

# Specification summary

## Link-Belt® wire rope truck cranes



**HC-138A**



**HC-218A**



**HC-238A**



**HC-258**

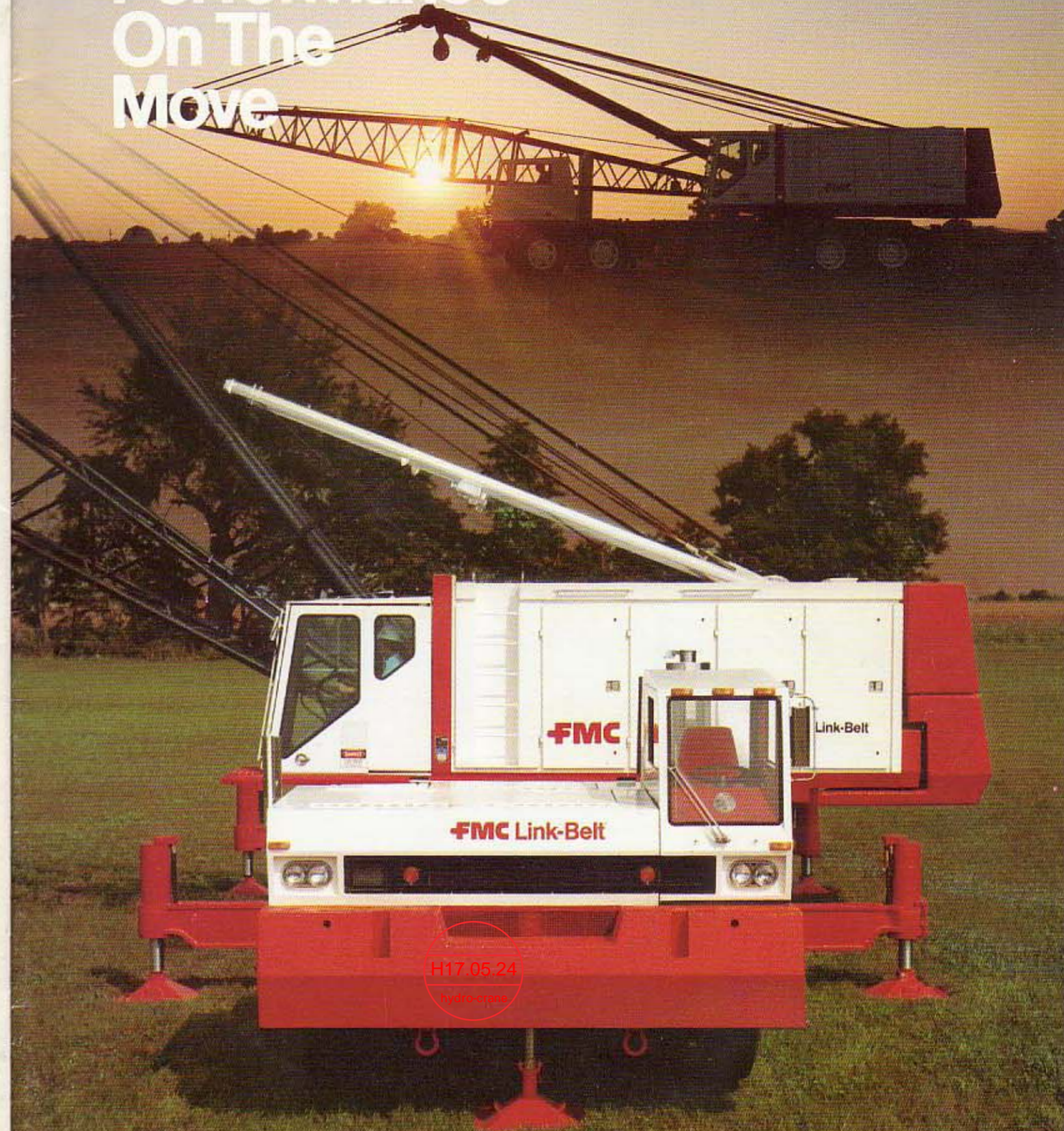
	HC-138A	HC-218A	HC-238A	HC-258
Capacity	75 ton (68.02 metric ton)	100 ton (90.70 metric ton)	140 ton (126.98 metric ton)	200 ton (181.40 metric ton)
Maximum boom	200' (60.96 m)	230' (70.10 m)	230' (70.10 m)	310' (94.49 m)
Maximum boom/jib	190' + 50' (57.91 + 15.24 m)	210' + 60' (64.01 + 18.29 m)	230' + 70' (70.10 + 21.34 m)	300' + 70' (91.44 + 21.34 m)
Line speed @ line pull	347 fpm @ 10,000 lbs. <sup>1</sup> (105.77 m/min @ 4 536 kg)	357 fpm @ 10,000 lbs. <sup>1</sup> (108.81 m/min @ 4 536 kg)	386 fpm @ 10,000 lbs. <sup>1</sup> (117.65 m/min @ 4 536 kg)	540 fpm @ 10,000 lbs. <sup>1</sup> (164.59 m/min @ 4 536 kg)
Maximum line pull	20,000 lbs. (9 072 kg)	21,000 lbs. (9 226 kg)	26,000 lbs. (11 794 kg) <sup>1</sup>	37,500 lbs. (17 010 kg)
Basic travel weight	69,940 lbs. (31 724 kg) <sup>2</sup>	80,090 lbs. (36 329 kg) <sup>2</sup>	102,200 lbs. (46 358 kg) <sup>2</sup>	165,350 lbs. (75 003 kg) <sup>2</sup>
Travel height	11' 7" (3.52 m)	11' 7" (3.54 m)	12' 3" (3.73 m)	12' 9" (3.90 m)
Overall width	11' 0" (3.35 m)	11' 0" (3.35 m)	11' 10" (3.61 m)	11' 10" (3.61 m)

