# Patented boom design



# **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.

telescope sections are supported by adjustable wear shoes both vertically and horizontally.

**Boom Wear Shoes Boom** 

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 38' 0" 115' 0" (11.58 35.05 m) four-section boom.
- Stowable, 36' 6" (11.13 m) offsettable (1°, 15°, or 30° offset), one piece lattice type fly. Available with lugs to allow addition of second section.
- Stowable, 36' 6" 61' (11.13 m 18.59 m) offsettable (1°, 15°, or 30° offset)
   2-piece, double swing-around, lattice type fly.



#### Stowable Attachments

Swing-away lattice flys 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.
- Deflector 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.



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# The Link-Belt RTC-8065.... smooth, precise control.

The New RTC-8065 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 View....

A major step forward in the construction equipment industry, the new environmental ULTRA-CAB found on the RTC-8065 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

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

Hydraulic Control Levers Armrest mounted, responsive

(joystick type).

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.

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 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 provide 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,



capabilities to provide for rigging requirements and an expanded memory which provides capacity information on all possible lift config-

rest urations.
An exclusive new feature available on the RTC-8065 is the Operator DefinedArea

Operator DefinedArea
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-8065 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.

The RTC-8065 with 184' (56.08 m) of on-board tip height is specifically designed to give contractors and rental house companies the best equipment value in the 65-ton RT class.

Jobsite Maneuverability Maneuvering the RTC-8065 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

Easy job-to-job transportability is crucial to any crane rental house or contractor. Link-Belt has designed a fast and efficient hydraulic counterweight removal system to further enhance the

site situations.

roadability of the 8065. The 12,000 lb. (5 443 kg) counterweight can be quickly lowered by two hydraulic cylinders onto counterweight removal brackets pinned to the front of the carrier. Then its simply a matter of off-loading the counterweight using its own boom... maximum roadability! And as an added value feature, the RTC-8065 comes with a "0" counterweight lift chart for this machine configuration.

Power Train Utilizing a standard Cummins engine and Clark transmission translates to maximum parts 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, dual full air service/emergency brake for improved braking, air service ports, complete light package, and aluminum fuel tank for less condensation and corrosion set new rough terrain crane standards....superior customer benefits for superior customer value. A driver controlled differential lock 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.

## **Superior Hydraulics**

**Multi-Function Control** For greater productivity control, the six pump hydraulic circuit allows simultaneous function of boomhoist, winch and swing.... setting the standard in the 65-ton (60 metric ton) class.

**Simplified Routings** The new RTC-8065 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).



State-Of-The-Art Oil Seal Technology

The RTC-8065 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.

RIC-BI

#### Piston Motor Hydraulic Hoist System

Delivers superior hoisting to the 65-ton (60 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 pistontype hydraulic motor, driven through
a planetary reduction unit
provides precise, smooth
load control with
minimal rpm.
Asynchronous,
parallel double
cross-over

improving spooling and increases rope service life. Rotation resistant rope is standard.

grooved drums

minimize rope

harmonic

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 16,805 lbs.

(7 623 kg) and maximum line speeds of 460 f.p.m. (140 m/min.) on 16" (.41 m) root diameter grooved drums.



availability as these components are common to many drive trains used in the construction industry. The Cummins 210 horsepower (156 kW) engine is coupled to a Clark 6-speed forward, 6-speed reverse electric powershift transmission.

**Gear Pumps** One main 4-section gear-type pump, one piston pump and one single gear-type pump provide hydraulic power. A mechanical disconnect on the 4-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-8065 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.

