HTC-8640
40-ton (36.29 mt)
Hydraulic Truck Crane

- 40-ton (36.29 mt) at a 9' (2.74 m) radius
- 105' (32.00 m) full-power, four-section boom with quick-reeve boom head
- 162' (49.38 m) maximum tip height
- Optional 51' (15.54 m) two-piece (bi-fold) lattice fly, stowable, offsettable to 2°, 20° and 40°
- No deducts for stowed attachment
- Full-deck aluminum fenders
- Pilot-operated hydraulic control
- On-highway 350 hp electronic Cummins engine
- 4,700 lb (2,132 kg) counterweight

HTC-8640
Heavy Lift

40-ton (36.29 mt)
Hydraulic Truck Crane

The HTC-8640 Heavy Lift boasts all of the outstanding features of the HTC-8640, in addition to:
- An additional 5,000 lbs (2,268 kg) of counter-weight for a total of 9,700 lbs (4,400 kg) significantly increases the lifting capacity and gives it the strongest chart in the three-axle, 40-ton (36.29 mt) capacity truck crane class
- On-highway 330 hp Cummins ISL engine with Jake Brake
- Heavy duty rear axles
- Larger rear tires 12R22.5
HTC-8640

The HTC-8640 boasts the longest standard boom in the three-axle truck crane class in North America, and incorporates other proven Link-Belt features:

- A-max boom mode
- Confined Area Lifting Capacities (CALC)
- BOSS™ boom
- Ultra-Cab with CabWalk™

HTC-8640
Heavy Lift

All the great features of the HTC-8640 PLUS:

- Best 360° 40-ton lift capacities in the 3-axle class
- More counterweight
- Heavy duty rear axles

Longest standard boom in its class

- Full power, fully synchronized four-section, 33’ to 105’ (10.06 to 32.00 m) boom, with quick reeve boom head
- Maximum tip height is 162’ (49.38 m) with the main boom and full attachment.
- The “Boss” is Link-Belt’s patented boom design of high-strength angle cords and high formability sidewall embossments.

A-max mode

The basic boom extension (mode “B”) self-proportions all four sections equally. The exclusive A-max mode (mode “A”) extends only the inner mid-section to 57’ (17.37 m), offering substantially increased capacities for in-close, maximum capacity picks and providing the operator the capability to match the crane’s configuration to specific job site conditions.

Optional two-piece bi-fold lattice fly

- Erection of 28.5’ - 51’ (8.68 - 15.54 m) two-piece (bi-fold) lattice fly is a one-man operation
- Exclusive design reduces side deflection when lifting loads
- Easy to erect and stow
- Also available: 28.5’ (8.68 m) one-stage, swing-away lattice attachment
- Attachments offset to 2°, 20° and 40°

Sheppard rack & pinion steering system provides 40° wheel cuts and a 40° turning radius

Non-slip surface strips on carrier deck

Link-Belt’s innovative two-part paint coating technology, coupled with a pre-assembly paint process, provides the finest quality coating system available today. This enhances the overall aesthetic appeal of the final machine, as nuts, bolts, hoses and various parts are no longer painted. As a result, paint chipping, cracking and deterioration is significantly reduced when service work and disassembly are required. The paint is baked on to totally cure the paint before assembly.

Quick reeve head machinery for fast, easy line change. 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 is pinned (not bolted) and requires only one man for installation. It can be used for quick lifts with one or two parts of line when the boom head has multiple reeving. And it remains on the boom through any fly combination, regardless of offset.

Aluminum wheels and front/rear radial tires are rated for use on 70-ton cranes, and are interchangeable with all other cranes in the HTC series.
Stow 'n Go outrigger pontoons are quickly and easily stored and secured for travel, eliminating the need to remove the outrigger's pontoon each time the crane moves. Outrigger pontoon storage space is also available on the rear fenders and side carrier access ladders.

Piston motor hydraulic hoist system
Standard load hoist system consists of a main winch with two-speed piston motor and automatic brake for power up/down mode of operation. A bi-directional hydraulic motor, driving a planetary reduction unit provides precise smooth load control with minimal rpm's.

Asynchronous, parallel double cross-over grooved drums minimize rope harmonic motion, improving spooling and increasing rope service life. A two-speed auxiliary winch is an available option.

For greater productivity and control, the five pump-section hydraulic circuit provides smooth, simultaneous function of winches, boom hoist, swing and boom telescope.

4,700 lb (2,132 kg) base counterweight integral with upper structure (standard). Optional two 1,000 lb (454 kg) counterweight inserts bring counterweights up to 6,700 lb (3,946 kg).

*Heavy Lift* counterweight configuration - 9,700 lb (4,400 kg): All of the above, in addition to a 3,000 lb (1,361 kg) removable counterweight.

The Ultra-Cab is roomier and quieter than traditional cabs

- Six-way adjustable fabric seat with lift-up armrest (which deactivates control functions when raised)
- Armrest mounted, responsive dual axis hydraulic controllers
- Bubble level sight level mounted on side console
- Ducted air through automotive-style directional vents
- Sliding right side, rear windows and swing-up roof window
- Single foot pedal control of boom telescope
- Automotive-style windshield
- Corner-post-mounted backlight gauges
- Dashless design
- Large, sweeping electric wipers
- Interchangeable with entire HTC and RTC lines, with exception of the RTC-8030 Series II and RTC-8060

Integral rated capacity limiter
The Microguard 434 aids the operator in safe and efficient operation by continuously monitoring boom length, boom angle, head height, radius of load, machine configuration, allowed load, actual load and percent of allowed load.

An exclusive feature on the HTC-8640 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.

The Microguard 434 also features:
- Improved access time
- Radio frequency shielding
- Large liquid crystal alpha-numeric display
- Total system override capabilities to provide for rigging requirements
- Optional graphic display bar, positioned near the top of the windshield for optimum viewing during crane operation alerts the operator of the current lift capacity through a series of green, yellow and red lights.

Another first from Link-Belt, the axle lift system holds the rear axles level while the crane is on outriggers.

Smooth ride with air-ride suspension
Standard on all HTC-8640's, the air-ride suspension provides a smooth ride and precise handling. For pick-and-carry operations, the four air bags are deflated allowing the suspension to rest solid on the carrier frame. Before lifting the load, simply flip one switch in the carrier's cab and the bags automatically deflate. When the pick-and-carry operation is completed, flip the same switch and the air bags automatically re-inflate.

In addition to Link-Belt's smooth travelling and precise handling air-ride suspension, heavy duty rear axles and 12R22.5 tires have been added on the HTC-8640HL.
Cruise to the next job site at 59 mph

The HTC-8640 is outfitted with a Cummins ISC-350 engine and a 9-speed manual transmission. The Cummins ISL-330 engine with engine compression brake, or "Jake Brake," is an available option and is standard on the "Heavy Lift."

Transmission
- 9-speed forward & 2-speed reverse manual transmission (standard)
- Automatic 6-speed forward & 1-speed reverse transmission with 2-speed auxiliary transmission is available on the HTC-8640 and the "Heavy Lift."
- 59 mph maximum highway travel speed
- 6 x 4 drive (standard)

Carrier cab
The carrier cab and engine cowling are manufactured of the same LFC 2000 construction process as the upper operator’s cab. This rust-free, laminated fibrous composite material combined with additional acoustical treatments assure the operator of maximum highway comfort. And the rack and pinion steering puts the operator in complete control. Interchangeable with entire HTC line.

Additional comfort and safety features include:
- Dash mounted comprehensive instrumentation with back-lighted gauges
- Sliding side and rear windows and roll up/down door window provides excellent ventilation
- Ducted air through automotive-style directional vents
- Fully adjustable air ride fabric seat
- Suspended pedals
- Rear view mirrors
- Tilt steering column

Serviceability
Wide opening engine doors provide excellent accessibility, all fittings are staggered for easy servicing, and 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 kit (optional). The driver can use the stop engine and check engine indicator lights to troubleshoot the engine. An engine diagnostic connector, located under the carrier cab dash, allows an engine service technician to further analyze engine problems with an engine diagnostic data reader.

