

# RTC-8035 35-ton

Hydraulic Rough Terrain Crane

- 141' (43.00 m) On-Board Tip Height
- Full Power Four-Section Boom
- Rated Capacity Limiter (RCL)
- Three Attachment Options



The New RTC-8035 Features The  
Confined Area Lifting Capacities  
(CALC™) System

# The Link-Belt RTC-8035.... a combination of precision and comfort.

*The New RTC-8035 hydraulic rough terrain crane features unmatched innovations such as the Confined Area Lifting Capacity System (CALC™), a revolutionary fibrous composite cab – the ULTRA-CAB™, piston motor winches, and integral rated capacity limiter (RCL).*

## An Office With A Big View....

A major step forward in the construction equipment industry, the new environmental ULTRA-CAB found on the RTC-8035 is molded from an LFC • 2000 construction process featuring laminated fibrous composite material. Laminated fibrous composites are a hybrid class of composites with lamination techniques. The layers of fiber-reinforced material are built up with the fiber directions of each layer typically oriented in different directions to add strength and stiffness.

This fibrous composite technology offers superior advantages over steel in sound reduction with sound levels one-half as loud as conventional cabs. This fibrous composite material, while eliminating corrosion, also adds dimensional stability and allows modern styling techniques to be utilized including molded radii and ribs. Designed

with the operator in mind, the RTC Series cab features:



**Fabric Seat** Six-way adjustable seat with height-adjustable armrests.

**Hydraulic Control Levers** Armrest mounted, responsive dual axis controllers standard. Single axis available.

**Lift-Up Armrest** Left armrest lifts up out of the way providing outstanding operator ease in entering or exiting the cab. For

safety, all control functions become inactive when the armrest is in raised position.

**Backlighted Gauges** Corner post mounted.

**Overhead Console** with switches for outrigger controls, lights, fan, and swing park brake.

**Bubble Level** Standard sight level mounted on side console.

**Single Foot Pedal Control** for simultaneous extension or retraction of power boom sections.

**Ducted Air** through automotive style directional vents.

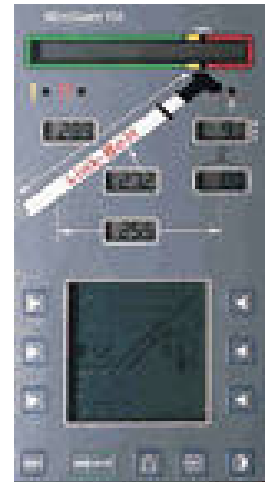
**Comprehensive Instrumentation** Corner post mounted gauges monitor hydraulic oil temperature, air pressure, fuel level, water temperature, oil pressure and voltage. Converter oil temperature gauge mounted in side console.

## Additional Cab Features Include:

- Tilting steering column for easy cab entering/exiting.
- Automotive style windshield and large side window provides operator with 25% more glass area.
- Dash-less design for superior visibility.
- Sliding right side and rear windows and swing-up roof window provide excellent ventilation.
- Large sweep electric wipers.

## Integral Rated Capacity Limiter

This "LMI" system aids the operator in safe and efficient operation by continuously monitoring boom length, boom angle, head height, radius of load, machine configuration, allowed load, and percent of allowed load. This Microguard 434 graphic audio-visual warning system features improved access time, improved radio frequency shielding, a new display panel with large liquid crystal alphanumeric display, total system override capabilities to provide for rigging requirements and an expanded memory which provides capacity information on all possible lift configurations.

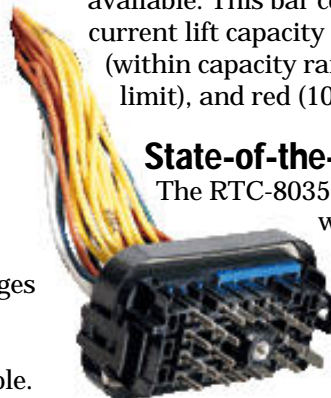


An exclusive new feature available on the RTC-8035 is the Operator Defined Area Alarm. By setting two points, the operator creates an imaginary vertical plane to maintain a safe working distance from nearby obstacles. Should the operator attempt to operate the crane beyond the plane, the RCL will sound an alarm.

