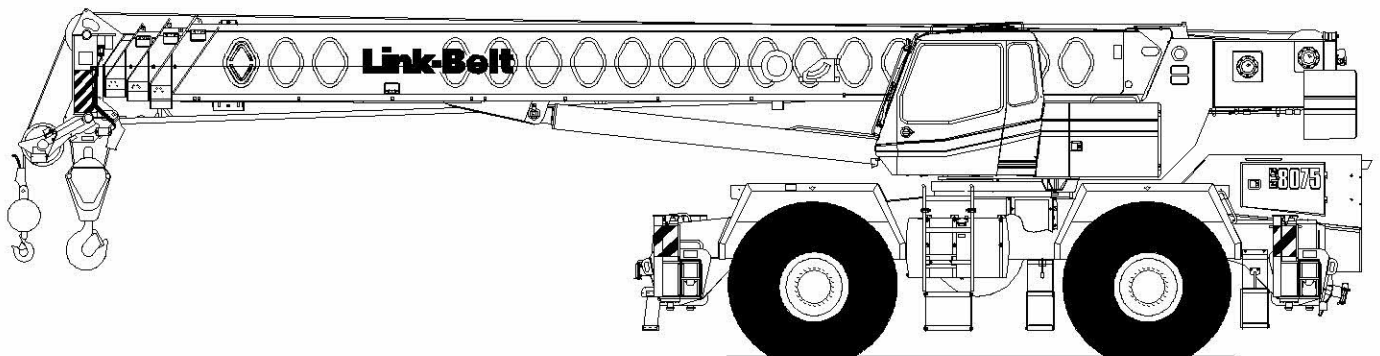


# Technical Data

## Specifications & Capacities

# RTC 8075

Telescopic Boom Rough Terrain Crane  
75 ton (68.0 metric ton)



**CAUTION:** This material is supplied for reference use only. Operator must refer to in-cab Crane Rating Manual and Operator's Manual to determine allowable crane lifting capacities and assembly and operating procedures.



# Table Of Contents

<b>Boom, Attachments, and Upper Structure</b> .....	<b>1</b>
Boom .....	1
Boom Head .....	1
Boom Elevation .....	1
Auxiliary Lifting Sheave – Optional .....	1
Hook Blocks and Balls – Optional .....	1
Fly – Optional .....	1
Operator’s Cab and Controls .....	1
Swing .....	2
Electrical .....	2
Load Hoist System .....	3
Load Hoist Performance .....	3
2M Main and Optional Auxiliary Winches .....	3
Hydraulic System .....	3
Counterweight .....	3
<b>Carrier</b> .....	<b>4</b>
General .....	4
Outriggers .....	4
Steering and Axles .....	4
Suspension .....	4
Tires and Wheels .....	4
Brakes .....	4
Electrical .....	4
Engine .....	4
Transmission .....	4
Carrier Speeds and Gradeability .....	5
Fuel Tank .....	5
Hydraulic System .....	5
Pump Drive .....	5
<b>Axle Loads</b> .....	<b>6</b>
<b>General Dimensions</b> .....	<b>7</b>
<b>Working Range Diagram</b> .....	<b>8</b>
<b>Boom Extend Modes</b> .....	<b>9</b>
<b>Main Boom Lift Capacity Charts – Standard</b> .....	<b>10</b>
15,000 lb Counterweight – Fully Extended Outriggers – 360° Rotation .....	10
15,000 lb Counterweight – On Tires – Stationary – Boom Centered Over Front Between Tire Tracks .....	11
15,000 lb Counterweight – On Tires – Pick & Carry (1 mph) – Boom Centered Over Front .....	11
15,000 lb Counterweight – On Tires – Stationary – 360° Rotation .....	11
<b>Fly Attachment Lift Capacity Charts – Optional</b> .....	<b>12</b>
15,000 lb Counterweight – Fully Extended Outriggers – 360° Rotation .....	12
127 ft Main Boom Length – 2° Fly Offset .....	12
127 ft Main Boom Length – 20° Fly Offset .....	12
127 ft Main Boom Length – 40° Fly Offset .....	12

