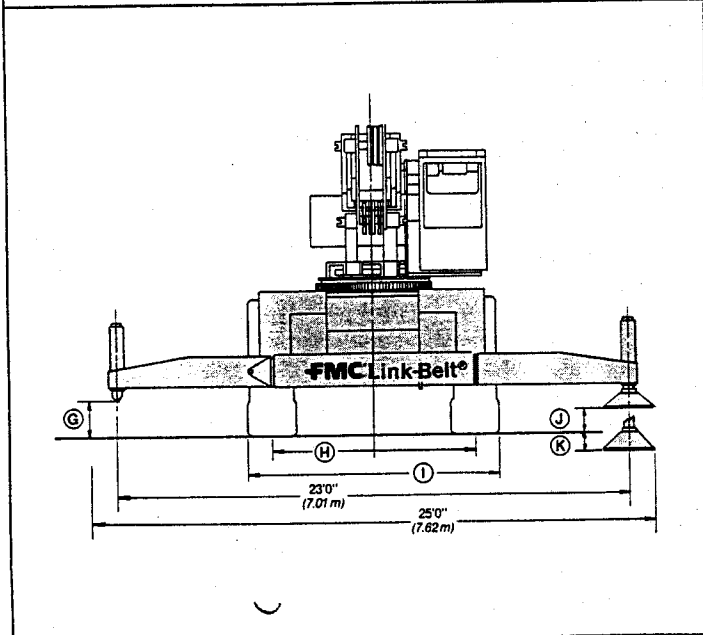
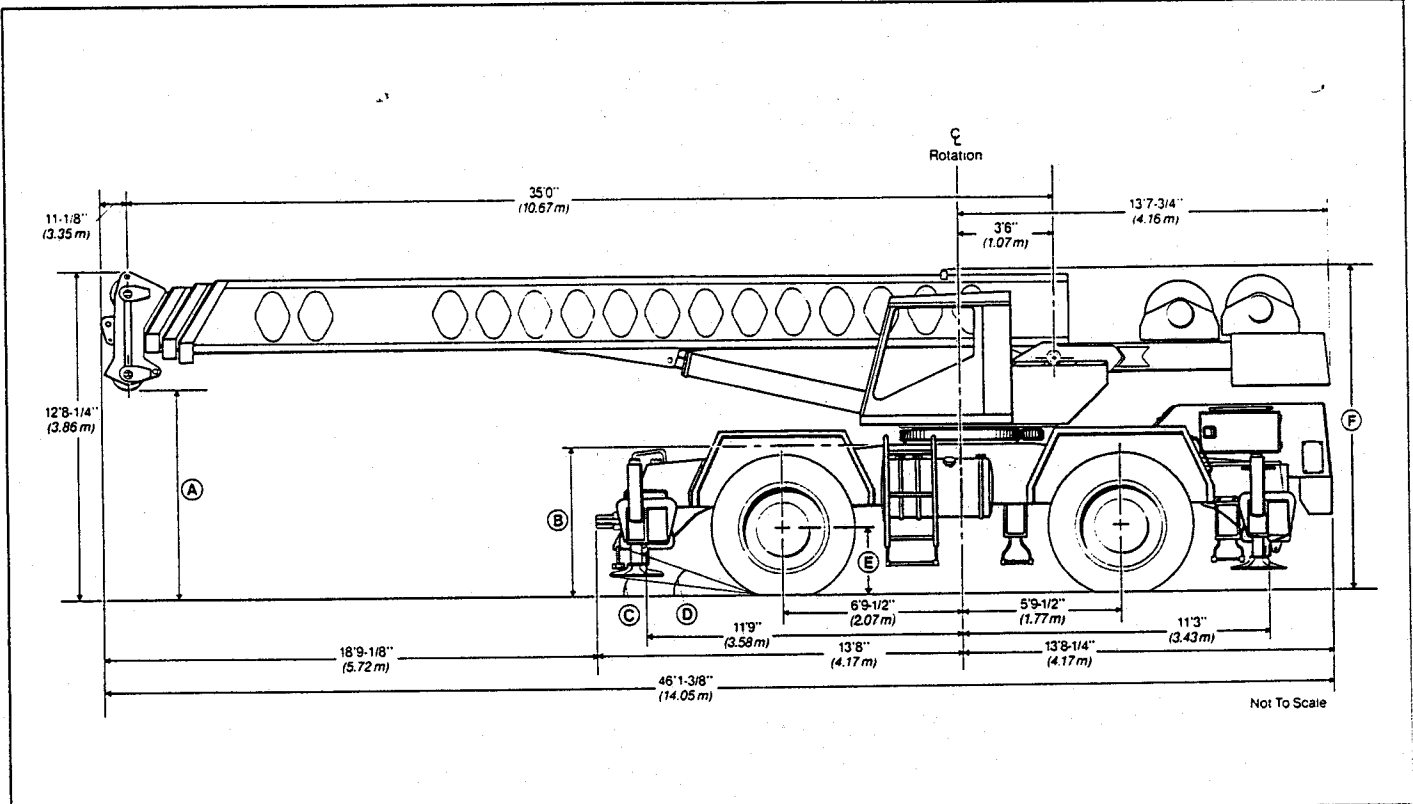