FOR MORE INFORMATION, CONTACT YOUR AUTHORIZED LINK-BELT DISTRIBUTOR:
Specifications
Telescopic Boom Truck Crane

HTC-8640 40-ton (36.29 metric tons)

General Dimensions

<table>
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<th>feet</th>
<th>meters</th>
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<tbody>
<tr>
<td>Turning radius – wall to wall</td>
<td>44' 2&quot;</td>
<td>13.46</td>
</tr>
<tr>
<td>Turning radius – curb to curb</td>
<td>39' 6&quot;</td>
<td>14.44</td>
</tr>
<tr>
<td>Ground clearance</td>
<td>13&quot;</td>
<td>3.33</td>
</tr>
<tr>
<td>Tailswing</td>
<td>11' 6&quot;</td>
<td>3.51</td>
</tr>
</tbody>
</table>

Not To Scale
Upper Structure

■ Boom

Patented Design
• Boom side plates have diamond shaped impressions for superior strength to weight ratio and 100,000 p.s.i. (895.5 MPa) steel angle chords for lateral stiffness.
• Boom telescope sections are supported by top, bottom and adjustable side wear shoes to prevent metal to metal contact.

Boom
• 33’ – 105’ (10.06 – 32.00 m) four–section full power boom.
• Two mode boom extension
• The basic mode is the full power, synchronized mode of telescoping all sections proportionally to 105’ (32.00 m).
• The exclusive “A–max” mode (or mode ‘A) extends only the inner mid section to 57” (17.03 m) offering increased capacities for in–close, maximum capacity picks.
• Mechanical Boom Angle Indicator

Boom Head
• Four 16.5” (0.42 m) root diameter nylon sheaves to handle up to eight parts of wire rope.
• Easily removable wire rope guards
• Rope dead end lugs provided on each side of boom head.
• Boom head designed for quick reeve of hook block.

Boom Elevation
• One Link–Belt designed hydraulic cylinder with holding valve and bushing in each end.
• Hand control for controlling boom elevation from –3° to +78°.

Optional Auxiliary Lifting Sheave
• Single 16.5” (0.42 m) root diameter nylon sheave with removable wire rope guard, mounted to boom.
• Use with one or two parts of line off the optional front winch.
• Does not affect erection of fly or use of main head sheaves for multiple reeving.

Optional
• 25–ton (22.7 mt) quick reeve hook block.
• 40–ton (36.3 mt) quick reeve hook block.
• 8.5–ton (7.7 mt) hook ball.
• Boom floodlight.

■ Fly

Optional
• 28.5’ (8.69 m) offsettable stowable one–piece lattice type with lugs to allow for addition of second section. Can be offset 2°, 20° or 40°.
• 28.5’ – 51’ (8.69 – 15.54 m) offsettable stowable 2–piece lattice type. Can be offset 2°, 20° or 40°.

■ Cab and Controls

Environmental Ultra–Cab™
• Laminated fibrous composite material; isolated from sound with acoustical fabric insulation.

Windows are tinted and tempered safety glass.
• Sliding rear and right side windows and swing–up roof window for maximum visibility and ventilation.
• Slide–by–door opens to 3’ (0.91 m) width.
• Six–way adjustable seat for maximum operator comfort.
• Hand–held outrigger controls and sight level bubble located in cab.
• Diesel cab heater
• Pull–out Cabwalk™
• Audible swing alarm
• Fire extinguisher
• Electric windshield wiper
• Windshield washer
• Top hatch window wiper

Optional
• Amber strobe light
• Amber rotating beacon
• Hydraulic heater
• Air conditioning

Controls
Hydraulic controls (joy–stick type) for:
• Swing
• Optional auxiliary winch
• Main winch
• Boom hoist
• Foot controls for:
• Boom telescope
• Swing brake
• Engine throttle

Optional
• Auxiliary winch
• Single axis controls

■ Rated Capacity Limiter

Microguard 434 Graphic audio–visual warning system built into dash with anti–two block and function limiters.

Operating data available includes:
• Machine configuration.
• Boom length
• Head height
• Allowed load
• % of allowed load

Presettable alarms include:
• Maximum and minimum boom angles.
• Maximum tip height.
• Maximum boom length.
• Swing left/right positions.
• Operator defined area alarm is standard.
• Anti–two block weight designed for quick reeve of hook block.

■ Swing

Bi–directional hydraulic swing motor mounted to a planetary reducer for 360° continuous smooth swing at 2.8 r.p.m.

Swing park brake – 360°, electric over hydraulic (spring applied, hydraulic released) multi–disc brake mounted on the speed reducer. Operated by toggle switch in overhead control console.

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

Swing lock – Standard; two position travel lock operated from the operator’s cab.

Counterweight
• Standard – Bolted to upper structure frame.
• Optional – 2,000 lbs. (907 kg) additional counterweight can be inserted into pockets in main counterweight.

Optional
• 360° swing lock. Meets New York City requirements.

■ Hydraulic System

Main Pump
• One gear pump with a total of four sections.
• Combined pump capacity of 131 gpm (488 lpm).
• Powered by carrier engine through power take–off (PTO).
• Spline type pump disconnect, mechanically activated pump disconnect engaged / disengaged from carrier cab.
• Maximum system operating pressure is 3,350 psi (23,098 kPa).
• O–ring face seals technology used throughout with hydraulic oil cooler standard.

Steering / Fifth Outrigger Pump
• Single gear type pump, 6 gpm (23 lpm).
• Powered by carrier engine through front gear housing.
• Max. pump operating pressure is 2,000 psi (13,790 kPa). Reservoir – 131 gallon (507.2 L) capacity. One diffuser for deaeration.

Filtration
• One 10–micron filter located inside hydraulic reservoir.
• Accessible for easy replacement.
Control valves
- Five separate pilot operated control valves allow simultaneous operation of all crane functions.

### Load Hoist System

#### Standard
- 2M main winch with grooved lagging.
- Two-speed motor and automatic brake.
- Power up/down mode of operation.

#### Optional
- Standard Rear
- Standard Front
- /C0074
- /C0083
- Controls valves
- Bi-directional piston-type hydraulic motor driven through planetary reduction unit for positive control under all load conditions.
- Asynchronous parallel double crossover grooved drums minimize rope harmonic motion.
- Pressure compensated winch circuit provides balanced oil flow to both winches for smooth, simultaneous operation.
- Rotation resistant wire rope.
- Drum rotation indicators.

### Carrier

#### Type
- 8’6” (2.59 m) wide, 257” (6.53 m) wheelbase. 6 x 4 drive – standard.

#### Frame
- 100,000 p.s.i. (689.5 MPa) steel, double walled construction with integral 100,000 p.s.i. steel outrigger boxes.

#### Optional
- Carrier mounted storage boxes.
- Pintle hook.
- Electric and air connections for trailers.

#### Axles

- **Front**
  - Single, 83.22” (2.11 m) track.
- **Rear**
  - Tandem, 76.17” (1.93 m) track, 5.57 to 1.0 ratio with interaxle differential with lockout (6.17:1 ratio with automatic transmission).

#### Suspension

- **Front axle**
  - Leaf spring suspension.
- **Rear axle**
  - Air-ride, bogie beam type, suspension.

#### Wheels

- **Standard**
  - Hub piloted steel disc.
- **Optional**
  - Hub piloted aluminum disc.
  - Spare tire and wheel assemblies.

#### Tires

- **Standard Front**
  - 425/65R22.5 (Load range “L”) single tubeless radials.
- **Standard Rear**
  - 275/80R22.5 (Load range “H”) dual tubeless radials.
- **Optional Rear**
  - 11R22.5 (Load range “H”) dual tubeless radials.

#### Brakes

- **Service**
  - Full air brakes on all wheel ends with automatic slack adjusters. Dual circuit with modulated emergency brakes.
  - Front – 16.5 x 6 S–Cam brakes.
  - Rear – 16.5 x 7 S–Cam brakes.

- **Parking/Emergency**
  - One spring set, air released chamber per rear axle end.
  - Parking brake applied with valve mounted on carrier dash.
  - Emergency brakes apply automatically when air drops below 40 psi (275.6 kPa) in both systems.