A graphic display bar, positioned near the top of the windshield for optimum viewing during crane operation, is available. This bar constantly alerts the operator of the current lift capacity situation through a series of green (within capacity range), yellow (approaching 90% chart limit), and red (100% of chart limit) lights.

## State-of-the-Art Wire Harness

The RTC-8035 has automotive-type wire harnesses with sealed relays and connectors throughout for outstanding long term reliability. In addition, all wires have a flame retardant, polyethylene insulation, resulting in a higher heat resistant wiring system.



# Superior Controllability and Reliability

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*The RTC-8035 with 141' (43.00 m) of on-board tip height is specifically designed to give contractors and rental house companies the best equipment value in the 35-ton RT class.*

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**Jobsite Maneuverability** Maneuvering the RTC-8035 on the job site is made easier with independent controls for steering. Steering modes include independent front steer, four wheel coordinated steer and "crab" steering for tight job site situations.

**Power Train** Utilizing a standard Cummins engine and Clark transmission translates to maximum parts availability as these components are common to many drive trains used in the construction industry. The Cummins 152 horsepower (113 kW) engine is coupled to a Clark 6-speed forward, 6-speed reverse electric powershift transmission.

**Gear Pumps** One main 2-section gear-type pump and one single gear-type pump provide hydraulic power. A mechanical disconnect on the 2-section pump saves wear on the hydraulic system and reduces the load placed on the engine when travelling long distances.

**Added Value Carrier Features** Large grab handles and steps strategically located around the new RTC-8035 provide superior accessibility to carrier deck areas and engine for routine maintenance and service. Safety strips adhered on top of the deck and fenders provide a non-slip surface for maintenance personnel.

A standard oversize storage compartment is ideal for tools, slings, and accessories. Additionally, lightweight aluminum outrigger floats with a "quick latch" feature, rigid front axle for greater stability in rough terrain, air over dual hydraulic disc service brakes for improved braking, spring applied/air released emergency brakes, air service ports, and complete light package continue Link-Belt rough terrain crane standards.... superior customer benefits for superior customer value. A driver controlled differential lock on both axles is available for maximum traction.



## Two-Part Paint Coating System

Setting another new industry standard, Link-Belt is utilizing a two-part coating technology coupled with a pre-assembly paint process to provide the finest quality coating system available today. This new coating technology provides superior adhesion and abrasion resistance. In addition, because all parts are painted before assembly, 100% coverage of each part is realized, virtually eliminating corrosion bleed-through that is common with old paint processes.

The combination of this paint's superior abrasion resistance and the pre-assembly paint technique dramatically enhances the aesthetic appeal of the final machine as nuts, bolts, hoses, and a whole multitude of piece parts are no longer painted. As a result, paint chipping, cracking, and paint deterioration is substantially reduced when service work and disassembly is required.



# ... Traditional Link-Belt Standards!

## Superior Hydraulics... for smooth, precise control

**Multi-Function Control** For greater productivity and control, the three pump hydraulic circuit allows simultaneous function of boomhoist, winch and swing... setting the standard in the 35-ton (32 metric ton) class.

**Simplified Routings** The new RTC-8035 incorporates simplified hydraulic routings for easy access. Fittings and connections are staggered where necessary for quick and easy servicing.

**Serviceability** Standard quick disconnects installed at various locations in the hydraulic system allow the hydraulic pressure to be quickly and easily checked with Link-Belt's exclusive diagnostic gauge kit (optional).



## Piston Motor Hydraulic Hoist System

Delivers superior hoisting to the 35 ton (32 metric ton) hydraulic rough terrain crane class

The standard load hoist system consists of a 2M main winch with two-speed motor and automatic brake for power up/down mode of operation. A bi-directional piston-type hydraulic motor, driven through a planetary reduction unit provides precise, smooth load control with minimal rpm. Asynchronous, parallel double cross-over grooved drums minimize rope harmonic motion, improving spooling and increasing rope service life. Rotation resistant rope is standard.

A two-speed 2M auxiliary winch is available. On the two-winch machines, an independent winch function lockout is provided. When this mode is selected, the operator won't inadvertently operate a winch which has been shut down preventing a two-blocking or rope "bird nesting" situation.

