FLYSHEET

HC-48

CARRIER MOUNTED CRANE

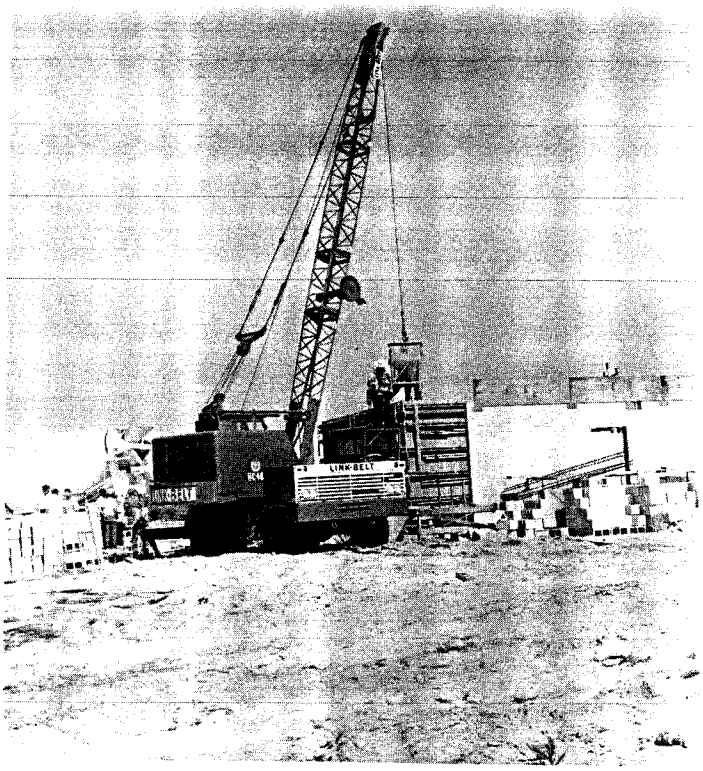
Dimensions

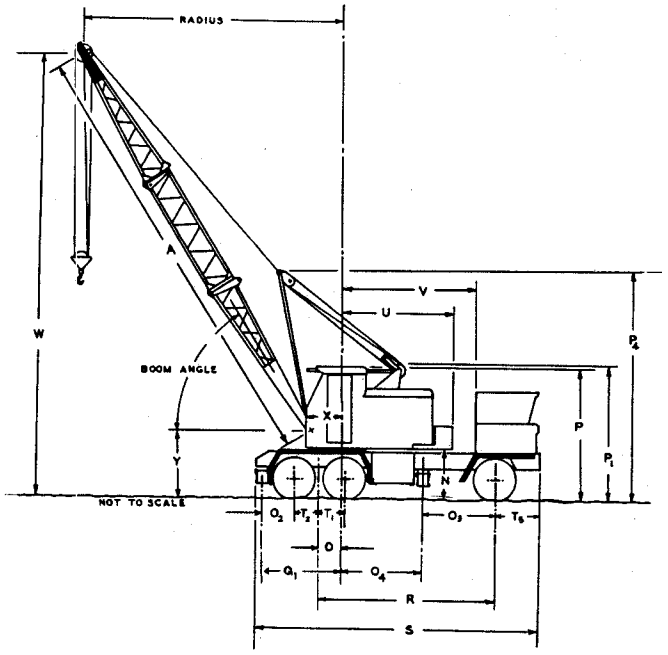
Working ranges

Lifting capacity

Specifications

GENERAL INFORMATION ONLY





DIMENSIONS AND WORKING RANGES

CARRIER – 6 x 4-8' Wide
6 x 6-8' Wide

Basic boom length	A	25'0"
Boom angle	B	
Overall height, top of ring gear plate	M	3'6"
Ground clearance under counterweight	N	3'10"
Centerline rotation to rear axle bogie	O	1'9"
Centerline rotation to rear outrigger center	O^1	6'5"
Center rear axle to rear outrigger center	O^2	2'7"
Center front axle to front outrigger center	O^3	4'2"
Centerline rotation to front outrigger center	O^4	6'4"
Overall cab height	P	10'5"
Overall height, top of gantry	P^1	10'8"
Overall height, boom mast vertical	P^4	16'3"
Overall height, boom mast with 25' boom horizontal	P^4	12'2"
Wheelbase	R	12'4"
Overall length of carrier	S	21'1"
Overall length of carrier, rear outrigger box removed	S	20'2"
Center rear axle to pivot of bogie	T^1	1'11"
Center rear axle to pivot of bogie	T^2	2'1"
Center front axle to front bumper	T^5	3'8"
Tailswing of counterweight	U	8'5"
Centerline of rotation to back of cab	V	9'0"
Radius of boom hinge pin	X	2'8"
Height of boom hinge pin	Y	5'3"
Minimum ground clearance		0'7"
Overall cab width		7'6"
Overall width outriggers retracted		8'0"
Overall width outriggers extended (C/L of jacks)		14'0"

