

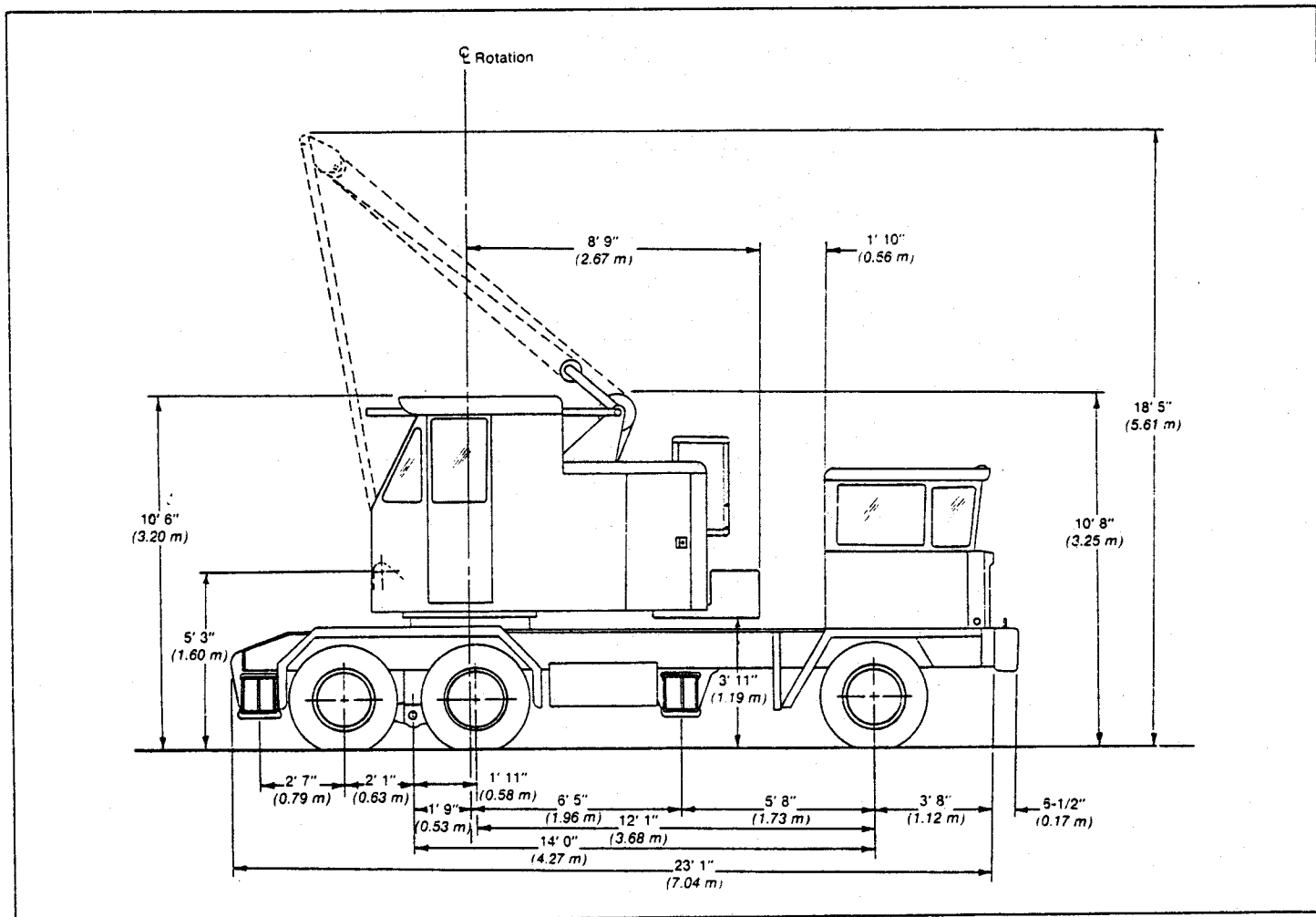
## General Specifications

Link-Belt® 20-ton (18.14 metric ton)

