

# 955A-LC

CRANE

Manufactured and sold in conformance with U.S. Department of Commerce Commercial Standard CS90 58.  
 Harnischfeger Corporation reserves the right to make changes in specifications without advance notice.  
 Data published herein is statistical and for information only. Performance may vary with the conditions encountered.

## GENERAL DATA

### STANDARD CRANE — 75 TON RATING

**BOOM:** Angle lattice alloy steel construction.  
 Basic length, bolt connected in two sections ..... 50 ft.  
 Open throat with pendant sheave and two boom point sheaves on anti-friction bearings, pitch diameter ..... 27"  
 8 part boom hoist reeving, standard for boom lengths thru ..... 70 ft.  
 10 part boom hoist reeving, with intermediate suspension, standard for boom lengths over ..... 70 ft.

**HOOK BLOCK (weighted)** ..... 25 tons  
 Single sheave with swivel hook and 2 part hoist line standard. Additional parts of line optional extra.

**POWER CONTROLLED LOAD LOWERING:** Planetary device for lowering load under power. (Front drum), optional extra.

**GANTRY:** Fixed type high gantry, standard. Alternate high gantry, folding type (optional extra).

**WORKING WEIGHT (including block)** ..... 147,980 lbs.  
 Counterweight included in working weight (furnished as standard) ..... 34,950 lbs.

### MAXIMUM COUNTERWEIGHT — 82 TON RATING

**BOOM:** Angle lattice alloy steel construction.  
 Basic length, bolt connected in two sections ..... 50 ft.  
 Open throat with two pendant sheaves and two boom point sheaves on anti-friction bearings, pitch diameter ..... 27"  
 8 part boom hoist reeving, standard for boom lengths thru ..... 70 ft.  
 10 part boom hoist reeving, with intermediate suspension, standard for boom lengths over ..... 70 ft.

**HOOK BLOCK (weighted)** ..... 82 tons  
 Four sheave with swivel hook and 8 part hoist line standard.

**POWER CONTROLLED LOAD LOWERING:** Planetary device for lowering load under power. (Front drum), standard.

**GANTRY:** Fixed type high gantry, standard. Alternate high gantry, folding type (optional extra).

**WORKING WEIGHT (including block)** ..... 162,535 lbs.  
 Counterweight included in working weight (furnished as standard) ..... 46,470 lbs.

Operating Radius in Feet	OPEN THROAT BOOM — STANDARD COUNTERWEIGHT									
	50 Ft. Boom	60 Ft. Boom	70 Ft. Boom	80 Ft. Boom	90 Ft. Boom	100 Ft. Boom	110 Ft. Boom	120 Ft. Boom	130 Ft. Boom	140 Ft. Boom
12	150000									
15	112500	99400								
20	71100	64200	64000	63600	63300					
25	48050	47000	46700	46300	46000	45600	45300			
30	37850	36800	36500	36100	35800	35200	34900	34400		
35	30600	30000	29800	29300	29000	28600	28300	27800	27500	
40	25700	25200	25000	24500	24200	23800	23500	23000	22800	
45	22100	21700	21400	20900	20600	20200	19900	19400	19200	
50	19300	18900	18600	18100	17800	17400	17100	16700	16400	
55		16700	16400	15900	15600	15200	14900	14400	14200	
60		14900	14600	14100	13800	13400	13100	12600	12300	
65			13000	12600	12300	11900	11600	11100	10800	
70			11800	11300	11000	10600	10300	9850	9550	
75				10200	9950	9500	9200	8750	8460	
80				9290	9000	8540	8250	7800	7500	
85					8180	7710	7430	6970	6700	
90					7450	7000	6700	6250	5950	
95						6340	6050	5600	5320	
100							5750	5470	4730	