# General Specifications

Link-Belt®

*Eighty Series* Hydraulic Rough Terrain Crane

**HSP-8055** 55-ton (50 metric ton)



General dimensions	Feet	meters
Turning radius (4-wheel steer)	25'	7.62
Tailswing of counterweight	14'1/8"	4.27

**Dimensions affected by tires**

Tires	29.5 x 25 (22-PR)	
	Feet	meters
A	7'10-3/4"	2.41
B	5'11"	1.80
C	10.97°	—
D	24.5°	—
E	2'8"	.81
F	12'4"	3.76
G	1'9-5/16"	0.54
H	8'2-1/2"	2.50
I	10'9-1/2"	3.28
J	11-5/16"	.29
K	7-9/32"	.18

## Upperstructure



Boom

FMC patented design 35'0"-110' (10.67-33.53m) four section boom consisting of a base section, two power sections and a manual section. Boom side plates have diamond-shaped impressions for superior strength-to-weight ratio and 100,000 p.s.i. (689.5 MPa) steel angle chords for lateral stiffness. Boom telescope sections are supported by wear shoes both vertically and horizontally.

**Boom head** — Four or optional five, 16-3/8" (0.42m) root diameter head sheaves handle up to 10 parts of wire rope. Two easily removable wire rope guards; rope dead end lugs provided on each side of boom head.

**Auxiliary lifting sheave** — Optional. Single 16-3/8" (0.42m) root diameter head sheave with removable wire rope guard, mounted to boom, for use with one or two parts of line off the optional auxiliary winch. Does not affect erection of fly or jib, or use of main head sheave for multiple reeving.

**Boom elevation** — Two FMC designed hydraulic cylinders with holding valves. Self-aligning steel bushings. Hand and optional foot controls for controlling the 4-section boom elevation from -3° to 78°. Boom angle indicator is standard.

### Fly

Optional. 33'0" (10.06m) stowable one-piece lattice type.

### Jib

Optional. 25'0" (7.62m) stowable A-frame which can be offset 5°, 17.5°, and 30°. Attaches to fly only.



Cab and Controls

Environmental cab; isolated from sound and vibration by a neoprene seal. All windows are tinted and tempered safety glass. Sliding rear window and swing up roof window for maximum visibility and ventilation. Slide-by-door opens to 36" (0.92m) width. 6-way adjustable operator's seat. 4-way adjustable tilt/telescoping steering wheel. Control levers for swing, boom telescope, winch and boom hoist with foot control swing brake. Outrigger controls, sight level bubble. Optional foot control for boom hoist.

**Cab instrumentation** — Dash mounted gauges for hydraulic oil temperature, converter temperature, oil pressure, water temperature, fuel and voltmeter.



Swing

Bi-directional hydraulic swing motor mounted to a planetary reducer for 360° continuous smooth swing at 2.45 r.p.m.