DRUM ROPE CAPACITIES
LINE SPEEDS AND LINE PULL

	FRONT DRUM							REAR DRUM						BOOMHOIST DRUM					
	Standard Lagging			Single Line Pull and Speed		Drum Capacities		Standard Lagging		Single Line Pull and Speed		Drum Capacities		Standard Lagging		Single Line Pull and Speed		Drum Capacities	
Attachment	Wire Rope Dia.	Root Dia.	Groove	F.P.M. 1st Layer	Pull, lbs. 1st Layer	1st Layer Cap.	Total Cap.	Root Dia.	Groove	F.P.M. 1st Layer	Pull, lbs. 1st Layer	1st Layer Cap.	Total Cap.	Root Dia.	Groove	F.P.M. 1st Layer	Pull, lbs. 1st Layer	1st Layer Cap.	Total Cap.
Boomhoist	3/8"													7"	Smooth	131'	12,300	21.2'	262.3'
	1/2"													7"	Smooth	134'	12,100	15.8'	118.5'
Crane	1/2"	8-3/8"	Smooth	148	11,300	44'	401'	8-3/8"	Smooth	148	10,970	44'	401'						
	5/8"	8-3/8"	Smooth	150	11,100	35'	275'	8-3/8"	Smooth	150	10,810	35'	275'						
Clamshell	1/2"	9-3/8"	5/8" dia.	164	10,150	35'	262'	9-3/8"	5/8" dia.	164	9,860	35'	262'						
Dragline	5/8"	8-3/8"	5/8" dia.	150	11,150	32'	256'	9-3/8"	5/8" dia.	166	9,730	35'	221'						

*Front drum is underwinding; rear drum is overwinding. Line pull and speed are based on engine full load speed. For combination crane-clamshell or crane-dragline the rear drum is furnished with 9-3/8 root diameter lagging. Only the smooth laggings are interchangeable.

HC-48 CAPACITIES

PCSA Class 10-58
Refer to ALL notes at bottom of page

Capacities are based on machine equipped with 6 x 4 or 6 x 6 drive truck – 8' 0" wide, 9:00 x 20 10-ply rating tires, fixed front and removable rear outriggers, 5,000# ctwt.

BOOM				ON OUTRIGGERS		ON TIRES	
Length	Radius	Angle	Point Height W	Rear	Side	Rear	Side
25'	10'	73°	29' 2"	30,000*	30,000*	15,140	12,490
	11'	71°	28'10"	28,000*	28,000*	13,420	10,940
	12'	68°	28' 5"	26,500*	26,500*	12,040	9,710
	13'	66°	28' 0"	25,000*	25,000*	10,900	8,710
	14'	63°	27' 6"	23,300*	23,300*	9,950	7,890
	15'	60°	26'11"	22,000*	22,000*	9,140	7,200
	16'	58°	26' 5"	20,400*	20,400*	8,450	6,610
	17'	55°	25' 9"	19,200*	19,200*	7,850	6,100
	18'	52°	25' 0"	18,000*	18,000*	7,320	5,660
	19'	49°	24' 3"	16,700*	16,700*	6,850	5,270
	20'	46°	23' 3"	15,930*	15,930*	6,430	4,930
	25'	27°	16' 6"	12,220*	11,760	4,890	3,670
30'	10'	76°	34' 4"	30,000*	30,000*	15,070	12,430
	12'	72°	33' 9"	26,300*	26,300*	11,970	9,650
	15'	66°	32' 7"	21,800*	21,800*	9,080	7,140
	20'	55°	29' 8"	15,710*	15,710*	6,370	4,870
	25'	42°	25' 3"	12,160*	11,710	4,830	3,610
	30'	25°	17' 8"	9,400*	8,990	3,830	2,800
35'	10'	78°	39' 5"	29,600*	29,600*	15,000	12,370
	12'	75°	38'11"	26,100*	26,100*	11,910	9,590
	15'	69°	38' 0"	21,600*	21,600*	9,020	7,080
	20'	60°	35' 3"	15,500*	15,500*	6,310	4,810
	25'	50°	32' 2"	12,090*	11,670	4,760	3,550
	30'	39°	27' 1"	9,350*	8,940	3,770	2,740
	35'	23°	18' 4"	7,530*	7,190	3,070	2,190
40'	10'	79°	44' 8"	29,400*	29,400*	14,940	12,310
	12'	77°	44' 2"	25,900*	25,900*	11,840	9,520
	15'	72°	43' 4"	21,400*	21,400*	8,950	7,020
	20'	64°	41' 3"	15,290*	15,290*	6,250	4,750
	25'	56°	38' 5"	12,020*	11,620	4,700	3,490
	30'	47°	34' 5"	9,310*	8,890	3,710	2,680
	35'	36°	28'11"	7,460*	7,140	3,010	2,130
	40'	21°	19' 7"	6,200*	5,920	2,500	1,720
50'	12'	79°	54' 5"	25,700*	25,700*	11,710	9,400
	15'	76°	53' 9"	21,200*	21,200*	8,820	6,890
	20'	70°	52' 2"	14,860*	14,860*	6,120	4,630
	25'	64°	50' 0"	11,880*	2,530	4,580	3,370
	30'	57°	47' 1"	9,210*	8,800	2,560	3,580
	35'	50°	43' 5"	7,310*	7,040	2,890	2,010
	40'	42°	38' 7"	6,090*	5,810	2,370	1,600
	45'	32°	31'11"	5,110*	4,910	1,980	1,290
	50'	19°	21' 4"	4,380*	4,220	1,660	1,040

