-line pin connected.

Tip section — 30' (9.14 m) long; equipped with single, wide mouth 26¼" (0.67 m) root diameter sheave, mounted on anti-friction bearings.

Deflector rollers — Deflect jib load hoist wire rope (whipline) off jib to avoid chafing; mounted on anti-friction bearings. One mounted on jib tip section, and mounted 50' (15.24 m) from jib head shaft on jib lengths 100' (30.48 m) through 120' (36.58 m).

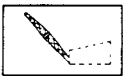


Jib mast

Dual tubular chord sections; 20' (6.10 m) high, mounted on jib base section. One deflector sheave mounted within mast to guide whipline.

Jib staylines — Front and rear staylines pinned at top of jib mast. Rear staylines attach to boom pin connecting lugs 85' (25.91 m) or 95' (28.96 m) below boom head shaft, depending on boom extensions. One pair of pendants added to rear staylines to offset jib 15°, two pairs added to offset jib 30°.

Jib stops — Telescoping type; one pair pinned to boom top section and jib mast, another pair pinned to jib base section and jib mast.



Long range boom

Three-piece, 100' (30.48 m) basic length; 100" (2.54 m) wide, 85" (2.16 m) deep at centerline of connections. Alloy steel, round tubular main chords 4¾" (0.12 m) outside diameter. Maximum boom length 360' (109.73 m). Long range boom top section and extensions also function as tower boom when machine is so equipped.

Boom base section — 35' (10.67 m) long; boom feet 4½" (0.11 m) wide on 84" (2.13 m) centers.

Boom extensions — Available in 20' (6.10 m), 30' (9.14 m), 40' (12.19 m) and 50' (15.34 m) lengths with appropriate length dual pendants.

Boom connections — In-line pin connected.

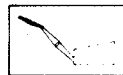
Boom top section — Open throat, 45' (13.72 m) long.

Boompint machinery — Two 28¾" (0.72 m) root diameter sheaves for crane service; sheaves mounted on anti-friction bearings equipped with reverse lip-type seals to assist in retaining lubrication.

Boompint sheave guards — Tubular upper guard; steel rod lower guard.

Deflector rollers — Deflect load hoist wire rope off boom to avoid chafing; steel rollers mounted on anti-friction pillow block bearings. One mounted on boom base section; one on each 20' (6.10 m), 30' (9.14 m) and 40' (12.19 m) boom extension; two on each 50' (15.24 m) extension and the 45' (13.72 m) top section.

Boom midpoint suspension pendants — Required on booms 270' (82.30 m) long and over; connect to top boom connecting lugs at point 155' (47.24 m) from boomfoot pin.



Jib

Two-piece, 30' (9.14 m) basic length for long range boom. 36' (0.91 m) wide, 30" (0.76 m) deep at connections. Main tubular chords alloy steel, 2¼" (57.15 mm) outside diameter. Maximum boom/jib combination 350' (106.68 m) boom, 100' (30.48 m) jib. Jib also functions as tower attachment jib.

Base section — 15' (4.57 m) long; mounted to bracket on top of boom.

Jib extensions — Available in 20' (6.10 m), 30' (9.14 m) and 40' (12.19 m) lengths.

Jib connections — In-line pin connected.

Tip section — 15' (4.57 m) long; equipped with single 21" (0.53 m) root diameter sheave, mounted on anti-friction bearings.

Deflector rollers — Deflect jib load hoist wire rope (whipline) off jib to avoid chafing; mounted on anti-friction bearings. One mounted on jib tip section, and mounted 50' (15.24 m) from jib head shaft on jib lengths 100' (30.48 m) through 120' (36.58 m).



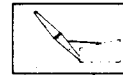
Jib mast

Tubular chord sections; 12' 7¾" (3.86 m) long. Single jib load hoist rope (whipline) deflector sheave, 15¾" (0.40 m) root diameter mounted on anti-friction bearings.