<sup>1</sup> With optional two-speed planetary

<sup>2</sup> With boom, all counterweight, outriggers removed; with boomhoist rope, front drum rope, boom live mast and backstops in place.

Link-Belt® wire rope truck cranes

# Performance On The Move



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

FMC Corporation, Tower Crane & Excavator Division Cedar Rapids Iowa 52406

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

hydro-crane



# Performance with precision machinery

The performance-proven Full-Function upper machinery is a precision built all-gear driven system, specifically designed with a maximum weight-to-strength ratio for lift crane service. The frame is all-welded, stress-relieved and line-bored, to assure proper alignment of the machine cut gears for longer component life. The carrier frame and outriggers are constructed of high strength steel to provide a durable lifting base and the drive train is a superb combination of engine, transmission and axles. It's a quality-built piece of machinery designed to give superior dependability, efficiency and productivity.

**Rope drums.** Large diameter front and rear. Independent third rope drum is optional and mounts in line bores integral with main frame.

**Power load lowering.** Independent. Available for all rope drums. Two-shoe power hydraulic clutches for powering down light loads and controlled lowering of heavier loads.

**Drum brakes.** Mechanically operated by foot pedals (power hydraulic assist on the HC-258). Separated from the hoist and lowering clutches to eliminate heat transfer, resulting in cooler brakes and clutches for increased component life.

**Boom hoist.** Independent 2-shoe clutch for boom raising. Two-speed lowering is available with planetary drive for standard speed and optional 2-shoe clutch for increased speed for short boom/jib combinations.

**Engine/drive package.** Optional engines with torque converters available to suit job requirements and customer preference. Torque converters provide smoother operation, load/boom handling at lower engine RPM, and load lowering on the converter system using engine throttle.

**Planetary hoist drive.** (Optional) Independent. Provides up to 70% increased hoisting speed to improve cycle time. Can be modified to provide 40% decreased line speed for delicate or special load handling applications.

**Hoist clutches.** Two-shoe power hydraulic on front and rear drums. Provides smooth precise engagement of hoist functions.

**Swing.** Two-shoe power hydraulic clutches transmit power into swing pinion for smooth acceleration and deceleration of swing function. Swing brake is standard.