BOOM				ONOUTRIGGERS		ON TIRES	
Length	Radius	Angle	Point Height W	Rear	Side	Rear	Side
60'	15'	78°	63'10"	21,000*	21,000*	8,700	6,770
	20'	73°	62' 9"	14,430*	14,430*	6,000	4,510
	25'	68°	60'10"	11,750*	11,440	4,460	3,250
	30'	63°	58' 8"	9,120*	8,700	3,460	2,440
	35'	57°	55' 9"	7,160*	6,940	2,760	1,890
	40'	52°	52' 1"	5,980*	5,710	2,250	1,480
	45'	45°	47' 9"	4,950*	4,810	1,860	1,170
	55'	29°	34' 7"	3,650*	3,560	1,290	730
	60'	17°	22'11"	3,190*	3,120	1,080	560
70'	20'	76°	73' 1"	14,000*	14,000*	5,870	4,390
	25'	71°	71' 7"	11,610*	11,350	4,330	3,130
	30'	67°	69' 8"	9,030*	8,600	3,340	2,320
	35'	63°	67' 4"	7,020*	6,840	2,640	1,770
	40'	58°	64' 6"	5,870*	5,610	2,130	1,360
	45'	53°	61' 0"	4,800*	4,700	1,730	1,050
	50'	48°	56'10"	4,170*	4,000	1,420	800
	55'	42°	51' 9"	3,500*	3,450	1,170	610
	60'	35°	45' 5"	3,030*	3,010	960	440
	65'	27°	37' 1"	2,640*	2,640	780	300
	70'	16°	24' 7"	2,310*	2,310	630	190

*These capacities are the maximum capacities and are based on factors other than the machine's tipping condition.

NOTES

Lifting Crane

1. For lifting 30,000# with 1/2" hoist rope, six parts are required.
2. Capacities shown are in pounds, and unless indicated by an asterisk (*), are based on 85% of minimum tipping loads, with machine standing on firm level ground. Deduction must be made for weight of hook block, hook, sling, grapple, etc.
3. For boom lengths exceeding 50', the boom mast is required.
4. Capacities limited to "on tires" ratings if the lifting crane equipped with four part boomhoist.

Dragline, clamshell and magnet

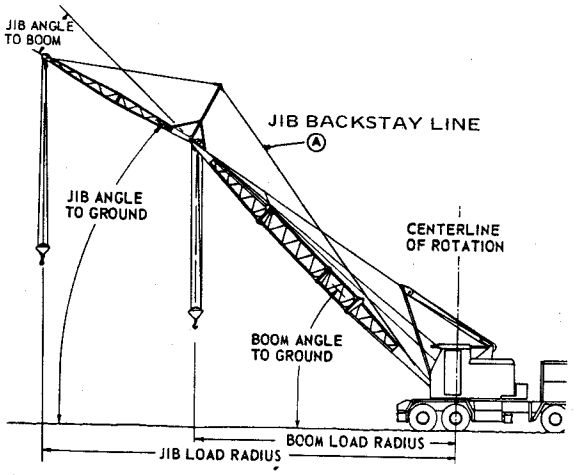
1. Dragline capacities are equal to 90% of the "on tires" – "over side" lifting crane capacities, **except** limited to a maximum of 5,700 lbs.
2. Clamshell and magnet capacities are equal to 80% of the "on tires" – "over side" lifting crane capacities. **except** limited to a maximum of 6,600 lbs.
3. All dragline, clamshell and magnet capacities are for ideal job conditions. The user must make allowances for rapid cycle operation, soft or uneven supporting surfaces, etc.
4. Dragline, clamshell and magnet capacities include weight of bucket or magnet plus load.
5. Boom length should not exceed 40 feet.
6. Dragline operation with boom angle less than 35° is seldom advisable.

GENERAL INFORMATION ONI

HC-48 JIB CAPACITIES

Jib Angle To Ground	Jib Length 20′	30′
80°	8,000	6,000
65°	7,000	5,000
50°	6,000	4,000
35°	4,500	3,600
20°	4,000	3,300

1. Capacities shown are in pounds and are based on a Link-Belt Speeder jib with a cross section 16″ wide by 16″ deep and used with a 7′ 0″ high jib mast in the proper working position.
2. For jib angle to ground, deduct jib angle to boom from the boom angle to ground.
3. The jib backstay line (A) is anchored to the boom base section.
4. The jib angle to boom must not exceed 30°.
5. Determining machine jib capacities
   a. Add the length of boom plus length of jib used.
   b. Determine the jib load radius.
   c. Refer to lifting crane capacity chart and select the boom length that corresponds to the total length of boom and jib in (a) and the radius in (b).
      (1) The jib capacity is equal to the lifting crane capacity unless restricted by the maximum jib capacities shown above.
   d. If the total length of boom and jib exceeds the longest boom length listed in the lifting capacity chart deduct 400 lbs. from the capacity shown for the longest boom length for the radius required in (b).
      (1) The jib capacity is the resulting figure unless restricted by the maximum jib capacities shown above.
6. Determining lifting crane capacities with jib on boom:
   a. When operating off the main boom peak sheaves with a jib on the boom, the following reductions in machine lifting capacities must be made.
      (1) 20′ jib – 1,100 lbs.
      (2) 30′ jib – 1,300 lbs.

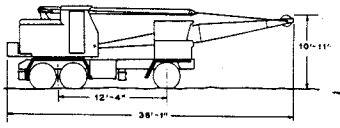


MAXIMUM BOOM - JIB MACHINE CAN LIFT OFF GROUND UNASSISTED

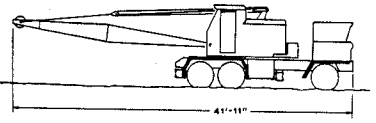
*Reduced travel speeds are recommended with long booms; safe speeds depend on road conditions.