<b>Main Boom Lift Capacity Charts – Optional (Metric)</b> .....	<b>13</b>
6 804kg Counterweight – Fully Extended Outriggers – 360° Rotation .....	13
6 804kg Counterweight – On Tires – Stationary – Boom Centered Over Front Between Tire Tracks .	14
6 804kg Counterweight – On Tires – Pick & Carry (1.6km/h) – Boom Centered Over Front .....	14
6 804kg Counterweight – On Tires – Stationary – 360° Rotation .....	15
<b>Fly Attachment Lift Capacity Charts – Optional (Metric)</b> .....	<b>15</b>
6 804kg Counterweight – Fully Extended Outriggers – 360° Rotation .....	15
38.71m Main Boom Length – 2° Fly Offset .....	15
38.71m Main Boom Length – 20° Fly Offset .....	15
38.71m Main Boom Length – 40° Fly Offset .....	15

# Boom, Attachments, and Upper Structure

## ■ Boom

**Design** – Four section, box type construction of high tensile steel consisting of one base section and three telescoping sections. The vertical side plates have diamond shaped steel impressions for superior strength to weight ration. The first telescoping section extends independently by means of one double-acting, single stage hydraulic cylinder with integrated holding valves. The second and third telescoping sections extend proportionally by means of one double-acting, single stage cylinder with integrated holding valves and cables.

## Boom

- 41–127 ft (12.5–38.7m) four section full power boom
- Two mode boom extension: *A-max* mode provides superior capacities by extending the first telescoping section to 69.6 ft (21.2m). Standard mode synchronizes all the telescoping sections proportionally to 127 ft (38.7m). Controlled from the operator's cab.
- Mechanical boom angle indicator
- Maximum tip height for *A-max* mode is 80 ft (24.3m) and standard mode is 136 ft (41.4m).

## Boom Head

- Five 16.5 in (41.9cm) root diameter nylon sheaves to handle up to ten parts of line
- Easily removable wire rope guards
- Rope dead end lugs on each side of the boom head
- Boom head is designed for quick-reeve of the hook block

## Boom Elevation

- One double acting hydraulic cylinder with integral holding valve
- Boom elevation:  $-3^{\circ}$  to  $78^{\circ}$

## Auxiliary Lifting Sheave – Optional

- Single 16.5 in (41.9m) root diameter nylon sheave
- Easily removable wire rope guards
- Does not affect erection of the fly or use of the main head sheaves

## Hook Blocks and Balls – Optional

- 40 ton (36.3mt) 4 sheave quick-reeve hook block with safety latch
- 60 ton (54.4mt) 4 sheave quick-reeve hook block with safety latch
- 75 ton (68.0mt) 5 sheave quick-reeve hook block with safety latch
- 8.5 ton (7.7mt) swivel and non-swivel hook balls with safety latch

## Fly – Optional

- 39 ft 6 in (12.0m) one piece lattice fly, stowable, offsettable to  $2^{\circ}$ ,  $20^{\circ}$ , and  $40^{\circ}$ . Maximum tip height is 174 ft (53.0m).

- 39 ft 6 in–67 ft (12.0–20.4m) two piece bi-fold lattice fly, stowable, offsettable to  $2^{\circ}$ ,  $20^{\circ}$ , and  $40^{\circ}$ . Maximum tip height is 202 ft (61.6m).