#### Steering

- Sheppard rack and pinion design.

#### Transmission

- **Standard**
  - Eaton RTX-11609B; 9 speeds forward, 2 reverse.
- **Optional**
  - Automatic Allison MD 3066, 65:1 high, 3.49:1 low.

#### Electrical

- Two 12–volt batteries provide 12–volt starting.
- 1,400 cold cranking amps available.
- 12–volt operating system.

#### Lights

- Four dual beam sealed headlights.
- Front, side, and rear directional signals.
- Stop, tail and license plate lights.
- Rear and side clearance lights.
- Hazard warning lights.

#### Outriggers

- Three position operation capability.
- Four hydraulic, telescoping beam and jack outriggers.
- Vertical jack cylinders equipped with integral holding valve.
- Beams extend to 20” 6” (6.25 m) centerline–to–centerline and retract to within 8” 6” (2.59 m) overall width.
- Equipped with stowable, lightweight 24” (0.61 m) diameter aluminum floats.
- Standard fifth outrigger, 16” (0.41 m) self storing steel pad is operable from ground or operator’s cab.
- Hand-held controls and sight level bubble located on carrier deck.

#### Line Pulls and Speeds

- Maximum available line pull 13,010 lbs. (5 901 kg) and maximum line speed of 480 f.p.m. (146 m/min) on 10.63” (0.27 m) root diameter grooved drum.

#### Confined Area Lifting Capacities (CALC"") System

- The crane is operational in one of the three outrigger positions and operational in confined areas in two positions (intermediate and full retraction). The three outrigger positions are:
  - Full extension – 20’ 6” (6.25 m).
  - Intermediate position – 14’ 1.70” (4.31 m).
  - Full retraction – 7’ 9.24” (2.36 m).

- Capacities are available with the outrigger beams in the intermediate and full retraction positions.
- When the outrigger position levers (located on the outrigger beams) are engaged, the operator can set the crane in the intermediate or full retraction outrigger position without having to leave the cab.

#### Carrier Cab

- One–man cab of laminated fibrous composite material acoustical insulation with cloth covering.

- Equipped with:
  - Air–ride, six–way adjustable operator’s seat.
  - Four–way adjustable tilting and lockable steering wheel.
  - Door and windows locks.
  - Left–hand and right–hand rear view mirrors.
  - Sliding right–hand and rear tinted windows.
  - Roll up/down left–hand tinted window.
  - Desiccant–type air dryer.
  - Steps to upper, lower cab and rear carrier.
  - 120–volt electric engine block heater.
  - Back–up warning alarm.
  - Tow hooks and shackles.
  - Aluminum fenders with ground control outriggers.
  - Electric windshield wiper and washer.
  - Travel lights
  - Fire extinguisher
  - 36,000 BTU heater
  - Dome light
  - Mud flaps

- **Optional**
  - Rotating Beacon
  - Amber Strobe Light
  - Air conditioning

#### Cab instrumentation

- Illuminated instrument panel speedometer.
- Tachometer
- Fuel gauge
- Oil pressure gauge
- Turn signal indicator
- Voltmeter
- Water temperature gauge.
- Front and rear air pressure gauges.
- Audio/visual warning system.
- Automotive type ignition.

---

HTC–8640
## Carrier Speeds

(Manual Transmission – Standard tires)

<table>
<thead>
<tr>
<th>Gear</th>
<th>Hi Rev.</th>
<th>Lo Rev.</th>
<th>@700 rpm</th>
<th>Low @700 rpm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratio</td>
<td>0.73</td>
<td>1.00</td>
<td>1.38</td>
<td>1.95</td>
</tr>
<tr>
<td>Speed mph</td>
<td>km/hr.</td>
<td>58.92</td>
<td>43.01</td>
<td>31.17</td>
</tr>
</tbody>
</table>

### Engine

<table>
<thead>
<tr>
<th>Standard</th>
<th>Cummins ISC 350</th>
<th>Engine – standard</th>
<th>Cummins ISL 330 with Jake Brake</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cylinders – cycle</td>
<td>6 / 4</td>
<td>6 / 4</td>
<td></td>
</tr>
<tr>
<td>Bore</td>
<td>4.49” (114 mm)</td>
<td>4.49” (114 mm)</td>
<td></td>
</tr>
<tr>
<td>Stroke</td>
<td>5.32” (135 mm)</td>
<td>5.69” (145 mm)</td>
<td></td>
</tr>
<tr>
<td>Displacement</td>
<td>504.5 cu. in. (8 268 cm³)</td>
<td>540 cu. in. (8 849 cm³)</td>
<td></td>
</tr>
<tr>
<td>Maximum brake hp.</td>
<td>350 @ 2,000 rpm; 335 @ 2,200 rpm</td>
<td>345 @ 1,900 rpm; 330 @ 2,100 rpm</td>
<td></td>
</tr>
<tr>
<td>Peak torque</td>
<td>1,050 ft. lbs. (1,560 J) @ 1,300 rpm</td>
<td>1,150 ft. lbs. (1,559.2 J) @ 1,300 – 1,400 rpm</td>
<td></td>
</tr>
<tr>
<td>Electric system</td>
<td>12–volt neg. ground/12 volt starting</td>
<td>12–volt neg. ground / 12 volt starting</td>
<td></td>
</tr>
<tr>
<td>Fuel capacity</td>
<td>75 gallons (284 L)</td>
<td>75 gallons (284 L)</td>
<td></td>
</tr>
<tr>
<td>Alternator</td>
<td>12 volt, 160 amps</td>
<td>12 volt, 160 amps</td>
<td></td>
</tr>
<tr>
<td>Crankcase capacity</td>
<td>20 qts. (19 L)</td>
<td>29 qts. (28 L)</td>
<td></td>
</tr>
</tbody>
</table>

### Axle Loads

Base machine with standard 33” – 105’ (10.06 – 32.00 m) four–section boom, 2M main winch with 2–speed hoisting and power up/down, 450’ (137 m), 5/8” (19 mm) wire rope, 8 x 4, 8.5 (5.99 m) carrier with Cummins ISC 350 Engine, 75 gal. (284 L) fuel, aluminum fenders and 4,700 lb. (2,132 kg) counterweight.

<table>
<thead>
<tr>
<th>G.V.W.</th>
<th>Upper Facing Front</th>
</tr>
</thead>
<tbody>
<tr>
<td>lbs.</td>
<td>kg.</td>
</tr>
<tr>
<td>56,828</td>
<td>25,777</td>
</tr>
</tbody>
</table>

