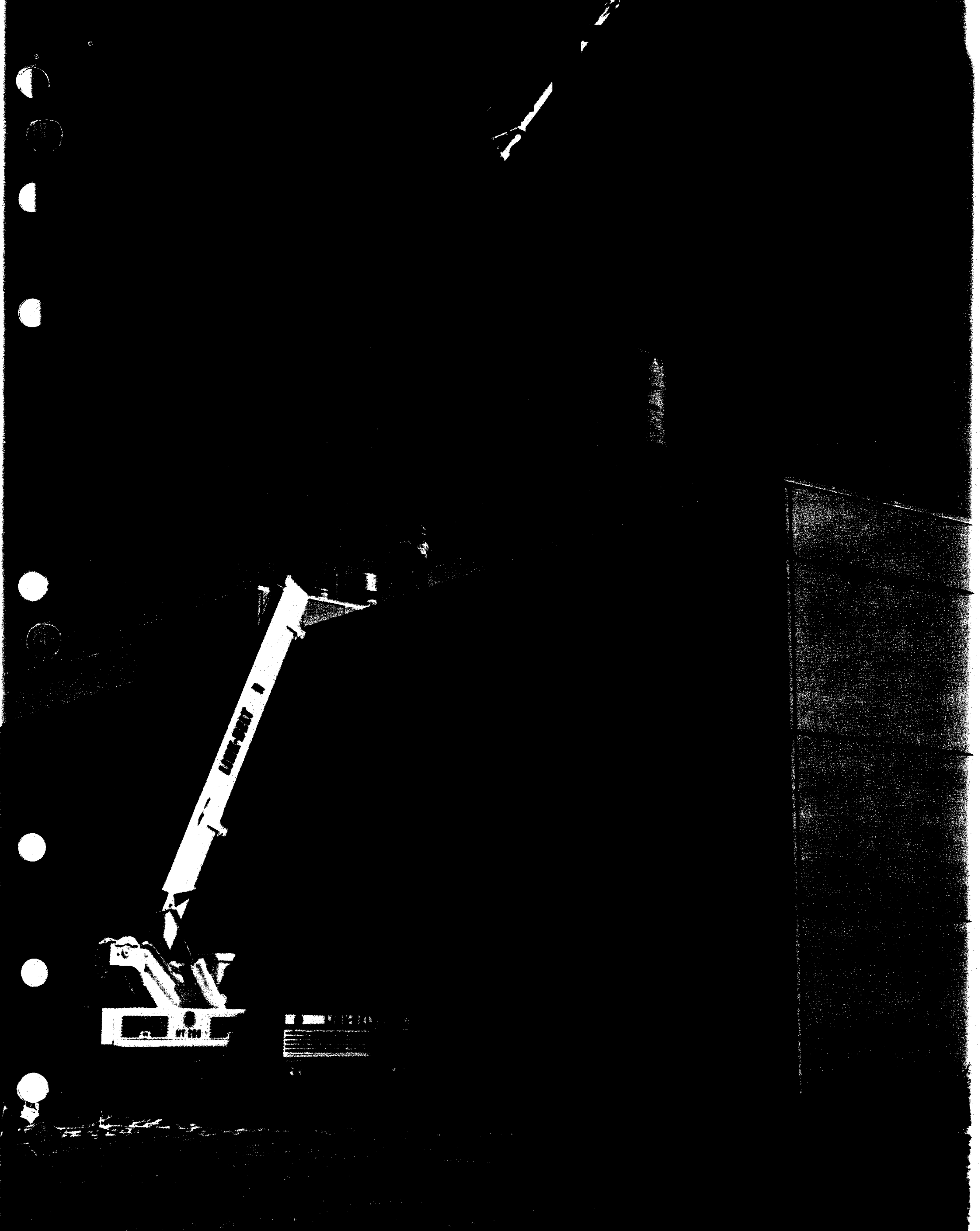


Custom-Designed Heavy-Duty Carrier

HT-200 Carrier Meets Link-Belt Speeder's Design Specifications

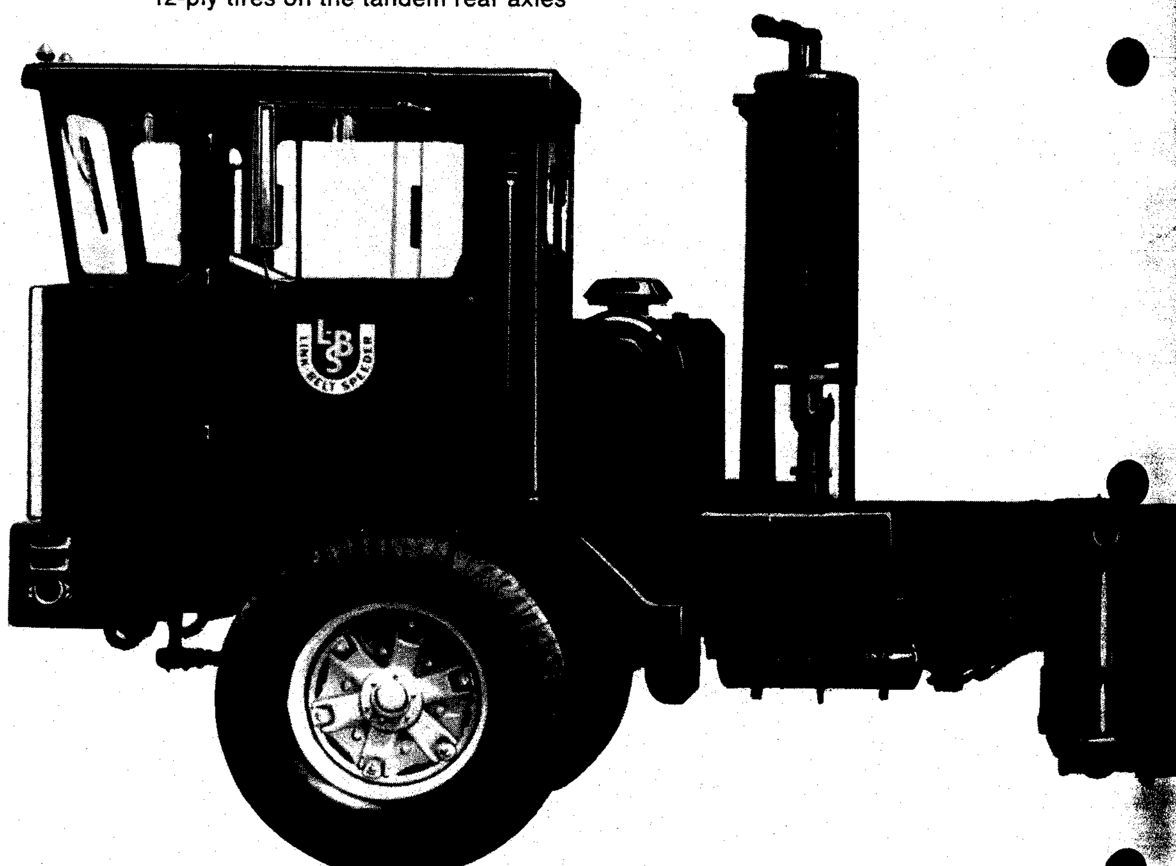
The Link-Belt Speeder Model HT-200 is one of a line of carrier-mounted hydraulic cranes available. The HT-200, incorporating a proven hydraulic crane design concept, is mounted on a carrier especially designed for hydraulic crane duty. The crane upper features a 3-section power boom with a unique twin-cylinder arrangement for hydraulically extending-retracting the boom. Manual boom and jib extensions are available. Boomhoist cylinders are equipped with check and holding valves. Holding valves permit controlled lowering of the boom. A holding valve in the power load lowering circuit permits controlled lowering of high line pull loads. Swing brake is standard.

The carrier is custom built to meet Link-Belt Speeder's design specifications. The alloy steel carrier frame is especially designed to meet the requirements of strength and rigidity for hydraulic crane service. The carrier features a 6x4 drive with 10:00 x 20, 12-ply tires on the tandem rear axles and super single 15:00 x 22.5, 16-ply tires on the front axle for excellent load carrying capacity and machine flotation.

Carrier Cab

The **carrier cab** provides a touch of luxury for the operator. All side panels are upholstered with pleated vinyl. The floor surface is carpeted to reduce road noise. Tachometer, bucket seat with safety belt, ash tray, lighter, door handrail, bus-type mirrors, air windshield wiper, windshield washers, cab heater, defroster, back-up lights, and back-up alarm are all standard equipment.

Hydraulic outriggers are controlled from the crane upper cab. Outrigger boxes are welded integral with the carrier main frame. Outrigger beams are full width to provide maximum spread for crane stability when working on outriggers. Separate out-and-

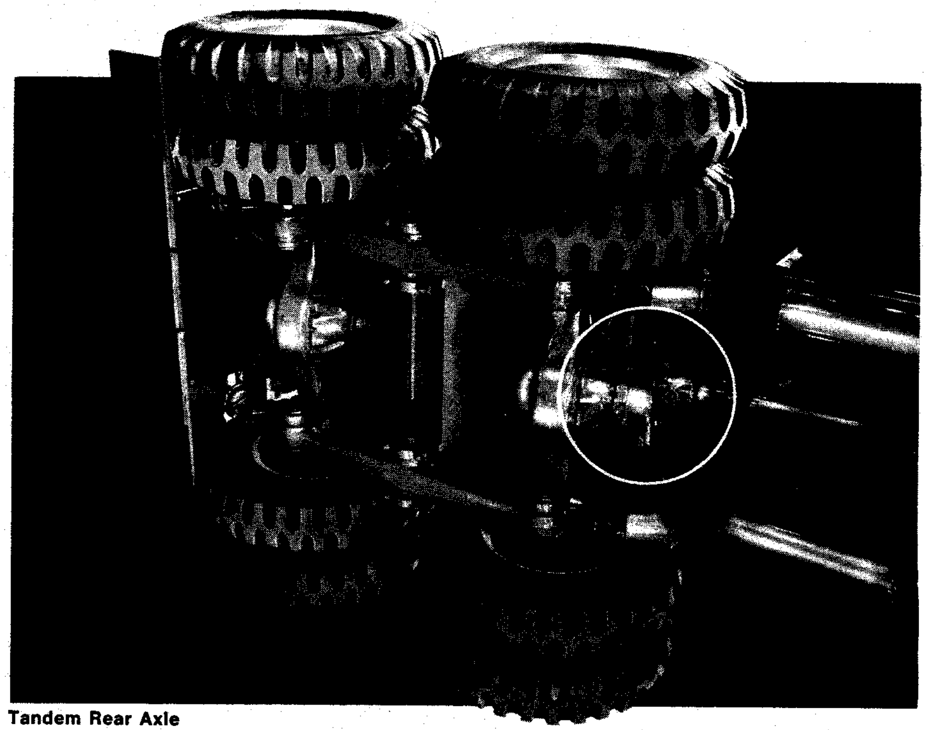


down movements of beams and jacks permit proper machine leveling on reasonably uneven terrains. Pontoons are lightweight and are stored in a rack when outriggers are retracted.

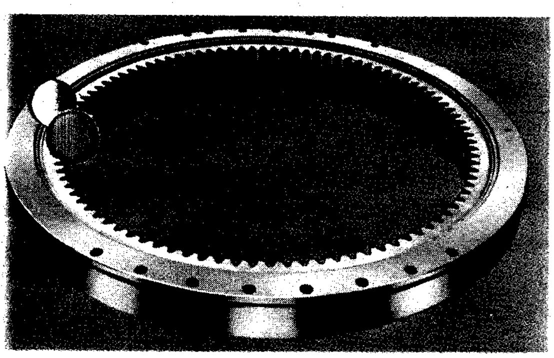
The crane upper is mounted to the carrier by a **turntable bearing** with integral swing gear.

Power for travel is from the carrier diesel engine into a 10-speed road-ranger main transmission for negotiating steep grades, maneuvering through traffic, or traveling at highway speeds up to 47 m.p.h. Mounted behind the main transmission is a 2-speed range (direct and low) auxiliary transmission. The low speed range is for on-the-job precision travel movements.

The **tandem rear axle** is equipped with an inter-axle differential. For on-highway travel, the inter-axle differential equalizes wheel torques and increases tire and axle component life. For off-highway travel, a cab-controlled inter-axle differential lock-out makes each of the tandem axles act independently to improve traction.



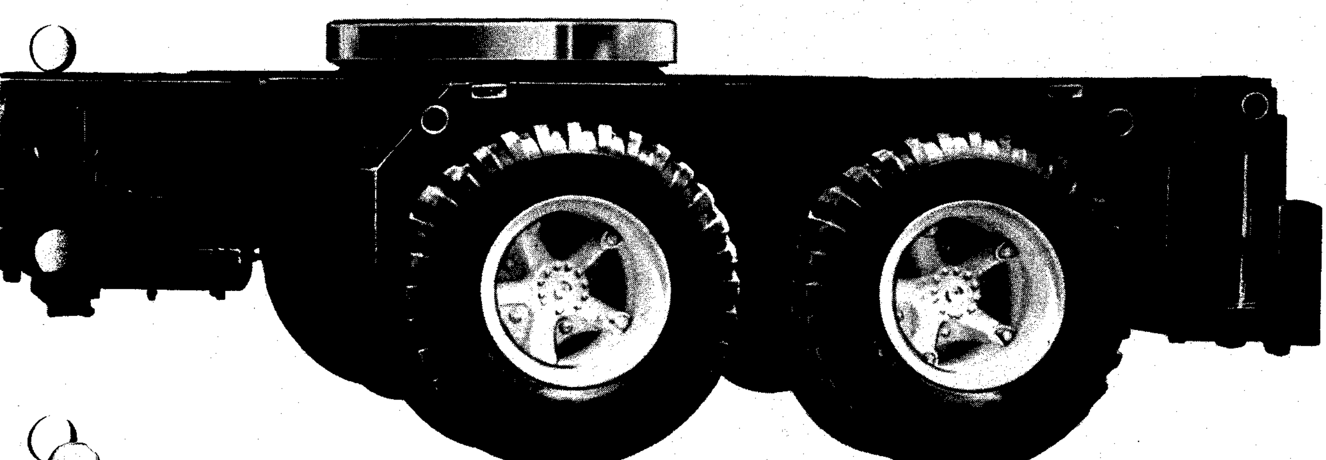
Tandem Rear Axle



Turntable Bearing

Power steering and 6-wheel service brakes, with Maxi brakes on tandem rear wheels, are standard. Service brakes may be "set" with a brake lock when operating machine on tires. Maxi brakes provide parking and emergency braking in addition to the service brake function.