## ■ Operator's Cab and Controls

**Environmental Cab** – Fully enclosed, one person cab of galvaneal steel structure with acoustical insulation  
Equipped with:

- Tinted and tempered glass windows
- Extra-large fixed front window with windshield wiper and washer
- Swing up roof window with windshield wiper
- Sliding left side door with large fixed window
- Sliding rear and right side windows for ventilation
- Six way adjustable, cushioned seat with seat belt and storage compartment
- Engine dependent warm-water heater with air ducts for front windshield defroster and cab floor
- Defroster fan for the front window
- Bubble level
- Circulating fan
- Adjustable sun visor
- Dome light
- Cup holder
- Fire extinguisher
- Left side viewing mirror
- Two position travel swing lock

**Air Conditioning – Optional** – Integral with cab heating system utilizing the same ventilation outlets

**Steering Column** – Pedestal type with tilt and telescope functions for operator comfort. Column includes the following controls and indicators:

Left and right levers include:

- Horn button
- Turn signal switch
- Driving light switch
- Transmission direction switch

Panel mounted switches for:

- Travel park brake
- Steer mode selector
- 2/4 wheel drive/range selector
- Transmission gear selector
- Hazard flasher

Panel mounted indicator/warning lights for:

- Transmission temperature
- Engine oil pressure
- Travel park brake
- Service brake
- Turn signals
- Rear wheel offset
- Emergency steer – optional

**Armrest Controls** – Two dual axis hydraulic joystick controllers or optional single axis hydraulic controllers for:

- Swing
- Boom hoist
- Main rear winch
- Auxiliary front winch – optional
- Drum rotation indication
- Drum rotation indicator activation switch
- Winch high/low speed and disable switch(es)
- Third wrap selector switch – optional
- Telescopic override switches
- Warning horn button
- Swing park brake

**Outrigger Controls** – Hand held control box with umbilical cord gives the operator the freedom to view operation while setting the outriggers.

#### **Foot Controls**

- Boom telescope
- Swing brake
- Engine throttle
- Service brake

**Right Front Console** – Controls and indicators for:

- |                                     |   |
|-------------------------------------|---|
| • Engine ignition                   | • Console dimmer switch                   |
| • Engine throttle lock              | • Bubble level                            |
| • Function disable                  | • 12 volt power connection                |
| • Front windshield wiper and washer | • Air conditioning – optional             |
| • Cab floodlights                   | • Boom floodlight – optional              |
| • Warning horn                      | • Rotating beacon/Strobe light – optional |
| • Heating controls                  | • Third wrap indicator – optional         |

**Cab Instrumentation** – Ergonomically positioned, analog instrumentation for crane operation including:

- Engine coolant temperature with warning indicator
- Hydraulic oil temperature with warning indicator
- Fuel level with warning indicator
- Tachometer
- Transmission temperature with warning indicator
- Voltmeter with warning indicator

**Rated Capacity Limiter** – Microguard graphic audio–visual warning system integrated into the dash with anti–two block and function limiter. Operating data available includes:

- Crane configuration
- Boom length and angle
- Boom head height
- Allowed load and % of allowed load
- Boom angle
- Radius of load
- Actual load
- Operator settable alarms (include):
  - Maximum and minimum boom angles
  - Maximum tip height
  - Maximum boom length
  - Swing left/right positions
  - Operator defined area (imaginary plane)

**Internal RCL Light Bar – Optional** – Visually informs the operator when crane is approaching maximum load capacity with a series of green, yellow, and red lights.

**External RCL Light Bar – Optional** – Visually informs the ground crew when crane is approaching maximum load capacity with a series of green, yellow, and red lights.

## ■ Swing

**Motor/Planetary** – Bi–directional hydraulic swing motor mounted to a planetary reducer for 360° continuous smooth swing at 2.1 rpm.

**Swing Park Brake** – 360°, electric over hydraulic, (spring applied/hydraulic released) multi–disc brake mounted on the speed reducer. Operated by a toggle switch from the operator's cab.

**Swing Brake** – 360°, foot operated, hydraulic applied disc brake mounted to the speed reducer.

**Swing Lock** – Two–position swing lock (boom over front or rear) operated from the operator's cab.

**360° Positive Swing Lock – Optional** – Meets New York City requirement.

## ■ Electrical

**Swing Alarm** – Audio warning device signals when the upper is swinging.

#### **Lights**

- Two working lights on front of the cab
- One rotating amber beacon on top of the cab – optional
- One amber strobe beacon on top of the cab – optional
- Boom floodlight – optional