**Swing brake** — Standard, manually applied, spring released, disc brake mounted on the speed reducer.

**Swing lock** — Standard 360° position and a two-position travel lock operated from the operator's cab.

**Counterweight** — Pinned to upperstructure frame.



Hydraulic system

**Main pump** — Tandem, triple gear-type pump. Powered by torque converter through a pump disconnect. Pump disconnect is a jaw-type clutch engaged/disengaged from carrier.

**Steering/outrigger pump** — Single gear-type pump. Powered by torque converter through a straight mechanical drive. Pump operates at 2,700 p.s.i. (186.25 bars).

**Reservoir** — FMC 140 gallon (530.0 L) capacity. Diffusers for deaeration.

**Filtration** — One two-micron filter located inside of the hydraulic reservoir. Accessible for easy replacement.

**Control valves** — Six separate control valves allow simultaneous operation of all crane functions.



Load hoist system

**Standard:** Model 2M17 rear winch with two-speed motor and automatic brake; power up/power down mode of operation. Bi-directional gear type hydraulic motor.

**Optional:** Model 2M17 front winch with two-speed motor and automatic brake, power up/power down mode of operation. Bi-directional, gear-type hydraulic motor.

**Optional:** Model 3M17 winch with power up/power down, two-speed motor and exclusive FMC controlled true gravity free fall. Available on rear winch only.

**Line pulls and speeds** — Maximum permissible line pull 14,430 lbs. (6546 kg) and maximum line speed 548 f.p.m. (167.03 m/min.) on 17" (0.43m) root diameter standard smooth or optional grooved drum.

**Optional upperstructure equipment**  
Electronic boom angle and boom length indicator, boom hoist foot control, propane heater, diesel heater, air conditioning, rear view mirrors, seat belt, warning horn, two-speed auxiliary winch, free fall on main winch, drum rotation indicators, 55-ton (50.0 metric ton) hook block, 8½-ton (7.71 metric ton) hook ball and swivel, anti-two block, low oil pressure/high water temperature alarm, load moment device, back-up alarm, rear steer indicator, two single sealed beam headlights, front and rear directional signals, stop and tail lights, boom-mounted working light.

# Chassis



## Type

FMC 10'9½ (3.29m) wide, 151" (3.84m) wheelbase.

4x4x4 - (4-wheel steer, 4-wheel drive) Standard; for rough terrain with limited turning area.

4x4x4 - (4-wheel steer, 4-wheel drive) Optional; no-spin differential on front axle; for rough terrain with limited turning area.

Frame — FMC designed, 100,000 p.s.i. (689.5 MPa) steel, double walled construction with integral 100,000 p.s.i. (689.5 MPa) steel outrigger boxes.



## Axles

Front-Standard; Rockwell heavy duty planetary drive/steer type.

Rear-Standard; Rockwell heavy duty planetary drive/steer type.

Front-Optional; heavy duty no-spin high traction differential, planetary drive/steer type.

## Suspension

Front axle — Rigid mounted to frame.

Rear axle — Pin-mounted on bronze bushings. Automatic hydraulic rear axle oscillation lockout cylinders engage when upperstructure rotates past 2-½° of centerline.

## Tires

Front and rear — Standard 29.50 x 25 (22-PR) Earthmover type.



## Brakes

Service — Air over hydraulic, drum-type brakes at each wheel end. Drum diameter 20¼" (0.51 m). Shoe width 4" (101.6 mm). Shoe area 171 sq. in. (1103.30 cm²) per wheel end.

Parking/emergency — Disc, caliper type spring applied, air released, fade resistant; cab controlled; mounted on front axle.

Steering — Hydraulic two wheel, four wheel and "crab" steering.

Transmission — Clark 3-speed, 2-range power shift transmission. Six speeds available forward and two speeds reverse. Front axle disconnect for 2 or 4-wheel drive control.