**Outriggers.** Controlled from either side of carrier for quick set-up. Permits leveling machine on reasonably uneven terrain. Integral check valve "locks" oil in jack cylinders once outriggers are set in position.

**Carrier drive train.** Diesel engine powers through a versatile 15-speed Roadranger<sup>®</sup> transmission to planetary rear axles. Ideal combination for negotiating steep grades, maneuvering through traffic or traveling at highway speeds. A 2-speed auxiliary transmission provides a low range for on-the-job precision moves.

H17.05.24  
Hydraulics



# Total performance concept



FMC Corporation's continued dedication to offer the best truck crane in the industry is admirably displayed by the HC-138A, HC-218A, HC-238A and HC-258. Along with new features included in the design, capacities have been increased, and modern distinctive styling added, to make these machines the finest Link-Belt® truck cranes ever produced.

## Precision machinery

In recent years FMC has devoted a sizable amount of time and resources to refine the precision design and manufacturing techniques in each Link-Belt truck crane. Thousands of engineering hours were

spent evaluating design ideas and then testing them for reliability. A new large manufacturing facility, equipped with the most modern machine tools, using strict quality control procedures, was built for the sole purpose of building truck cranes. The combination of the efficient Full-Function upper machinery, with the durable FMC designed and manufactured carrier, gives thousands of hours of dependable service with reduced maintenance cost, and high resale value.

## Exclusive features

Every job application has its own unique characteristics. That means the crane on the project must be flexible to adapt to the job situation. FMC Corporation recognized this need and designed features into the Link-Belt truck cranes to increase on-the-job potential for greater production and operator efficiency . . . features not available on competitive truck cranes.

These exclusive features include the highly respected Speed-o-Matic® power hydraulic control system, hydraulic front center carrier jack, independent power load lowering clutches, independent planetary two-speed rope drums, and two-shoe hydraulic clutches.

## Transportability

Obviously truck cranes were conceived to make lift cranes more mobile in going from one job to another. However, before a machine can be transported, its weight must be stripped down and the unit appropriately prepared for over-the-road travel to meet highway weight restrictions. The key then, is to strip the crane quickly, get to the next jobsite and again reassemble it to minimize non-productive

time. Again, FMC was well aware of this requirement and careful steps were taken to design the carriers with optimum axle weight distribution to meet local weight restrictions. In areas where a truck crane must be completely stripped, time saving devices were designed into the machine. These include hydraulic counterweight lowering/raising, hydraulic removal/insertion of the boomfoot pin, hydraulic outrigger box pins, and quick disconnect turntable bearings to allow removal of the upper from the carrier.

## Superb operator control

An operator spends an entire day inside the cab, and to make the day as productive and as comfortable as possible, Link-Belt truck cranes feature an operator's compartment that surrounds the operator

with a module designed for increased comfort, control, visibility, and quietness. The Speed-o-Matic control levers are all in easy reach, and the view through the top of the cab is virtually unobstructed. A Link-Belt truck crane cab makes good operators even better.

## Serviceability

Routine maintenance is vital to keep machinery running at peak performance levels. To reduce maintenance time and effort, Link-Belt truck cranes are equipped with large machinery cab doors or panels to enable easy access to major components in both the upper and the carrier. Most of the major components are designed to require infrequent or no maintenance and only occasional lubrication. Making the job easy and simple means the crane will be well maintained.

## Total design

The extensive time and resources FMC has employed on the design and the manufacturing of Link-Belt truck cranes has produced outstanding results. The total design concept was a systematic thought process that assured maximum efficiency, styling, exclusive operating features, transportability, superb operator control, and easy maintenance. Combining this total design concept with the manufacturing facilities exclusively built to produce a quality Link-Belt truck crane, FMC Corporation offers the contractor dependability, high production and long service life . . . the most important elements in making a crane application cost effective.



# Performance with transportability

Performing fast, cost effective moves from one jobsite to another is of prime importance to a truck crane owner. Therefore, it is essential to minimize the time required to prepare the machine for travel. The weight efficient design of Link-Belt® truck cranes permits travel in many areas, with little or no stripdown of major components. In those areas where strict weight laws do exist, Link-Belt truck cranes have "built-in" devices available, which can get you on the road quicker than any competitive size truck crane. And where required, the machines can be readily adapted to boom folding, boom trailing or utilization of an auxiliary tag axle.