#### One–quarter tank of diesel fuel

-394 – 179

-269 – 122

-125 – 57

#### Left side carrier aluminum storage box

57 – 26

14 – 6

43 – 20

#### Right side carrier aluminum storage box

57 – 26

14 – 6

43 – 20

#### Cummins ISL–330 engine with engine brake

25 – 11

23 – 10

2 – 1

#### Six–speed automatic transmission and two–speed auxiliary transmission with engine brake

601 – 273

266 – 121

335 – 152

#### Tire and aluminum disc 425/65R22.5 fronts – 11R22.5 rears

-520 – 236

-110 – 50

-410 – 186

#### Air conditioning – Carrier cab

124 – 56

135 – 61

-11 – 5

#### Pintle hook w/air and electrical hook–ups

32 – 15

-9 – 4

41 – 19

#### Driver in carrier cab

200 – 91

236 – 107

-36 – 16

#### Cab heater assembly (hydraulic)

110 – 50

-8 – 4

118 – 5

#### Air conditioning – Operator cab

315 – 143

-35 – 16

350 – 159

#### Rear winch roller

77 – 35

-31 – 14

108 – 49

#### Front winches with two speeds and 450’ (137.2 m) of wire rope

312 – 141

-93 – 43

405 – 184

#### Front winch roller

77 – 35

-22 – 10

99 – 45

#### Remove rear winch rope (450’)

-365 – 166

161 – 73

-526 – 239

#### Remove front winch rope (450’)

-365 – 166

120 – 54

-485 – 220

#### 360 degree Mechanical House Lock

60 – 27

2 – 1

62 – 28

#### Add 2,000 lbs of counterweight (6,700 lbs. total)

2,000 – 907

-888 – 394

2,868 – 1,801

#### Fly brackets to boom base section for fly options

116 – 53

62 – 28

54 – 24

#### 28.5’ (8.69 m) offsettable fly w/ATB weight (stowed)

1,184 – 537

839 – 381

345 – 156

#### 28.5’ – 51’ (8.69 – 15.54 m) offsettable fly w/ATB weight (stowed)

1,757 – 797

1,141 – 518

616 – 279

#### Floordrive to front of boom base section

10 – 5

13 – 6

-3 – 1

#### 25-ton (22.7 mt) hook block stowed behind bumper (3–sheaves)

670 – 304

784 – 356

-114 – 52

#### 40-ton (36.3 mt) hook block stowed behind bumper (4–sheaves)

780 – 354

913 – 414

-133 – 60

#### Hookball to front bumper

360 – 163

421 – 191

-61 – 28

#### Auxiliary arm w/ATB switch to boomhead

110 – 50

153 – 69

-43 – 20

[1] Adjust gross vehicle weight & axle loading according to component weight. Note: All weights are ± 3%
Lifting Capacities

Telescopic Hydraulic Truck Crane

HTC–8640  40–ton (36.3 metric ton)

Boom and fly capacities for this machine are listed by the following sections:

**Fully Extended Outriggers**

- Working Range Diagrams (4,700 lbs. and 6,700 lbs. Counterweight)
- 33 to 57 ft. main boom capacities, A–max mode
- 33 to 105 ft. main boom capacities, Basic Mode “B”
- 28.5 ft. offset fly capacities, Basic Mode “B”
- 28.5 to 51 ft. two–piece offset fly capacities, Basic mode “B”

CAUTION: This material is supplied for reference use only. Operator must refer to in–cab Crane Rating Manual to determine allowable machine lifting capacities and operating procedures.
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<td>Winch Performance</td>
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</tr>
<tr>
<td>5</td>
<td>Hydraulic Circuit Pressure Settings</td>
</tr>
<tr>
<td>5</td>
<td>Working Areas</td>
</tr>
<tr>
<td>5</td>
<td>Capacity Deductions for Auxiliary Load Handling Equipment</td>
</tr>
</tbody>
</table>

Fully Extended Outriggers

<table>
<thead>
<tr>
<th>Page</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Working Range Diagram, 4,700 lbs. Counterweight</td>
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<tr>
<td>7-8</td>
<td>Lifting Capacities, 4,700 lbs. Counterweight</td>
</tr>
<tr>
<td>9</td>
<td>Working Range Diagram, 6,700 lbs. Counterweight</td>
</tr>
<tr>
<td>10-11</td>
<td>Lifting Capacities, 6,700 lbs. Counterweight</td>
</tr>
</tbody>
</table>
OPERATING INSTRUCTIONS

GENERAL:
1. Rated lifting capacities in pounds as shown on lift charts pertain to this crane as originally manufactured and normally equipped. Modifications to the crane or use of optional equipment other than that specified can result in a reduction of capacity.
2. Construction equipment can be dangerous if improperly operated or maintained. Operation and maintenance of this crane must be in compliance with the information in the Operator’s, Parts, and Safety Manuals supplied with this crane. If these manuals are missing, order replacements through the distributor.
3. The operator and other personnel associated with this crane shall read and fully understand the latest applicable American National Standards ASME B30.5 safety standards for cranes.
4. The rated lifting capacities are based on crane standing level on firm supporting surface.

SET UP:
1. The crane shall be leveled on a firm supporting surface. Depending on the nature of the supporting surface, it may be necessary to have structural supports under the outrigger pontoons or tires to spread the load to a larger bearing surface.
2. When making lifts on outriggers, all tires must be free of supporting surface. All outrigger beams must be extended to the same length; fully retracted, intermediate extended, or fully extended. The front bumper outrigger must be properly extended.
3. When making lifts on tires, they must be inflated to the recommended pressure. (See Operation note 20 and Tire Inflation.)
4. Before swinging boom to over side position on tires, boom sections must be fully retracted.
5. For required parts of line, see Wire Rope Capacity and Winch Performance.
6. Before setting up on intermediate outriggers, retracted outriggers, or tires, refer to Working Range Diagrams and rated lifting capacities to determine allowable crane configurations.

OPERATION:
1. Rated lifting capacities at rated radius shall not be exceeded. Do not tip the crane to determine allowable loads. For concrete bucket operation, weight of bucket and load shall not exceed 80% of rated lifting capacities. For clamshell bucket operation, weight of bucket and bucket contents is restricted to a maximum weight of 6,000 pounds or 80% of rated lifting capacity, whichever is less. For magnet operation, weight of magnet and load is restricted to a maximum weight of 6,000 pounds or 80% of rated lifting capacity, whichever is less. For clamshell and magnet operation, maximum boom length is restricted to 50 ft. and the boom angle is restricted to a minimum of 35 degrees. Lifts with either fly erected is prohibited for both clam and magnet operation.
2. Rated lifting capacities shown on fully extended outriggers do not exceed 85% of the tipping loads. Rated lifting capacities shown on intermediate extended or fully retracted outriggers are determined by the formula, rated load = (tipping load – 0.1 X load factor)/1.25. Rated lifting capacities shown on tires do not exceed 75% of the tipping loads. Tipping loads are determined by SAE crane stability test code J–765.
3. Rated lifting capacities in the shaded areas are based on structural strength or hydraulic limitations and have been tested to meet minimum requirements of SAE J–1063 cantilevered boom crane structures—method of test. The rated lifting capacities in non—shaded areas are based on stability ratings. Some capacities are limited by a maximum obtainable 78° boom angle.
4. Rated lifting capacities include the weight of the hook ball/block, slings, bucket, magnet and auxiliary lifting devices. Their weights must be subtracted from the listed rated capacity to obtain the net load which can be lifted. Rated lifting capacities include the deduct for either fly stowed on the base of the boom. For deducts of either fly erected, but not used, see Capacity Deductions For Auxiliary Load Handling Equipment.
5. Rated lifting capacities are based on freely suspended loads. No attempt shall be made to move a load horizontally on the ground in any direction.

6. Rated lifting capacities are for lift crane service only.

7. Do not operate at radii or boom lengths (minimum or maximum) where capacities are not listed. At these positions, the crane can tip or cause boom failure.

8. The maximum loads which can be telescoped are not definable because of variation in loadings and crane maintenance, but it is permissible to attempt retraction and extension within the limits of the applicable load rating chart.

9. For main boom capacities when either boom length or radius or both are between values listed, proceed as follows:
   a. For boom lengths not listed, use rating for next longer boom length or next shorter boom length, whichever is smaller.
   b. For load radii not listed, use rating for next larger radius.

10. The user shall operate at reduced ratings to allow for adverse job conditions, such as: soft or uneven ground, out of level conditions, wind, side loads, pendulum action, jerking or sudden stopping of loads, hazardous conditions, experience of personnel, traveling with loads, electrical wires, etc. Side load on boom or fly is dangerous and shall be avoided.

11. Rated lifting capacities do not account for wind on suspended load or boom. Rated capacities and boom length shall be appropriately reduced as wind velocity approaches or exceeds 20 mph.

12. When making lifts with auxiliary head machinery, the effective length of the boom increases by 2 ft.

13. Power sections of boom must be extended in accordance with boom mode “A” or “B”. In boom mode “B” all power sections must be extended or retracted equally.

14. The least stable rated working area depends on the configuration of the crane set up.

15. Rated lifting capacities are based on correct reeving. Deduction must be made for excessive reeving. Any reeving over minimum required (see Wire Rope Capacity) is considered excessive and must be accounted for when making lifts. Use Working Range Diagram to estimate the extra feet of rope then deduct 1 lb. for each extra foot of wire rope before attempting to lift a load.