Wire rope truck crane

GENERAL INFORMATION ONLY

# HC-48A



General dimensions	Feet	meters
Overall width, outriggers extended, (over floats)	14' 11"	4.55
Overall width, outriggers retracted, (floats removed)	8' 0"	2.44
Minimum ground clearance	8"	0.20
Ground clearance under upper counterweight with machine on tires	3' 11"	1.19
Counterweight tailswing, across corners of counterweight	8' 9"	2.67
Upper cab overall width	7' 6"	2.29
Basic boom length	25' 0"	7.62
Radius of boomfoot pin	32"	0.81

General dimensions	Feet	meters
Height of boomfoot pin	5' 3"	1.60
Overall height boom live mast vertical	18' 5"	5.61
Overall length with basic length boom in travel position over rear of carrier	32' 1/2"	9.79
Overall length with basic length boom in travel position over front of carrier	25' 1/2"	7.66
Height over boom live mast with basic length boom in travel position over rear of carrier	11' 6"	3.51
Height over boom live mast with basic length boom in travel position over front of carrier	11' 6"	3.51

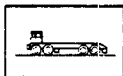
### Axle loadings — approximate

Based on HC-48A upper equipped with 8,700# (3 946 kg) counterweight "A", turntable bearing, boom lowering clutch, GM 3-53 Diesel engine with friction clutch mounted on FMC 6 x 4, 8' 0" (2.44 m) wide, 14' 0" (4.27 m) wheelbase carrier with GM 4L-53T Diesel engine, 9:00 x 20 E (10-ply rating) tires, front and rear outrigger boxes and beams with screw jacks and 2,000# (907 kg) bumper counterweight.	Basic machine gross weight		Upper facing front				Upper facing rear			
			Front		Rear		Front		Rear	
	Lbs.	kg	Lbs.	kg	Lbs.	kg	Lbs.	kg	Lbs.	kg
A	18,570	8 423	— 4,065	— 1 844	22,635	10 267	8,683	3 939	9,887	4 484
B	19,270	8 740	9,160	4 155	10,110	4 585	9,160	4 155	10,110	4 586
C	37,840	17 163	5,095	2 311	32,745	14 852	17,843	8 094	19,997	9 070
Adjust axle loadings accordingly for the following components:	Component weights		Front		Rear		Front		Rear	
	Lbs.	kg	Lbs.	kg	Lbs.	kg	Lbs.	kg	Lbs.	kg
<b>Upper machinery —</b>	—	—	—	—	—	—	—	—	—	—
Front drum lowering clutch	+ 150	+ 68	— 0	— 0	+ 150	+ 68	+ 30	+ 14	+ 120	+ 54
Rear drum lowering clutch	+ 170	+ 77	— 20	— 9	+ 190	+ 86	+ 60	+ 27	+ 110	+ 50
Upper counterweight A	— 8,700	— 3 946	+ 3,630	+ 1 646	— 12,330	— 5 592	— 5,800	— 2 631	— 2,900	— 1 315
Crane booms and auxiliary equipment —										
25' (7.62 m) basic boom complete — horizontal	+ 1,950	+ 885	+ 2,210	+ 1 002	— 260	— 117	— 1,730	— 785	+ 3,680	+ 1 668
25' (7.62 m) basic boom — folded for travel	+ 1,950	+ 885	+ 1,400	+ 635	+ 550	+ 249	— 910	— 412	+ 2,860	+ 1 297
Fairleader	+ 220	+ 100	+ 100	+ 45	+ 120	+ 54	— 40	— 18	+ 260	+ 118
<b>Carrier —</b>	—	—	—	—	—	—	—	—	—	—
Bumper counterweight	— 2,000	— 907	— 2,550	— 1 156	+ 550	+ 249	— 2,550	— 1 156	+ 550	+ 249
Front outrigger beams with screw blocks	— 680	— 308	— 400	— 181	— 280	— 127	— 400	— 181	— 280	— 127
Rear outrigger beams with screw blocks	— 680	— 308	+ 230	+ 104	— 910	— 412	+ 230	+ 104	— 910	— 412
Outrigger screw jacks (4)	— 220	— 100	— 30	— 14	— 190	— 86	— 30	— 14	— 190	— 86
Front and rear outrigger floats (4)	— 140	— 64	— 70	— 32	— 70	— 32	— 70	— 32	— 70	— 32
Hydraulic outriggers (4)	+ 2,940	+ 1 333	+ 360	+ 163	+ 2,580	+ 1 170	+ 360	+ 163	+ 2,580	+ 1 170
Front drive axle (6 x 6)	+ 680	+ 308	+ 680	+ 308	0	0	+ 680	+ 308	0	0
Optional 10:00 x 20 F tires	+ 150	+ 68	+ 30	+ 14	+ 120	+ 54	+ 30	+ 14	+ 120	+ 54