Operating Radius in Feet	OPEN THROAT BOOM — WITH MAXIMUM COUNTERWEIGHT										
	50 Ft. Boom	60 Ft. Boom	70 Ft. Boom	80 Ft. Boom	90 Ft. Boom	100 Ft. Boom	110 Ft. Boom	120 Ft. Boom	130 Ft. Boom	140 Ft. Boom	150 Ft. Boom
12	164000										
15	115000	114550									
20	72000	71550	71250	70800	70500						
25	53000	52550	52250	51800	51500	51050	50750				
30	41900	41450	41150	40700	40400	39950	39650	39200			
35	34400	33950	33650	33200	32900	32450	32150	31700	31400	30950	
40	29000	28550	28250	27800	27500	27050	26750	26300	26000	25550	25250
45	25000	24550	24250	23800	23500	23050	22750	22300	22000	21550	21250
50	21800	21350	21050	20600	20300	19850	19550	19100	18800	18350	18050
55		18950	18650	18200	17900	17450	17150	16700	16400	15950	15650
60		16950	16650	16200	15900	15450	15150	14700	14400	13950	13650
65			14850	14400	14100	13650	13350	12900	12600	12150	11850
70			13350	12900	12600	12150	11850	11400	11100	10650	10350
80				10700	10400	9950	9650	9200	8900	8450	8150
90					8600	8150	7850	7400	7100	6650	6350
100						6750	6450	6000	5700	5250	4950
110								4900	4600	4150	3850
120										3150	2850

NOTE: Operating radius means the horizontal distance from the center of rotation to the hook. Ratings shown are not more than 75% of tipping loads with the machine standing on a firm, level, uniformly supporting surface. Ratings include the weight of the hook, blocks, slings, etc. Deduct 1500 lbs. from main hook ratings when machine is equipped with a jib. Safe working loads depend upon the mounting, ground, boom length, radius of operation and proper handling; all of which must be taken into account by the user. Loads over 50000 lbs. require open throat crane boom. Areas on plate where no ratings are shown, operation is not intended or approved.

120 ft. boom on standard machine must be raised from or lowered to the ground over the ends of the crawlers only.

150 ft. boom without jib, 140 ft. and 150 ft. booms with jibs as applied to machines with maximum counterweight must be raised from or lowered to the ground over the ends of the crawlers only. Ratings are contingent on machine being equipped with proper PAH boom.

Caution: Machines equipped with folding gantry must not be used for lifting operations with the gantry in lowered position. Machines with basic boom length may be transported or crawled with the gantry in lowered position.

Address inquiries to:



**HARNISCHFEGER**

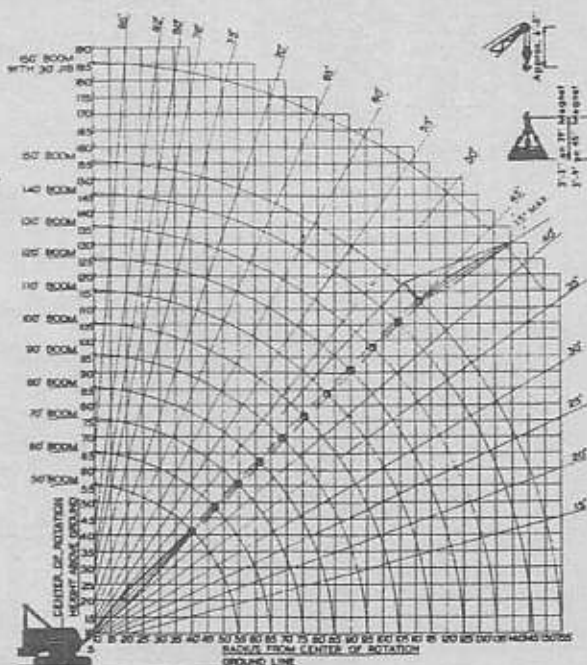




**P&H**

**CRANE SPECIFICATIONS**

**955A-LC**



**CROWN LIFTERS**

102, Anand Bhavan,  
Keshavji Naik Road,  
Chinch Bunder,  
MUMBAI-400 009.