16. The loaded boom angle combined with the boom length give only an approximation of the operating radius. The boom angle, before loading, should be greater to account for deflection. For main boom capacities, the loaded boom angle is for reference only. For fly capacities, the load radius is for reference only.

17. For fly capacities with main boom length less than 105 ft. and greater than 80 ft., the rated capacities are determined by the boom angle using the 105 ft. boom and fly chart. For angles not shown use the next lower boom angle to determine the rated capacity.

18. For fly capacities with main boom length less than 105 ft. and greater than 80 ft., the rated capacities are determined by the boom angle using the 105 ft. boom and fly chart. For angles not shown use the next lower boom angle to determine the rated capacity.

19. For fly capacities with main boom length less than 80 ft., the rated capacities are determined by the boom angle only using the 80 ft. boom and fly chart. For angles not shown, use the next lower boom angle to determine the rated capacity.

20. The 33 ft. boom length structural lifting capacities are based on boom fully retracted. If the boom is not fully retracted, do not exceed capacities shown for the 40 ft. boom length.

21. Rated lifting capacities on tires depend on tire capacity, condition of tires, and tire air pressure. On tire capacities require lifting from main boom head only on a smooth and level surface. The boom must be centered over the rear of the crane with two position travel swing lock engaged and the load must be restrained from swinging. Rated lifting capacities on tires are limited to creep speed. For correct tire pressure, see Tire Inflation.

**DEFINITIONS:**

1. Load Radius: Horizontal distance from a projection of the axis of rotation to the supporting surface, before loading, to the center of the vertical hoist line or tackle with load applied.

2. Loaded Boom Angle: \( \theta \) The angle between the boom base section and horizontal with freely suspended load at the rated radius.

3. Working Area: Area measured in a circular arc about the center line of rotation as shown on the Working Area Diagram.

4. Freely Suspended Load: Load hanging free with no direct external force applied except by the hoist line.

5. Side Load: Horizontal side force applied to the lifted load either on the ground or in the air.

6. No Load Stability Limit: The radius or boom angle beyond which it is not permitted to position the boom because the crane can overturn without any load on the hook.

7. Load Factor: Load applied at the boom tip which gives the same moment effect as the boom mass.

8. Creep: Crane movement not exceeding 200 ft. in a 30 minute period and 1 mph maximum speed.
BOOM EXTENSION

**Boom Mode “A”**
- Only inner mid section telescopes

**Boom Length (ft.)**
- 188 Stroke

**Boom Mode “B”**
- Inner mid, outer mid and tip sections telescope simultaneously.

**Boom Length (ft.)**
- 188 Stroke

**Winch Performance**

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<tr>
<th>Wire Rope Layer</th>
<th>Two Speed Winch</th>
<th>Drum Rope Capacity (ft.)</th>
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<td>High Speed</td>
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<tr>
<td></td>
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<td>Available Lbs.*</td>
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<tr>
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<td>10,742</td>
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<td>9,881</td>
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<td>9,148</td>
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*Maximum lifting capacity: Type RB Rope=9,080, Type ZB Rope=11,080

**Tire Inflation**

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<tr>
<th>Tire Size</th>
<th>Operation</th>
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<td>Creep</td>
<td>120</td>
</tr>
<tr>
<td>275/80 R 22.5</td>
<td>Creep</td>
<td>120</td>
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**PonToon Loadings**

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<th>Maximum Pontoon Load:</th>
<th>Maximum Pontoon Ground Bearing Pressure:</th>
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<tr>
<td>61,750 lbs.</td>
<td>137 psi</td>
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</table>

**Capacity Deductions for Auxiliary Load Handling Equipment**

- **Load Handling Equipment:**
  - Auxiliary Head Attached: 100 lbs.
  - 25-ton quick reeve 3 sheave hook block: 670 lbs.
  - 40-ton quick reeve 4 sheave hook block: 780 lbs.
  - 8.5-ton hook ball: 360 lbs.

- **Lifting From Main Boom With:**
  - 28.5 ft. or 51 ft. fly stowed on base (see operation note 4): 0 lbs.
  - 28.5 ft. offset fly erected but not used: 2600 lbs.
  - 51 ft. offset fly erected but not used: 4800 lbs.

- **Lifting From 28.5 ft. Offset Fly With:**
  - 22.5 ft. fly tip erected but not used: PROHIBITED
  - 22.5 ft. fly tip stowed on 28.5 ft. offset fly: PROHIBITED

Note: Capacity deductions are for Link-Belt supplied equipment only.

**Wire Rope Capacity**

Maximum Lifting Capacities Based On Wire Rope Strength

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<th>Notes</th>
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Capacities shown are in pounds and working loads must not exceed the ratings on the capacity charts in the Crane Rating Manual.

Study Operator’s Manual for wire rope inspection procedures and single part of line applications.

**Hydraulic Circuit Pressure Settings**

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<td>Swing</td>
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<tr>
<td>Bumper Outrigger</td>
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</tr>
<tr>
<td>Pilot Control</td>
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</tr>
</tbody>
</table>

**Working Areas**

- HTC on Outriggers
- HTC on Tires

Note: These lines determine the limiting position of any load for operation within working areas indicated.
WORKING RANGE DIAGRAM

Fully Extended Outriggers

4700 # Counterweight

Note: Boom and fly geometry shown are for unloaded condition and crane standing level on firm supporting surface. Boom deflection, subsequent radius and boom angle change must be accounted for when applying load to hook.

WARNING

Do Not Lower The Boom Below The Minimum Boom Angle For No Load Stability As Shown In The Lift Charts For The Boom Lengths Given. Loss Of Stability Will Occur Causing A Tipping Condition.
<table>
<thead>
<tr>
<th>Load Capacity (Pounds)</th>
<th>33 Ft.</th>
<th>40 Ft.</th>
<th>50 Ft.</th>
<th>60 Ft.</th>
<th>70 Ft.</th>
<th>80 Ft.</th>
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</table>

Note: Refer to Page 5 for "Capacity Deductions For Auxiliary Load Handling Equipment".

- **Main Boom Angles**: Referenced to Page 5 for "Capacity Deductions For Auxiliary Load Handling Equipment".

- **Loaded Boom Angle**: In Degrees.

- ( ) Reference Radius For Min. Boom Capacities (Shown in Parenthesis) Are In Feet.

---

### Load Ratings

<table>
<thead>
<tr>
<th>Load Capacity (Pounds)</th>
<th>33 Ft.</th>
<th>40 Ft.</th>
<th>50 Ft.</th>
<th>60 Ft.</th>
<th>70 Ft.</th>
<th>80 Ft.</th>
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Note: Refer to Page 5 for "Capacity Deductions For Auxiliary Load Handling Equipment".

- **Main Boom Angles**: Referenced to Page 5 for "Capacity Deductions For Auxiliary Load Handling Equipment".

- **Loaded Boom Angle**: In Degrees.

- ( ) Reference Radius For Min. Boom Capacities (Shown in Parenthesis) Are In Feet.
### Rated Lifting Capacities In Pounds

**Fully Extended Outriggers**

See Set Up Note 2

<table>
<thead>
<tr>
<th>Load Radius (Ft.)</th>
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<th>40° Offset</th>
<th>2° Offset</th>
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**WARNING**


Note: Refer To Page 5 For "Capacity Deductions For Auxiliary Load Handling Equipment". *This Capacity Based On Maximum Obtainable Boom Angle.

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### Rated Lifting Capacities In Pounds

**Fully Extended Outriggers**

See Set Up Note 2

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**WARNING**


Note: Refer To Page 5 For "Capacity Deductions For Auxiliary Load Handling Equipment". *This Capacity Based On Maximum Obtainable Boom Angle.

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### Rated Lifting Capacities In Pounds

**Fully Extended Outriggers**

See Set Up Note 2

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<tr>
<th>Load Radius (Ft.)</th>
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**WARNING**


Note: Refer To Page 5 For "Capacity Deductions For Auxiliary Load Handling Equipment". *This Capacity Based On Maximum Obtainable Boom Angle.
Note: Boom and fly geometry shown are for unloaded condition and crane standing level on firm supporting surface. Boom deflection, subsequent radius and boom angle change must be accounted for when applying load to hook.