The HT-200 carrier is designed for travel to and on the job site as well as for lifting crane service both "on tires" and "on outriggers."

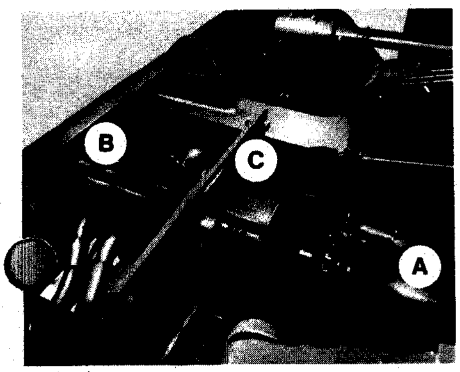


Power Hydraulic Control System

Carrier Engine Furnishes Hydraulic Power For Crane

The Model HT-200 hydraulic crane is a simple but efficient design. The carrier engine powers the carrier but also furnishes hydraulic power for all the crane functions — eliminates the need for a second engine in the crane upper.

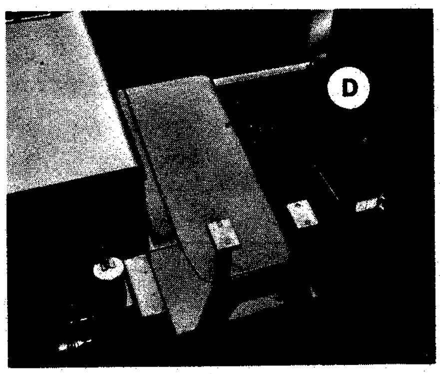
Hydraulic power is from the front of the engine through a short universal drive tube **(A)** into the tandem gear-type pump **(B)**. One **pump** section supplies power for swing and outriggers. One section powers the crane functions of hoist, boom extend-retract, and boomhoist. For long distance or full-speed over-the-road travel, a disconnect clutch **(C)** is provided to avoid unnecessary wear and over-speed on the pump. Disconnect clutch control is located on the carrier cab instrument panel.



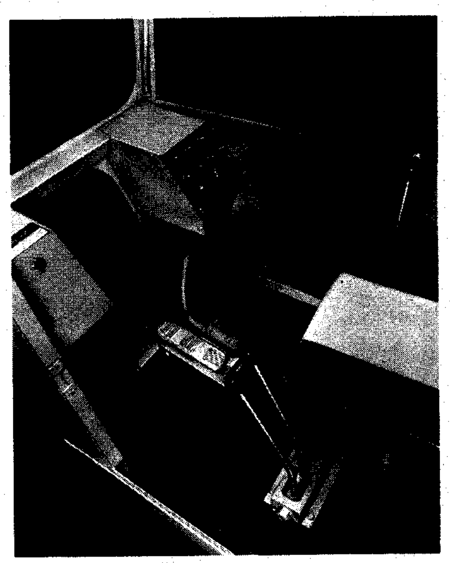
Pump Drive

The **hydraulic reservoir (D),** with filters and strainers, is located in the right front corner of the carrier. A large capacity oil cooler above the **pump drive** assembly in front of the engine radiator maintains proper oil operating temperature for increased hydraulic component life.

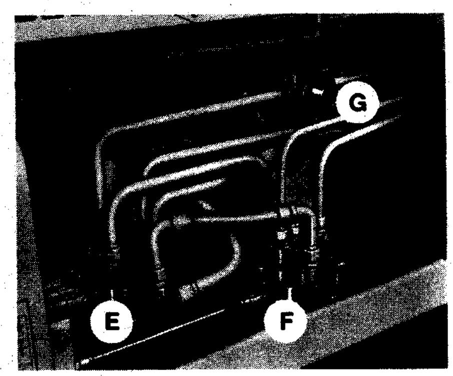
Oil from the pump, driven by carrier engine, flows through a rotating joint mounted in the center of rotation which leads into the upper frame. From the rotating joint, oil is directed into the control valves. The **control valves** are mounted on the deck of the upper revolving frame and are readily accessible. The 3-spool valve **(E)** controls oil flow to the 2-directional hoist motor, boom extend-retract cylinders, and boomhoist cylinders. The single-spool valve **(F)** controls oil flow to the outrigger cylinders and the 2-directional swing motor. Control valve **(F)** has an integral cross-over relief valve to reduce hydraulic surges and to cushion mechanical forces during swing acceleration and deceleration.



Hydraulic Reservoir


Operator Controls

Control valves are mechanically operated with levers conveniently located to the right and left of the operator. Holding valve **(G),** located between the boomhoist/lowering cylinders and the control valve, permits controlled lowering of the boom.



Control Valves

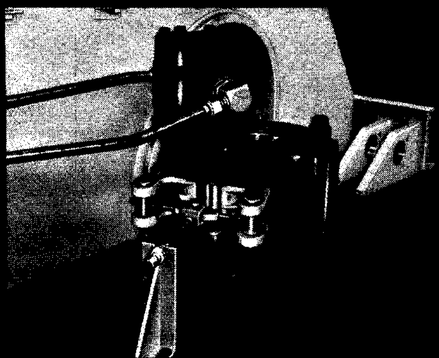
The **operator crane controls** and instrument panel are designed for ease of operation, comfort, and efficiency. Operator works from a contoured, bucket-type seat. Instrument panel is split with a center window for added visibility. The two control levers directly to the left of the operator's seat control swing and boom extend-retract. The two levers to the right of the operator's seat control hoist and boom hoist. The engine r.p.m. is controlled by the floor-mounted foot pedal.

Smooth, Precise Swing—Boomhoist—Hoist

Link-Belt Speeder Swing And Hoist Speed Reducer

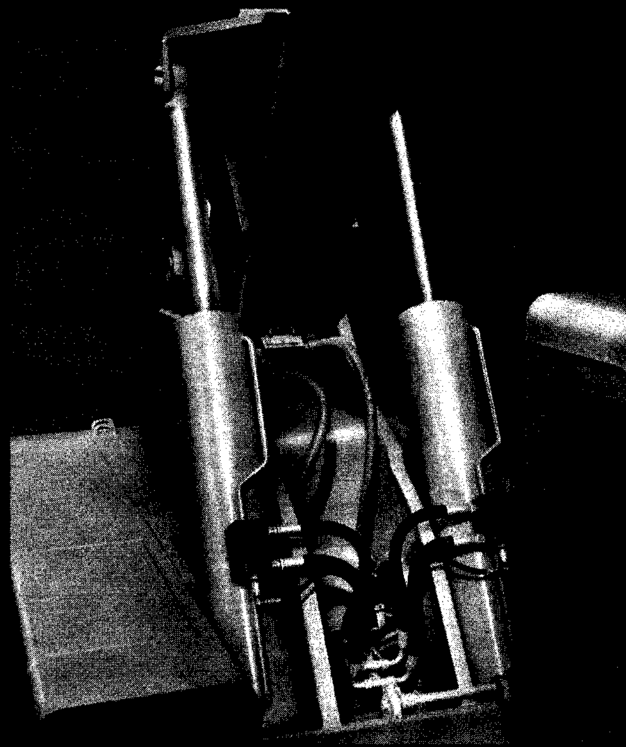
The Model HT-200 swing and hoist mechanisms employ Link-Belt Speeder designed and manufactured gear speed reducers which are interchangeable. Gears are fully enclosed.

Swing power is from the 2-directional hydraulic motor into the speed reducer and then into the swing shaft/pinion. Swing pinion meshes with the internal teeth of the turntable gear. The swing assembly is conveniently located on the deck of the upper revolving frame. A mechanically controlled swing brake is standard — holds upper and boom at any swing position.



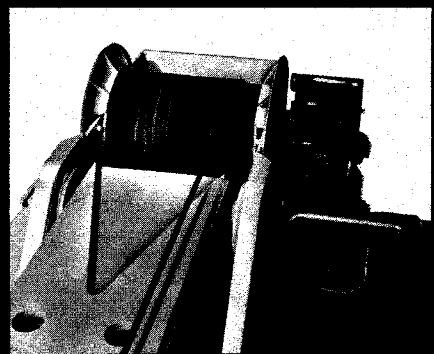
Swing

The HT-200 features power hydraulic **load hoisting and lowering** through a 2-directional motor into the Link-Belt Speeder gear reducer, then into the rope drum. A hoist brake, mounted on the hydraulic motor output shaft, is power hydraulically released when the operator engages the hoist control lever. When the operator releases the control lever, the brake is spring applied, holding the rope drum and load. A holding valve located between the hydraulic motor and the control valve permits controlled lowering of overhauling loads.



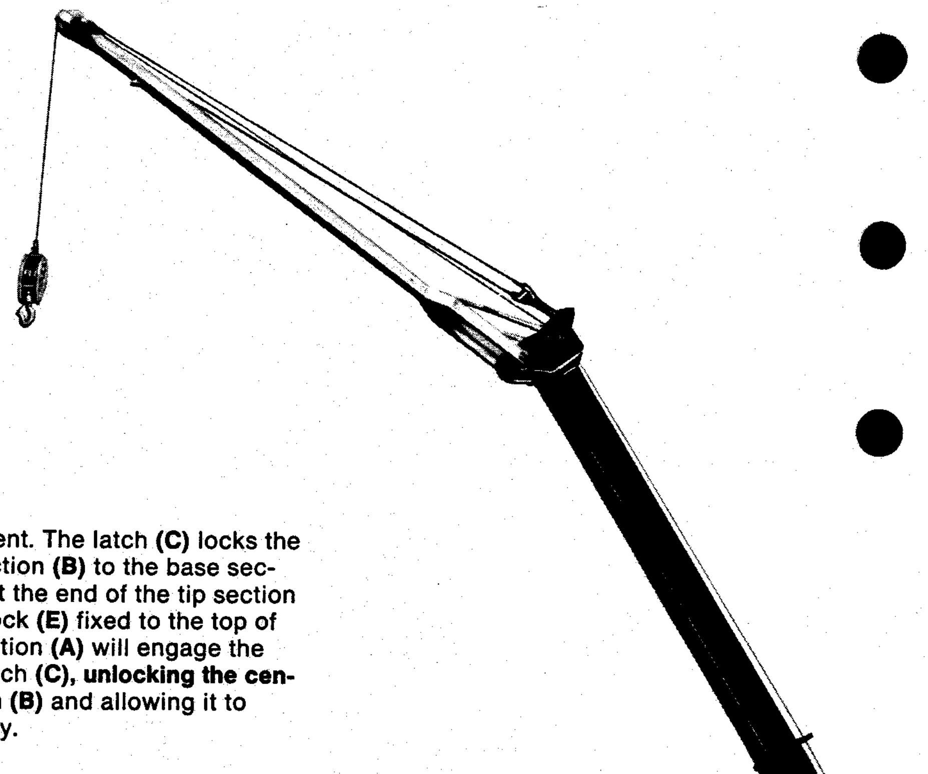
Boomhoist And Lowering

Power hydraulic **boom hoisting and lowering** is through two double-acting cylinders. Both the cylinder and rod ends are mounted in self-aligning bushings for longer cylinder gland and seal life. Each cylinder is equipped with an integral check valve to hold boom in position when the operator control lever is in neutral or when the engine is shut off. For controlled lowering of the boom, the boom lowering circuit contains a holding valve located near the main control valves.

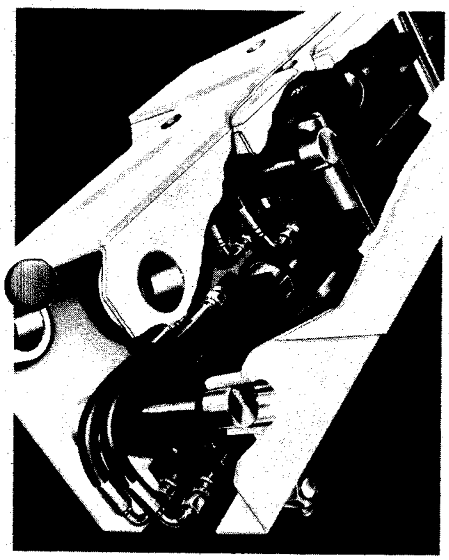


Load Hoist And Lowering

3-Section Power Boom
Manual And Jib Extensions Available
Boom Extension System For Optimum Lifting Capacity

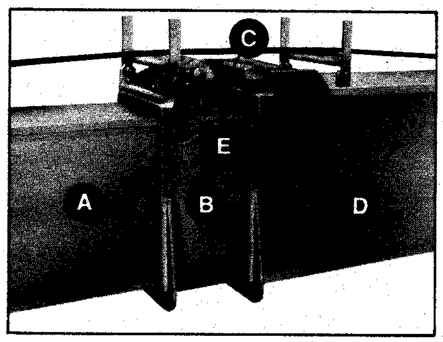


The Link-Belt Speeder Model HT-200 hydraulic crane is equipped with full-power, 3-section telescoping boom. For additional reach, manual boom and jib extensions are available. The boom sections are constructed of alloy steel for greater strength. The method of welding the boom sections is a development of Link-Belt Speeder engineering/manufacturing technology. The boom is hydraulically extended and retracted with an **exclusive twin-cylinder arrangement.** The cylinders are double-acting with the cylinder rods remaining stationary and the cylinder case extending-retracting. The twin-cylinder arrangement eliminates the need for long hoses and hose reels.

