

GENERAL INFORMATION ONLY

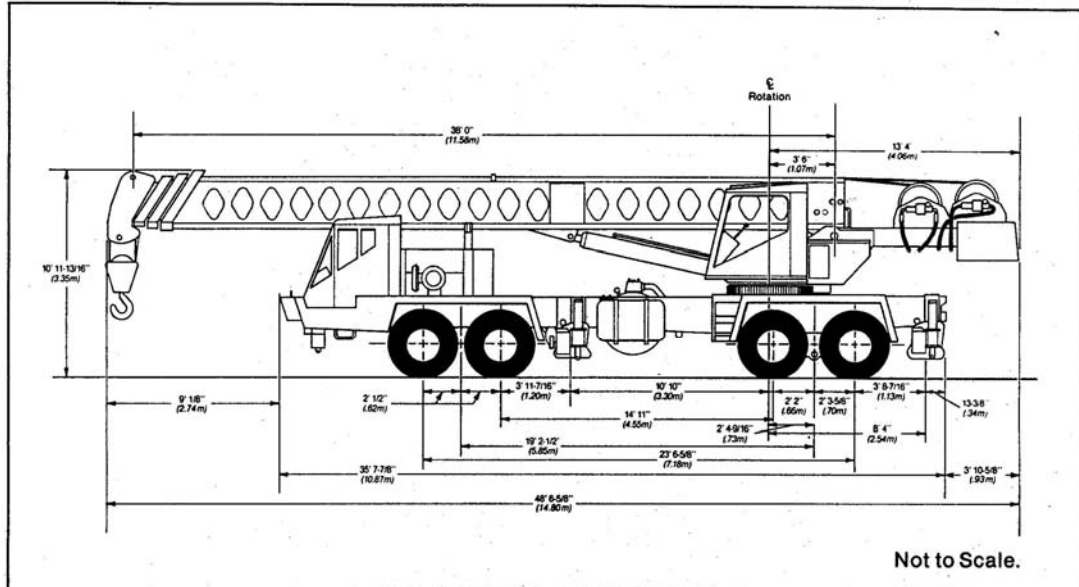
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General Specifications

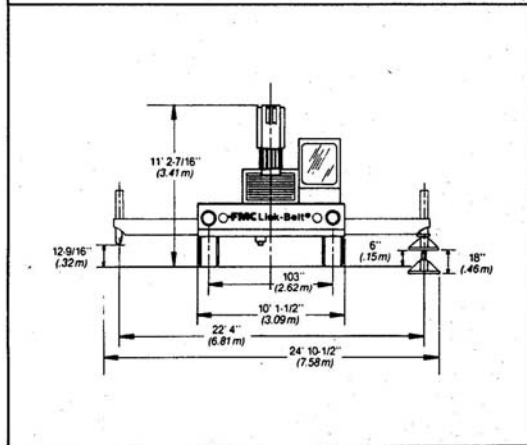
Link Belt®

Hydraulic Crane

HTC-1055 55-ton (50.00 metric ton)



Not to Scale.



General dimensions	Feet	meters
Turning radius-outside front fenders	49' 0"	14.94
Tailswing-across corners	13' 7-3/16"	4.14
Ground clearance-standard tires	9"	.23
Ground clearance-optional tires	10"	.25

L 340 6833
(Supersedes LO1619811.0)

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Upperstructure



Boom

FMC patented design. Boom side plates have diamond shaped impressions for superior strength to weight ratio and are offset welded to carefully machined 100,000 p.s.i. (689.5 MPa) steel angle chord for maximum integrity and strength. Boom telescoping sections are vertically and horizontally supported by wear shoes.

Boom — 38' 0" - 120' 6" (11.58 m - 36.73 m) 4 - section boom includes base, two power sections, and manual fourth section. Manual section is power extended by manually activating a simple cylinder locking system.

Boom head — Standard; four 14-1/4" (0.36 m) root diameter head sheaves with five 14-1/4" (0.36 m) root diameter head sheaves available to handle up to 10 parts of 3/4" (19 mm) wire rope. Two removable wire rope guards, and rope dead-end lugs are provided on each side of boom head.



Auxiliary lifting sheave — Optional; single 14-1/4" (0.36 m) root diameter sheave mounted to boom head with removable wire rope guards. For use with one or two parts of line off the optional front winch. Does not affect erection of jib, or use of main head sheaves for multiple reeving.

Boom elevation — Two FMC designed double-acting hydraulic boom hoist cylinders with integral holding valves. Hand or foot controls for boom elevation from - 3° to 78°.

Fly
Optional. 34'6" (10.52m) stowable one-piece lattice type.

Jib
Optional; 30'0" (9.14 m) stowable A-frame. Can be offset 5°, 17.5°, and 30°. Attaches to fly only.



Cab and Controls

Environmental cab; isolated from vibration by rubber mounts. All tinted, tempered safety glass windows. Sliding rear window and swing up roof window supported with two gas cylinders. Slide-by door opens to 32" (0.81 m) width. Six-way adjustable operator's seat. Control levers for swing, boom telescope, winch, and boom hoist, with foot control for swing brake. Outrigger controls, sight level bubble.