A — upper; B — carrier; C — total weight of upper and carrier.

## General specifications

### Carrier



#### Type

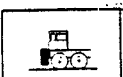
FMC; 6 x 4 drive (standard) or 6 x 6 drive (optional), 168" (4.27 m) wheelbase, 8' 0" (2.43 m) wide.

**Frame** — Reinforced, wide flange beam main members, 5/8" (16 mm) turntable mounting plate full length of truck bed.



#### Turntable bearing

Inner race, integral swing (ring) gear welded to carrier.



#### Bumper counterweight

Easily removed. Mounts on front bumper hooks. Secured by spring-loaded pin.

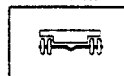


#### Front axles

Standard 6 x 4; Rockwell Standard FF 931. Optional — 6 x 6; American Coleman Model 12; single wheels. Track — 74-5/8" (1.90 m).

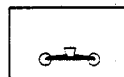
#### Front springs

Burton 10-leaf, 3-1/2" (89 mm) wide. Shackle mounted.



#### Rear axles

Rockwell Standard SLHD, bogie mounted tandem axles, dual wheels. Track 72-1/16" (1.83 m).



#### Bogie

Hendrickson rubber mounted equalizing beams and torque rods.

**Wheels and rims** — Front and rear cast spoke type.



#### Tires

Single tires front; dual tires rear.

Standard — 9:00 x 20 E (10-ply rating) military non-directional type.

Optional — 9:00 x 20 E (10-ply rating) Goodyear Custom Hi-Miler; 10:00 x 20 F (12-ply rating) military non-directional type; 10:00 x 20 F (12-ply rating) Goodyear Custom Hi-Miler; 10:00 x 20 F (12-ply rating) Goodyear SRL-1.



#### Steering

Power hydraulic assist. Ross HPS 70 steering gear; 18" (0.46 m) diameter steering wheel.



#### Outriggers

Full width, double box, front and rear, welded integral with carrier frame. Four sliding beams of high strength low alloy steel.

Optional — screw jacks and pontoons, set of four screw type jacks with 18" (.46 m) square steel pontoons.

Optional — Hydraulically operated beam and jack cylinders individually controlled from each side of carrier. Hydraulic power supplied by upper Speed-o-Matic® pump through center pin rotating joint.

**Brakes** — 6-wheel air brakes.

**Size and area** — Rear wheels; 16-1/2" x 7" (0.42 x 0.18 m); total effective lining area 460 square inches (2 968 cm<sup>2</sup>) per axle. Front wheels; 15-1/2" x 5" (0.38 m x 0.13 m); total effective lining area 314 square inches (2 025 cm<sup>2</sup>) per axle.

**Emergency and parking** — Type 30 Maxibrake on both rear axles.



**Engine**

GM 4L-53T Diesel, 4 cylinder, 2 cycle, 3-7/8" (.10 m) bore, 4-1/2" (.11 m) stroke, 212 cubic inch (3 475 cm<sup>3</sup>) displacement, 170 brake horsepower (126 769 W) at 2,500 r.p.m. governed load speed. Peak torque 402 foot pounds (545 J) at 1,800 r.p.m. 12-volt starter, 12-volt 42 amp alternator, Bendix Tu-Flo 501 air compressor, Vickers VTM 27 hydraulic pump, 7-1/2 quart (7.10 liter) capacity radiator. Engine block capacity 9 quarts (8.52 liter).