## Outriggers

Four hydraulic, beam and jack outriggers. Vertical jack cylinders equipped with integral holding valve. Beams extend to 23'0" (7.01 m) centerline-to-centerline and retract to within 10'9½" (3.29 m) overall width with floats stored. Equipped with stowable, lightweight 24" (0.61 m) diameter floats. Controls and sight level bubble located in upperstructure cab.

## Miscellaneous standard equipment

Skid resistant finish on all walking surfaces, fenders, reflectors, access steps and grab handles, hydraulic oil cooler, pontoon storage, reflectors, automatic front axle disconnect, pump disconnect.

## Optional chassis equipment

Towing shackles, ether injector, engine block heater, 24-volt start for G.M. engine, no-spin differential on front axle, spare tires and rims, pintle hook, jack cylinder hose covers, propane fired engine block heater, air dryer and emergency steering system.

## Travel Speeds and Gradeability

Engine	Tires	Maximum Speed		Gradeability at stall	Maximum tractive effort at stall		Gradeability at 1.0 m.p.h. (1.61 km/h)	Maximum tractive effort at 1.0 m.p.h. (1.61 km/h)	
		m.p.h.	Km/h		pounds	kilograms		pounds	kilograms
GM 6V53N	29.5x25	21	33.79	147%	76,177	34 553	59%	47,559	21 572
Cummins* V-555-C	29.5x25	21	33.79	120%	71,022	32 215	48.1%	40,825	18 518

Engine	GM6V53N	Cummins V-555-C
Cylinders - cycle	6 - 2	8 - 4
Bore	3-7/8" (98.43 mm)	4-5/8" (117.47 mm)
Stroke	4-1/2" (114.30 mm)	4-1/8" (104.78 mm)
Displacement	318 cu. in. (5 211 cm³)	555 cu. in. (9095 cm³)
Compression ratio	21 : 1	17 : 1
Maximum brake h.p.	205 at 2700 r.p.m.	201 at 2700 r.p.m.
Idle speed	500 r.p.m.	625 r.p.m.
Peak torque	445 ft. lbs.	414 ft. lbs.
Electrical system	12 volt negative ground	12 volt negative ground
Fuel capacity	100 gallons (378.5L)	100 gallons (378.54L)
Alternator	42 amp Delco	60 amp Delco
Crankcase capacity	18.4 quarts (17.41L)	24 quarts (22.71L)
Air Compressor	12 c.f.m. (0.34 m³/min)	13.2 c.f.m. (0.37 m³/min)

\*Optional equipment

## Axle loads 4-section boom

Base machine with standard 35' - 110' (10.67 - 33.53 m) 4-section boom. 600' (182.88 m) 3/4" (19 mm) wire rope, FMC 4 x 4 x 4 carrier with GM 6V-53N engine, 29.5 x 25 tires, front counterweight and rear counterweight	G.V.W.		Upper Facing Front				Upper Facing Rear			
			Front Axle		Rear Axle		Front Axle		Rear Axle	
	Lbs.	kgs.	Lbs.	kgs.	Lbs.	kgs.	Lbs.	kgs.	Lbs.	kgs.
	86,618	39,290	43,406	19,689	43,212	19,601	36,544	16,576	50,074	22,714
33' (10.06 m) lattice fly - stowed	+ 1,040	+ 472	+ 1,660	+ 753	- 620	- 281	- 703	- 319	+ 1,743	+ 791
Hook block at front bumper	+ 1,070	+ 485	+ 1,730	+ 785	- 660	- 299	+ 1,730	+ 785	- 660	- 299
Headache ball at front bumper	+ 325	+ 147	+ 525	+ 238	- 200	- 91	+ 525	+ 238	- 200	- 91
Auxiliary lifting sheave	+ 130	+ 59	+ 400	+ 181	- 270	- 122	- 280	- 127	+ 410	+ 186
25' (7.62 m) A-frame jib stowed	+ 1,130	+ 512	+ 1,440	+ 653	- 310	- 142	- 400	- 182	+ 1,530	+ 694

Adjust gross vehicle weight and axle loading according to components weight.

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

**FMC Corporation Construction Equipment Group Lexington Kentucky 40512**

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

