Quick Strip Down for Over-the-Highway Travel

LOWER TRAVEL WEIGHT
The MC-670 is designed with quick-moving components in mind. It is a big 70-ton machine, built for big jobs, but it weighs less than most 65-ton cranes. For even less over-the-road weight, further reduction can be made.

REMOVABLE OUTRIGGERS
Outriggers and boxes can be removed. Beams are extended until they touch the ground. Pins are pulled, beams retracted to lower box and beams to ground. Hydraulic lines are removed (quick disconnects). The front unit is spiked, cut with the hoist line. Carrier is driven away from the rear one.

REMOVABLE COUNTERWEIGHT
After removing one locking pin, the counterweight is easily pulled hydraulically down a wedge ramp onto the carrier deck, free of the turntable for easy transfer to a truck. There are no bolts to remove.

POWER GANTRY
Simple Power Gantry speed moving. Power controls operate the gantry from the operator's position. Raised, it is ready for maximum lifts.

Gantry lowered, gives minimum clearance for road travel. Locking and unlocking is by air. The operator never has to leave his seat.

Lorain
Division of Koehring Company
Lorain, Ohio 44055
Double Drum Boom Hoist

**INCREASES CABLE LIFE**

Each end of the boom hoist cable is attached to a separate drum, rotating in unison. This both equalizes the pull on the boom tip and increases cable life. Drums are scored for smooth wrapping. The boom hoist brake is spring-loaded for additional safety. 16-part dericking is standard. Dericking shoes are anti-friction bearings for added cable life.

**LARGE DIAMETER Third Drum**

Holds most cable

Compare the 10'-1/2" diameter available third drum with any other. It holds 470 feet of 3/8" cable — enough to handle any job you come across. Does not sacrifice power load lowering on either hoist drum or the simultaneous use of hoist, swing and boom hoist.

**All-New Clutches**

Six of the eight big, completely new clutches are independently metered-air controlled. With interchangeable parts for quick, easy servicing. All are outboard of the side frames for easy accessibility, adjustment. The swing clutch is air-assist manual.

**BRAKES more effective**

Brakes are of “Total-wrap” design, use all the diameter of the brake drums effectively — smooth, positive

**SPRING-LOADED SWING LOCK**

Positive, smooth, air-assist swing, combined with spring-set house lock...

**POWER DOWN ON HOIST AND BOOM HOIST FOR GREATER VERSATILITY**

Power down is available on both the main hoist and the boom hoist for maximum job versatility. Slow, engine controlled lowering on both drums sets pin point accuracy at the operator's finger tips. Engine reverses drums to drive down load and boom. This, plus the standard torque converter, power take off provides the ultimate in load and boom control.

**SIMPLE SWING**

Only one bevel gear on horizontal swing shaft. Simple, less wear.
All New Turntable Design

Here is what the MC-670 can give you that no other crane can:

The Lorain MC-670 Moto-Crane is the third in a family of cranes of completely new concept in crane design that has been job-tested for almost 2 years. It is like no other design and gives the contractor seven specific advantages: all in one package with no compromises. For its rating, here are the advantages it has:

1. The longest boom
2. The greatest lifting capacities
3. The greatest cable capacity
4. The lowest weight. Lighter than many 65-ton cranes.
5. The greatest dependability
6. The simplest maintenance
7. More capacity per pound and per dollar.

One-piece Turntable Frame for greatest strength

Side frames and turntable bed are a welded, one-piece structure—line bored. This provides maximum strength, rigidity, light weight, positive shaft alignment.
Cab and Controls

EASY, PRECISE AIR CONTROLS
Metered-air control at all friction stations, except handgrip, gives smooth, precise, operation of each function separately. Each operation can be independent or two or more can be blended together for the best possible cycle control. Available drum rotation indicator adds further convenience.

ROOMY COMFORT FOR OPERATOR
The operator's position and relationship to the controls of the MC-670 has been "human engineered" for maximum comfort and ease of control. A roomy cab with matched side mounted levers and more knee room puts the operator always in command for efficient operation.

SEPARATE OPERATOR'S COMPARTMENT
A folding door separates the operator's compartment from the rest of the turntable yet permits easy access for adjustment and servicing. Quieter, safer. Another operator's "plus" with an MC-670.

"UP FRONT" VISIBILITY
The operator is up front where the work is. Picture window visibility contributes to faster, safer, more efficient operation. No backover or sitting well forward for maximum visibility to both sides.

There are no blind spots on either side. Even on the off side the operator can see well back of his position for safer, more efficient operation.

Shear-Ball Turntable Connection

Field Proven Since 1950

The "Shear-Ball" connection is of exclusive Lorain design. Like a huge ball bearing it allows the turntable to rotate smoothly and accurately. One race is attached to the carrier...the other to the turntable...with ball interlocking the two races and anchoring the turntable to the mounting. All load forces are distributed at a given time as compression loads over at least 40% of the balls instead of being concentrated on a few highly stressed rollers. Thus, "Shear-Ball" design provides much greater load carrying capacity than roller designs...thus less wear, easier, smoother swings...safer.