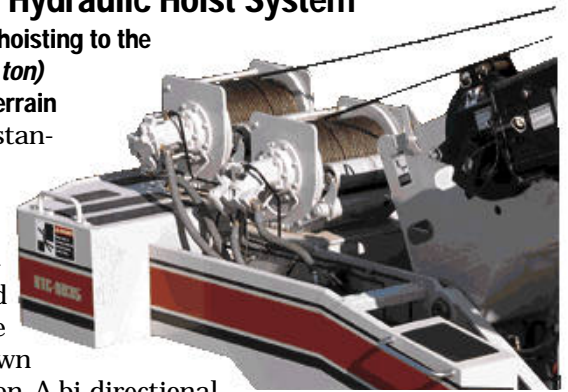
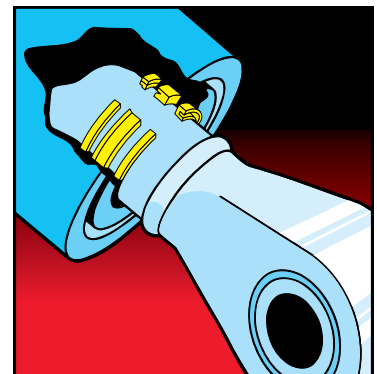
Matched sizes of main and auxiliary winches provide equal maximum available line pulls of 10,360 lbs. (4 699 kg) and maximum line speeds of 473 f.p.m. (144 m/min.) on 10-5/8" (.27 m) root diameter grooved drums.

## State-Of-The-Art Oil Seal Technology

The RTC-8035 features improved seals on boomhoist, boom extend/retract, and outrigger jack cylinders.

This new 'redundant' oil seal technology incorporates 3 rod sealing surfaces versus one or two found on competitive models. This new seal design is highly resistant to side loading and pressure spikes for outstanding sealing performance and, when

incorporated with full O-ring face seal technology used throughout the machine, leads to an environmentally dry system.



# Industry First Innovations...

## Confined Area Lifting Capacities (CALC™) System



The new RTC-8035 rough terrain crane is specifically designed to allow contractors to work in confined work areas where full outrigger extension is not possible. The CALC system provides the operator with three outrigger positions (full extension, intermediate, and fully retracted). Outriggers may be extended to an intermediate position where working area is limited or, in extremely tight quarters, lifts can be made with outriggers fully retracted. In the fully retracted outrigger mode, lift capacities are significantly improved over the 'on tires' configuration because of the ability to fully level the machine, no matter the ground conditions.



*20' 6-1/4" (6.25 m) spread*



*Intermediate Extended Outriggers  
14' 8" (4.47 m) spread*



*Fully Retracted Outriggers  
8' 8-1/4" (2.64 m) spread*



The outrigger position levers (located on the outrigger boxes) are easily applied. Once the levers are engaged, the operator can set the crane in the intermediate or fully retracted outrigger mode without having to leave the cab.

Under full extension, the outrigger beams extend to a wide 20' 6-1/4" (6.25 m) spread centerline to centerline. Centerline to centerline spread dimension for intermediate outriggers measures 14' 8" (4.47 m) and 8' 8-1/4" (2.64 m) for fully retracted... narrow enough to fit in extremely tight working areas but with the stability and capacities provided by being set on outriggers.

A thorough, easy-to-read crane rating manual gives the operator comprehensive capacities covering the three outrigger positions with all attachments plus 'pick and carry' capacities.

The CALC System... another industry innovation from Link-Belt designed for exceptional customer value.

## Full Power Boom With Exclusive A-max Mode

A customer benefit which enhances the 8035's performance and provides the operator the capability to match the crane's configuration to specific jobsite conditions. For maximum tip height the basic boom extension mode offers a full power, synchronized mode of telescoping all sections proportionally to 91' 0" (27.74 m). To enhance performance, the exclusive **A-max** mode (or mode 'A') extends only the inner mid section to 49' 6" (15.09 m) offering substantially increased capacities for in-close, maximum capacity picks.