	Boom	Boom + Jib
On tires and travel* –		
Over rear	70′	50′ + 30′
Over side	60′	40′ + 30′
On outriggers–		
Over rear	70′	70′ + 30′
Over side	70′	70′ + 30′

AXLE LOADINGS (Approximate)



Upper Facing Front



Upper Facing Rear

DESCRIPTION	Component Weight	Total Weight	Front	Rear	Front	Rear
Carrier Crane: Complete with counterweight, outrigger boxes and beams, 25′ boom, backstops, pendants, hoist line, 6 x 4 drive		30,625	5,920	24,705	10,715	19,910
Complete with counterweight, outrigger boxes and beams, 25′ boom, backstops, pendants, hoist line, 6 x 6 drive		31,300	6,595	24,705	11,390	19,910
Removable Components						
Counterweight	–5,000		2,140	–7,140	–3,640	–1,360
Rear outrigger box complete	–1,310		–485	1,795	–485	1,795
Rear outrigger beams only	–450		+170	–620	+170	–620
Front outrigger beams only	–450		–295	–155	–295	–155
25′ Boom and pendants	–1,560		–2,210	+650	+1,800	–3,360
Added Components						
Screw Jacks and Pontoons	+490		+215	+275	+215	+275
Hydraulic Outrigger beams and pontoons, Front and Rear	+2,860		+410	+2,450	+410	+2,450
Fairleader	+200		+85	+115	–30	+230
Front Wheel Brakes (6 x 4)	+70		+70	0	+70	0
GM 3-53 (Carrier)	+1,210		+1,300	–90	+1,300	–90
GM 3-53 (Upper)	+570		–165	+735	+330	+240

GENERAL INFORMATION ONL

GENERAL SPECIFICATIONS

CARRIER (Link-Belt Speeder)

FRAME – Reinforced, wide flanged beam main members, 1/2" roller path and center pin mounting plate on full length of truck bed.

FRONT AXLE –

6 x 4 drive – Rockwell Standard Model FD901 – 74-5/8" track.

6 x 6 drive – American Coleman Model 9 – 73-1/8" track.

FRONT SPRINGS – Burton 13 leaf, 2-1/4" wide main spring and Burton 4 leaf, 2-1/4" wide overload spring, both sides.

REAR AXLES – Rockwell Standard Model SFHD – 70" track. Hendrickson Model RT320 bogie beam. Bogie beams and torque rods are rubber mounted. Optional inter axle differential available.

WHEELS AND RIMS – Dayton cast spoke type, with Goodyear "70 Series" LWD type rims.

TIRES – Single tires front, dual tires rear.

Standard – 9:00 x 20, 10-ply rating, military type, non-directional tread.

Optional – 7:50 x 20, 8-ply rating, super Hi-Miler.

Optional – 7:50 x 20, 8-ply rating, military type, non-directional tread.

Optional – 8:25 x 20, 10-ply rating, military type, non-directional tread.

Optional – 10:00 x 20, 12-ply rating, military type, non-directional tread.

Optional – Four 16.5 x 19.5 16-ply rating, Goodyear Super Single, tubeless, road lug tread tires with Budd type wheels on rear axles.

OUTRIGGERS – Full width, double box; front box welded integral with carrier frame; rear box is pin connected and removable. Four sliding beams of high strength, low alloy steel.

Screw Jacks and Pontoons – Optional Extra – Set of four screw type jacks and light weight steel pontoons with 18" square base. **Optional Extra** – Hydraulically operated beam and jack cylinders that are individually controlled by one of the following options:

1. Front and rear carrier control.
2. Front carrier control and rear upper control.

Hydraulic power is supplied by the upper Speed-o-Matic pump.

BRAKES – Hydraulic, self-contained. Hydrovac system with a Mico Lock and accumulator which act as a booster and digging brake lock.

Service – 6 x 4 – Standard on four rear wheels. Optional on front wheels.

6 x 6 – Standard on all six wheels.

Size and Area –

Rear Wheels – 16-1/2" x 4", total effective lining area 554 sq. in.

Front Wheels – 6 x 4 – 16-1/4" x 3-1/2", total effective lining area 238 sq. in.

6 x 6 – 16" x 2-1/4", total effective lining area 151 sq. in.

Parking – Two-shoe type, integral with transmission case.

STEERING –

Standard – Manual, Ross Model TE70 with integral turn signal column, 20" diameter wheel.

Optional – Power hydraulic, Ross Model HPS70 with integral turn signal column, 20" diameter wheel.

TURNING RADIUS – Over outside of front bumper:

6 x 4 – 32' 8"

6 x 6 – 39' 3"

ENGINES – Gasoline or diesel with fuel pump, 12 volt generator or alternator, 12 volt starter, pressure lubrication, radiator, dry type air cleaner.

Standard – Chrysler LH318 gasoline engine, eight cylinder, four cycle, 3.91" bore, 3.31" stroke, 318 cubic inch displacement. 187 maximum brake horsepower (stripped engine) at 4,000 r.p.m. High idle 3,500 r.p.m. Governed load speed 3,200 r.p.m. Peak torque 269 foot pounds at 2,400 r.p.m.