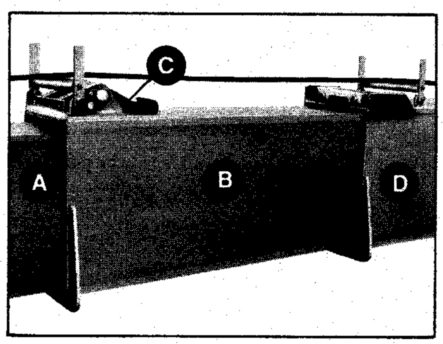


Exclusive Cylinder Design

The Link-Belt Speeder boom extend-retract design allows the tip power section **(A)** to extend completely before the center power section **(B)** starts to extend. This is accomplished by means of an **exclusive latch-lock** arrangement. The latch **(C)** locks the center section **(B)** to the base section **(D).** At the end of the tip section stroke, block **(E)** fixed to the top of the tip section **(A)** will engage the base of latch **(C), unlocking the center section (B)** and allowing it to extend fully.



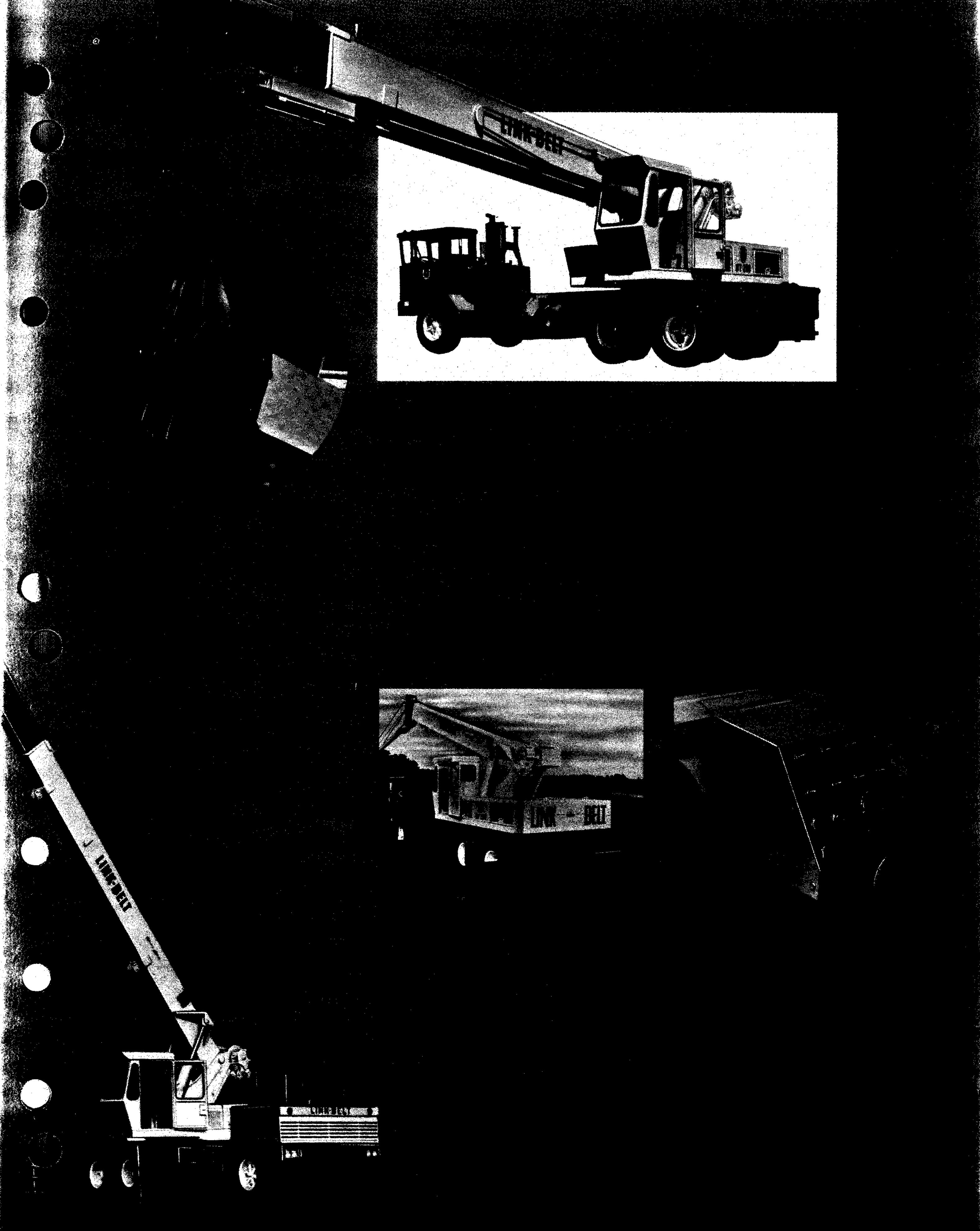
Center Section Latch Locked



Center Section Unlatched

When hydraulically retracting the boom, the sequence is reversed and the center power section **(B)** retracts completely before the tip power section **(A)** can be retracted. No need for multiple boom telescope control levers. Only one control lever is used to extend or retract the boom. This boom extend-retract design keeps the greatest portion of the boom weight closest to the machine for optimum lifting capacity. Boom extend-retract cylinders are equipped with check and holding valves. The check valves hold boom/cylinders in position when operator control lever is in neutral. Holding valves allow controlled retracting of boom.

A boom telescope and load hoist interlock is standard. To extend the boom, the operator must pay out (lower) the hoist line simultaneously.


LINK-BELT
LINK - BELT

Folding/Unfolding

Jib In Position And Ready To Lift In Minutes

On the Link-Belt Speeder Model HT-200 hydraulic crane, only minutes are required to change the jib from the stored to the working position. It's fast and easy with five basic steps. (Refer to the HT-200 instruction manual for exact procedure.)

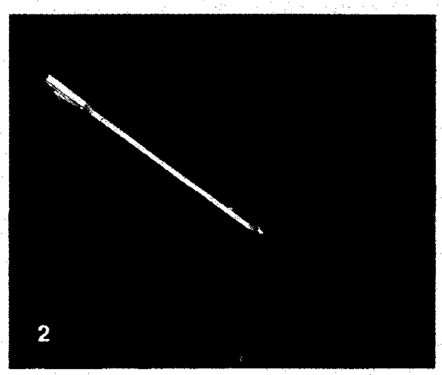
(1) **All four outriggers must be set.** Place load block on ground and free from hoist line. Retract boom completely, engaging forked end of jib into extended lower boom head shaft hubs. Remove pins from upper and lower jib hangers and insert in forked end of jib, pinning jib to headshaft hubs.

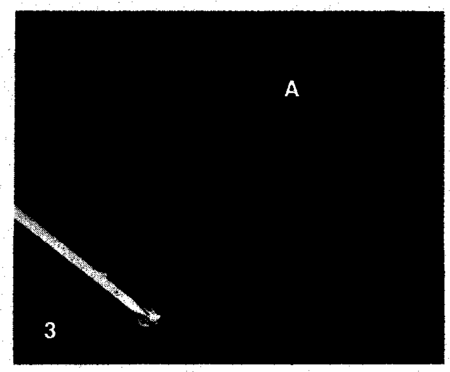
(2) Raise boom and swing over either the side or rear of the machine. Then, extend boom until jib head rests on the ground and jib pendant lines become slack.

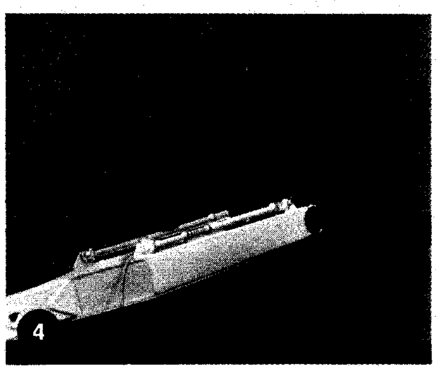
(3) Free pendants from eye bolt on boom **(A).** Raise boom until jib is vertical. Reeve hoist line over jib head and re-install load block.

(4) With hoist line, raise jib to operating position and install pendant lines. The HT-200 is ready to go to work.

Basically, reverse the procedure for changing the jib from the working to stored position. (Refer to the HT-200 instruction manual for the exact procedure.)







Meet your mobile 20-ton lift crane needs with the Link-Belt Speeder design/manufactured Model HT-200 hydraulic carrier-mounted crane. Remember . . . with Link-Belt Speeder . . . hydraulics are a tradition.

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

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No. 129-9-71

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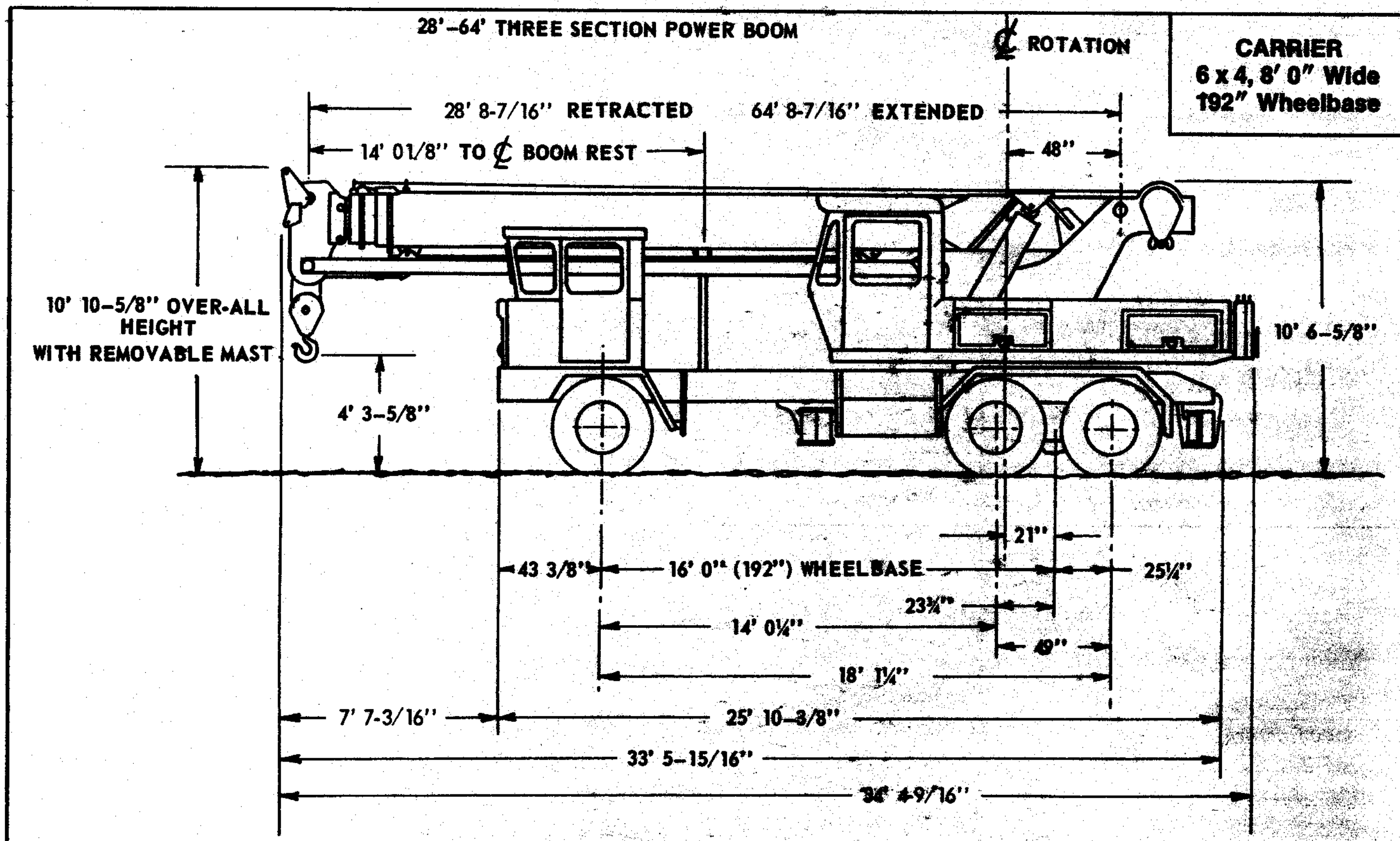
Link-Belt

HT-200

20-TON CARRIER MOUNTED HYDRAULIC CRANE



GENERAL DIMENSIONS

Over-all width, outriggers retracted	8' 0"
Over-all width, outriggers extended	14' 6"
Vehicle clearance circle — outside front bumper	88' 0"
Turning radius — C/L of outer front tire	43' 0"
Tailswing — across corners	9' 7"
Minimum ground clearance	9"

Three Section Power Boom Horizontal over Front End of Carrier①	Machine Over-all Length	Approx. Working Weight
Machine with std. 28'-64' power boom retracted	34' 4 9/16"	48,060#
.... with 28'-64' p. b. & opt. 18' section retracted	34' 9 9/16"	49,530#
.... with 28'-64' p. b. & opt. 18' section extended	88' 9 9/16"	49,530#
.... with 28'-64' p. b. & opt. 18' section retracted and opt. 22' 10" jib in stowed position	34' 9 9/16"	50,379#
.... with 28'-64' p. b. & opt. 18' section extended and opt. 22' 10" jib extended in operating position	111' 7 9/16"	50,379#

(p. b. — power boom)
① Includes 20-ton hook block.

(Supersedes Flysheet #CRF 23002-9-71, Axle Loading Charts #CR 8458-5-72 and #CR 8459-5-72, and Capacity Table A #CRF 23002.)

Flysheet CRF 23018-12-73

Printed in U.S.A.

AXLE LOADS — (Approximate pounds)

192" Wheelbase Carrier 3,850# Ctwt. on Upper	Total Weight	Upper Facing Front		Upper Facing Rear	
		Front	Rear	Front	Rear
Machine equipped as follows:					
28'-64' power boom	47,740	16,450	31,290	10,040	37,700
28'-64' p. b. w/18' manual extension ①	49,210	17,770	31,440	9,040	40,170
28'-64' p. b. w/22' 10" jib ②	48,589	17,255	31,334	9,421	39,168
28'-64' p. b. w/18' manual extension & 22' 10" jib ③	50,059	18,601	31,458	8,394	41,665
Counterweight removed from machine:					
28'-64' power boom	43,890	18,050	25,840	7,590	36,300
28'-64' p. b. w/18' manual extension ①	45,360	19,370	25,990	6,590	38,770
28'-64' p. b. w/22' 10" jib ②	44,739	18,855	25,884	6,971	37,768
28'-64' p. b. w/18' manual extension & 22' 10" jib ③	46,209	20,201	26,008	5,944	40,625
Adjust weights for these items:					
20-ton hook block at boompoint ①	+ 270	+ 457	− 187	− 408	+ 678
20-ton hook block tied off at bumper ①	+ 270	+ 370	− 100	− 120	+ 390
Optional equipment (heater, etc.)	+ 50	+ 20	+ 30	− 10	+ 60

(p. b. — power boom)
① Figures based on 18' manual extension retracted.
② Based on 22' 10" jib in stowed position.
③ Based on 18' manual extension retracted and 22' 10" jib in stowed position.