*Basic boom extend mode*



*Exclusive A-max boom extend mode*

# Patented boom design

EXCLUSIVE



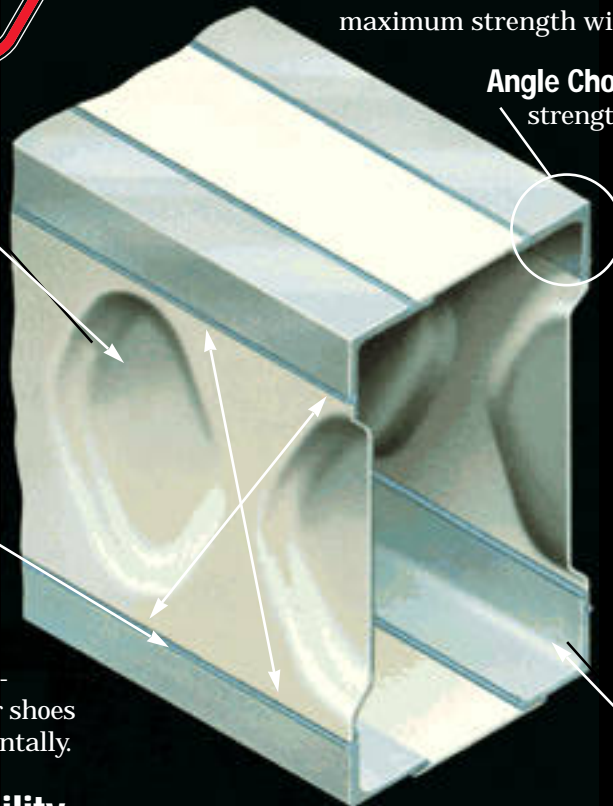
## Embossed Sidewall Stiffeners With No-Weld Corners

**Boom Concept** The arrangement of high strength angle chords (corners) with high formability steel sidewall (embossments) places the most steel at corners where maximum stress is concentrated. The result: maximum strength with minimum weight.

**Embossed Sidewall Stiffeners** Increases sidewall stiffness.

**Sidewall Design Concept** Not only do the embossments increase sidewall stiffness, but because of their placement they naturally transfer stresses uniformly to the high strength angle chords (corners) — a concept derived from Link-Belt lattice boom technology.

**Boom Wear Shoes** Boom telescope sections are supported by adjustable wear shoes both vertically and horizontally.



**Angle Chords** 100,000 psi (689.5 MPa) high strength steel angle chords are precision machined for boom sidewall overlap. This design allows all interior and exterior boom welds to be offset or staggered for maximum structural integrity.

**Time Proven Boom Design** Over two decades and thousands of hydraulic crane booms later, Link-Belt's exclusive, patented design is unchanged, state-of-the-art — before its time; providing superior capacities, tip heights and reliability.

It is true testimony to Link-Belt's engineering design achievement that this design concept is being imitated today for optimum performance.

**NO WELDS IN HIGH STRESS CORNERS**

## Attachment Flexibility

- Full power, fully synchronized 28' 9" – 91' 0" (8.76 m – 27.74 m) four-section boom.
- 25' 0" (7.62 m) fixed stowable one piece lattice type fly.
- 25' 0" (7.62 m) offsettable (2°, 15°, or 30°) stowable one piece lattice type fly.
- 25' 0" – 43' 0" (7.62 m – 13.10 m) offsettable (2°, 15°, or 30°) stowable lattice type fly with telescoping box section.



**Stowable Attachments** Swing-away lattice flies are easily stored for transportability or can be removed to meet specific road laws.

## Added Value Attachment Features

- **Hammerhead Boom Nose** Allows the operator to work at high boom angles without fouling wire rope.
- **Quick Reeve Boom Head** Allows rope to be easily reeved over boom head without removing rope socket from wedge.
- **Deflector Rollers** Rollers prevent premature wire rope wear when working at low boom angles.
- **Lightweight Nylon Head Sheaves** Reduce overall machine weight and increase lift capacities.
- **Available Auxiliary Lifting Sheave** Can be used for quick lifts with one or two parts of line when the boom head has multiple reeving. And it does not have to be removed when fly is erected in working position.

Link-Belt Construction Equipment Company Lexington, Kentucky

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