Optional – GM 3-53N diesel engine, three cylinder, two cycle, 3-7/8" bore, 4-1/2" stroke, 159.2 cubic inch displacement, 94 maximum brake horsepower (stripped engine) at 2,800 r.p.m. High idle 3,000 r.p.m. Governed load speed 2,800 r.p.m. Peak torque 205 foot pounds at 1,500 r.p.m.

CLUTCH – Spring loaded, single plate, dry disc.

Chrysler LH318 – Borg and Beck, 12" diameter, 151 sq. in. effective lining area.

General Motors 3-53N – Rockford 14" diameter, 202 sq. in. effective lining area.

TRANSMISSIONS –

Main – Chrysler LH318 – New Process #540 – five speeds forward, one reverse.

General Motors 3-53N – Fuller #5B33 – five speeds forward, one reverse.

Auxiliary and Transfer Case – Rockwell Standard T223, two speed.

DRIVE TUBES AND UNIVERSALS – Rockwell Standard.

CAB – One man, fully enclosed. Adjustable side windows, removable panel for access to left side of engine.

CARRIER CONTROL FROM UPPER – Optional Extra – Includes power hydraulic steering. An auxiliary control panel is located at the operator's position in the crane upper to allow the operator to drive the carrier for short on-the-job moves. A 7-1/4 c.f.m. air compressor provides air pressure to cylinders which, through electrical control, operate the transmission shift lever, accelerator, steering, service brakes and engine clutch. Shift arrangement features a neutral position which allows carrier engine to be left at idle without wear on the clutch throw out bearing.

ELECTRICAL SYSTEM – 12 volt system, including dual sealed beam head lights, directional signals with auxiliary switch for flashing all signal lights, stop and tail lights, horn, windshield wiper, indirect lighting of instrument panel, headlight dimmer switch, heavy duty starter, roof and side clearance lights.

Chrysler LH318 – 37 ampere alternator, one 12 volt, 60 ampere hour rating battery.

General Motors 3-53N – 55 ampere alternator, one 12 volt, 90 ampere hour rating battery.

WEIGHT – Carrier with standard equipment, 4 sliding outrigger beams, 6 x 4 drive, less ring gear and center pin, approximately 15,130 pounds.

STANDARD EQUIPMENT – West Coast type rear view mirrors, boom guide, front tow hooks, lug wrench, instrument panel and dash includes speedometer ammeter, fuel gauge, engine temperature indicator, oil pressure gauge, combination ignition-start switch, choke control and hand throttle to supplement foot accelerator. 34 gallon capacity fuel tank, mounted on right side. Rear fenders, running board on left side. 2 two-way reading bubble levels with weathertight removable cover.

MISCELLANEOUS OPTIONAL EXTRAS –

Heater and Defroster – Hot water type with fan defroster.

Air System for Tire Inflation – Bendix-Westinghouse system with Tu-Flo 400, 7-1/4 c.f.m. compressor, hose, and gauge.

Extra Fuel Tank – 34 gallon capacity mounted on left side.

GENERAL INFORMATION ONLY

SPEEDS -- All speeds given are for machines with 9:00 x 20 tires and engines at governed loaded r.p.m. except low and reverse speeds are with engines at peak torque r.p.m. Speeds will be greater with larger tires.

Gear	Main Transmission		Auxiliary Transmission Ratios			
			1.00:1.00		2.25:1.00	
	New Process #540	Fuller #5B33	Chry. LH318	G.M. 3-53N	Chry. LH318	G.M. 3-53N
			at 3,200 R.P.M.	at 2,800 R.P.M.	at 3,200 R.P.M.	at 2,800 R.P.M.
High	1.00:1	1.00:1	46.0 m.p.h.	40.0 m.p.h.	20.2 m.p.h.	17.8 m.p.h.
Fourth	1.48:1	1.41:1	31.1 m.p.h.	28.8 m.p.h.	13.8 m.p.h.	12.6 m.p.h.
Third	2.40:1	2.52:1	19.2 m.p.h.	15.9 m.p.h.	8.5 m.p.h.	7.1 m.p.h.
Second	4.05:1	4.30:1	11.3 m.p.h.	9.3 m.p.h.	5.0 m.p.h.	4.1 m.p.h.
Low	7.41:1	7.52:1	4.6 m.p.h.	2.8 m.p.h.	2.0 m.p.h.	1.2 m.p.h.
Reverse	7.85:1	7.37:1	4.4 m.p.h.	2.9 m.p.h.	1.9 m.p.h.	1.2 m.p.h.

UPPER

UPPER FRAME – All-welded, stress relieved, precision machined unit. Side housings are welded integral with upper frame.

TURNTABLE ROLLERS – Conical hook type, heat treated, shim adjusted for wear.

Standard – Six rollers, mounted on tapered roller bearings, two equalized pairs in front and two individually mounted in rear.

Optional – Eight rollers, two equalized pairs front and rear.

Optional -- For Excavator Service Only – Four rollers, mounted on bronze bushings, two individually mounted both front and rear.

TRANSMISSION – Link-Belt triple roller chain enclosed in oil tight chain case with integral sump. Pump driven oil stream lubrication. Engine pinion and chain wheel have machine cut teeth.

REDUCTION SHAFT – Two piece shaft, joined by an involute splined coupling mounted in side housings on anti friction bearings.

Two Drive Pinions – Heat treated, machine cut teeth, involute splined to reduction shaft. Pinions mounted outside side housings.