GENERAL SPECIFICATIONS

CARRIER—

CARRIER — 6 x 4, 8' 0" wide, C.C.C.

FRAME — All-welded construction; fabricated box section between front and rear outrigger locations. Inner race of turntable bearing welded to carrier frame, formed channel bumper, front and rear outrigger boxes welded to carrier frame.

AXLES —
Front — Rockwell FL-901, 81$\frac{5}{16}$" track.
Rear — Rockwell SLHD, 71$^1/_2$" track; 6.167 to 1.0 ratio.

BRAKES — Six wheel air, 15" x 5" front, 16$^1/_2$" x 5" rear; 938 sq. in. lining area.
Compressor — Air, 12 cu. ft. Bendix-Westinghouse, gear driven, cooled and lubricated from carrier engine.

SUSPENSION —
Front Axle — 10 leaf spring, semi-elliptical with leaf overload spring.
Rear Axles — Bronze bushed (C.C.C.) bogie with torque rods.

INTER-AXLE DIFFERENTIAL — Standard equipment.

EMERGENCY AND PARKING BRAKES — Air; Maxi type 24 with heavy duty springs.

WHEELS — Gunite cast spoke.

TIRES AND RIMS —
Front — 15:00 x 22.5-H (16-ply), highway tread.
Rear — 10:00 x 20-F (12-ply), military type non-directional tread.

STEERING — Ross #TE-71 power hydraulic 21" dia. wheel.

OUTRIGGERS — Power hydraulic beams and jacks. Beam and jack controls located at crane operator's position in upper cab — standard; ground controls for beams and jacks mounted on carrier — optional. Check valve in each jack cylinder. Hydraulic power supplied by carrier engine-driven pump.
Floats — 22" square base aluminum.

ENGINE — Diesel.

	GM6V-53N
Cylinders — Cycle	6 — 2
Bore — Stroke	3$^7/_8$" — 4$^1/_2$"
Displacement	318 cu. in.
Max. brake h.p.	202 @ 2,800 r.p.m.
Peak torque	446 ft. lbs. @ 1,500 r.p.m.
Crankcase capacity	18 qts.
Air compressor	12 c.f.m.
Air cleaner	Dry type

CLUTCH — Rockford 14" dia., spring loaded, single plate, dry disc.

UNIVERSALS — Mechanics needle bearing.

TRANSMISSIONS —
Main — Fuller #RT-610, 10 speeds forward, 2 reverse.
Auxiliary — Fuller #2A-92, 2 speed.

SPEEDS — (M.P.H.) Based on GM6V-53N diesel engine; full load speed — 2,500 r.p.m.

MAIN TRANSMISSION FULLER #RT-610			AUX. TRANSMISSION FULLER #2A92	
			1.00:1.00	2.30:1.00
HIGH	10th	1.00	47.30	20.56
	9th	1.24	38.14	16.58
	8th	1.60	29.56	12.85
	7th	2.05	23.07	10.03
	6th	2.62	18.05	7.85
	Reverse	2.77	17.07	7.42
LOW	5th	3.43	13.79	6.00
	4th	4.26	11.10	4.83
	3rd	5.48	8.63	3.75
	2nd	7.02	6.74	2.93
	1st	9.00	5.23	2.27
	Reverse	9.50	4.98	2.16

Peak torque @ 1,500 r.p.m.

Creep Speeds — (Based on peak torque r.p.m.) Low, low — 1.37 m.p.h.; Low, reverse — 1.30 m.p.h.

ELECTRICAL SYSTEM — One 12-volt battery and 12-volt alternator. Four sealed beam headlights, directional signals, stop and tail lights, horn, cab top and side clearance lights, 4-point emergency flasher lights, and back-up lights.

CAB — One-man, offset, fully enclosed. Instrument panel with speedometer, odometer, tachometer, ammeter, low air pressure warning buzzer, throttle control, and push button starting switch. Gauges for oil and air pressure, fuel, and engine temperature. Safety switch to prevent starting carrier engine if main transmission is not in neutral. Bostrom "T-bar" seat, seat belt, fire extinguisher, heater, fan-type defroster, air windshield wiper, windshield washer, cigar lighter, ashtray, electric horn, rolled and pleated upholstery, floor carpet, and foot accelerator pedal.

STANDARD AUXILIARY EQUIPMENT — Bubble-type levels on carrier, bus-type rear view mirrors, rear fenders, back-up alarm, step and hand grab rail, access ladder to carrier deck, and skid-resistant finish on carrier deck.

Fuel Tank — 60-gallon capacity.

Hydraulic Oil Reservoir — 70-gallon capacity; for crane upper and carrier control systems.

UPPER

UPPER REVOLVING FRAME — All-welded, stress relieved and jig line bored. Boomfoot pinned in line bores.

Hydraulic System — Consists of wire rope hoist hydraulic motor, swing hydraulic motor, hydraulic cylinders, one 3-spool main control valve, one single-spool control valve, holding valves, tandem gear pump, oil cooler, and oil reservoir.

Oil Capacity — 200 gallons; for boomhoist, swing, and load handling circuits.

Pump — Tandem gear; powered by drive shaft from front of carrier engine — 89 g.p.h. @ 2,200 p.s.i. 65 g.p.m. section for boomhoist, wire rope hoist, and boom extend/retract; 24 g.p.m. section for swing.

Oil Cooler — Mounted in front of carrier engine to maintain proper oil temperature in hydraulic system.

Holding Valves — Provide automatic locking feature to hold boomhoist, load, and extended boom sections against gravity. Also allows controlled lowering of boom and loads, and controlled retraction of extended boom sections.

Turntable Bearing With Integral Swing Gear — Ball bearing type; inner race with integral 96-tooth swing gear machined into it, mounts on carrier. Outer race bolted to upper revolving frame. Bearing has its own seal to retain lubricant and exclude dirt. Nominal pitch diameter of bearing, 38.4″.

Counterweight — 3,850 lbs., fabricated steel, bolted in position at rear of upper revolving frame.

BOOM SUPPORT — All-welded, stress relieved and jig line bored.

SWING SYSTEM — 360° rotation, right or left. Single section, hydraulic gear-type swing motor; flange-mounted to FMC speed reducer (interchangeable with load hoist system speed reducer.)

Speed Reducer — FMC; three shaft, spur gear; antifriction bearings throughout.

Swing Pinion — Heat treated, machine-cut teeth.

Swing Brake — Two shoe, external contracting, manually controlled.

Swing Lock — Pawl-type, manually controlled; locks into teeth of ring (swing) gear.

Swing Speed — 3.0 r.p.m.

ATTACHMENT

BOOM — Fabricated, box-type; high-strength, low alloy steel. Three section power boom with two double-acting (extend/retract) telescoping cylinders, boom rest, and boom angle indicator. Boom sections identified as follows — base section; boom lower section — #2; and boom tip section — #1.

Optional Boom Section — 18′ long; section pins to, and is powered by, the #1 (tip) power boom section.

Boom Head Machinery — Gooseneck design to accommodate high boom angles without fouling wire rope load lines. Equipped with three load sheaves and one deflector sheave — all 11″ pitch dia. and mounted on anti-friction bearings. Designed for use with one through six parts of line; equipped with wire rope deflectors and integrally welded eye for boom dead ending of two, four, or six parts of line.

Boomhoist Cylinders — Two double-acting hydraulic cylinders with integral check valves; check valves prevent boom creeping down under load. Self-aligning steel bushings in each cylinder end. Cylinder bore — 10″ dia.; rod dia. — 4½″; stroke — 45¼″.

Boom Speeds — Boomhoist to 75°, 27.5 seconds. Boom extend — 69 f.p.m.; retract — 44 f.p.m.

Boom Angle Indicator — Electric. Boom angle pendulum sensor mounts on boom; read-out control panel mounted in crane cab. Sensor and control panel both mounted in waterproof cases. Control panel equipped with buzzer and hooded red warning light, hooded panel light (with on-off switch) for night or dark day operation, and red test button. When used in conjunction with machine's crane lifting charts, operator can set rated load and radius points (by calibrated knobs on control panel) for given load to be handled.

Hoist Rope Guide Rollers — Two furnished; one at top end of boom base section; one at top end of #2 power boom section.

Hook Block — Optional.

BOOM TELESCOPE SYSTEM — FMC exclusive design. Three-section power hydraulic boom telescopes via two double-acting cylinders — mounted one above the other within the boom. The lower cylinder **rod end** is pinned to the boom base section and its **cylinder** is pinned to the top end of the #2 boom section. The upper cylinder **rod end** is pinned to the lower end of the #2 boom section and its **cylinder** is pinned to the lower end of the #1 (tip) boom section. The rods remain stationary, the cylinders extend and retract the power boom sections — eliminates need for long hoses and hose reels. System allows the #1 (tip) section to extend completely before the #2 section starts to extend; this is accomplished by means of a locking pawl which unlatches at the end of the boom tip section stroke. When pawl is unlatched, #2 section can then be extended completely. When retracting the boom, mechanically actuated check/sequencing valves hold each power boom section in such a manner that sections retract in reverse order. Design maintains the boom center of gravity close to the centerline of rotation for optimum stability.

Interlock — To extend boom, operator must simultaneously actuate the load hoist mechanism, thus releasing the hoist drum brake and paying out the hoist rope, to prevent "two blocking" the hook block against boom head. Boom retract is independent of the interlock.

JIB — Fabricated, channel lattice construction, 22′ 10″ long, self-storing underneath boom. Equipped with single sheave, 11″ pitch dia., mounted on anti-friction bearings. Jib load hoist system utilizes same system as crane load hoist. Weighted ball optional.

LOAD HANDLING SYSTEM — Consists of control valve, hydraulic gear motor, spur gear speed reducer, automatic brake, wire rope drum with rope, and holding valve. Automatic holding valve in circuit permits controlled lowering of overhauling loads.

Hoist Motor — Hydraulic gear type, flange mounted to speed reducer.

Speed Reducer — FMC spur gear reducer (interchangeable with swing system speed reducer), anti-friction bearings throughout; splined on wire rope drum shaft.

Hoist Brake — Two-shoe external contracting, automatically spring applied and hydraulically released when load hoist control valve is actuated. Brake drum splined on speed reducer input shaft.

Wire Rope Drum — 12″ pitch dia., 18$^1/_2$″ wide, smooth, involute splined to shaft; shaft mounted on anti-friction bearings. Drum capacity — four layers $^1/_2$″ dia. wire rope, total 516′.

Drum Rotation Indicator — Standard; dial indicator, mounted on right front control panel, is actuated by flexible shaft drive attached to end of drum shaft.

Wire Rope — Type "N", 6 x 25 (6 x 19 class) filler wire, extra improved plow steel, preformed, independent wire rope center, right lay, regular lay. (Standard with basic machine — main load hoist rope only.)

Line Speed and Pull — Available single line pull, not based on wire rope strength.
First layer wire rope — 7,840# pull @ 242 f.p.m.
Fourth layer wire rope — 6,270# pull @ 303 f.p.m.

HT-200 MAXIMUM LIFTING CRANE CAPACITIES — Pounds

PCSA Class 10-58

Refer to ALL notes on page 6.

Based on machine equipped with GM6V-53N diesel engine, 15:00 x 22.5H (16-ply) rating front tires — 10:00 x 20-F (12-ply) rating rear tires, and 3,850# counterweight.