Jib staylines — Front staylines attached to jib peak shaft and jib mast peak. Pendant ropes are added to front staylines as jib length increases. Rear staylines attached to boom pin connecting lugs at lower end of boom top section. One pair pendants added to rear staylines to offset jib 15°, two pairs added to offset jib 30°.

Jib stops — Telescoping type; one pair pinned to boom top section and jib mast, another pair pinned to jib base section and jib mast.

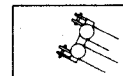
Items applicable to both heavy duty and long range booms



Boom stops

Dual telescoping, pinned to both boom and upper frame. Required for all boom lengths.

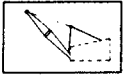
Hydraulic boomfoot pin removal — Optional; Speed-o-Matic controlled and located between boomfoot lugs. Hydraulically inserts or retracts boomfoot pins.



Boomhoist bridle

Serves as connection for boom pendants and boomhoist wire rope reeving. Bridle contains ten 15" (0.38 m) root diameter sheaves. Nine sheaves mounted on anti-friction bearings, one sheave mounted on self-lubricated journal bearing.

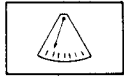
GENERAL INFORMATION ONLY



Boom live mast

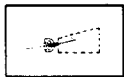
40' (12.19 m) long from center of head shaft to mounting pin; mounts on front of frame near boom feet. Supports boomhoist bridle and boom midpoint suspension pendants.

Auxiliary equipment



Boom angle indicator

Standard with either crane boom. Pendulum type, mounted inside boom base section.



Fairlead

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



Tagline

Optional. Spring wound drum type mounted on crane boom. Rud-o-Matic model 1866, 3 barrel, with 30" (0.76 m) reel and 200' (60.96 m) wire rope.

GENERAL INFORMATION ONLY



Link-Belt Construction Equipment Company Lexington, Kentucky

Litho in U.S.A. 4/90 #5143

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Link-Belt®LS-718 Performance Specifications

GENERAL INFORMATION ONLY

Wire rope and rope drum data

Main load hoist wire rope length — for heavy duty ① and long range ② booms using 1¼" (32 mm) wire rope.

Parts of line	Boom length															
	70' (21.34 m)		90' (27.43 m)		100' (30.48 m)		110' (33.53 m)		120' (36.58 m)		130' (39.62 m)		140' (42.67 m)		150' (45.72 m)	
	Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters
1	165	50.29	205	62.48	225	68.58	245	74.68	265	80.77	285	86.87	305	92.96	325	99.06
2	245	74.68	305	92.96	335	102.12	365	111.25	395	120.40	425	129.54	455	138.68	485	147.83
3	325	99.06	405	123.44	445	135.64	485	147.83	525	160.02	565	172.21	605	184.40	645	196.60
4	405	123.44	505	153.92	555	169.16	605	184.40	655	199.64	705	214.88	755	230.12	805	245.36
5	485	147.83	605	184.40	665	202.69	725	220.98	785	239.27	845	257.56	905	275.84	965	294.13
6	565	172.21	705	214.88	775	236.22	845	257.56	915	278.89	985	300.23	1,055	321.56	1,125	342.90
7	645	196.60	805	245.36	885	269.75	965	294.13	1,045	318.52	1,125	342.90	1,205	367.28	1,285	391.67
8	725	220.98	905	275.84	995	303.28	1,085	330.71	1,175	358.14	1,265	385.57	1,355	413.00	1,445	440.44
9	805	245.36	1,005	306.32	1,105	336.80	1,205	367.28	1,305	397.76	1,405	428.24	1,505	458.72	1,605	489.20
10	885	269.75	1,105	336.80	1,215	370.33	1,325	403.86	1,435	437.39	1,545	470.92	1,655	504.44	1,765	537.97
11	965	294.13	1,205	367.28	1,325	403.86	1,445	440.44	1,565	477.01	1,685	513.59	1,805	550.16		
12	1,045	318.52	1,305	397.76	1,435	437.39	1,565	477.01	1,695	516.64	1,825	556.26				