CLUTCHES – Speed-o-Matic power hydraulic actuated for swing, operating drums, boomhoist and optional load lowering. Internal expanding two shoe type, aluminum alloy shoes, 14" diameter, 3½" face width.

Spiders – Involute splined to horizontal shafts.

DRUMS – Front and rear operating.

Shafts – Mounted in line bores on anti-friction bearings. Extended front and rear shafts to accommodate optional lowering clutch.

Spur Gears – Machine cut teeth, mounted on anti-friction bearings on shaft. Lefthand gear is optional and furnished with lowering clutch.

Clutch Drums – Bolted to spur gears.

Brakes – Two piece, external contracting band, 18" diameter, 3" face width, mechanically foot pedal operated.

Brake Drum – Involute splined to drum shaft.

Drum Laggings – Two piece, removable; bolted to brake drum.

HORIZONTAL SWING SHAFT – Mounted in line bore on anti-friction bearings.

Spur Gears – Machine cut teeth. Mounted on shaft on anti-friction bearings.

Bevel Gear – Involute splined to shaft, fully enclosed and running in oil.

INDEPENDENT BOOMHOIST – Spur gear driven with precision boom raising and lowering through a clutch. A rope drum locking pawl, manually controlled from operator's position, is provided.

Shaft – Mounted in line bore on anti-friction bearings.

Spur Gears – Machine cut teeth mounted on anti-friction bearings on shaft.

Rope and Brake Drum – Involute splined to shaft. Ratchet wheel and 14" diameter, 3-5/8" face width brake drum are cast integral.

Brake – Two piece external contracting band, 14" diameter, 3" face width. Spring applied and Speed-o-Matic power hydraulic released.

VERTICAL SWING SHAFT – Mounted in line bore on anti-friction bearings.

Bevel Gear – Involute splined to shaft, fully enclosed and running in oil.

Swing Pinion – Involute splined to shaft; teeth mesh with internal teeth of ring gear.

Swing Brake – Two directional, external contracting band, mechanically operated.

Brake Drum – Involute splined to swing shaft.

SWING LOCK – Mechanically controlled pawl engages with the internal teeth of ring gear.

SWING SPEED – 4.8 r.p.m.

GANTRY – Pinned to upper frame to support bail, boom suspension system, and two rope guide sheaves.

Bail – Pinned to gantry. Contains heat treated, 8" root diameter sheaves with bronze bushings for standard 8 part, optional 12 part and optional 4 part boomhoist.

CAB – Hinged doors. Full vision operator's compartment with safety glass panels. Front upper window rolls into cab roof, front lower window folds down and side windows slide to provide operator's compartment ventilation.

COUNTERWEIGHT – (Bolted – Removable) – 5,000 pounds.

CONTROL SYSTEM – Speed-o-matic power hydraulic. An open system. Operating pressure is transmitted through oil to all operating two-shoe clutch cylinders. The system includes a pump to provide a constant flow of oil, an accumulator to maintain operating pressure and variable pressure operator control valves to regulate this pressure to each clutch cylinder.

Pumps – Lear Siegler, rated at 4 gallons per minutes at 2000 r.p.m.

Oil Filter – Link-Belt Speeder. Replacemable, Skinner ribbon type filter element.

Relief Valve – Fluid Controls. Set to operate at 1,250 p.s.i.

Unloader Valve – Link-Belt Speeder. Set to unload the pump at a maximum of 1,050 p.s.i. and to load the pump when accumulator pressure drops to 900 p.s.i.

Accumulator – Link-Belt Speeder. Piston type precharged with nitrogen gas to 650 p.s.i.

Sump Tank – Link-Belt Speeder. 5½ gallon capacity with filter and strainer assembly to keep oil clean. Integral with fuel tank.

Control Valves – Link-Belt Speeder. Variable pressure type.

GENERAL INFORMATION ONLY

ENGINES – All engines offered have full pressure lubrication, oil filter and heavy duty dry type air cleaner and are equipped with hour meter, hand throttle and foot throttle. 20 gallon capacity fuel tank with tank mounted fuel gauge. See following chart for specifications of individual models available.

Hand Throttle Control – Optional – Twist type, mounted on swing control lever, but may be mounted on hoist control lever if specified.

	Continental F227	General Motors 3-53 Model 5034 - 5101
Number of Cylinders	6	3
Bore and Stroke (inches)	3-5/16 x 4-3/8	3-7/8 x 4-1/2
Piston Displacement (cubic inches)	226	159.2
High Idle Speed, r.p.m.	2100	2100
Full Load Speed, Engine r.p.m.	1910	1935
Net Engine H.P. at Full Load Speed	55	55
Peak Torque, Lbs. Ft.	153	164
Peak Torque, r.p.m.	1200	1000
Oil Cooler	No	Yes
Crankcase Capacity, Gallons	1.5	3
Electrical System –	12 Volt	12 Volt
Starting	Direct Electric	Direct Electric
Batteries	1-12 Volt	2-6 Volt
Alternator –	42 Ampere	55 Ampere
Ignition	Distributor	
Cooling System Capacity, Gallons	4.26	6
Clutch – Controlled from operator's cab		
Type	Friction	Friction
Make	Twin Disc	Twin Disc
Model	C-108HP-4	C-108HP-4
Plate Diameter, inches	8	8
Muffler	No	Yes

STANDARD EQUIPMENT – Operator's split control stand, with adjustable, foam rubber cushion seat, panel with ammeter, temperature and oil pressure and Speed-o-Matic control and oil pressure gauges. Ignition switch. Starter switch.