**WARNING**

Do Not Lower The Boom Below The Minimum Boom Angle For No Load Stability As Shown In The Lift Charts For The Boom Lengths Given. Loss Of Stability Will Occur Causing A Tipping Condition.
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<th>33 Ft.</th>
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Note: Refer to Page 5 for “Capacity Deductions For Auxiliary Load Handling Equipment”.

( ) Reference Radius For Min. Boom Angle Capacities (Shown in Parenthesis) Are In Feet.
### Rated Lifting Capacities In Pounds

<table>
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<th>Load Radius (Ft.)</th>
<th>2° Offset</th>
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**WARNING**


Note: Refer To Page 6 For "Capacity Deductions For Auxiliary Load Handling Equipment."

© Loaded Boom Angle In Degrees. * This Capacity Based On Maximum Obtainable Boom Angle.
Specifications
Telescopic Boom Truck Crane

HTC–8640 Heavy Lift 40-ton (36.29 metric tons)

General Dimension  feet  meters
Turning radius – wall to wall  44' 2"  13.46
Turning radius – curb to curb  39' 6"  14.44
Ground clearance  13"  .33
Tailswing  11' 6"  3.51

Not To Scale
Upper Structure

■ Boom

Patented Design
- Boom side plates have diamond shaped impressions for superior strength to weight ratio and 100,000 p.s.i. (689.5 MPa) steel angle chords for lateral stiffness.
- Boom telescope sections are supported by top, bottom and adjustable side wear shoes to prevent metal to metal contact.

Boom
- 33° – 105° (10.06 – 32.00 m) four-section full power boom.
- Two mode boom extension
- The basic mode is the full power, synchronized mode of telescoping all sections proportionally to 105° (32.00 m).
- The exclusive “A–max” mode (or mode ‘A’) extends only the inner mid section to 57° (17.37 m) offering increased capacities for in–close, maximum capacity picks.
- Mechanical Boom Angle Indicator

Boom Head
- Four 16.5° (0.42 m) root diameter nylon sheaves to handle up to eight parts of wire rope.
- Easily removable wire rope guards
- Rope dead end lugs provided on each side of boom head.
- Boom head designed for quick reeve of hook block.

Boom Elevation
- One Link–Bel designed hydraulic cylinder with holding valve and bushing in each end.
- Hand control for controlling boom elevation from –3° to +78°.

Optional Auxiliary Lifting Sheave
- Single 16.5° (0.42 m) root diameter nylon sheave with removable wire rope guard, mounted to boom.
- Use with one or two parts of line off the optional front winch.
- Does not affect erection of fly or use of main head sheaves for multiple reeving.

Optional
- 25–ton (22.7 mt) quick reeve hook block.
- 40–ton (36.3 mt) quick reeve hook block.
- 8.5–ton (7.7 mt) hook ball.
- Boom floodlight.

■ Fly

Optional
- 28.5° (8.69 m) one-piece lattice fly, stowable, disengaged from carrier cab.
- 28.5° – 51° (8.69 – 15.54 m) two-piece (bi-fold) fly, stowable, disengaged from 2°, 20° and 40°.

■ Cab and Controls

Environmental Ultra–Cab™
- Laminated fibrous composite material; isolated from sound with acoustical fabric insulation.
- Windows are tinted and tempered safety glass.
- Sliding rear and right side windows and swing–up roof window for maximum visibility and ventilation.
- Slide–by–door opens to 3’ (0.91 m) width.
- Six–way adjustable seat for maximum operator comfort.
- Hand–held outrigger controls and sight level bubble located in cab.
- Diesel cab heater
- Pull–out Cabwalk™
- Audible swing alarm
- Fire extinguisher
- 12–volt accessory outlet
- Electric windshield wiper
- Windshield washer
- Top hatch window wiper

Optional
- Amber strobe light
- Amber rotating beacon
- Hydraulic heater
- Air conditioning

Controls
- Hydraulic controls (joy–stick type) for:
  - Main winch
  - Boom hoist
- Foot controls for:
  - Boom telescope
  - Swing brake
  - Engine throttle

Optional
- Auxiliary winch
- Single axis controls

Cab Instrumentation
- Cornerpost–mounted gauges for:
  - Hydraulic oil temperature
  - Audio/Visual warning system
  - Tachometer
  - Voltmeter
  - Water temperature
  - Warning horn
  - Cup holder
  - Sun screen
  - Hand throttle
  - Mirrors
  - Dome light

■ Rated Capacity Limiter
- Microguard 434 Graphic audio–visual warning system built into dash with anti–two block and function limiters.

Operating data available includes:
- Machine configuration
- Boom length
- Head height
- Allowed load
- % of allowed load

Presetable alarms include:
- Maximum and minimum boom angles.
- Maximum tip height.
- Maximum boom length.
- Swing left/right positions.
- Operator defined area alarm is standard.
- Anti–two block weight designed for quick reeve of hook block.

■ Swing

Bi–directional hydraulic swing motor mounted to a planetary reducer for 360° continuous smooth swing at 2.8 r.p.m.

Swing park brake – 360°, electric over hydraulic (spring applied, hydraulic released) multi–disc brake mounted on the speed reducer. Operated by toggle switch in overhead control console.

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

Swing lock – Standard; two position travel lock operated from the operator’s cab.

Counterweight
- Standard – Bolted to upper structure frame. 9,700 lbs. (4,400 kg) consisting of 4,700 lbs. (2,132 kg) base counterweight and 5,000 lbs. (2,268 kg) of removable counterweights.

Optional
- 360° swing lock. Meets New York City requirements.

■ Hydraulic System

Main Pump
- One gear pump with a total of four sections.
- Combined pump capacity of 131 gpm (488 lpm).
- Powered by carrier engine through power take–off (PTO).
- Spline type pump disconnect, mechanically activated pump disconnect engaged/disengaged from carrier cab.
- Maximum system operating pressure is 3,350 psi (23 089 kPa).
- O–ring face seals technology used throughout with hydraulic oil cooler standard.

Steering / Fifth Outrigger Pump
- Single gear type pump, 6 gpm (23 lpm).
- Powered by carrier engine through front gear housing.
- Max. pump operating pressure is 2,000 psi (13 790 kPa). Reservoir – 131 gallon (507.2 L) capacity. One diffuser for deaeration.

Filtration
- One 10–micron filter located inside hydraulic reservoir.
- Accessible for easy replacement.
### Control valves
- Five separate pilot-operated control valves allow simultaneous operation of all crane functions.

### Load Hoist System
#### Standard
- 2M main winch with grooved lagging.
- Two-speed motor and automatic brake.
- Power up/down mode of operation.
- Bi-directional piston-type hydraulic motor driven through planetary reduction unit for positive control under all load conditions.
- Asynchronous parallel double crossover grooved drums minimize rope harmonic motion.
- Pressure compensated winch circuit provides balanced oil flow to both winches for smooth, simultaneous operation.
- Rotation resistant wire rope.
- Drum rotation indicators.

#### Optional
- 2M auxiliary winch with two-speed motor, automatic brake, and winch function lockout. Power up/down modes.
- Hoist drum cable followers.
- Third wrap indicators.

### Carrier

#### Type
- 8’ 6” (2.59 m) wide, 257” (6.53 m) wheelbase. 6 x 4 drive – standard.

#### Frame
- 100,000 p.s.i. (689.5 MPa) steel, double walled construction with integral 100,000 p.s.i. steel outrigger boxes.

#### Optional
- Carrier mounted storage boxes.
- Pintle hook.
- Electric and air connections for trailers.

#### Axles
- **Front**
  - Single, 83.22” (2.11 m) track.
- **Rear**
  - Tandem, 73.41” (1.86 m) track. 6.17 to 1 ratio with interaxle differential with lockout (6.64:1 ratio with automatic transmission).

#### Suspension
- **Front axle**
  - Leaf spring suspension.
- **Rear axle**
  - Air-ride, bogie-beam type, suspension.

#### Wheels
- **Standard**
  - Hub piloted aluminum disc.

#### Tires
- **Standard Front**
  - 425/65R22.5 (Load range "L") single tubeless radials.
- **Standard Rear**
  - 12R22.5 (Load range "H") dual tubeless radials.