BASIC 28' - 64' POWER BOOM

Load Radius	Boom Length (Feet)	Boom Angle (Degree)	ON OUTRIGGERS Rear	ON OUTRIGGERS Side	[redacted]
10'	28.7	66.2	40,000*	40,000*	
	30	68.3	40,000*	40,000*	
	35	72.0	40,000*	40,000*	
	40	74.6	40,000*	40,000*	
11'	28.7	63.9	40,000*	40,000*	
	30	66.2	40,000*	40,000*	
	35	70.2	40,000*	40,000*	
	40	73.1	40,000*	40,000*	
12'	28.7	61.5	38,500*	38,500*	
	30	63.9	38,500*	38,500*	
	35	68.4	38,800*	38,800*	
	40	71.5	39,000*	39,000*	
	46.7	74.6	32,000*	32,000*	
13'	28.7	59.2	35,500*	35,500*	
	30	61.7	35,600*	35,600*	
	35	66.5	35,900*	35,900*	
	40	70.0	36,100*	36,100*	
	46.7	73.3	30,400*	30,400*	
14'	28.7	56.6	32,900*	32,900*	
	30	59.4	33,000*	33,000*	
	35	64.7	33,300*	33,300*	
	40	68.4	33,500*	33,500*	
	46.7	72.0	29,000*	29,000*	
	50	74.4	30,500*	30,500*	
15'	28.7	54.0	30,600*	30,600*	
	30	56.9	30,700*	30,700*	
	35	62.7	31,000*	31,000*	
	40	66.7	31,200*	31,200*	
	46.7	70.6	27,600*	27,600*	
	50	73.1	29,100*	29,100*	
	55	75.0	29,500*	29,500*	
20'	28.7	38.9	22,400*	20,400	
	30	43.2	22,500*	20,500	
	35	52.3	22,800*	21,000	
	40	58.2	23,000*	21,300	
	46.7	63.7	22,000*	21,600	
	50	66.8	23,100*	21,400	
	55	69.4	22,800*	21,100	
	60	71.5	20,900*	20,900*	
	64.7	73.1	19,400*	19,400*	
25'	30	21.5	17,200*	13,500	
	35	39.7	17,500*	13,800	
	40	48.7	17,800*	14,100	
	46.7	56.3	18,000*	14,400	
	50	60.0	17,900*	14,200	
	55	63.4	17,700*	14,000	
	60	66.1	16,700*	13,800	
	64.7	68.3	15,400*	13,700	
30'	35	19.7	13,600*	9,800	
	40	37.0	13,900*	10,100	
	46.7	48.0	14,100*	10,300	
	50	52.6	14,000*	10,200	
	55	57.1	13,800*	10,000	
	60	60.5	13,600*	9,800	
	64.7	63.2	12,600*	9,700	
35'	40	18.3	11,000	7,500	
	46.7	38.1	11,200	7,800	
	50	44.2	11,100	7,600	
	55	50.1	10,900	7,400	
	60	54.5	10,800	7,300	
	64.7	57.8	10,500*	7,200	
40'	46.7	24.5	9,000	6,000	
	50	33.9	8,900	5,800	
	55	42.1	8,700	5,700	
	60	47.9	8,600	5,500	
	64.7	52.1	8,400	5,400	
45'	50	17.2	7,200	4,500	
	55	32.3	7,100	4,300	
	60	40.3	6,900	4,200	
	64.7	45.7	6,800	4,100	
50'	55	16.4	5,800	3,300	
	60	30.9	5,700	3,200	
	64.7	38.4	5,600	3,100	
55'	60	15.7	4,700	2,400	
	64.7	29.2	4,600	2,300	
60'	64.7	13.7	3,800	—	

28' - 64' POWER BOOM WITH OPTIONAL 18' SECTION RETRACTED

Load Radius	Boom Length (Feet)	Boom Angle (Degree)	ON OUTRIGGERS Rear	ON OUTRIGGERS Side	[redacted]
10'	29.2	66.6	40,000*	40,000*	
	35	72.0	40,000*	40,000*	
	40	74.6	40,000*	40,000*	
11'	29.2	64.4	40,000*	40,000*	
	35	70.2	40,000*	40,000*	
	40	73.1	40,000*	40,000*	
12'	29.2	62.0	37,900*	37,900*	
	35	68.4	38,100*	38,100*	
	40	71.5	38,200*	38,200*	
	47.2	74.8	32,500*	32,500*	
13'	29.2	59.7	34,900*	34,900*	
	35	66.5	35,100*	35,100*	
	40	70	35,200*	35,200*	
	47.2	73.5	30,800*	30,800*	
14'	29.2	57.2	32,300*	32,300*	
	35	64.7	32,500*	32,500*	
	40	68.4	32,600*	32,600*	
	47.2	72.2	29,300*	29,300*	
	50	74.4	30,600*	30,600*	
15'	29.2	54.7	30,000*	30,000*	
	35	62.7	30,200*	30,200*	
	40	66.7	30,400*	30,400*	
	47.2	70.8	27,800*	27,800*	
	50	73.1	29,200*	29,200*	
	55	75.0	28,900*	28,900*	
20'	29.2	40.0	21,700*	20,300	
	35	52.3	22,000*	20,700	
	40	58.2	22,100*	20,900	
	47.2	64.0	21,900*	21,100	
	50	66.8	22,100*	20,900	
	55	69.4	21,900*	20,600	
	60	71.5	20,200*	20,200*	
	65.2	73.3	18,500*	18,500*	
25'	29.2	12.4	16,400*	13,000	
	35	39.7	16,700*	13,400	
	40	48.7	16,900*	13,600	
	47.2	56.7	17,100*	13,800	
	50	60.0	16,900*	13,600	
	55	63.4	16,700*	13,300	
	60	66.1	16,000*	13,100	
	65.2	68.4	14,600*	12,900	
30'	35	19.7	12,800*	9,300	
	40	37.0	13,000*	9,500	
	47.2	48.5	13,200*	9,700	
	50	52.6	13,000*	9,500	
	55	57.1	12,800*	9,300	
	60	60.5	12,600*	9,100	
	65.2	63.4	11,700*	8,900	
35'	40	18.3	10,200*	6,800	
	47.2	38.9	10,400*	7,000	
	50	44.2	10,300*	6,900	
	55	50.1	10,100*	6,700	
	60	54.5	9,900*	6,500	
	65.2	58.1	9,700*	6,300	
40'	47.2	25.8	8,200	5,200	
	50	33.9	8,100	5,100	
	55	42.1	7,900	4,900	
	60	47.9	7,700	4,700	
	65.2	52.4	7,600	4,500	
45'	50	17.2	6,400	3,700	
	55	32.3	6,200	3,500	
	60	40.3	6,100	3,400	
	65.2	46.1	5,900	3,200	
50'	55	16.4	5,000	2,500	
	60	30.9	4,800	2,300	
	65.2	38.9	4,700	2,200	
55'	60	15.7	3,800	—	
	65.2	30.0	3,700	—	
60'	65.2	15.8	2,800	—	

(continued on page 6)

28' - 64' POWER BOOM WITH OPTIONAL 18' SECTION EXTENDED

Load Radius	Boom Length (Feet)	Boom Angle (Degree)	ON OUTRIGGERS Rear	ON OUTRIGGERS Side	[illegible]
12'	47.2	74.8	28,700*	28,700*	[illegible]
[illegible]	47.2	73.5	27,400*	27,400*	[illegible]
[illegible]	47.2	72.2	26,100*	26,100*	[illegible]
	50	74.4	27,200*	27,200*	[illegible]
15'	47.2	70.8	24,900*	24,900*	[illegible]
	50	73.1	26,000*	26,000*	[illegible]
	55	75.0	23,200*	23,200*	[illegible]
20'	47.2	64.0	19,900*	19,900*	[illegible]
	50	66.8	20,800*	20,800*	[illegible]
	55	69.4	18,200*	18,200*	[illegible]
	60	71.4	16,600*	16,600*	[illegible]
	65.2	73.3	15,400*	15,400*	[illegible]
25'	47.2	56.7	16,400*	15,400	[illegible]
	50	60.0	17,200*	15,400	[illegible]
	55	63.4	14,900*	14,900*	[illegible]
	60	66.1	13,500*	13,500*	[illegible]
	65.2	68.4	12,400*	12,400*	[illegible]
	70	71.3	13,100*	13,100*	[illegible]
	75	72.9	13,800*	13,800*	[illegible]
	83.2	74.3	12,400*	12,400*	[illegible]
30'	47.2	48.5	13,900*	10,700	[illegible]
	50	52.6	14,200*	10,700	[illegible]
	55	57.1	12,400*	10,700	[illegible]
	60	60.5	11,200*	10,700	[illegible]
	65.2	63.4	10,200*	10,200*	[illegible]
	70	66.7	10,900*	10,400	[illegible]
	75	68.7	11,200*	10,200	[illegible]
	83.2	71.3	10,000*	9,900	[illegible]
35'	47.2	38.9	11,400*	8,100	[illegible]
	50	44.2	11,400*	8,100	[illegible]
	55	50.1	10,600*	8,100	[illegible]
	60	54.5	9,400*	8,000	[illegible]
	65.2	58.1	8,500*	8,000	[illegible]
	70	61.9	9,100*	7,800	[illegible]
	75	64.3	9,200*	7,600	[illegible]
	83.2	67.5	8,200*	7,300	[illegible]

Load Radius	Boom Length (Feet)	Boom Angle (Degree)	ON OUTRIGGERS Rear	ON OUTRIGGERS Side	[illegible]
40'	47.2	25.8	9,200	6,200	[illegible]
	50	33.9	9,200	6,200	[illegible]
	55	42.1	9,200*	6,200	[illegible]
	60	47.9	8,100*	6,200	[illegible]
	65.2	52.4	7,300*	6,200	[illegible]
	70	56.8	7,800*	5,900	[illegible]
	75	59.7	7,800*	5,700	[illegible]
	83.2	63.5	6,800*	5,400	[illegible]
45'	50	17.2	7,500	4,800	[illegible]
	55	32.3	7,500	4,800	[illegible]
	60	40.3	7,000*	4,800	[illegible]
	65.2	46.1	6,300*	4,800	[illegible]
	70	51.3	6,700*	4,600	[illegible]
	75	54.8	6,600*	4,400	[illegible]
	83.2	59.4	5,700*	4,100	[illegible]
50'	55	16.4	6,200	3,800	[illegible]
	60	30.9	6,200*	3,800	[illegible]
	65.2	38.9	5,500*	3,800	[illegible]
	70	45.3	5,900*	3,500	[illegible]
	75	49.6	5,700*	3,300	[illegible]
	83.2	55.0	4,900*	3,100	[illegible]
55'	60	15.7	5,200	2,900	[illegible]
	65.2	30.0	4,800*	2,900	[illegible]
	70	38.3	5,000	2,700	[illegible]
	75	43.8	4,800*	2,500	[illegible]
	83.2	50.3	4,100*	2,200	[illegible]
60'	65.2	15.8	4,200*	2,300	[illegible]
	70	29.7	4,100	2,000	[illegible]
	75	37.1	4,000	—	[illegible]
	83.2	45.1	3,600*	—	[illegible]
65'	70	15.6	3,500	—	[illegible]
	75	28.7	3,300	—	[illegible]
	83.2	39.4	3,000	—	[illegible]
70'	75	15.1	2,700	—	[illegible]
	83.2	32.6	2,400	—	[illegible]
75'	80	14.7	2,000	—	[illegible]
	83.2	23.7	—	—	[illegible]

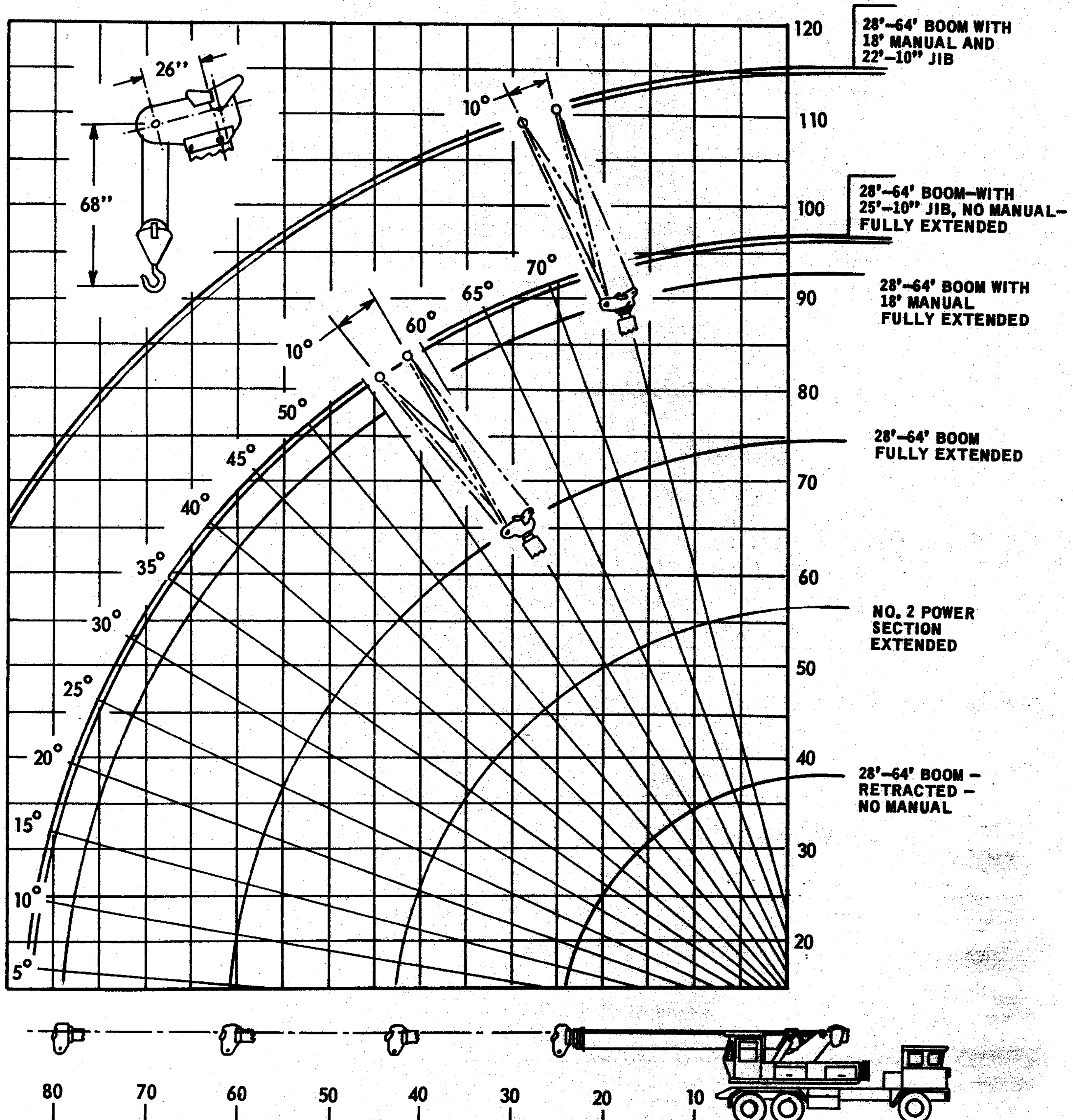
[illegible]tic capacities are defined as loads handled without machine travel or with machine travel at creeping speeds only.