Parts of line	Boom length															
	160' (48.77 m)		170' (51.82 m)		180' (54.86 m)		190' (57.91 m)		200' (60.96 m)		210' (64.01 m)		220' (67.06 m)		230' (70.10 m)	
	Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters
1	345	105.16	365	111.25	385	117.35	405	123.44	425	129.54	445	135.64	465	141.73	485	147.83
2	515	156.97	545	166.12	575	175.26	605	184.40	635	193.55	665	202.69	695	211.84	725	220.98
3	685	208.79	725	220.98	765	233.17	805	245.36	845	257.56	885	269.75	925	281.94	965	294.13
4	855	260.60	905	275.84	955	291.08	1,005	306.32	1,055	321.56	1,105	336.80	1,155	352.04	1,205	367.28
5	1,025	312.42	1,085	330.71	1,145	349.00	1,205	367.28	1,265	385.57	1,325	403.86	1,385	422.15	1,445	440.44
6	1,195	364.24	1,265	385.57	1,335	406.91	1,405	428.24	1,475	449.58	1,545	470.92	1,615	492.25	1,685	513.59
7	1,365	416.05	1,445	440.44	1,525	464.82	1,605	489.20	1,685	513.59	1,765	537.92	1,845	562.36	1,925	586.74
8	1,535	467.87	1,625	495.30	1,715	522.73	1,805	550.16	1,895	577.60						
9	1,705	519.68	1,805	550.16	1,905	580.64										
10	1,875	571.50														

Parts of line	Boom length															
	240' (73.15 m)		250' (79.25 m)		260' (79.25 m)		270' (82.30 m)		280' (85.34 m)		290' (88.39 m)		300' (91.44 m)		310' (94.49 m)	
	Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters
1	505	153.92	525	160.02	545	166.12	565	172.21	585	178.31	605	184.40	625	190.50	645	196.60
2	755	230.12	785	239.27	815	248.41	845	257.56	875	266.70	905	275.84	935	284.99	965	294.13
3	1,005	306.32	1,045	318.52	1,085	330.71	1,125	342.90	1,165	355.09	1,205	367.28	1,245	379.48	1,285	391.67
4	1,255	382.52	1,305	397.76	1,355	413.00	1,405	428.24	1,455	443.48	1,505	458.72	1,555	473.96	1,605	489.20
5	1,505	458.72	1,565	477.01	1,625	495.30	1,685	513.59	1,745	531.88	1,805	550.16	1,865	568.45	1,925	586.75
6	1,755	534.92	1,825	556.26	1,895	577.60	1,965	598.93								

Parts of line	Boom length									
	320' (97.54 m)		330' (100.58 m)		340' (103.63 m)		350' (106.68 m)		360' (109.73 m)	
	Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters
1	665	202.69	685	208.79	705	214.88	725	220.98	745	227.08
2	995	303.28	1,025	312.42	1,055	321.56	1,085	330.71	1,115	339.85
3	1,325	403.86	1,365	416.05	1,405	428.24	1,445	440.44	1,485	452.63
4	1,655	504.44	1,705	519.68	1,755	534.92	1,805	550.16	1,855	565.40

① Heavy duty boom length: 70' (31.34 m) through 290' (88.39 m).
② Long range boom length: 100' (30.48 m) through 360' (109.73 m).