#### Brakes
- **Service**
  - Full air brakes on all wheel ends with automatic slack adjusters. Dual circuit with modulated emergency brakes.
  - Front – 16.5 x 6 S-Cam brakes.
  - Rear – 16.5 x 7 S-Cam brakes.

#### Parking/Emergency
- One spring set, air released chamber per rear axle end.
- Parking brake applied with valve mounted on carrier dash.

### Line Pulls and Speeds
- Maximum available line pull 13,010 lbs. (5,901 kg) and maximum line speed of 480 f.p.m. (146 m/min) on 10.63” (0.27 m) root diameter grooved drum.

#### Optional
- 2M auxiliary winch with two-speed motor, automatic brake, and winch function lockout. Power up/down modes.
- Hoist drum cable followers.
- Third wrap indicators.

### Carrier Cab
- One-man cab of laminated fibrous composite material acoustical insulation with cloth covering.

#### Equipped with:
- Air–ride, six–way adjustable operator’s seat
- Four–way adjustable tilting and lockable steering wheel
- Door and windows locks
- Left–hand and right–hand rear view mirrors
- Sliding right–hand and rear tinted windows
- Roll up/down left–hand tinted window
- Desiccant–type air dryer
- Steps to upper, lower cab and rear carrier
- 120–volt electric engine block heat
- Back–up warning alarm
- Tow hooks and shackles
- Aluminum fenders with ground control outriggers
- Electric windshield wiper and washer.
- Travel lights
- Fire extinguisher
- 36,000 BTU heater
- Dome light
- Mud flaps

#### Optional
- Rotating Beacon
- Amber Strobe Light
- Air conditioning

### Cab instrumentation
- Illuminated instrument panel speedometer.
- Tachometer
- Fuel gauge
- Oil pressure gauge
- Turn signal indicator
- Water temperature gauge
- Front and rear air pressure gauges
- Audio/visual warning system
- Automotive type ignition

---

HTC–8640 Heavy Lift
### Carrier Speeds

(Manual Transmission – Standard tires)

<table>
<thead>
<tr>
<th>Gear</th>
<th>High</th>
<th>Low</th>
<th>Hi Rev.</th>
<th>Lo Rev.</th>
<th>Low Rev. @700 rpm</th>
<th>Low @700 rpm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Ratio</td>
<td>mph</td>
<td>km/hr.</td>
<td>mph</td>
<td>km/hr.</td>
<td>mph</td>
<td>km/hr.</td>
</tr>
<tr>
<td>0.73</td>
<td>1.00</td>
<td>1.38</td>
<td>1.95</td>
<td>2.79</td>
<td>3.83</td>
<td>5.28</td>
</tr>
</tbody>
</table>

### Engine

**Cummins ISL 330 with Jake Brake**

- **Cylinders – cycle**: 6 / 4
- **Bore**: 4.49” (114 mm)
- **Stroke**: 5.69” (145 mm)
- **Displacement**: 540 cu. in. (8 849 cm³)
- **Maximum brake hp.**: 345 @ 1,900 rpm; 330 @ 2,100 rpm
- **Peak torque**: 1,150 ft. lbs. (1 559.2 J) @ 1,300 – 1,400 rpm
- **Electric system**: 12- volt neg. ground / 12 volt starting
- **Fuel capacity**: 75 gallons (284 L)
- **Alternator**: 12 volt, 160 amps
- **Crankcase capacity**: 29 qts. (28 L)

### Axle Loads

**Base machine with standard 33’ – 105’ (10.06 – 32.00 m) four–section boom,**

**2M main winch with 2–speed hoisting and power up/down, 450’ (137 m), 5/8” (19 mm) wire rope, 8 x 4, 8.5’ (2.59 m) carrier with Cummins ISL 330 Engine,**

**75 gal. (284 L) fuel, aluminum fenders and 9,700 lb. (4 400 kg) counterweight.**

<table>
<thead>
<tr>
<th></th>
<th>Upper Facing Front</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>G.V.W. lbs. kg.</td>
</tr>
<tr>
<td></td>
<td>62,185 28 207</td>
</tr>
<tr>
<td>Left side carrier aluminum storage box</td>
<td>57 26</td>
</tr>
<tr>
<td>Right side carrier aluminum storage box</td>
<td>57 26</td>
</tr>
<tr>
<td>Six–speed automatic transmission and two–speed auxiliary transmission with engine brake</td>
<td>576 261</td>
</tr>
<tr>
<td>Air conditioning – Carrier cab</td>
<td>124 56</td>
</tr>
<tr>
<td>Pintle hook w/air and electrical hook–ups</td>
<td>32 15</td>
</tr>
<tr>
<td>Driver in carrier cab</td>
<td>200 91</td>
</tr>
<tr>
<td>Cab heater assembly (hydraulic)</td>
<td>110 50</td>
</tr>
<tr>
<td>Air conditioning – Operator cab</td>
<td>315 143</td>
</tr>
<tr>
<td>Rear winch roller</td>
<td>77 35</td>
</tr>
<tr>
<td>Front winches with two speeds and 450’ (137.2 m) of wire rope</td>
<td>312 141</td>
</tr>
<tr>
<td>Front winch roller</td>
<td>77 35</td>
</tr>
<tr>
<td>Remove rear winch rope (450’)</td>
<td>–365 –166</td>
</tr>
<tr>
<td>Remove front winch rope (450’)</td>
<td>–365 –166</td>
</tr>
<tr>
<td>360 degree Mechanical House Lock</td>
<td>60 27</td>
</tr>
<tr>
<td>Fly brackets to boom base section for fly options</td>
<td>116 53</td>
</tr>
<tr>
<td>28.5’ (8.69 m) offsettable fly w/ATB weight (stowed)</td>
<td>1,184 537</td>
</tr>
<tr>
<td>28.5’ – 51’ (8.69 – 15.54 m) offsettable fly w/ATB weight (stowed)</td>
<td>1,757 797</td>
</tr>
<tr>
<td>Floodlight to front of boom base section</td>
<td>10 5</td>
</tr>
<tr>
<td>25–ton (22.7 mt) hook block stowed behind bumper (3–sheaves)</td>
<td>670 304</td>
</tr>
<tr>
<td>40–ton (36.3 mt) hook block stowed behind bumper (4–sheaves)</td>
<td>780 354</td>
</tr>
<tr>
<td>Hookball to front bumper</td>
<td>360 163</td>
</tr>
<tr>
<td>Auxiliary arm w/ATB switch to boomhead</td>
<td>110 50</td>
</tr>
</tbody>
</table>

Adjust gross vehicle weight & axle loading according to component weight. Note: All weights are ± 3%.

### Axle

<table>
<thead>
<tr>
<th>Axle</th>
<th>Max. Load @ 65 mph. (105 km/h)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rear</td>
<td>22,700 lbs. (10 297 kg) – aluminum disc wheels</td>
</tr>
<tr>
<td>Rear</td>
<td>47,250 lbs. (21 432 kg) – aluminum disc wheels</td>
</tr>
</tbody>
</table>

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Lifting Capacities

Telescopic Hydraulic Truck Crane

HTC—8640 Heavy Lift 40—ton (36.3 metric ton)

Boom and fly capacities for this machine are listed by the following sections:

**Fully Extended Outriggers**
- Working Range Diagram (9,700 lbs. Counterweight)
- 33 to 57 ft. main boom capacities, A—max mode
- 33 to 105 ft. main boom capacities, Basic Mode “B”
- 28.5 ft. offset fly capacities, Basic Mode “B”
- 28.5 to 51 ft. two-piece offset fly capacities, Basic mode “B”

CAUTION: This material is supplied for reference use only. Operator must refer to in–cab Crane Rating Manual to determine allowable machine lifting capacities and operating procedures.
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<td>5</td>
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Fully Extended Outriggers

<table>
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<th>Contents</th>
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<td>Working Range Diagram, 9,700 lbs. Counterweight</td>
</tr>
<tr>
<td>7–8</td>
<td>Lifting Capacities, 9,700 lbs. Counterweight</td>
</tr>
</tbody>
</table>
WARNING

READ AND UNDERSTAND THE OPERATOR’S AND SAFETY MANUALS AND THE FOLLOWING INSTRUCTIONS AND RATED LIFTING CAPACITIES BEFORE OPERATING THE CRANE. OPERATION WHICH DOES NOT FOLLOW THESE INSTRUCTIONS MAY RESULT IN AN ACCIDENT.