NOTES — Lifting Crane Capacities

1. Capacities shown are in pounds and, unless indicated by an asterisk (*), do not exceed 85% of minimum tipping loads — with machine standing level on firm supporting surface under ideal job conditions. Deductions from the lifting crane capacities must be made for weight of hook block, hook, sling, spreader bar, or other suspended gear.
   a. Asterisk indicates capacities are based on factors other than those which would cause a tipping condition.
2. Capacities are based on freely suspended loads and make no allowance for such factors as the effect of wind, supporting surface conditions, inflation of tires, and operating speeds. Operator must reduce load ratings accordingly in order to take such conditions into account.
3. The least stable **rated** working area on outriggers and on tires is over the side. The least stable working area on outriggers is over the front but working in this area is not recommended unless capacities are published on this chart.
4. For lifting 40,000#, 6 parts of 1/2" Type "N" wire rope are required.
5. For capacities of intermediate boom lengths not shown, use the capacity for the next shorter or longer boom length — whichever is the lesser capacity.
6. Operating machine at radii, or with boom lengths at or beyond where capacity chart shows no capacity, is not recommended — machine can overturn without any load on hook.
7. The maximum load with which boom can be extended or retracted is not definable. When extending a boom with load on hook, care must be taken to avoid moving load to radii where it becomes an overload — machine may overturn if this occurs.
8. When handling load off main boom, deduct 1,200# from crane capacities if jib is mounted on boom in working position. Deduct 550# if jib is mounted in stowed position on boom.
9. Boom angles take into account boom deflection under rated loads at listed load radii.
10. Capacities apply only to machine as originally manufactured and normally equipped by FMC Corporation, Crane & Excavator Division.

HT-200 WORKING RANGES –

Boom and jib geometry shown for an UNLOADED condition with machine standing level on firm supporting surface. Boom deflection and subsequent radius and boom angle change must be accounted for when applying load to hook.



NOTE: Vertical heights are measured from ground line.

28' - 64' POWER BOOM		
BOOM CONDITIONS	**BOOM RETRACTED**	**BOOM EXTENDED**
Horizontal boom range from centerline of rotation without optional 18' section	24'-7 13/16"	60'-8 13/16"
Horizontal boom range from centerline of rotation with optional 18' section	25'-0 13/16"	79'-1 13/16"

HT-200 MAXIMUM JIB CAPACITIES — 22' 10" JIB

Refer to ALL notes below.

Maximum allowable capacities (shown in pounds) for machine equipped with 28'-64' power boom with or without opt. 18' manual boom section.

MAXIMUM ALLOWABLE RADIUS IN FEET	MINIMUM PERMISSIBLE BOOM ANGLE	LOAD WITH NO OFFSET	LOAD WITH 10° OFFSET
20	75°	8,400	5,800
25	72.5°	7,300	5,400
30	70°	6,200	5,000
35	67.5°	5,700	4,600
40	65°	5,300	4,300
45	60°	5,000	3,900
50	55°	4,100	3,400
55	50°	3,400	3,100
60	45°	2,900	2,800
65	40°	2,500	2,400
70	35°	2,200	2,100
75	30°	1,900	1,900

NOTES — Jib Lifting Capacities

1. Capacities shown are in pounds — with machine standing level on firm supporting surface under ideal job conditions.
2. Jib stops must be in operating position when using jib.
3. Jib offset from boom must not exceed 10°.
4. To determine the permissible maximum operating radius for a given load on the jib, use the following procedure:
   a. Determining total load — load plus hook block, hook with weighted ball, sling, spreader bar, or any other load handling gear.
   b. Check above jib capacity chart to determine allowable operating radius and minimum permissible boom angle at which this total load can be handled.

   NOTE — The boom/jib combination may be positioned at a boom angle greater than that found in step "b" above, but it **must not** be positioned at a boom angle less than that found in step "b" above — when handling the total load determined by step "a" above.

   c. Total load handled on jib must also not exceed the maximum capacity of the total machine. To determine the total machine maximum capacity when handling load on jib, refer to the appropriate column of the machine's maximum allowable lifting crane capacity chart. At the load radius found in "b" above, select the capacity listed for the maximum boom length. Reduce this capacity by 1,200# to compensate for the jib weight. If this value is equal to or greater than the total load determined in "a" above, load is within machine's rated capacity. If the value found is less than total load determined in "a" above, load or radius must be reduced to avoid exceeding machine's rated capacity.
5. Boom angles take into account boom deflection under rated loads at listed load radii.
6. Capacities apply only to machine as originally manufactured and normally equipped by FMC Corporation, Crane & Excavator Division.

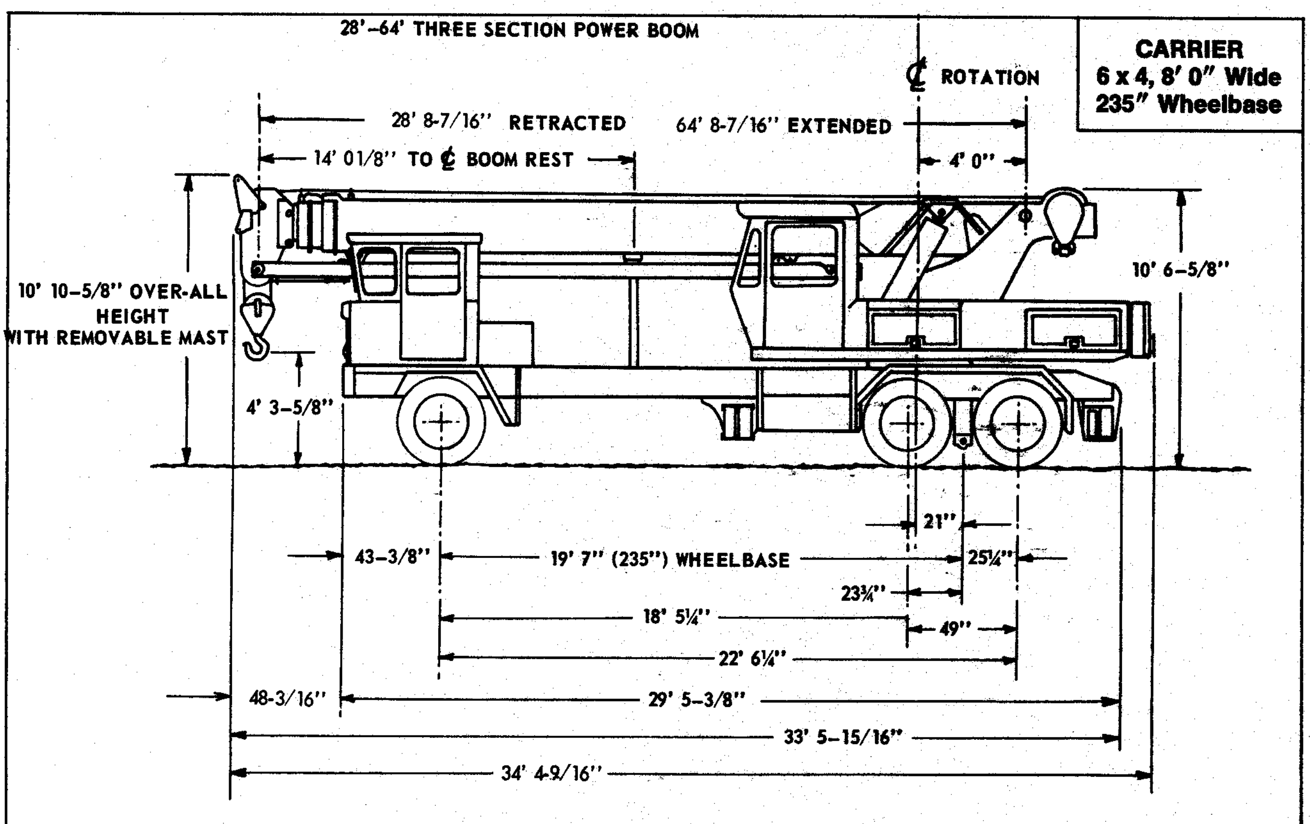
We are constantly improving our products and therefore reserve the right to change designs and specifications.

FMC

Link-Belt

HT-200

20-TON
CARRIER MOUNTED
HYDRAULIC CRANE



GENERAL DIMENSIONS

Over-all width, outriggers retracted	8' 0"
Over-all width, outriggers extended	14' 6"
Vehicle clearance circle — outside front bumper	107' 0"
Turning radius — C/L of outer front tire	51' 6"
Tailswing — across corners	9' 7"
Minimum ground clearance	9"

Three Section Power Boom Horizontal over Front End of Carrier①	Machine Over-all Length	Approx. Working Weight
Machine with std. 28'-64' power boom retracted	34' 4⁹⁄₁₆"	47,700#
.... with 28'-64' p. b. & opt. 18' section retracted	34' 9⁹⁄₁₆"	49,170#
.... with 28'-64' p. b. & opt. 18' section extended	88' 9⁹⁄₁₆"	49,170#
.... with 28'-64' p. b. & opt. 18' section retracted and opt. 22' 10" jib in stowed position	34' 9⁹⁄₁₆"	50,020#
.... with 28'-64' p. b. & opt. 18' section extended and opt. 22' 10" jib extended in operating position	111' 7³⁄₁₆"	50,020#

(p. b. — power boom)
① Includes 20-ton hook block.

Flysheet CRF 23019-12-73

Printed in U.S.A.

AXLE LOADS — (Approximate pounds)

235" Wheelbase Carrier 2,870# Ctwt. on Upper	Total Weight	Upper Facing Front		Upper Facing Rear	
		Front	Rear	Front	Rear
Machine equipped as follows:					
28'-64' power boom	47,380	15,740	31,640	9,550	37,830
28'-64' p. b. w/18' manual extension ①	48,850	16,870	31,980	8,740	40,110
28'-64' p. b. w/22' 10" jib ②	48,230	16,400	31,830	9,044	39,186
28'-64' p. b. w/18' manual extension & 22' 10" jib ③	49,700	17,530	32,170	8,234	41,446
Ctwt. removed from machine:					
28'-64' power boom	44,510	16,730	27,780	8,040	36,470
28'-64' p. b. w/18' manual extension ①	45,980	17,860	28,120	7,240	38,740
28'-64' p. b. w/22' 10" jib ②	45,360	17,390	27,970	7,544	37,816
28'-64' p. b. w/18' manual extension & 22' 10" jib ③	46,830	18,520	28,310	6,730	40,100
Adjust weights for these items:					
20-ton hook block at boompoint ①	+ 270	+ 375	− 105	− 326	+ 596
20-ton hook block tied off at bumper ①	+ 270	+ 350	− 80	− 100	+ 370
Optional equipment (heater, etc.)	+ 50	+ 16	+ 34	− 7	+ 57

(p. b. — power boom)
① Based on 18' manual extension retracted.
② Based on 22' 10" jib in stowed position.
③ Based on 18' manual extension retracted and jib in stowed position.

GENERAL SPECIFICATIONS

CARRIER—

CARRIER — 6 x 4, 8' 0" wide, C.C.C.

FRAME — All welded construction; fabricated box section between front and rear outrigger locations. Inner race of turntable bearing welded to carrier frame, formed channel bumper, front and rear outrigger boxes welded to carrier frame.

AXLES —
Front — Rockwell FL-901, 81$\frac{5}{16}$" track.
Rear — Rockwell SLHD, 71½" track. 6.167 to 1.0 ratio.

BRAKES — Six wheel air, 15" x 5" front, 16½" x 5" rear; 938 sq. in. lining area.
Compressor — Air, 12 cu. ft. Bendix-Westinghouse, gear driven, cooled and lubricated from carrier engine.

SUSPENSION —
Front axle — 10 leaf spring, semi-elliptical with leaf overload spring.
Rear axles — Bronze bushed (C.C.C.) bogie with torque rods.

INTER-AXLE DIFFERENTIAL — Standard equipment.

EMERGENCY AND PARKING BRAKES — Air; Maxi type 24 with heavy duty springs.

WHEELS — Gunite cast spoke.

TIRES AND RIMS —
Front — 15:00 x 22.5-H (16-ply), highway tread.
Rear — 10:00 x 20-F (12-ply), military type non-directional tread.

STEERING — Ross #TE-71 power hydraulic, 21" dia. wheel.

OUTRIGGERS — Power hydraulic beams and jacks. Beam and jack controls located at crane operator's position in upper cab — standard; ground controls for beams and jacks mounted on carrier — optional. Check valve in each jack cylinder. Hydraulic power supplied by carrier engine-driven pump.
Floats — 22" square base aluminum.

ENGINE — Diesel.

	GM6V-53N
Cylinders — Cycle	6 — 2
Bore — Stroke	3⅞" — 4½"
Displacement	318 cu. in.
Max. brake h.p.	202 @ 2,800 r.p.m.
Peak torque	446 ft. lbs. @ 1,500 r.p.m.
Crankcase capacity	18 qts.
Air compressor	12 c.f.m.
Air cleaner	Dry type

CLUTCH — Rockford 14" dia., spring loaded, single plate, dry disc.

UNIVERSALS — Mechanics needle bearing.

TRANSMISSIONS —
Main — Fuller #RT-610, 10 speeds forward, 2 reverse.
Auxiliary — Fuller #2A-92, 2 speed.

SPEEDS — (M.P.H.) Based on GM6V-53N diesel engine; full load speed — 2,500 r.p.m.

MAIN TRANSMISSION FULLER #RT-610			AUX. TRANSMISSION FULLER #2A92	
			1.00:1.00	2.30:1.00
HIGH	10th	1.00	47.30	20.56
	9th	1.24	38.14	16.58
	8th	1.60	29.56	12.85
	7th	2.05	23.07	10.03
	6th	2.62	18.05	7.85
	Reverse	2.77	17.07	7.42
LOW	5th	3.43	13.79	6.00
	4th	4.26	11.10	4.83
	3rd	5.48	8.63	3.75
	2nd	7.02	6.74	2.93
	1st	9.00	5.23	2.27
	Reverse	9.50	4.98	2.16

Peak torque @ 1,500 r.p.m.

Creep Speeds — (Based on peak torque r.p.m.) Low, low — 1.37 m.p.h.; Low, reverse — 1.30 m.p.h.

ELECTRICAL SYSTEM — One 12-volt battery and 12-volt alternator. Four sealed beam headlights, directional signals, stop and tail lights, horn, windshield wiper, cab top and side clearance lights, 4-point emergency flasher lights, and back-up lights.

CAB — One-man, offset, fully enclosed. Instrument panel with speedometer, odometer, tachometer, ammeter, low air pressure warning buzzer, throttle control, and push button starting switch. Gauges for oil and air pressure, fuel, and engine temperature. Safety switch to prevent starting carrier engine if main transmission is not in neutral. Bostrom "T-bar" seat, seat belt, fire extinguisher, heater, fan-type defroster, air windshield wiper, windshield washer, cigar lighter, ashtray, electric horn, rolled and pleated upholstery, floor carpet, and foot accelerator pedal.