LS-718 performance specifications

GENERAL INFORMATION ONLY

Jib load hoist wire rope length (whipline) ③

Jib length	Parts of line	Boom length															
		130' (39.62 m)		140' (42.67 m)		150' (45.72 m)		160' (48.72 m)		170' (51.82 m)		180' (54.86 m)		190' (57.91 m)		200' (60.96 m)	
		Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters
50' (15.24 m)	1	390	118.87	410	124.97	430	131.06	450	137.16	470	143.26	490	149.35	510	155.45	530	161.54
	2	580	176.78	610	185.93	640	195.07	670	204.22	700	213.36	730	222.50	760	231.65	790	240.79
80' (24.38 m)	1	450	137.16	470	143.26	490	149.35	510	155.45	530	161.54	550	167.64	570	173.74	590	179.83
	2	670	204.22	700	213.36	730	222.50	760	231.65	790	240.79	820	249.94	850	259.08	880	268.22
100' (30.48 m)	1	490	149.35	510	155.45	530	161.54	550	167.64	570	173.74	590	179.83	610	185.93	630	192.02
	2	730	222.50	760	231.65	790	240.79	820	249.94	850	259.08	880	268.22	910	277.37	940	286.51
120' (36.58 m)	1	530	161.54	550	167.64	570	173.74	590	179.83	610	185.93	630	192.02	650	198.12	670	204.22
	2	790	240.79	820	249.94	850	259.08	880	268.22	910	277.37	940	286.51	970	295.66	1,000	304.80

Jib length	Parts of line	Boom length															
		210' (64.01 m)		220' (67.06 m)		230' (70.10 m)		240' (73.15 m) ①		250' (75.20 m)		260' (79.25 m)		270' (82.30 m)		280' (85.34 m)	
		Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters
50' (15.24 m)	1	550	167.64	570	173.74	590	179.83	610	185.93	630	192.02	650	198.12	670	204.22	690	210.31
	2	820	249.94	850	259.08	880	268.22	910	277.37	940	286.51	970	295.66	1,000	304.80	1,030	313.94
80' (24.38 m)	1	610	185.93	630	192.02	650	198.12	670	204.22	690	210.31	710	216.41	730	222.50	750	228.60
	2	910	277.37	940	286.51	970	295.66	1,000	304.80	1,030	313.94	1,060	323.09	1,090	332.23	1,120	341.38
100' (30.48 m)	1	650	198.12	670	204.22	690	210.31	710	216.41	730	222.50	750	228.60	770	234.70	790	240.79
	2	970	295.66	1,000	304.80	1,030	313.94	1,060	323.09	1,090	332.23	1,120	341.38	1,150	350.52	1,180	359.66
120' ② (36.58 m)	1	690	210.31	710	216.41	730	222.50	750	228.60								
	2	1,030	313.94	1,000	323.09	1,090	332.23	1,120	341.38								

Jib length	Parts of line	Boom length													
		290' (88.39 m)		300' (91.44 m)		310' (94.49 m)		320' (97.54 m)		330' (100.58 m)		340' (103.63 m)		350' (106.68 m)	
		Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters
50' (15.24 m)	1	710	216.41	730	222.50	750	228.60	770	234.70	790	240.79	810	246.89	830	252.98
	2	1,060	323.09	1,090	332.23	1,120	341.38	1,150	350.52	1,180	359.66	1,210	368.81	1,240	377.95
80' (24.38 m)	1	770	234.70	790	240.79	810	246.89	830	252.98	850	259.08	870	265.18	890	271.27
	2	1,150	350.52	1,180	359.66	1,210	368.81	1,240	377.95	1,270	387.10	1,300	396.24	1,330	405.38
100' ③ (30.48 m)	1	810	246.89	830	252.98	850	259.08	870	265.18	890	271.27	910	277.37	930	283.46
	2	1,210	368.81	1,240	377.95	1,270	387.10	1,300	396.24	1,330	405.38	1,360	414.53	1,390	423.67

- ① Maximum boom/jib combination for the heavy duty boom is 240' (73.15 m) plus 120' (36.58 m), use wire rope length only up to this combination.
- ② Maximum boom/jib combination for the long range boom is 350' (106.68 m) plus 100' (30.48 m), use wire rope length only up to this combination.
- All other wire rope lengths and boom/jib combinations applicable to either long range boom or heavy duty boom.
- ③ Jib load hoist wire rope available in 1" (25 mm) for long range boom or 1 1/4" (32 mm) for heavy duty boom.