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



Swing

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

Swing brake — Standard manually applied/released disc brake mounted on the speed reducer. Foot acuated brake.

Swing lock — Standard 360° position pin-type controlled from operator's cab. Two position house lock for travel and pick and carry modes.

Counterweight — Pinned to upperstructure frame. 10,000 lb. (4 536 kg) counterweight with single-winch system. 9,050 lb. (4 105 kg) counterweight with two-winch system. Optional counterweight removal system is available.



Hydraulic system

Main pump — Four-section gear-type pump. Powered by carrier engine with disc-pack pump disconnect, which is

operated from carrier cab. Pump can be engaged/disengaged with engine at idle. Maximum system pressure 2,900 p.s.i. (200.0 Bars). Hydraulic oil cooler is standard.

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

Filtration — One 2-micron filter located inside of hydraulic reservoir. Accessible for easy replacement.

Control valves — 6 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/down mode of operation. Bi-directional, gear-type hydraulic motor.

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

Optional; Model 3M17 winch with power up/down, two-speed, and exclusive FMC controlled true gravity free fall. Available on front, rear or both winches.

Line pulls and speeds — Maximum permissible line pull is 14,430 lbs. (6 545 kg) and maximum line speed is 548 f.p.m. (167.03 m/min.) on 17" (0.43 m) root diameter drums.

Optional upperstructure equipment — Electric boom length/angle indicator, boom hoist foot control, drum rotation indicators, propane heater, diesel heater, seat belt, 60-ton (54.43 metric ton) hook block, roof window windshield wiper, 8-1/2-ton (7.71 metric ton) ball & swivel, anti-two block, load moment device, flood lights, lifting lug package, hand throttle, fire extinguisher.

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Chassis



Type

FMC 8 x 4 drive, 10' 1-1/2" (3.09 m) wide, 230-1/2" (5.85 m) wheelbase.

Frame — All-welded high strength alloy steel plate construction with box-type design and Integral 100,000 p.s.i. (689.5 MPa) steel outrigger boxes.



Outriggers

Standard - Power hydraulic, double box, single beam outriggers, front and rear. Vertical jack cylinders, each with integral holding valve. Beams extend 22' 4" (6.81 m) centerline to centerline, and retract to within 10' 1-1/2" (3.09 m) overall width. Equipped with stowable, lightweight 30 -1/2" (0.77 m) diameter floats. Controls and sight level bubble located in upperstructure cab.

Bumper outrigger - Optional; a front center vertical jack mounted under bumper with 20" (0.51 m) square lightweight float.



Axles

Front — Rockwell tandem; 103" (2.62 m) track.

Rear — Rockwell tandem; 90" (2.29 m) track, 6.17 to 1.0 ratio with interaxle differential lockout.

Suspension

Front — Reyco spring suspension with torque rods.

Rear — Hendrickson solid mount 54" (1.37 m) bogie beam.

Wheels

Front — Gunite cast, six-spoke.

Rear — Gunite cast, six-spoke.



Tires

Front — 18.00 x 22.5 (16-PR) transport type, tubeless.

Rear — 11.00 x 20.0 (14-PR) transport type with tube.

Optional

Rear — 12.00 x 20.0 (14-PR) transport type.

Rear — Lug-type 11.00 x 20.0 (14-PR) 12.00 x 20.0 (14-PR).



Brakes

Full air on all wheels. Air dryer is standard.

Service

Front — Rockwell Stopmasters, 15" x 6" (.38 m x .15 m) shoe diameter, 720 sq. in. (4 645 cm²).

Rear — Cam-type, 16-1/2" x 7" (.42 m x .18 m) shoe diameter, 896 sq. in. (5 781 cm²).

Parking/emergency — One spring set, air released chamber per rear axle end. Parking brake applied with valve mounted on carrier dash. Emergency brakes apply automatically when air pressure drops below 60 p.s.i. (4.14 Bars) in both systems.

Steering — Sheppard Steering, rack-and-pinion design.

Clutch — Lipe-Rollway 14" (0.36 m) diameter, spring loaded, double plate dry disc.

Universals — Mechanics spider and bearing assembly; FMC midpoint bearing.

Transmission — Fuller Roadranger RTO-6613; 13 speeds forward, 3 reverse.



Electrical System

Standard; one 12-volt battery for GM and two 12 volt batteries for Cummins; 1,115 cold cranking amps available, 65 amp alternator.

Lights — Two dual-beam sealed headlights; front and rear directional signals; stop and tail lights; four-way emergency flashers; back-up lights; front, rear, and side clearance lights with integral reflectors and license plate light.