**Clutch** — Rockford or Lipe-Rollway 14" (0.36 m) single plate, dry disc.

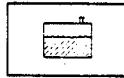
**Turning Radius**

Centerline of outer front tire	Outside front bumper
38' 5" (11.71 m)	42' 2" (12.85 m)

**Transmissions**

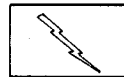
**Main** — Spicer 50 series; 5 speeds forward, 1 reverse.  
**Auxiliary (6 x 4 carrier)** — Fuller 2A92; 2-speed.  
**Auxiliary (6 x 6 carrier)** — American Coleman 22TC; 2-speed.

**Universals** — Mechanics Universal type drive tubes; needle bearings.



**Fuel tank**

Side mounted, 50 gallon (189.25 l) capacity.



**Electrical system**

12-volt; including dual sealed beam headlights, directional signals with 4-way flashing system, stop and tail lights, clearance lights, horn, lighted instrument panel, interior cab light, headlight dimmer switch and two 12-volt batteries.

**Cab** — One-man, offset, fully enclosed. Bucket seat with seat belt. Noise absorbing insulation, sound reduction headliner, carpet floor mat. Instrument panel and dash includes speedometer, odometer, voltmeter and gauges for fuel, engine temperature, air and oil pressure. Low air pressure warning buzzer, key locking switch, push button starter, throttle control, heater and defroster, windshield wiper and washer.

**Standard auxiliary equipment** — Rear view mirror, boom guide, front tow hooks, lug wrench, 2-way bubble levels on carrier frame, back-up alarm, dry type fire extinguisher.

**Carrier Speeds**

Gear	Main transmission ratio	Auxiliary transmission ratios							
		6 x 4 Carrier				6 x 6 Carrier			
		1.00:1		2.298:1		1.00:1		2.00:1	
		m.p.h.	km/h	m.p.h.	km/h	m.p.h.	km/h	m.p.h.	km/h
Fifth	1.00:1	40.50	65.16	17.63	28.37	40.50	65.16	20.25	32.58
Fourth	1.45:1	27.94	44.96	12.16	19.57	27.94	44.96	13.97	22.48
Third	2.50:1	16.20	26.07	7.05	11.34	16.20	26.07	8.10	13.03
Second	4.37:1	9.27	14.92	4.04	6.50	9.27	14.92	4.64	7.47
First	7.08:1	4.12	6.63	1.79	2.88	4.12	6.63	2.06	3.31
Reverse	7.08:1	4.12	6.63	1.79	2.88	4.12	6.63	2.06	3.31

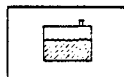
All speeds given are for machine with standard 9.00 x 20 tires. Speeds will be higher with larger tires. Rear axle ratio is 7.2:1. Speeds in first and reverse are with engine at peak torque r.p.m. All others at governed r.p.m.

**Revolving upperstructure**



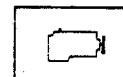
**Frame**

All welded, stress relieved, precision machined; machinery side housings welded integral with frame.



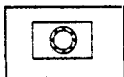
**Fuel tank**

21-gallon (79.5 liter) capacity fuel tank with fuel gauge and fill pipe with flame arrester unit. Integral with hydraulic sump tank.



**Engines**

Diesel; full pressure lubrication, oil filter, air cleaner, hour meter, foot and optional hand throttles. Manual control shutdown.

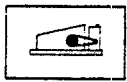


**Turntable bearing**

Outer race of bearing bolted to machined surface on underside of frame.

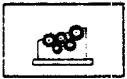
Engine specifications - GM 3-53 with friction clutch	
Number cylinders	3
Bore and stroke	3 $\frac{7}{8}$ " x 4 $\frac{1}{2}$ " (0.10 m x 0.11 m)
Piston displacement	159.2 cu in. (2 609 cm <sup>3</sup> )
High idle speed r.p.m.	2,100
Engine r.p.m. at full speed	1,935
Net engine horsepower at full load speed	55 (41 014 W)
Peak torque	164 ft. lbs. (222 J)
Peak torque r.p.m.	1,000
Electrical system	12-volt
Batteries	two/6-volt
Cooling system capacity	6 gallons (22.71 liters)
Clutch	Twin Disc C-108 HP-4
Plate diameter	8" (0.20 m)
Transmission	—
Number chain wheel teeth	123
Number engine pinion teeth	16

## Power train



### Transmission

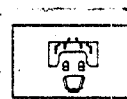
Triple roller chain enclosed in oil tight chain case with integral lubrication system.