**MORE BOOM . . . LESS WEIGHT**

The P&H all-welded boom of high strength alloy steel lattice construction gives greater rigidity to twisting strains . . . eliminates "load-robbing" boom weight.

P&H bolt connections permit easy takedown and erection

in minutes. Basic boom length may be extended easily with inserted sections. A wide selection of section lengths provide proper boom length for every job.

MAXIMUM JIB RATINGS		
Offset Angle Jib to Boom Under Full Load	20 ft. Jib	*30 ft. Jib
	Lbs.	Lbs.
5°	14000	13000
10°	13500	12500
15° (max.)	13000	12000

Jib Ratings at any operating radius are the same as Crane Ratings shown in table for main boom when operated at that radius but not to exceed maximum jib ratings shown. Maximum jib operating radius not to exceed length of main boom on which it is being used.

\*30 ft. jib is applicable only to machines with maximum counterweight.

HOIST REEVING					
No. of parts of line	1	2	4	6	*8
Maximum Load—Lbs.	25000	50000	100000	150000	164000

\*8 parts of line: Maximum load of 164000 lbs. applicable only to machines with maximum counterweight.

DRUM SHAFT ASSEMBLY				
Crane Laggings	Cable Dia.	Cable Cap. 1st Wrap	Line Pulls	Line Speeds
Front—25° p.d.	1"	129 ft.	32,000 lbs.	187 f.p.m.
Rear—25° p.d.	1"	73 ft.	33,100 lbs.	187 f.p.m.

\*Line pulls and speeds based on first layer of rope and engine at full load speed.

GROUND PRESSURES (FLAT SHOES)		
Shoe Width—inches	36	42
Lbs. per sq. in. (std. cwt.)	10.48	9.22
Lbs. per sq. in. (max. cwt.)	11.77	10.17

# SPECIFICATIONS ... MODEL 955A-LC

## CROWN LIFTERS

102, Anand Bhavan,  
Keshavji Naik Road,  
Chinch Bunder,  
MUMBAI-400 009.

### UPPER MACHINERY

Metric  
Specifi-  
cations

Cummins, NHRS-6-1, 6 cyl., (standard on crane, drag, clam-  
shell) with Direct Power Take-Off ..... 210 H.P. @ 1700 R.P.M.  
is, NHRS-6-1, 6 cyl., (standard on shovel), with torque con-  
verter drive ..... 220 H.P. @ 1800 R.P.M.  
ha, 6 WAKD, 6 cyl. (optional) with Direct  
Take-off ..... 210 H.P. @ 1800 R.P.M.  
ha, 6 WAKD, 6 cyl. (optional) with Torque  
Converter Drive ..... 210 H.P. @ 1800 R.P.M.

**CONVERTER:** Single stage, with all engines. Eliminates  
tailshaft governor, thus providing more efficient and effec-  
tiveness. Furnished as standard for shovel, not recommended  
for cranes.

**MOTOR DRIVE:** Optional extra. AC motor, 125 H.P., 3  
50 or 60 cycle, 440 or 550 volts. Torque converter required  
service except crane or clamshell.

**HYDRAULIC:** ..... 135 Gallons 511 lt.  
Transfer pump, optional extra.

**HYDRAULIC SYSTEM:** Direct acting hydraulic, with adjustable air-assist (power  
on main drum brakes. Swing-propel control is Magneto-torque.

**DRUMS:** Swing and propel motion through two Magneto-torque  
drum jackshafts.

**GEAR ASSEMBLY:** Independent planetary gear type, with one  
internal cam clutches to lock drum to shaft when lowering. Spring-  
loaded ratchet automatically holds boom, external ratchet provides posi-  
tion mounted on anti-friction bearings.

**HOIST LINE-SPEED (with power take-off)**  
— raising 80 fpm 24.38  
m/min.  
— lowering\* 50 fpm 15.24  
m/min.

Idle speed, 525 R.P.M.