STANDARD AUXILIARY EQUIPMENT — Bubble-type levals on carrier, bus-type rear view mirrors, rear fenders, back-up alarm, step and hand grab rail, access ladder to carrier deck, and skid-resistant finish on carrier deck.

Fuel Tank — 60-gallon capacity.

Hydraulic Oil Reservoir — 70-gallon capacity; for crane upper and carrier control systems.

UPPER

UPPER REVOLVING FRAME — All-welded, stress relieved and jig line bored. Boomfoot pinned in line bores.

Hydraulic System — Consists of wire rope hoist hydraulic motor, swing hydraulic motor, hydraulic cylinders, one 3-spool main control valve, one single-spool control valve, holding valves, tandem gear pump, oil cooler, and oil reservoir.

Oil Capacity — 200 gallons; for boomhoist, swing, and load handling circuits.

Pump — Tandem gear; powered by drive shaft from front of carrier engine — 89 g.p.m. @ 2,200 p.s.i. 65 g.p.m. section for boomhoist, wire rope hoist, and boom extend/retract; 24 g.p.m. section for swing.

Oil Cooler — Mounted in front of carrier engine to maintain proper oil temperature in hydraulic system.

Holding Valves — Provide automatic locking feature to hold boomhoist, load, and extended boom sections against gravity. Also allows controlled lowering of boom and loads, and controlled retraction of extended boom sections.

Turntable Bearing With Integral Swing Gear — Ball bearing type; inner race with integral 96-tooth swing gear machined into it, mounts on carrier. Outer race bolted to upper revolving frame. Bearing has its own seal to retain lubricant and exclude dirt. Nominal pitch diameter of bearing, 38.4".

Counterweight — 2,870 lbs. fabricated steel, bolted in position at rear of upper revolving frame.

BOOM SUPPORT — All-welded, stress relieved and jig line bored.

SWING SYSTEM — 360° rotation, right or left. Single section, hydraulic gear-type swing motor; flange-mounted to FMC speed reducer (interchangeable with load hoist system speed reducer.)

Speed Reducer — FMC; three shaft, spur gear; anti-friction bearings throughout.

Swing Pinion — Heat treated, machine-cut teeth.

Swing Brake — Two-shoe, external contracting, manually controlled.

Swing Lock — Pawl-type, manually controlled; locks into teeth of ring (swing) gear.

Swing Speed — 3.0 r.p.m.

ATTACHMENT

BOOM — Fabricated, box-type; high-strength, low alloy steel. Three section power boom with two double-acting (extend/retract) telescoping cylinders, boom rest, and boom angle indicator. Boom sections identified as follows — base section; boom lower section — #2; and boom tip section — #1.

Optional Boom Section — 18' long; section pins to, and is powered by, the #1 (tip) power boom section.

Boom Head Machinery — Gooseneck design to accommodate high boom angles without fouling wire rope load lines. Equipped with three load sheaves and one deflector sheave — all 11" pitch dia. and mounted on anti-friction bearings. Designed for use with one through six parts of line; equipped with wire rope deflectors and integrally welded eye for boom dead ending of two, four, or six parts of line.

Boomhoist Cylinders — Two double-acting hydraulic cylinders with integral check valves; check valves prevent boom creeping down under load. Self-aligning steel bushings in each cylinder end. Cylinder bore — 10" dia.; rod dia. — $4^1/_2$"; stroke — $45^1/_4$".

Boom Speeds — Boomhoist to 75°, 27.5 seconds. Boom extend — 69 f.p.m.; retract — 44 f.p.m.

Boom Angle Indicator — Electric. Boom angle pendulum sensor mounts on boom; read-out control panel mounted in crane cab. Sensor and control panel both mounted in waterproof cases. Control panel equipped with buzzer and hooded red warning light, hooded panel light (with on-off switch) for night or dark day operation, and red test button. When used in conjunction with machine's crane lifting charts, operator can set rated load and radius points (by calibrated knobs on control panel) for given load to be handled.

Hoist Rope Guide Rollers — Two furnished; one at top end of boom base section; one at top end of #2 power boom section.

Hook Block — Optional.

BOOM TELESCOPE SYSTEM — FMC exclusive design. Three-section power hydraulic boom telescopes via two double-acting cylinders — mounted one above the other within the boom. The lower cylinder **rod end** is pinned to the boom base section and its **cylinder** is pinned to the top end of the #2 boom section. The upper **cylinder rod end** is pinned to the lower end of the #2 boom section and its **cylinder** is pinned to the lower end of the #1 (tip) boom section. The rods remain stationary, the cylinders extend and retract the power boom sections — eliminates need for long hoses and hose reels. System allows the #1 (tip) section to extend completely before the #2 section starts to extend; this is accomplished by means of a locking pawl which unlatches at the end of the boom tip section stroke. When pawl is unlatched, #2 section can then be extended completely. When retracting the boom, mechanically actuated check/sequencing valves hold each power boom section in such a manner that sections retract in reverse order. Design maintains the boom center of gravity close to the centerline of rotation for optimum stability.

Interlock — To extend boom, operator must simultaneously actuate the load hoist mechanism, thus releasing the hoist drum brake and paying out the hoist rope, to prevent "two blocking" the hook block against boom head. Boom retract is independent of the interlock.

JIB — Fabricated, channel lattice construction, 22′ 10″ long, self-storing underneath boom. Equipped with single sheave, 11″ pitch dia., mounted on anti-friction bearings. Jib load hoist system utilizes same system as crane load hoist. Weighted ball optional.

LOAD HANDLING SYSTEM — Consists of control valve, hydraulic gear motor, spur gear speed reducer, automatic brake, wire rope drum with rope, and holding valve. Hydraulic power circuit controlled manually through mechanical linkage to control valve. Automatic holding valve in circuit permits controlled lowering of overhauling loads.

Hoist Motor — Hydraulic gear type, flange mounted to speed reducer.

Speed Reducer — FMC spur gear reducer (interchangeable with swing system speed reducer), anti-friction bearings throughout; splined on wire rope drum shaft.

Hoist Brake — Two-shoe external contracting, automatically spring applied and hydraulically released when load hoist control valve is actuated. Brake drum splined on speed reducer input shaft.

Wire Rope Drum — 12″ pitch dia., 18½″ wide, smooth, involute splined to shaft; shaft mounted on anti-friction bearings. Drum capacity — four layers ½″ dia. wire rope, total 516′.

Drum Rotation Indicator — Standard; dial indicator, mounted on right front control panel, is actuated by flexible shaft drive attached to end of drum shaft.

Wire Rope — Type "N", 6 x 25 (6 x 19 class) filler wire, extra improved plow steel, preformed, independent wire rope center, right lay, regular lay. (Standard with basic machine — main load hoist rope only.)

Line Speed and Pull — Available single line pull, not based on wire rope strength.
First layer wire rope — 7,840# pull @ 242 f.p.m.
Fourth layer wire rope — 6,270# pull @ 303 f.p.m.

HT-200 MAXIMUM LIFTING CRANE CAPACITIES — Pounds

PCSA Class 10-56

Refer to ALL notes on page 6.

Based on machine equipped with GM6V-53N diesel engine and 2,870# upper ctwt.; mounted on C.C.C. 6 x 4, 235″ wheel-base carrier, 8′ 0″ wide, with 15:00 x 22.5-H (16-ply) rating front tires and 10:00 x 20-F (12-ply) rating rear tires.

BASIC 28′ - 64′ POWER BOOM

Load Radius	Boom Length (Feet)	Boom Angle (Degree)	On Outriggers Rear	On Outriggers Side	[redacted]
10′	28.7	66.2	40,000*	40,000*	
	30	68.3	40,000*	40,000*	
	35	72.0	40,000*	40,000*	
	40	74.6	40,000*	40,000*	
11′	28.7	63.9	40,000*	40,000*	
	30	66.2	40,000*	40,000*	
	35	70.2	40,000*	40,000*	
	40	73.1	40,000*	40,000*	
12′	28.7	61.5	38,000*	38,000*	
	30	63.9	38,100*	38,100*	
	35	68.4	38,400*	38,400*	
	40	71.5	38,600*	38,600*	
	46.7	74.6	32,000*	32,000*	
13′	28.7	59.2	35,100*	35,100*	
	30	61.7	35,100*	35,100*	
	35	66.5	35,400*	35,400*	
	40	70.0	35,600*	35,600*	
	46.7	73.3	30,400*	30,400*	
14′	28.7	56.6	32,500*	32,500*	
	30	59.4	32,600*	32,600*	
	35	64.7	32,900*	32,900*	
	40	68.4	33,100*	33,100*	
	46.7	72.0	29,000*	29,000*	
	50	74.4	30,500*	30,500*	
15′	28.7	54.0	30,200*	30,200*	
	30	56.9	30,300*	30,300*	
	35	62.7	30,600*	30,600*	
	40	66.7	30,800*	30,800*	
	46.7	70.6	27,600*	27,600*	
	50	73.1	29,100*	29,100*	
	55	75.0	29,500*	29,500*	
20′	28.7	38.9	22,100*	19,700	
	30	43.2	22,200*	19,900	
	35	52.3	22,500*	20,300	
	40	58.2	22,700*	20,600	
	46.7	63.7	22,000*	20,900	
	50	66.8	22,800*	20,700	
	55	69.4	22,600*	20,500	
	60	71.5	20,900*	20,300	
	64.7	73.1	19,400*	19,400*	
25′	30	21.5	16,700*	12,900	
	35	39.7	17,100*	13,300	
	40	48.7	17,300*	13,600	
	46.7	56.3	17,600*	13,900	
	50	60.0	17,400*	13,700	
	55	63.4	17,300*	13,500	
	60	66.1	16,700*	13,300	
	64.7	68.3	15,400*	13,200	
30′	35	19.7	13,300*	9,400	
	40	37.0	13,500*	9,700	
	46.7	48.0	13,800*	10,000	
	50	52.6	13,600*	9,800	
	55	57.1	13,500*	9,600	
	60	60.5	13,300*	9,500	
	64.7	63.2	12,600*	9,300	
35′	40	18.3	10,800*	7,200	
	46.7	38.1	11,100*	7,400	
	50	44.2	11,000*	7,300	
	55	50.1	10,800*	7,100	
	60	54.5	10,600*	7,000	
	64.7	57.8	10,500*	6,900	
40′	46.7	24.5	9,100*	5,700	
	50	33.9	9,000*	5,600	
	55	42.1	8,800*	5,400	
	60	47.9	8,700*	5,200	
	64.7	52.1	8,600*	5,100	
45′	50	17.2	7,500*	4,300	
	55	32.3	7,300*	4,100	
	60	40.3	7,100*	4,000	
	64.7	45.7	7,000*	3,900	
50′	55	16.4	6,100*	3,100	
	60	30.9	5,900*	3,000	
	64.7	38.4	5,800*	2,900	
55′	60	15.7	5,000*	2,200	
	64.7	29.2	4,800*	2,100	
60′	64.7	13.7	4,000*	—	

28′ - 64′ POWER BOOM WITH OPTIONAL 18′ SECTION RETRACTED

Load Radius	Boom Length (Feet)	Boom Angle (Degree)	On Outriggers Rear	On Outriggers Side	[redacted]
10′	29.2	66.6	40,000*	40,000*	
	35	72.0	40,000*	40,000*	
	40	74.6	40,000*	40,000*	
11′	29.2	64.4	40,000*	40,000*	
	35	70.2	40,000*	40,000*	
	40	73.1	40,000*	40,000*	
12′	29.2	62.0	37,400*	37,400*	
	35	68.4	37,600*	37,600*	
	40	71.5	37,800*	37,800*	
	47.2	74.8	32,500*	32,500*	
13′	29.2	59.7	34,400*	34,400*	
	35	66.5	34,700*	34,700*	
	40	70	34,800*	34,800*	
	47.2	73.5	30,800*	30,800*	
14′	29.2	57.2	31,900*	31,900*	
	35	64.7	32,100*	32,100*	
	40	68.4	32,200*	32,200*	
	47.2	72.2	29,300*	29,300*	
	50	74.4	30,600*	30,600*	
15′	29.2	64.7	29,600*	29,600*	
	35	62.7	29,800*	29,800*	
	40	66.7	30,000*	30,000*	
	47.2	70.8	27,800*	27,800*	
	50	73.1	29,200*	29,200*	
	55	75.0	28,900*	28,900*	
20′	29.2	40.0	21,400*	19,600	
	35	52.3	21,700*	20,000	
	40	58.2	21,800*	20,200	
	47.2	64.0	21,900*	20,400	
	50	66.8	21,800*	20,200	
	55	69.4	21,600*	19,900	
	60	71.5	20,200*	19,700	
	65.2	73.3	18,500*	18,500*	
25′	29.2	12.4	16,000*	12,500	
	35	39.7	16,400*	12,900	
	40	48.7	16,500*	13,100	
	47.2	56.7	16,700*	13,300	
	50	60.0	16,500*	13,100	
	55	63.4	16,300*	12,800	
	60	66.1	16,000*	12,600	
	65.2	68.4	14,600*	12,500	
30′	35	19.7	12,500*	8,900	
	40	37.0	12,700*	9,100	
	47.2	48.5	12,800*	9,300	
	50	52.6	12,700*	9,100	
	55	57.1	12,500*	8,900	
	60	60.5	12,300*	8,700	
	65.2	63.4	11,700*	8,500	
35′	40	18.3	10,000*	6,500	
	47.2	38.9	10,100*	6,700	
	50	44.2	10,000*	6,500	
	55	50.1	9,800*	6,400	
	60	54.5	9,600*	6,200	
	65.2	58.1	9,500*	6,000	
40′	47.2	25.8	8,100*	4,900	
	50	33.9	8,000*	4,800	
	55	42.1	7,800*	4,600	
	60	47.9	7,600*	4,400	
	65.2	52.4	7,500*	4,300	
45′	50	17.2	6,500*	3,500	
	55	32.3	6,300*	3,300	
	60	40.3	6,100*	3,100	
	65.2	46.1	5,900*	3,000	
50′	55	16.4	5,000*	2,300	
	60	30.9	4,900*	2,100	
	65.2	38.9	4,700*	2,000	
55′	60	15.7	3,900*	—	
	65.2	30.0	3,700*	—	
60′	65.2	15.8	2,900*	—	