Warranted in Writing for 10 Years

1. Faster Work Cycles
Concentric elastic spacers prevent the balls from gaining up. There is no binding...no rollers to skid or indent, thus resist rotation. Less " Pendulum" action from the load.

2. Long Service Life, Greater Strength
A full-circle of hardened high-alloy steel balls, is precisely mated to two precision ground races of forged, alloy steel rings with file-hard, inner surfaces. Resist indenting, wearing or breaking.

3. No Unprofitable Downtime for Adjustments
There is no center pin, nut ... centering guide groove ... bushings ... or any type of exposed roller or roller path ... with their continuous adjustments. Wear is so negligible that no provision is made for adjustment.

4. Minimum Maintenance
"Floating" seals adjust themselves to both races. Lubrication lasts three to six times longer than ordinary roller lubrication.
Lighter-Stronger LORAIN
Carrier for Maximum Roadability

Lorain introduced the MC-670 in 1957. This latest Lorain Mobile-Crane is a forerunner from the first on mounted on a chain driven truck chassis. Lorain has designed and built its own carriers since 1939. This one in particular a break-through in crane carrier design as it maintains the ruggedness needed for demanding, big crane operation yet enables the MC-670 to be lighter than most 65-ton machines.

The MC-670 gives you big crane profitability with small crane mobility. That's extra value. Lorain builds it that way.

Greater Traction Effort

Double reduction drive with final reduction through planetary hubs with high traction differential and inverse differential with backlash are mounted on roller mounted non-linear beams and torque tube. This puts the driving torque on the ground where the work is. All this, plus generous clearance, makes soft ground travel a breeze with an MC-670.

New Extra-Strong Frame

This frame for the Lorain MC-670 is designed and built by Lorain especially for this model 65T special container box section with greatest depth and strength where needed to guarantee the stress and torsion resistance to conditions under the two loadings of heavy crane use.

Spring-Actuated Brakes

Spring-actuated brakes are on rear wheels give maximum safety. For normal operation these act as conventional air brakes. However, if there is a loss of air they are applied automatically. They are also used as parking brakes.

New Carrier Design

This is a new design worked out in every way to fit this extra designed chassis.
LORAIN

Power-Set® Outriggers are faster, safer, simpler

Only Lorain has patented Power-Set Outriggers... that are faster, safer, simpler, with half the parts, and most important—at less cost to buy, operate and maintain. These are standard on the MC-67A.

A built-in automatic wedge lock holds the beam securely under load, completely independent of hydraulics. No relying on hoses, connections, or check valves. No manual locks of variable efficiency. No separate floats to manhandle. Floats are fastened safety to beams, and are self-adjusting, to conform to uneven ground. Floats fold flat against carrier when retracted. Easy to lower... eliminates uphill swing... minimizes dangerous beam side loadings.

Contrast with other non-attached types where angular approach of jack or cylinder to flax can be dangerous. Too, rugged, curved beams provide maximum strength and a proper balance of simple, time-saving up-and-down travel in one motion.

Verti-Power Set Outriggers now available, too

The new Verti-Power Set Outriggers, that are available as an alternate, retain all of the proven advantages of the time-tested Power-Set Outriggers plus added vertical motion for even greater on-the-job versatility.

Each pivoted box with beam can move vertically to the ground at an infinite number of positions from close to full-extended positions. This eliminates cribbing or gives ease of leveling when the outriggers are at full 21' spread. An automatic mechanical lock safely eliminates reliance on hydraulics.

Now, where obstructions prohibit the full extension of beams, the vertical cylinder can move directly downward to touch the floats to the ground or to level the machine. Everything is done from the operator's cab.

Of course, Verti-Power Set Outriggers also are easily removable for minimum highway weight.

At full 21' extension MC-670 Verti-Power Set Outriggers with attached floats still can be moved vertically 10½ inches for easy leveling of machine.

The Big MC-670 Boom

SQUARE-TUBULAR-CHORD DESIGN MAKES LORAIN BOOM THE BEST IN THE WORLD

Foot for foot, pound for pound it is the strongest boom ever built. Four main chords of unique, square-tubular cross section (a) are formed of high-strength aircraft type alloy steel with a yield strength of 140,000 psi. The hermetically sealed square-tube design, plus extra large cross section, gives the maximum possible rigidity per unit of weight, assuring greater payload and long service life. Continuous, sealed round-tube lacing (b) is specially welded into a precise, flat "contact" point (c) at common points on the smooth inner faces of the main chord to provide a torsional resistance usually obtainable only by heavy bonding. All sections are pin-connected for fast rigging.

Longitudinal boom tip is available for downward reach and rigidity. The boom head sheaves are standard, additional boom tips available.

Standard boom tip is available for downward reach and rigidity. The boom head sheaves are standard, additional boom tips available.

A 2-foot housetop boom tip is available. If it is only visually in the line of sight, no extra section, 5 sections are standard, 6 are available.