**DRUM:** Mounts in front of front drum. It must be removed for  
hoist and dragline operations. Optional extra.

**DRUM DIA.:** ..... 15" 381 mm  
..... 3/4" 20 mm  
(for details upon request)

**CLUTCHES:** Band type, internal expanding, operated by direct-acting  
hydraulic auxiliary clutches.

**CLUTCHES:** Band type, external contracting, with power boost through  
hydraulic system.

**GANTRY:** Fixed type high gantry, standard. Folding high gantry (op-  
tional extra).

**WEIGHT:** External castings only on standard stripper shovel,  
crane, dragline, clamshell and trench hoe. Two additional internal  
castings for maximum crane, clamshell and dragline ratings. See  
general specs. for details.

**FASTENING TO LOWER:** 6 adjustable hook rollers, two front  
and two double rear.

**ROLLERS:** 24 rollers, live roller circle.

**TEETH:** External cut teeth.

**ROTATION SPEED:** ..... 3.5 R.P.M.

**LOCK:** Positive segment type on swing pinion. Hydraulic swing  
lock in addition to swing lock, optional extra, (for crane and clam-  
shell).

### LOWER MACHINERY

**ROLLER CHAIN DRIVE:** Roller chain principle of design. The crawler shoes func-  
tion as chain links, while replaceable pins act as pivot connections.  
The frames bolted to the axles, 11 single roller assemblies (lower)  
and 11 frame. Rollers ride on deep lugs on the heavier section of  
the track, thus eliminating outside pressure points to prevent shoe  
wear or breakage. Roller Dia. .... 10" 254 mm

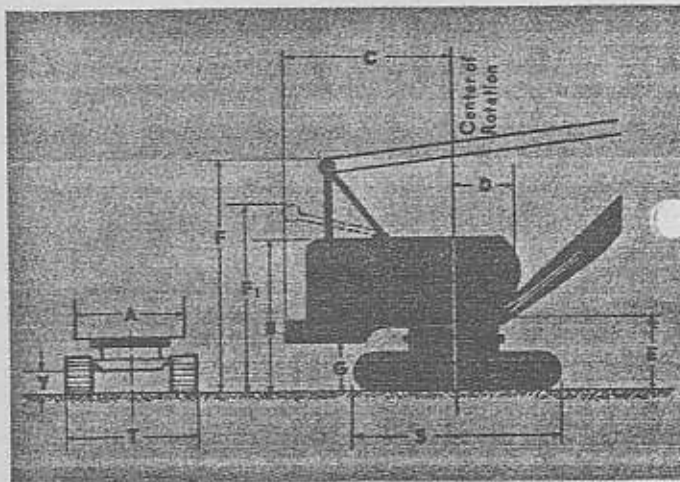
**PROPEL DRIVE:** Independent spring loaded, double acting propel  
on horizontal propel shaft, set and released through a man-  
ual control at the operator's station. Crawler belt tension main-  
tained by application of manual hydraulic jack force on track ad-  
juster and insertion of proper shim.

**GEAR MECHANISM:** Sliding jaw clutches, one on each side of  
tail propel shaft, control application of propelling power to the  
sprockets. Both air operated jaw clutches can be engaged together or  
disengaged at a time with the other crawler automatically locked to the  
same. The propel brakes remain set during engagement of  
clutches.

**CRAWLER SHOES:** Total number—both sides ..... 92  
Cast flat shoes—standard width ..... 36" 914 mm  
Cast flat shoes (optional extra)—width ..... 42" 1067 mm

**PROPEL SPEED:** (chain drive)—speed ..... 0.80 M.P.H. 1.29  
km/hr.  
(Hunting type crawler drive sprockets on involute splined crawler  
drive shafts.)