(continued on page 6)

28′ - 64′ POWER BOOM WITH OPTIONAL 18′ SECTION EXTENDED

Load Radius	Boom Length (Feet)	Boom Angle (Degree)	ON OUTRIGGERS Rear	ON OUTRIGGERS Side	[redacted]
[illegible]	47.2	74.8	28,700*	28,700*	
13′	47.2	73.5	27,400*	27,400*	
14′	47.2	72.2	26,100*	26,100*	
	50	74.4	27,200*	27,200*	
15′	47.2	70.8	24,900*	24,900*	
	50	73.1	26,000*	26,000*	
	55	75.0	23,200*	23,200*	
20′	47.2	64.0	19,900*	19,900*	
	50	66.8	20,800*	20,800*	
	55	69.4	18,200*	18,200*	
	60	71.4	16,600*	16,600*	
	65.2	73.3	15,400*	15,400*	
25′	47.2	56.7	16,400*	14,400	
	50	60.0	17,200*	14,400	
	55	63.4	14,900*	14,400	
	60	66.1	13,500*	13,500*	
	65.2	68.4	12,400*	12,400*	
	70	71.3	13,100*	13,100*	
	75	72.9	13,800*	13,800*	
	83.2	74.3	12,400*	12,400*	
30′	47.2	48.5	13,900*	10,400	
	50	52.6	13,900*	10,400	
	55	57.1	12,400*	10,300	
	60	60.5	11,200*	10,300	
	65.2	63.4	10,200*	10,200*	
	70	66.7	10,900*	10,100	
	75	68.7	11,200*	9,800	
	83.2	71.3	10,000*	9,500	
35′	47.2	38.9	11,200*	7,800	
	50	44.2	11,200*	7,700	
	55	50.1	10,600*	7,700	
	60	54.5	9,400*	7,700	
	65.2	58.1	8,500*	7,700	
	70	61.9	9,100*	7,500	
	75	64.3	9,200*	7,300	
	83.2	67.5	8,200*	6,900	

Load Radius	Boom Length (Feet)	Boom Angle (Degree)	ON OUTRIGGERS Rear	ON OUTRIGGERS Side	[redacted]
40′	47.2	25.8	9,100*	5,900	
	50	33.9	9,100*	5,900	
	55	42.1	9,100*	5,900	
	60	47.9	8,100*	5,900	
	65.2	52.4	7,300*	5,900	
	70	56.8	7,800*	5,700	
	75	59.7	7,800*	5,500	
	83.2	63.5	6,800*	5,200	
45′	50	17.2	7,600*	4,600	
	55	32.3	7,600*	4,600	
	60	40.3	7,000*	4,600	
	65.2	46.1	6,300*	4,600	
	70	51.3	6,700*	4,400	
	75	54.8	6,600*	4,100	
	83.2	59.4	5,700*	3,900	
50′	55	16.4	6,400*	3,600	
	60	30.9	6,200*	3,600	
	65.2	38.9	5,500*	3,600	
	70	45.3	5,900*	3,300	
	75	49.6	5,700*	3,100	
	83.2	55.0	4,900*	2,900	
55′	60	15.7	5,400*	2,800	
	65.2	30.0	4,800*	2,800	
	70	38.3	5,100*	2,500	
	75	43.8	4,800*	2,300	
	83.2	50.3	4,100*	2,100	
60′	65.2	15.8	4,200*	2,100	
	70	29.7	4,300*	—	
	75	37.1	4,100*	—	
	83.2	45.1	3,600*	—	
65′	70	15.6	3,600*	—	
	75	28.7	3,400*	—	
	83.2	39.4	3,100*	—	
70′	75	15.1	2,800*	—	
	83.2	32.6	2,500*	—	
75′	80	14.7	2,100*	—	
	83.2	23.7	2,000*	—	

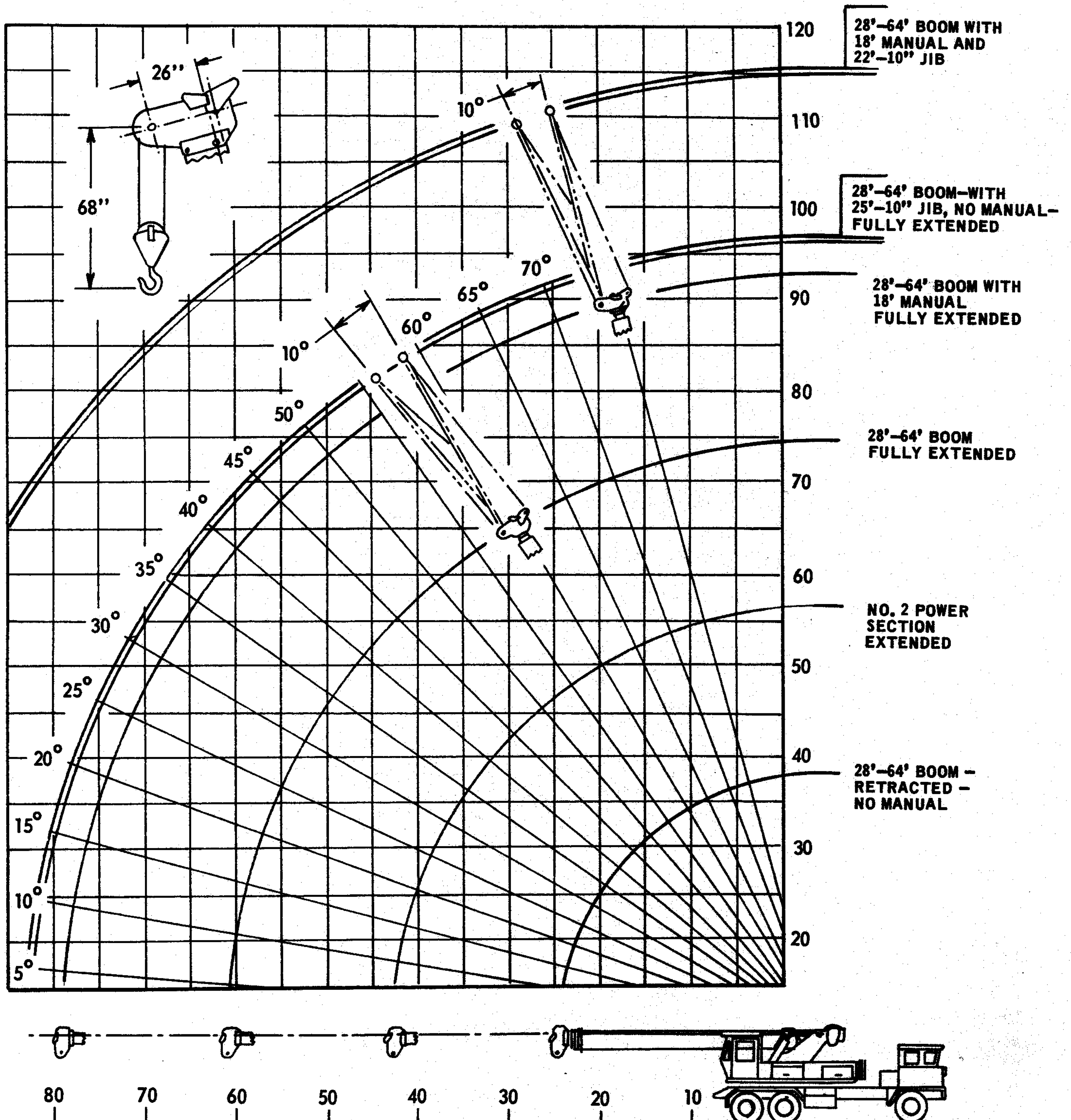
Ⓐ Static capacities are defined as loads handled without machine travel or with travel at creeping speeds only.

NOTES — Lifting Crane Capacities

1. Capacities shown are in pounds and, unless indicated by an asterisk (*), do not exceed 85% of minimum tipping loads — with machine standing level on firm supporting surface under ideal job conditions. Deductions from the lifting crane capacities must be made for weight of hook block, hook, sling, spreader bar, or other suspended gear.
   a. Asterisk indicates capacities are based on factors other than those which would cause a tipping condition.
2. Capacities are based on freely suspended loads and make no allowance for such factors as the effect of wind, supporting surface conditions, inflation of tires, and operating speeds. Operator must reduce load ratings accordingly in order to take such conditions into account.
3. The least stable **rated** working area on outriggers and on tires is over the side. The least stable working area on outriggers is over the front but working in this area is not recommended unless capacities are published on this chart.
4. For lifting 40,000#, 6 parts of ½" Type "N" wire rope are required.
5. For capacities of intermediate boom lengths not shown, use the capacity for the next shorter or longer boom length — whichever is the lesser capacity.
6. Operating machine at radii, or with boom lengths at or beyond where capacity chart shows no capacity, is not recommended — machine can overturn without any load on hook.
7. The maximum load with which boom can be extended or retracted is not definable. When extending a boom with load on hook, care must be taken to avoid moving load to radii where it becomes an overload — machine may overturn if this occurs.
8. When handling load off main boom, deduct 1,200# from crane capacities if jib is mounted on boom in working position. Deduct 550# if jib is mounted in stowed position on boom.
9. Boom angles take into account boom deflection under rated loads at listed load radii.
10. Capacities apply only to machine as originally manufactured and normally equipped by FMC Corporation, Crane & Excavator Division.

HT-200 WORKING RANGES –

Boom and jib geometry shown for an UNLOADED condition with machine standing level on firm supporting surface. Boom deflection and subsequent radius and boom angle change must be accounted for when applying load to hook.



NOTE — Vertical heights are measured from ground line.

28' - 64' POWER BOOM		
BOOM CONDITIONS	**BOOM RETRACTED**	**BOOM EXTENDED**
Horizontal boom range from centerline of rotation without optional 18' section	24'-7¹³⁄₁₆"	60'-8¹³⁄₁₆"
Horizontal boom range from centerline of rotation with optional 18' section	25'-0¹³⁄₁₆"	79'-1¹³⁄₁₆"

HT-200 MAXIMUM JIB CAPACITIES – 22' 10" JIB

Refer to ALL notes below.

Maximum allowable capacities (shown in pounds) for machine equipped with 28'-64' power boom with or without opt. 18' manual boom section.

MAXIMUM ALLOWABLE RADIUS IN FEET	MINIMUM PERMISSIBLE BOOM ANGLE	LOAD WITH NO OFFSET	LOAD WITH 10° OFFSET
20	75°	8,400	5,800
25	72.5°	7,300	5,400
30	70°	6,200	5,000
35	67.5°	5,700	4,600
40	65°	5,300	4,300
45	60°	5,000	3,900
50	55°	4,100	3,400
55	50°	3,400	3,100
60	45°	2,900	2,800
65	40°	2,500	2,400
70	35°	2,200	2,100
75	30°	1,900	1,900

NOTES — Jib Lifting Capacities

1. Capacities shown are in pounds — with machine standing level on firm supporting surface under ideal job conditions.
2. Jib stops must be in operating position when using jib.
3. Jib offset from boom must not exceed 10°.
4. To determine the permissible maximum operating radius for a given load on the jib, use the following procedure:
   a. Determining total load — load plus hook block, hook with weighted ball, sling, spreader bar, or any other load handling gear.
   b. Check above jib capacity chart to determine allowable operating radius and minimum permissible boom angle at which this total load can be handled.

   NOTE — The boom/jib combination may be positioned at a boom angle greater than that found in step "b" above, but it **must not** be positioned at a boom angle less than that found in step "b" above — when handling the total load determined by step "a" above.

   c. Total load handled on jib must also not exceed the maximum capacity of the total machine. To determine the total machine maximum capacity when handling load on jib, refer to the appropriate column of the machine's maximum allowable lifting crane capacity chart. At the load radius found in "b" above, select the capacity listed for the maximum boom length. Reduce this capacity by 1,200# to compensate for the jib weight. If this value is equal to or greater than the total load determined in "a" above, load is within machine's rated capacity. If the value found is less than total load determined in "a" above, load or radius must be reduced to avoid exceeding machine's rated capacity.
5. Boom angles take into account boom deflection under rated loads at listed load radii.
6. Capacities apply only to machine as originally manufactured and normally equipped by FMC Corporation, Crane & Excavator Division.

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

FMC
FMC Corporation
Crane and Excavator Division
Cedar Rapids Iowa 52406

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May 10, 1972

FMC CORPORATION

LINK-BELT SPEEDER DIVISION

HT-200 AXLE LOADINGS

192" Wheelbase Carrier 3,850# Ctwt. on Upper	Total Weight	Upper Facing Front		Upper Facing Rear	
		Front	Rear	Front	Rear
Machine equipped as follows:					
28'--64' power boom	47,740#	16,450#	31,290#	10,040#	37,700#
28'--64' power boom w/18' M.E.	49,210	17,770	31,440	9,040	40,170
28'--64' power boom w/22' jib	48,680	17,370	31,310	9,330	39,350
28'--64' power boom w/18' M.E. & 22' jib	50,150	18,690	31,460	8,330	41,820
Counterweight removed from machine:					
28'--64' power boom	43,890#	18,050#	25,840#	7,590#	36,300#
28'--64' power boom w/18' M.E.	45,360	19,370	25,990	6,590	38,770
28'--64' power boom w/22' jib	44,830	18,970	25,860	6,880	37,950
28'--64' power boom w/18' M.E. & 22' jib	46,300	20,290	26,010	5,880	40,420
Adjust weights for these items:					
20-ton hook block at boompoint	+ 270#	+ 450#	- 180#	- 400#	+ 670#
20-ton hook block tied off at bumper	+ 270	+ 370	- 100	- 120	+ 390
Optional equipment (heater, etc.)	+ 50	+ 20	+ 30	- 10	+ 60

(M.E.--manual extension)

Figures based on manual extension retracted and jib in stowed position.

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