### 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 boom hoist 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.

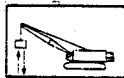
## Principal operating functions



### Control system

Speed-o-Matic® power hydraulic control system; a variable pressure system requiring no bleeding. Operating pressure transmitted to all 2-shoe clutch cylinders, and other hydraulic cylinders as required. System includes constant displacement, engine driven, vane type hydraulic pump to provide flow of oil; accumulator to maintain system operating pressure, unloader valve to

control pressure in accumulator, relief valve to limit maximum pressure buildup in system, full-flow filter with 40 micron disposable filter element, and variable pressure control valves to control drum clutches and other operating cylinders.



### Load hoisting and lowering

Wire rope drum gear train (front and rear main operating drums) powered by chain transmission from engine.



### Load hoist drums

Front and rear main operating drums — Brake drums splined to drum shafts. Two-piece removable laggings bolted to drums.

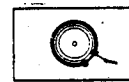


### Drum clutches

Speed-o-Matic® power hydraulic 2-shoe clutches. Internal expanding, lined aluminum alloy shoes; clutch spiders splined to shafts, clutch drums bolted to drum spur gears and mounted on shafts on anti-friction bearings.

*Load hoist clutches* — Front and rear main operating drums — 14" (0.36 m) diameter, 3-1/2" (89 mm) face width.

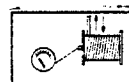
*Load lowering clutches* — Optional on front and rear main operating drums — 14" (0.36 m) diameter, 3-1/2" (89 mm) face width.



### Drum brakes

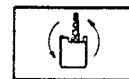
Two-piece, external contracting band; mechanically foot pedal operated. Foot pedals equipped with latch to permit locking brakes in applied position.

Front and rear brake drums — 18" (0.46 m) diameter, 3-1/4" (83 mm) wide.



### Drum rotation indicators

Standard for front and rear main operating drums. Indicator dials mounted on control panel driven by flexible cable anchored to rotating joints on drum shafts.



### Swing system

Spur gear driven; single bevel gears (enclosed and running in oil) on horizontal and vertical swing shafts. Swing pinion, involute splined to vertical swing shaft, meshes with internal teeth of swing gear integral with inner race of turntable bearing.



### Swing clutches

Internal expanding lined aluminum alloy shoes. 14" (0.36 m) diameter, 3-1/2" (89 mm) wide.

*Swing brake* — External contracting band, mechanically controlled by lever at operator's position. Brake drum. 12" (0.30 m) diameter, 2-1/4" (57 mm) face width is involute splined to vertical swing shaft.

**Swing lock** — Mechanically controlled pawl engages internal teeth of turntable bearing swing gear.

*Maximum swing speed* — 4.8 r.p.m.



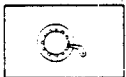
**Boom hoist/  
lowering system**

Independent, spur gear driven. Precision control — hoisting and lowering through power hydraulic 2-shoe clutch.



**Boomhoist drum**

Integral wire rope and brake drum involute splined to shaft. Brake drum is 14" (0.36 m) diameter, 3-5/8" (92 mm) wide. Rope drum is smooth with 7" (0.18 m) root diameter.



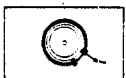
**Boomhoist drum  
locking pawl**

Must be disengaged to permit lowering of boom. Spring applied, mechanically released from operator's position.



**Boom hoist and  
lowering clutches**

Internal expanding lined aluminium alloy shoes. 14" (0.36 m) diameter, 3-1/2" (89 mm) wide.



**Boom hoist/  
lowering brake**

External contracting band; spring applied, hydraulically released as hoist or lowering clutch is engaged.

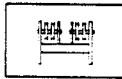
**Boom hoist limiting device** — Provided to restrict hoisting boom beyond recommended minimum radius; located on exterior right-hand side of operator's cab.