Carrier Cab

FMC one-man cab. Acoustical insulation with vinyl covering, and mounted on rubber isolation pads. Equipped with electric windshield wiper and washer, horn, six-way adjustable seat with seat belt, dome and dash lights, cigar lighter, ashtray, 22,400 BTU capacity heater, defroster, door and window locks, fire extinguisher, LH/RH rear view mirrors, and tilt/telescoping steering wheel. Sliding LH/RH and rear tinted windows.

Cab instrumentation — Standard illuminated instrument panel with speedometer, odometer, tachometer, voltmeter, hourmeter, front and rear air pressure gauges, low air pressure light and warning buzzer, automotive type ignition (common with upper), engine oil pressure gauge, water temperature gauge, fuel gauge, turn signal indicator, high-beam light switch, adjustable defroster vents, and circuit breakers.

Additional standard equipment — Front and rear fenders, air dryer, back-up warning alarm, cab step, access ladder to carrier deck with hand grab, two front tow loops, and skid-resistant finish on carrier deck.

Optional equipment — Engine block heater, ether injection starting package, spare tire and rim assemblies.

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Speed and gradeability ①

Engine	Maximum Speed	Max. Gradeability
GM 6-71N	55.7 m.p.h. (89.6 km/h)	32%
Cummins NTCC-230*	50.9 m.p.h. (81.9 km/h)	35%

① Travel speed based on full load r.p.m. Gradeability is based on peak torque of the engine, lowest forward gear. Gradeability values above 58% (30°) are theoretical due to engine oil pan limits.

Engine	GM 6-71N	Cummins NTCC-230*
Cylinders - cycle	6 - 2	6 - 4
Bore	4-1/4" (0.11 m)	5-1/2" (0.14 m)
Stroke	5" (0.13 m)	6" (0.15 m)
Displacement	426 cu. in. (6 981 cm ³)	855 cu. in. (14 013 cm ³)
Maximum brake h.p.	238 at 2,300 r.p.m.	230 at 2,100 r.p.m.
Peak torque	635 ft. lbs. (861.06 J)	650 ft. lbs. (881.40 J)
Electrical system	12 volt negative ground	12 volt negative ground
Fuel capacity	92 gallons (348.22 L)	92 gallons (348.22 L)
Alternator	65 amp	65 amp
Crankcase capacity	30.5 quarts (28.86 L)	46 quarts (43.53 L)
Air Compressor	12 c.f.m. (0.34 m ³ /min)	13.2 c.f.m. (0.37 m ³ /min)

*Optional equipment

Axle loads

Base machine includes 38' - 120' 6" (11.58 m - 36.73 m) 4-section boom, rear winch with 2-speed hoisting and power up/down, 600' (182.88 m) 3/4" (19 mm) hoist line, FMC 8 x 4, 10' (3 m) carrier with GM 6-71N diesel engine, with 1000 lb. (454 kg) front CTWT, Roadranger transmission, full fuel and hydraulics.	G. V. W.		Upper Facing Front				Upper Facing Rear			
	Lbs.	kgs	Front Axle		Rear Axle		Front Axle		Rear Axle	
			Lbs.	kgs.	Lbs.	kgs.	Lbs.	kgs.	Lbs.	kgs.
	65,900	29 892	37,086	16 822	28,814	13 070	9,732	4 415	56,168	25 478
Counterweight for single winch	10,000	4 536	-4,888	-2 217	14,888	6 753	7,367	3 342	2,633	1 194
Counterweight for two winches	9,050	4 105	-4,442	-2 015	13,492	6 120	6,684	3 032	2,366	1 073
Free Fall rear winch with 600' (182.88 m) rope	412	187	-171	-78	583	264	273	124	139	63
Power up/down front winch with 465' (141.73 m) rope	1,739	789	-533	-242	2,272	1 031	964	437	775	352
Free Fall front winch with 465' (141.73 m) rope	2,170	984	-641	-291	2,811	1 275	1,179	535	991	450
34'6" (10.52 m) lattice fly, stowed	1,150	522	1,210	549	-60	-27	-924	-419	2,074	941
30' (9.14 m) A-frame jib, stowed	1,230	558	1,060	481	170	77	-753	-341	1,983	899
Hook block at bumper	1,050	476	1,625	737	-575	-261	-	-	-	-
Headache ball at bumper	215	98	333	151	-118	-54	-	-	-	-
Auxiliary lifting sheave	160	73	294	133	-134	-61	-255	-116	415	188
Front bumper outrigger	385	175	547	248	-162	-73	-	-	-	-
Fly and jib stowage brackets	222	101	113	51	109	49	-58	-26	280	127
12.00 x 20.0 rear tires with rims and wheels	585	265	0	0	585	265	-	-	-	-
Removed 1000 lb. (454 kg) front CTWT	-1,000	-454	-1,464	-664	464	210	-1,464	-664	464	210
Headache ball for free fall	325	147	503	228	-178	-81	-	-	-	-
Cummins engine	550	249	608	276	-58	-26	-	-	-	-
Counterweight removal system	115	52	-56	-25	171	78	85	38	30	14

① Adjust gross vehicle weight and axle loading according to components weight.

Note: All weights are ± 3%

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)