FRONT END CRANE BOOM EQUIPMENT

BOOM – Two-piece; 25' total length, 11'6" upper and 13'6" lower sections; 24" deep and 24" wide at connections. Chord angles are 2" x 2" x 1/4" alloy steel.

Boom Foot – 1-1/2" wide on 29" centers.

Boompoint Machinery – Three heat treated, 12" root diameter sheaves mounted on anti-friction bearings on boom peak shaft. Two sheaves optional.

Connections – Bolted standard; pin connected optional.

BOOM EXTENSIONS – Available in 5', 10', and 20' lengths with proper length pendants.

BOOM BACKSTOPS – OPTIONAL – Dual rigid type with spring loaded bumpers.

BOOMHOIST BRIDLE – Serves as a connection between the pendants and boomhoist rope. Bridle contains 8" root diameter sheaves mounted on bronze bushings for standard 8 part boomhoist. 12-part boomhoist optional, 4-part boomhoist optional.s,

BOOM MAST – OPTIONAL – Dual, tubular design, required for boom lengths over 50', mounts on base of lower boom section; supports the boomhoist bridle; cannot be furnished on a machine equipped with four part boomhoist.

JIB – 20' two-piece with 10' upper and lower sections; 10' extension with proper length pendant is available; jib is 16" deep and 16" wide at the connections. Chord angles are 1-1/2" x 1-1/2" x 3/16" alloy steel with bolted connections.

JIB MAST – 7' high, mounted on jib base section; two deflector sheaves mounted on needle bearings for jib hoistline within the mast, two equalizer sheaves for jib staylines mounted to top of mast.

Jib Backstop – Wire rope type.

Peak Sheave – 8" root diameter, mounted on needle bearings.

Peak Shaft – Line anchor is provided at peak of jib for 2-part jib hoistline if desired. Jib stayline anchors are suspended from the shaft.

FAIRLEADER – Full-revolving type with barrel, sheaves and guide rollers mounted on ball bearings.

TAGLINE WINDERS – Rud-o-Matic Model 630; includes wire rope; spring wound drum type mounted on lower section of crane boom. Rope pull-off drum – 60' to 75' from neutral. Morin Tagmaster Model BR available.

BOOMHOIST LIMITING DEVICE – As the boom nears minimum radius, a pad on the boom contacts the control mechanism of a hydraulic valve in the boomhoist clutch line, closes the line to the clutch cylinder and opens it to the sump. As an added feature, the boom must first be lowered before it can be raised again.

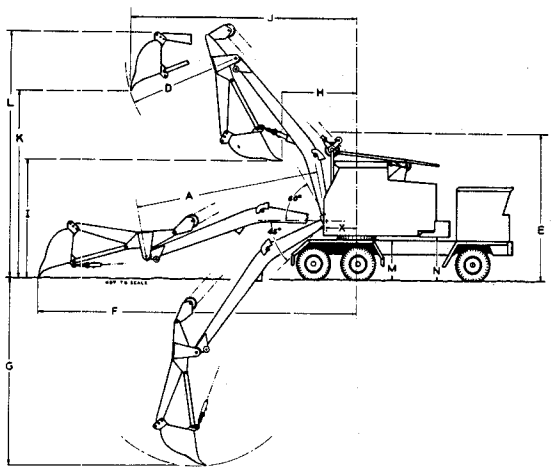
BOOM ANGLE INDICATOR – Mounted on boom near base at right side.

ROPE SUPPORTING ROLLERS – Recommended for long booms to deflect hoist rope over top of boom; one recommended for 35' boom, two through 55' and three for 70' booms.
Mounted in ball bearings.

BOOM FOLDING EQUIPMENT – Consists of a boom folding shaft, 4:00 x 12 tires mounted on disc wheel and connected to the boom top section.

GENERAL INFORMATION ONLY

HOE ATTACHMENT



HOE LIFTING CAPACITIES

RADIUS	CAPACITY
13'6"	6,950
19'	4,300
25'	3,000
27'	2,000*

Lifting capacities shown are in pounds and are not more than 85% of the minimum tipping load with machine standing on firm level ground. Radius is measured from machine centerline of rotation.
*Limited by-line pull.

DIMENSIONS AND WORKING RANGES

Boom length	A	16' 6"
Average sweep radius	D	10' 0"
Height of hoe mast	E	13' 0"
Maximum digging radius	F	27' 6"
Maximum digging depth (with 45° boom)	G	16' 6"
Radius beginning of dump	H	5' 8"
Ground clearance beginning of dump	I	10' 8"
Clearance radius end of dump	J	20' 9"
Ground clearance end of dump	K	17'10"
Overall height end of dump	L	22' 0"
Overall height, top of ring gear plate	M	3' 6"
Ground clearance under counterweight	N	3'10"
Radius of boom hinge pin	X	2' 8"
Overall length of carrier, rear outrigger box removed		20' 2"

Miscellaneous:
Swing speed ..... 4.8 r.p.m.
Approximate working weight with 1/2 cubic yard bucket ..... 32,045 lbs.

Lagging	Line Pull	Line Speed
8-3/8" inhaul (front)	9,100 lbs.	@150 f.p.m.
9-3/8" hoist (rear)	8,000 lbs.	@166 f.p.m.