**Electrical system**

Battery, two 6-volt, 160 ampere hour batteries. *Optional* — battery lighting system, including two sealed beam automotive type adjustable headlights located on cab front roof, one interior cab light and automotive type wiring. *Optional* — additional 50 watt sealed beam automotive type headlight mounted on boom. (Three maximum quantity recommended.)

**Gantry** — Low type, mounted at top rear of machinery side housings; supports boom suspension system.



**Gantry bail**

Contains five 8" (0.20 m) root diameter bronze bushed, heat treated sheaves for 12-part boom hoist reeving.



**Operator's cab**

Full vision operator's cab. Front upper window rolls into cab roof, lower window folds down and side windows slide to provide ventilation. Operator's door with fixed glass is hinged toward rear. Adjustable cushioned seat. Dry chemical fire extinguisher. *Optional* — cab heater/defroster and windshield wiper.

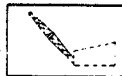
**Machinery cab**

Equipped with warning horn. Hinged doors on sides and rear. Metal guards over left side gear train removable for inspection and repair.

**Counterweight**

"A" counterweight — 8,700 lbs. (3 946 kg). Bolt attached. Removable for transport.

**Boom and jibs**



**Boom**

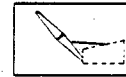
Angle; two-piece basic boom 25' (7.62 m) long with open throat top section. 29-1/2" (0.75 m) wide, 26" (0.66 m) deep at centerline of connections. Chord angles 2-1/2" x 2-1/2" x 1/4" (64 mm x 64 mm x 6.4 mm).

**Base section** — 13' 6" (4.11 m) long. Boom feet 1-1/2" (38 mm) wide on 29" (0.74 m) centers. Lifting lugs on top of base section for boom assembly or transport in folded position.

**Boom extensions** — Available in 5' (1.52 m), 10' (3.05 m) and 20' (6.10 m) sections.

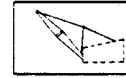
**Boom connections** — Offset pin connections.

**Boompoint machinery** — Three heat-treated 12" (0.30 m) root diameter sheaves mounted on anti-friction bearings. Two sheaves optional.



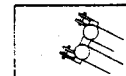
**Boom stops**

Dual rigid type with spring loaded bumpers.



**Boom live mast**

Dual rigid tubular design. Mounts to base of lower boom section. Required for all boom lengths. Supports boom hoist bridle.



**Boomhoist bridle**

Serves as connection for pendants and boomhoist rope. Bridle contains six 8" (0.20 m) root diameter bronze bushed boomhoist sheaves for 12-part boomhoist reeving.

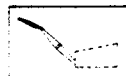


**Boom angle indicator**

Pendulum type; mounted on boom base section.

**Deflector rollers** — Deflect load hoist wire rope off boom to avoid chafing; steel rollers mounted on anti-friction bearings.

**Boom pendants** — Standard; furnished for basic boom lengths plus appropriate length pendants with each boom extension.



**Jib**

Angle; basic two-piece 20' (6.10 m) long; 16" (0.41 m) wide, 16" (0.41 m) deep at connections. Chord angles 1-1/2" x 1-1/2" (38 mm x 38 mm) alloy steel. Bolted connections.

**Base section** — 10' (3.05 m) long.

**Jib extensions** — Available in 10' (3.05 m) length. Maximum boom/jib length 80' (24.38 m) boom plus 30' (9.14 m) jib.

**Tip section** — 10' (3.05 m) long; single peak sheave 8" (0.20 m) root diameter, mounted on anti-friction bearings.



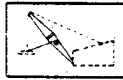
Jib mast

7' (2.13 m) high mounted on jib base section. Two deflector sheaves to guide whipline; mounted on anti-friction bearings. Two equalizer sheaves mounted on top of mast.

*Jib stay lines* — Stay lines vary in length to adjust degree of jib offset from boom centerline. Backstay lines attached to lower end of boom top section.

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

## Auxiliary equipment



Tagline

*Optional* — Spring wound drum type, mounted on crane boom. Rud-o-Matic® model 630 single barrel.