### GENERAL DIMENSIONS



A—Width of cab.....	10'-6"	3.20 m
B—Height to top of cab.....	12'-6"	3.61 m
C—Radius of rear end (counterweight).....	14'-4 3/4"	4.38 m
D—Center of rotation to boom foot pin.....	4'-2 1/4"	1.28 m
E—Height from ground to boom foot pin.....	6'-4"	1.93 m
F—Clearance height over fixed or folding gantries (working position).....	19'-5 1/4"	5.94 m
F1—Clearance height over high gantry—Folded.....	13'-0"	3.96 m
G—Counterweight ground clearance.....	3'-5"	1.07 m
S—Overall length of crawlers.....	18'-4 3/4"	5.61 m
Center to center of sprockets.....	15'-2 1/4"	4.63 m
T—Overall width of crawlers with 36" (914 mm) Std. Shoes.....	12'-8 1/2"	3.87 m
Y—Ground clearance of carbody (lowest point).....	10"	254 mm

Manufactured and sold in conformance with U.S. Department  
of Commerce Commercial Standard CS-90-58.

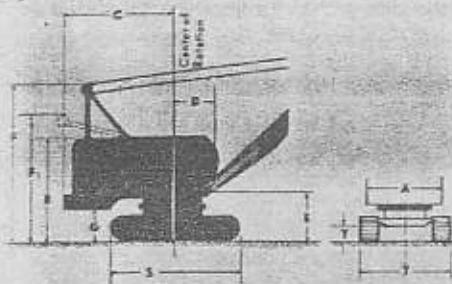
Harnischfeger Corporation reserves the right to make changes in  
specifications without advance notice.

Data published herein is statistical and for information only.  
Performance may vary with the conditions encountered.

**HARNISCHFEGER**  
Milwaukee 46, Wisconsin



## GENERAL DIMENSIONS



— Width of cab	10'-7"	3.22 m
— Height to top of cab	12'-6"	3.81 m
— Radius of rear end (counterweight)	14'-4 1/2"	4.39 m
— Center of rotation to boom foot pin	4'-2 1/2"	1.28 m
— Height from ground to boom foot pin	5'-4"	1.93 m
— Clearance height over fixed or folding gantries (working position)	19'-5"	5.92 m
— Clearance height over high gantry—Folded	13'-9"	4.04 m
— Counterweight ground clearance	3'-5 1/2"	1.05 m
— Overall length of crawlers	18'-6 1/2"	5.65 m
— Center to center of sprockets	15'-4 1/2"	4.69 m
— Overall width of crawlers with 36" (914 mm) Std. Shoes	12'-8 1/2"	3.87 m
— Ground clearance of carbody (lowest point)	14"	356 mm

# P&H

# UNIVERSAL

STRIPPER SHOVEL • HOE • DRAGLINE • CLAMSHELL • CRANE

## SPECIFICATIONS

### UPPER MACHINERY

#### POWER:

**DIESEL:** Cummins, NHRS-6-1, 6 cyl., (standard on crane, drag, clam, and hoe) with Direct Power Take-Off ..... 210 H.P. @ 1700 R.P.M.  
 Cummins, NHRS-6-1, 6 cyl., (standard on shovel), with torque converter drive ..... 220 H.P. @ 1800 R.P.M.  
 Waukesha, 6 WAKD, 6 cyl., (optional) with Direct Power Take-Off ..... 200 H.P. @ 1300 R.P.M.  
 Waukesha, 6 WAKD, 6 cyl., (optional extra) with Torque Converter Drive ..... 200 H.P. @ 1400 R.P.M.

**TORQUE CONVERTER:** Single stage, with all engines. Eliminates need for tailshaft governor, thus providing more efficient and effective operation. Furnished as standard for shovel.

**ELECTRIC MOTOR DRIVE:** Optional extra. AC motor, 125 H.P., 3 phase, 50 or 60 cycle, 440 or 550 volts. Torque converter required for all service except crane or clamshell.