Drum wire rope capacities

Wire rope layer	Front or rear drum — 21 1/4" (0.54 m) root diameter smooth lagging												Third drum — 14 1/4" (0.38 m) root diameter smooth lagging			
	1" (25 mm) wire rope				1 1/4" (28 mm) wire rope				1 1/2" (32 mm) wire rope				3/4" (22 mm) wire rope			
	Rope per layer		Total wire rope		Rope per layer		Total wire rope		Rope per layer		Total wire rope		Rope per layer		Total wire rope	
	Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters
1	216	66	216	66	192	59	192	59	173	53	173	53	177	54	177	54
2	241	73	457	139	218	66	410	125	199	61	372	113	202	62	379	116
3	477	145	718	219	430	131	648	198	392	119	591	180	222	68	601	183
4	522	159	999	304	476	145	906	276	408	124	800	243	242	74	843	257
5	778	237	1,300	396	708	216	1,184	361	681	208	1,089	332	262	80	1,105	337
6	843	257	1,621	494	773	236	1,481	451	685	209	1,366	416	282	86	1,367	423
7	1,117	340	1,960	597	1,022	312	1,795 ④	547	975	297	1,660	506	302	92	1,689	515
8	1,199	365	2,316	706	1,103	336	2,125	651	995	303	1,970 ④	600	323	98	2,012	613
9	1,489	454	2,688 ④	819	1,370	418	2,473	754	1,305	550	2,300	701				
10	1,589	484	3,078	938	1,470	448	2,840	866								
11	1,898	579	3,487	1,063												

- ④ First layer for each size wire rope is shown for storage purposes only — it is not a working layer.
- ④ Front drum — 40" (1.02 m) diameter flange.
- ④ Middle drum — 43" (1.09 m) diameter flange.
- ④ Maximum wire rope capacity for front drum with 40" (1.02 m) diameter flange.

LS-718 performance specifications

Drum wire rope capacities - continued

Wire rope layer	Front or rear drum — 25¼" (0.64 m) root diameter grooved lagging							
	1½" (28 mm) wire rope				1¾" (32 mm) wire rope			
	Rope per layer		Total wire rope		Rope per layer		Total wire rope	
	Feet	meters	Feet	meters	Feet	meters	Feet	meters
1	197	60	197	60	198	60	198	60
2	258	79	455	139	235	72	433	132
3	475	145	733	223	453	138	688	210
4	555	169	1,030	314	508	155	961	293
5	789	240	1,344	410	743	226	1,251	381
6	886	270	1,675	511	814	248	1,557	475

GENERAL INFORMATION ONLY

⊙ Last layer for each size is shown for storage purposes only — it is not a working layer.

Clamshell wire rope lengths using one part of line

Attachment	Function	Heavy duty boom lengths only											
		70' (21.34 m)		90' (27.43 m)		100' (30.48 m)		110' (33.53 m)		120' (36.58 m)		130' (39.62 m)	
		Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters
Clamshell	Holding	280	85.34	300	91.44	310	94.49	320	97.54	330	100.58	340	103.63
	Closing	325	99.06	345	105.16	355	108.20	365	111.25	375	114.30	385	117.35

Available line speed and line pull — developed by machinery with first layer of wire rope but not based on wire rope strength.

Attachment	Root diameter	Front and rear drums						Third drum						
		Wire rope diameter		Line speed first layer		Line pull first layer		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	21¼" (0.54 m)	1	25	139	42.4	54,600	24 767	14¾" (0.38 m)	¾	22	207	63.09	34,900	15 831
		1½	28	140	42.7	54,300	24 630							
		1¾	32	141	43.0	54,000	24 494							
Clamshell	25¼" (0.64 m)	1¾	32	169	51.5	45,000	20 412							

Permissible line speed and line pull — Based on Type "N" wire rope strength, single part line.

Attachment	Root diameter	Front and rear drums						Third drum						
		Wire rope diameter		Line speed first layer		Line pull first layer		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	21¼" (0.54 m)	1	25	242	73.8	29,500	13 381	14¾" (0.38 m)	¾	22	287	87.48	22,700	10 297
		1½	28	204	62.2	37,100	16 829							
		1¾	32	169	51.5	45,600	20 684							
Clamshell	25¼" (0.64 m)	1¾	32	169	51.5	45,000	20 412							

LS-718 performance specifications

GENERAL INFORMATION ONLY

Hoist performance — line speeds are maximum for full throttle operation, with engine governed at 2,100 r.p.m. full load.