**Boom trailing/tag axes**  
Contractors in Western areas of the United States find that a dolly for trailing the boom, in combination with a tag axle, is the ideal method to transport a truck crane and reduce stripdown time.



**Boom folding**  
With optional boom folding section, contractors in Eastern United States minimize stripdown time by folding as much as 160' (48.77 m) of boom over the rear of the truck crane.



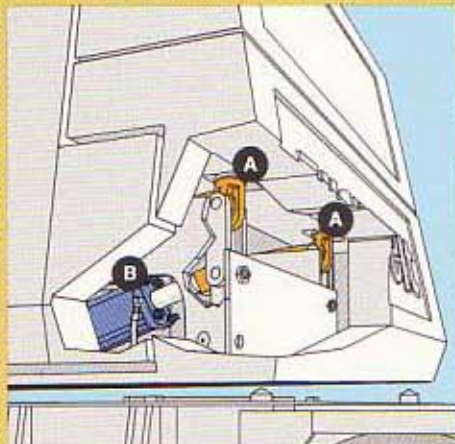
**Complete stripdown**  
Midwestern areas of the United States have the most restrictive weight laws. Complete stripdown of boom, counterweight, and outriggers is cost effectively performed using the built-in stripdown devices.



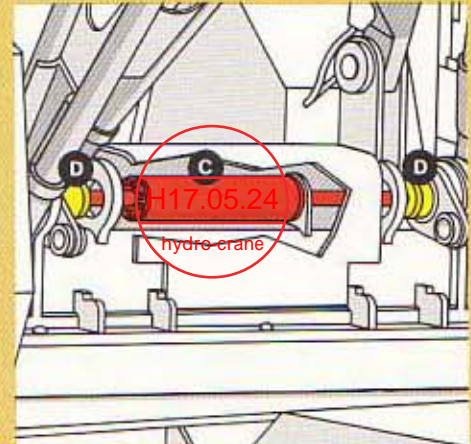
**Component removal**  
Major components are removed from the upper and the carrier including counterweights (upper and carrier), both outrigger boxes and boom. All of these components can be handled by the live mast, eliminating the need for an additional crane.



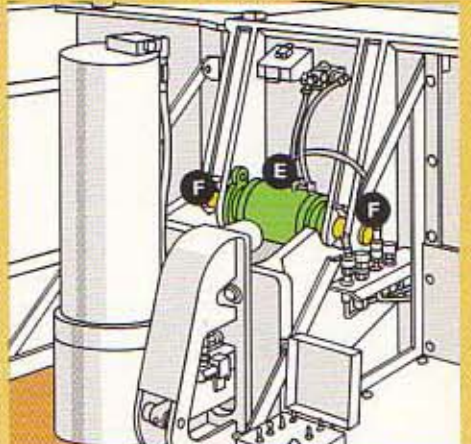
**Simplified upperstructure removal**  
On the HC-138A, 218A, 238A, bearing mounting bolts are located under floor panel in the upper. Bolts fasten to tapped holes in carrier frame. On the HC-258, the bearing is equipped with a hydraulic quick disconnect. This allows for disconnecting the upper in 60 seconds.



**Hydraulic counterweight removal**  
Standard. Upper counterweight is held in place by two self-locking linkages (A), which are lowered and raised in 15 seconds by cylinders (B) (only left-hand cylinder visible). Time consuming use of counterweight bolts or other mechanical devices has been eliminated.



**Hydraulic boomfoot pin removal**  
Device is available for fast removal or installation of the basic boom for reduced time in stripdown and setup. A double-acting hydraulic cylinder (C) with an integral cylinder rod and pin (D) is permanently mounted between the boomfoot lugs.



**Hydraulic outrigger box pin removal**  
This system employs four double-acting cylinders (E) with integral cylinder rods/pins (F). Cylinders are permanently mounted to the carrier frame lugs. Controls are conveniently positioned for fast, efficient removal of outrigger boxes.