**FUEL TANK** ..... 135 Gallons 511 lt.  
 Fuel transfer pump, optional extra.

#### CONTROLS:

Boom hoist and boom lower—direct acting hydraulic.  
 Front drum and rear drum hoist—air.  
 Front drum power lowering or shovel retract—air.  
 Front drum and rear drum brake—direct acting hydraulic with adjustable air assist (power brakes).  
 Swing propel—magnetorque.

**SWING UNITS:** Swing and propel motion through two Magnetorque units on jackshaft.

**BOOM HOIST ASSEMBLY:** Independent planetary gear type, with one directional cam clutches to lock drum to shaft when lowering. Spring-actuated ratchet automatically holds boom, external ratchet provides positive lock. Drum mounted on anti-friction bearings.

boom hoist line-speed (with Power Take-Off)	— raising	63.5 fpm	19.35 m/min.
	— lowering	128 fpm	39.01 m/min.

**THIRD DRUM:** Mounts in front of front drum. It must be removed for shovel, hoe and dragline operations. Optional extra.

Bottom Dia.	15"	381 mm
Rope Dia. (Further details upon request)	3/4"	20 mm

**CLUTCHES:** (Front and rear main drums) band type internal expanding, direct acting, air controlled.

**BRAKES:** Band type, external contracting, with power boost through air-hydraulic system.

Metric Specifications

**GANTRY:** Fixed type high gantry, standard. Folding high gantry (optional extra).

**COUNTERWEIGHT:** External castings only on standard stripper shovel, std. crane, dragline, clamshell and trench hoe. Two additional internal castings for maximum crane, clamshell and dragline ratings. See attachment specs. for details.

**TYPE OF FASTENING TO LOWER:** 6 adjustable hook rollers, two front and two double rear.

**SWING ROLLERS:** 24 rollers, live roller circle.

**SWING GEAR:** External cut teeth.

**ROTATING SPEED** ..... 3.73 R.P.M.

**SWING LOCK:** Positive segment type on swing pinion. Hydraulic swing brake in addition to swing lock, optional extra, (for crane and clamshell only).

Metric Specifications

### LOWER MACHINERY

**CRAWLERS:** Roller chain principle of design. The crawler shoes function as chain links, while replaceable pins act as pivot connections. Crawler frames bolted to the axes, 11 single roller assemblies (lower) in each frame. Rollers ride on deep lugs on the heavier section of the shoe, thus eliminating outside pressure points to prevent shoe bending or breakage. Roller Dia. .... 10" 254 mm

**CRAWLER DRIVE:** Independent spring loaded, double acting propel brakes on horizontal propel shaft, set and released through a manual air control at the operator's station. Crawler belt tension maintained by application of manual hydraulic jack force on track adjusting rod and insertion of proper shim.

**STEERING MECHANISM:** Sliding jaw clutches, one on each side of horizontal propel shaft, control application of propelling power to the crawlers. Both air operated jaw clutches can be engaged together or one at a time with the other crawler automatically locked to the lower frame. The propel brakes remain set during engagement of jaw clutches.

<b>CRAWLER SHOES:</b> Total number—both sides	92
Cast flat shoes—standard width	36" 914 mm
Cast flat shoes (optional extra)—width	42" 1067 mm

**PROPEL SPEED:** (chain drive)—speed ..... 0.788 M.P.H. 1.27 km/hr.

(Hunting type crawler drive sprockets on involute splined crawler drive shafts)

Manufactured and sold in conformance with U.S. Department of Commerce Commercial Standard CS90-58.  
 Harnischfeger Corporation reserves the right to make changes in specifications without advance notice.  
 Data published herein is statistical and for information only. Performance may vary with the conditions encountered.

Address inquiries to:

## CROWN LIFTERS

102, Anand Bhavan,  
 Keshavji Naik Road,  
 Chinch Bunder,  
 MUMBAI 400 000

## HARNISCHFEGER

Milwaukee, Wisconsin 53246