**Load hoist wire ropes** — Main load hoist wire rope standard. Jib load hoist wire rope (whipline) furnished with machine only if jib is ordered.

**Hook blocks** — Blocks, or weighted ball with swivel hook, *optional* — refer to price list.



Fairlead

FMC full-revolving type with guide rollers, to guide inhaul wire rope for dragline operation. Swivel, sheaves and guide rollers all mounted on anti-friction bearings.

## GENERAL INFORMATION ONLY

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

**FMC Corporation Construction Equipment Group Cedar Rapids Iowa 52406**

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



# HC-48A Performance Specifications

## Wire rope and rope drum data —

Main load hoist wire rope length — using 1/2" (13 mm) diameter wire rope.

Parts of line	Boom lengths													
	25' (7.62 m)		30' (9.14 m)		40' (12.19 m)		50' (15.24 m)		60' (18.29 m)		70' (21.34 m)		80' (24.38 m)	
	Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters
1	60	18.29	70	21.34	90	27.43	110	33.53	130	39.62	150	45.72	170	51.82
2	90	27.43	110	33.53	140	42.67	170	51.82	200	60.96	230	70.10	260	79.25
3	120	36.58	140	42.67	180	54.86	220	67.06	260	79.25	300	91.44	340	103.63
4	160	48.77	180	54.86	230	70.10	280	85.34	330	100.58	380	115.82	430	131.06
5	190	57.91	220	67.06	280	85.35	340	103.63	400	121.92	460	140.20		
6	220	67.06	260	79.25	330	100.58	400	121.92	470	143.25				

Jib load hoist rope lengths (whipline) — using 1/2" (13 mm) diameter wire rope.

Jib length	Parts of line	Boom lengths													
		25' (7.62 m)		30' (9.14 m)		40' (12.19 m)		50' (15.24 m)		60' (18.24 m)		70' (21.34 m)		80' (24.38 m)	
		Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters
20' (6.10 m)	1	105	32.00	115	35.05	135	41.14	155	47.24	175	53.34	195	59.43	215	65.53
	2	155	47.24	170	51.82	200	60.96	230	70.10	260	79.25	290	88.39	320	97.53
30' (9.14 m)	1	125	38.10	135	41.14	155	47.24	175	53.34	195	59.43	215	65.53	235	71.63
	2	185	56.39	200	60.96	230	70.10	260	79.25	290	88.39	320	97.53	350	106.68

Clamshell or dragline wire rope lengths — using one part wire rope

Attachment	Function	Boom lengths							
		25' (7.62 m)		30' (9.14 m)		35' (10.67 m)		40' (12.19 m)	
		Feet	meters	Feet	meters	Feet	meters	Feet	meters
Clamshell	Holding	66	20.12	76	23.16	86	26.21	96	29.26
	Closing	96	29.26	106	32.31	116	35.36	126	38.40
Dragline	Hoist	72	21.95	80	24.38	88	26.82	94	28.65
	Inhaul	33	10.06	38	11.58	43	13.11	48	14.63

## Drum wire rope capacities

Wire Rope layer	Front or rear drum — 8 1/2" (0.21 m) root diameter smooth lagging								Front or rear drum 9 3/8" (0.24 m) root diameter grooved lagging								Front drum 8 3/8" (0.21 m) root diameter grooved lagging			
	Wire rope diameter				Wire rope diameter				Wire rope diameter				Wire rope diameter				Wire rope diameter			
	1/2" (13 mm)				5/8" (16 mm)				1/2" (13 mm)				5/8" (16 mm)				5/8" (16 mm)			
	Rope/layer		Total Rope		Rope/layer		Total Rope		Rope/layer		Total Rope		Rope/layer		Total Rope		Rope/layer		Total Rope	
	Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters	Feet	meters
1	45	13.72	45	13.72	35	10.67	35	10.67	35	10.67	35	10.67	35	10.67	35	10.67	32	9.75	32	9.75
2	49	14.94	94	28.65	41	12.50	76	23.16	38	11.58	73	22.25	40	12.19	75	22.86	36	10.97	68	20.73
3	54	16.46	148	45.11	44	13.41	120	36.58	42	12.80	115	35.05	44	13.41	119	36.27	40	12.19	108	32.92
4	58	17.68	206	62.79	48	14.63	168	51.21	45	13.72	160	48.77	49	14.94	168	51.21	45	13.72	153	46.63
5	62	18.90	268	81.69	53	16.15	221	67.36	49	14.94	209	63.70	53	16.15	221	67.36	49	14.94	202	61.57
6	66	20.12	334	101.80	56	17.07	277	84.43	53	16.15	262	69.86					54	16.46	256	78.03
7	71	21.64	405	123.44																