GENERAL SPECIFICATIONS

HOE ATTACHMENT

BOOM – All welded, box type construction of steel plates; gooseneck design. Boom mounts in upper frame lugs in bronze bushings.

Idler Roller – At foot of boom, 9¼" O.D.

Inhaul rope sheaves – Pinned to boom, mounted on bronze bushings.

Boom peak shaft – Connects arm to boom, secured from turning by pin through head shaft bearing. Arm rotates on bronze bushings.

ARM – All welded, box type construction of steel plates.

Arm Machinery – Hoist sheave mounted on bronze bushing in bridle frame. Bridle frame pinned to arm and is mounted on two bronze bushings.

BUCKETS – L-BS High Strength Steel (Not included in price of hoe attachment).

3/8 Cubic Yard – 21½" cutting width. Blade type side cutters to add 4½" cutting width available.

3/8 Cubic Yard – 25" cutting width. Blade type side cutters to add 1½" cutting width or tooth type side cutters to add 6¼" cutting width available.

1/2 Cubic Yard – 26½" cutting width. Blade type side cutters to add 4½" cutting width available.

BUCKET CONNECTIONS –

Pitch Brace – All-welded, steel construction, pins to arm and lugs on bucket.

Bucket Bail – Horizontal sheave type, with 9½" root diameter sheave, mounted on bronze bushings, pinned to arm.

MAST – Pipe and steel plate construction, pin-connected to foot of boom.

Mast Machinery –

Two Part Hoist – 13-3/8" root diameter sheave, mounted on bronze bushing.

Deflector Sheave – 5-1/8" root diameter.

Four Part Boom Hoist – Two hoist sheaves mounted on mast head shaft.

MAST BACKSTOPS –

Standard – Dual, rigid, pins to mast and to gantry.

Optional – Dual, telescoping type, outer members steel tubing, inner members standard pipe.

GENERAL INFORMATION ONLY

WIRE ROPE

TYPE AND SIZE USED –

Live Boomhoist – Type "N", 3/8" dia. – Type "A", 1/2" dia.
Main Hoist – Type "A", 1/2" dia., 5/8" dia.
Jib Hoistline – Type "K", 1/2" dia.
Dragline Hoist – Type "A", 5/8" dia.
Dragline Inhaul – Type "D", 5/8" dia.
Clamshell Holding – Type "N", 1/2" dia.
Clamshell Closing – Type "N", 1/2" dia.
Trench Hoe Hoist – Type "A", 5/8" dia.
Trench Hoe Inhaul – Type "D", 5/8" dia.
Tagline – Type "A", 5/16" dia.
Jib Staylines – Type "A", 1/2" dia.
Boom Pendants – Type "N", 7/8" dia.

WIRE ROPE TYPES

Type "A" – 6 x 25 (6 x 19 class), filler wire, improved plow steel, preformed, fiber center, right lay, regular lay.
Type "D" – 6 x 25 (6 x 19 class), filler wire, improved plow steel, preformed, independent wire rope center, right lay, lang lay.
Type "F" – 6 x 25 (6 x 19 class), filler wire, improved plow steel, preformed, independent wire rope center, right lay, regular lay.
Type "K" – 18 x 7 non-rotating, improved plow steel, fiber center.
Type "N" – 6 x 25 (6 x 19 class), filler wire, extra high tensile strength steel, preformed, independent wire rope center, right lay, regular lay.

MAIN HOIST LINE LENGTH

Parts of Line	Boom Length 25'	30'	40'	50'	60'	70'
1	60	70	90	110	130	150
2	90	110	140	170	200	230
3	120	140	180	220	260	300
4	160	180	230	280	330	380
5	190	220	280	340	400	460
6	220	260	330	400	470	540

LINE BOOMHOIST ROPE LENGTH

Parts of Line	With Boom Mast	Without Boom Mast
8	160'	150'
12	230'	215'

JIB HOIST LINE LENGTH

Parts of Line	Jib Length	Boom Length 25'	30'	40'	50'	60'	70'
1	20'	105	115	135	155	175	195
2	20'	155	170	200	230	260	290
1	30'	125	135	155	175	195	215
2	30'	185	200	230	260	290	320

JIB FRONT STAYLINE

Parts Parts of Line	Jib Jib Length	Boom Length 25'	30'	40'	50'	60'	70'
2	20'	46	46	46	46	46	46
2	30'	66	66	66	66	66	66

JIB BACK STAYLINE

Parts of Line	Jib Length	Boom Length 25'	30'	40'	50'	60'	70'
2	20'	46	56	76	96	116	136
2	30'	46	56	76	96	116	136

DRAGLINE ROPE LENGTH

Parts Parts of Line		Boom Length 25'	30'	35'	40'
1	Hoist	72	80	88	94
1	Inhaul	33	38	43	48

CLAMSHELL ROPE LENGTH

Parts of Line		Boom Length 25'	30'	35'	40'
1	Holding	66	76	86	96
1	Closing	96	106	116	126
1	Tagline 65' furnished with Rudomatic #630				

GENERAL INFORMATION ONLY

We are constantly improving our products and therefore reserve the right to change designs and specifications. For certified dimensions, consult factory.

Link-Belt Speeder
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Cedar Rapids, Iowa • Woodstock, Ontario, Canada • Queretaro, Mexico • Milan, Italy