Single line load ^①		Front or rear drum — using 1¼" (32mm) wire rope											
		21¼" (0.54 m) root diameter smooth lagging						25¼" (0.64 m) root diameter grooved lagging					
		Line speed											
		First layer		Fourth layer		Seventh layer		First layer		Third layer		Fifth layer	
Pounds	kilograms	F.p.m.	m/min	F.p.m.	m/min	F.p.m.	m/min	F.p.m.	m/min	F.p.m.	m/min	F.p.m.	m/min
5,000	2 268	321	97.8	426	129.8	530	161.5	384	117.0	454	138.45	523	159.4
10,000	4 535	316	96.3	418	127.4	512	156.1	378	115.2	445	135.6	507	154.5
15,000	6 804	312	95.1	387	118.0	443	135.0	361	110.0	404	123.1	439	133.8
20,000	9 072	290	88.4	343	104.5	371	113.1	325	99.1	353	107.6	370	112.8
25,000	11 340	266	81.1	297	90.5	305	93.0	288	87.8	301	91.7	305	93.0
30,000	13 608	240	73.2	254	77.4	255	77.7	251	76.5	255	77.7	255	77.7
35,000	15 876	214	65.2	223	68.0	213	64.9	218	66.4	218	66.4	214	65.2
40,000	18 144	191	58.2	190	57.9	180	54.9	192	58.5	188	57.3	181	55.2
45,600 ^②	20 684	169	51.5	162	49.4	158	48.2	166	51.0	159	48.5	149	45.4

① Maximum permissible load for 1¼" (32 mm) Type "P" rope is 37,200 lbs. (16 871 kgs) for single part of line only.

② Maximum permissible load for 1¼" (32 mm) Type "N" rope is 45,600 lbs. (20 680 kgs) per part of line.

Permissible main hoist loads — using 1¼" (32 mm) Type "N" wire rope^①

No. parts of line	1	2	3	4	5	6	7	8	9	10	11	12
Maximum load — lbs.	45,600	91,200	136,800	182,400	228,000	273,600	319,200	364,800	410,400	456,000	500,000	500,000
Maximum load — kg	20 680	41 360	62 040	82 720	103 400	124 080	144 760	165 440	186 120	206 800	226 757	226 757

① Based on wire rope strength only. Consult lifting capacity chart for allowable loads.

Boom hoist wire rope length — 1,220' (371.86 m) heavy duty and long range booms only

Rope size and type

Wire rope application	Size and type used
Boom hoist	¾" (22 mm) diameter, Type "W"
Main load hoist	1¼" (32 mm) diameter, Type "N"
Jib load hoist (1-part) Heavy duty boom	1¼" (32 mm) diameter, Type "P"
Jib load hoist (2-part) Heavy duty boom	1¼" (32 mm) diameter, Type "N"
Jib load hoist (1-part) long range boom	1" (25 mm) diameter, Type "N"
Jib load hoist (2-part) long range boom	1" (25 mm) diameter, Type "N"
Boom pendants — dual	1¼" (28 mm) diameter, Type "N"
Boom midpoint suspension pendants ^①	¾" (22 mm) diameter, Type "N"
Jib front stay line	1½" (28 mm) diameter, Type "N"
Jib back stay line	1½" (28 mm) diameter, Type "N"
Clamshell holding	1¼" (32 mm) diameter, Type "N"
Clamshell closing	1¼" (32 mm) diameter, Type "N"

① Used only on long range boom 270' (82.30 m) through 360' (109.73 m).

Wire rope type
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 center core.
Type "W" — 6 x 26 (6 x 19 class), extra improved plow steel, preformed independent wire rope center, right lay, alternate lay.