## Rope size and type —

Wire rope application	Size and type used
Boomhoist	3/8" (10 mm) diameter, Type "N"
Main load hoist	1/2" (13 mm) diameter, Type "N"
Jib load hoist (1-part)	1/2" (13 mm) diameter, Type "P"
Jib load hoist (2-part)	1/2" (13 mm) diameter, Type "F"
Jib frontstay line	5/8" (16 mm) diameter, Type "F"
Jib backstay line	5/8" (16 mm) diameter, Type "F"
Boom pendants	7/8" (22 mm) diameter, Type "N"
Dragline hoist	5/8" (16 mm) diameter, Type "F"
Dragline inhaul	5/8" (16 mm) diameter, Type "D"
Clamshell holding	5/8" (16 mm) diameter, Type "N"
Clamshell closing	5/8" (16 mm) diameter, Type "N"

Wire rope types
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 "P" — 19 x 7 non-rotating, improved plow steel, independent wire rope 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.

## HC-48A performance specifications

### Wire rope and rope drum data — (continued)

#### Available line speed and line pull

Front drum								Rear drum							
Attachment	Root diameter	Wire rope diameter		Line speed — first layer		Line pull — first layer		Attachment	Root diameter	Wire rope diameter		Line speed — first layer		Line pull — first layer	
		Inches	mm	F.p.m.	m/min	Pounds	kilograms			Inches	mm	F.p.m.	m/min	Pounds	kilograms
Crane	8-1/2" (0.21 m)	1/2"	13	150	45.72	11,144	5 055	Crane	8-1/2" (0.21 m)	1/2"	13	150	45.72	10,810	4 903
Clamshell (Closing)	9-3/8" (0.24 m)	5/8"	16	166	50.60	10,030	4 550	Dragline, clamshell	9-3/8" (0.24 m)	5/8"	16	166	50.60	9,730	4 413
Dragline (Inhaul)	8-3/8" (0.21 m)	5/8"	16	150	45.72	11,144	5 055								

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

Front drum								Rear drum							
Attachment	Root diameter	Wire rope diameter		Line speed — first layer		Line pull — first layer		Attachment	Root diameter	Wire rope diameter		Line speed — first layer		Line pull — first layer	
		Inches	mm	F.p.m.	m/min	Pounds	kilograms			Inches	mm	F.p.m.	m/min	Pounds	kilograms
Crane	8-1/2" (0.21 m)	1/2"	13	150	45.72	7,600	3 447	Crane	8-1/2" (0.21 m)	1/2"	13	150	45.72	7,600	3 447
Clamshell (Closing)	9-3/8" (0.24 m)	5/8"	16	166	50.60	11,700	5 307	Dragline, clamshell	9-3/8" (0.24 m)	5/8"	16	166	50.60	10,200	4 626
Dragline (Inhaul)	8-3/8" (0.21 m)	5/8"	16	150	45.72	10,200	4 626								

#### Boomhoist wire rope length — 250' (76.20 m)

#### Boomhoist drum capacities

Wire rope layer	7" (0.18 m) diameter drum 3/8" (10 mm) wire rope			
	Rope per layer		Total wire rope	
	Feet	meters	Feet	meters
1	21.2	6.46	21.2	6.46
2	23.2	7.07	44.4	13.53
3	25.2	7.68	69.6	21.21
4	27.3	8.32	96.9	29.54
5	29.3	8.93	126.2	38.47
6	31.1	9.47	157.3	47.94
7	33.0	10.06	190.3	58.00
8	35.1	10.70	225.4	68.70
9	36.9	11.25	262.3	79.95

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