OPERATING INSTRUCTIONS

GENERAL:
1. Rated lifting capacities in pounds as shown on lift charts pertain to this crane as originally manufactured and normally equipped. Modifications to the crane or use of optional equipment other than that specified can result in a reduction of capacity.
2. Construction equipment can be dangerous if improperly operated or maintained. Operation and maintenance of this crane must be in compliance with the information in the Operator’s, Parts, and Safety Manuals supplied with this crane. If these manuals are missing, order replacements through the distributor.
3. The operator and other personnel associated with this crane shall read and fully understand the latest applicable American National Standards ASME B30.5 safety standards for cranes.
4. The rated lifting capacities are based on crane standing level on firm supporting surface.

SET UP:
1. The crane shall be leveled on a firm supporting surface. Depending on the nature of the supporting surface, it may be necessary to have structural supports under the outrigger pontoons or tires to spread the load to a larger bearing surface.
2. When making lifts on outriggers, all tires must be free of supporting surface. All outrigger beams must be extended to the same length; fully retracted, intermediate extended, or fully extended. The front bumper outrigger must be properly extended.
3. When making lifts on tires, they must be inflated to the recommended pressure. (See Operation note 20 and Tire Inflation.)
4. Before swinging boom to over side position on tires, boom sections must be fully retracted not exceeding a 72° boom angle.
5. For required parts of line, see Wire Rope Capacity and Winch Performance.
6. Before setting up on intermediate outriggers, retracted outriggers, or tires, refer to Working Range Diagrams and rated lifting capacities to determine allowable crane configurations.

OPERATION:
1. Rated lifting capacities at rated radius shall not be exceeded. Do not tip the crane to determine allowable loads. For concrete bucket operation, weight of bucket and load shall not exceed 80% of rated lifting capacities. For clamshell bucket operation, weight of bucket and bucket contents is restricted to a maximum weight of 6,000 pounds or 80% of rated lifting capacity, whichever is less. For magnet operation, weight of magnet and load is restricted to a maximum weight of 6,000 pounds or 80% of rated lifting capacity, whichever is less. For clamshell and magnet operation, maximum boom length is restricted to 50 ft. and the boom angle is restricted to a minimum of 35 degrees. Lifts with either fly erected is prohibited for both clam and magnet operation.
2. Rated lifting capacities shown on fully extended outriggers do not exceed 85% of the tipping loads. Rated lifting capacities shown on intermediate extended or fully retracted outriggers are determined by the formula, rated load = (tipping load − 0.1 X load factor)/1.25. Rated lifting capacities shown on tires do not exceed 75% of the tipping loads. Tipping loads are determined by SAE crane stability test code J—765.
3. Rated lifting capacities in the shaded areas are based on structural strength or hydraulic limitations and have been tested to meet minimum requirements of SAE J—1063 cantilevered boom crane structures—method of test. The rated lifting capacities in non—shaded areas are based on stability ratings. Some capacities are limited by a maximum obtainable 78° boom angle.
4. Rated lifting capacities include the weight of the hook ball/block, slings, bucket, magnet and auxiliary lifting devices. Their weights must be subtracted from the listed rated capacity to obtain the net load which can be lifted. Rated lifting capacities include the deduct for either fly stowed on the base of the boom. For deducts of either fly erected, but not used, see Capacity Deductions For Auxiliary Load Handling Equipment.
5. Rated lifting capacities are based on freely suspended loads. No attempt shall be made to move a load horizontally on the ground in any direction.
6. Rated lifting capacities are for lift crane service only.
7. Do not operate at radii or boom lengths (minimum or maximum) where capacities are not listed. At these positions, the crane can tip or cause boom failure.
8. The maximum loads which can be telescoped are not definable because of variation in loadings and crane maintenance, but it is permissible to attempt retraction and extension within the limits of the applicable load rating chart.
9. For main boom capacities when either boom length or radius or both are between values listed, proceed as follows:
   a. For boom lengths not listed, use rating for next longer boom length or next shorter boom length, whichever is smaller.
   b. For load radii not listed, use rating for next larger radius.
10. The user shall operate at reduced ratings to allow for adverse job conditions, such as: soft or uneven ground, out of level conditions, wind, side loads, pendulum action, jerking or sudden stopping of loads, hazardous conditions, experience of personnel, traveling with loads, electrical wires, etc. Side load on boom or fly is dangerous and shall be avoided.
11. Rated lifting capacities do not account for wind on suspended load or boom. Rated capacities and boom length shall be appropriately reduced as wind velocity approaches or exceeds 20 mph.
12. When making lifts with auxiliary head machinery, the effective length of the boom increases by 2 ft.
13. Power sections of boom must be extended in accordance with boom mode “A” or “B”. In boom mode “B” all power sections must be extended or retracted equally.
14. The least stable rated working area depends on the configuration of the crane set up.
15. Rated lifting capacities are based on correct reeving. Deduction must be made for excessive reeving. Any reeving over minimum required (see Wire Rope Capacity) is considered excessive and must be accounted for when making lifts. Use Working Range Diagram to estimate the extra feet of rope then deduct 1 lb. for each extra foot of wire rope before attempting to lift a load.
16. The loaded boom angle combined with the boom length give only an approximation of the operating radius. The boom angle, before loading, should be greater to account for deflection. For main boom capacities, the loaded boom angle is for reference only. For fly capacities, the load radius is for reference only.
17. For fly capacities with main boom length less than 105 ft. and greater than 80 ft., the rated capacities are determined by the boom angle using the 105 ft. boom and fly chart. For angles not shown use the next lower boom angle to determine the rated capacity.
18. For fly capacities with main boom length less than 80 ft., the rated capacities are determined by the boom angle using the 80 ft. boom and fly chart. For angles not shown use the next lower boom angle to determine the rated capacity.
19. The 33 ft. boom length structural lifting capacities are based on boom fully retracted. If the boom is not fully retracted, do not exceed capacities shown for the 40 ft. boom length.
20. Rated lifting capacities on tires depend on tire capacity, condition of tires, and tire air pressure. On tire capacities require lifting from main boom head only on a smooth and level surface. The boom must be centered over the rear of the crane with two position travel swing lock engaged and the load must be restrained from swinging. Rated lifting capacities on tires are limited to creep and 2.5 mph speed. For correct tire pressure, see Tire Inflation.

DEFINITIONS:
1. Load Radius: Horizontal distance from a projection of the axis of rotation to the supporting surface, before loading, to the center of the vertical hoist line or tackle with load applied.
2. Loaded Boom Angle: \( \alpha \)° The angle between the boom base section and horizontal with freely suspended load at the rated radius.
3. Working Area: Area measured in a circular arc about the center line of rotation as shown on the Working Area Diagram.
4. Freely Suspended Load: Load hanging free with no direct external force applied except by the hoist line.
5. Side Load: Horizontal side force applied to the lifted load either on the ground or in the air.
6. No Load Stability Limit: The radius or boom angle beyond which it is not permitted to position the boom because the crane can overturn without any load on the hook.
7. Load Factor: Load applied at the boom tip which gives the same moment effect as the boom mass.
8. Creep: Crane movement not exceeding 200 ft. in a 30 minute period and 1 mph maximum speed.
BOOM EXTENSION

**Boom Mode “A”**
- Only inner mid section telescopes

**Boom Mode “B”**
- Inner mid, outer mid and tip sections telescope simultaneously.

**Boom Length**

<table>
<thead>
<tr>
<th>Section</th>
<th>288&quot; Stroke</th>
<th>288&quot; Stroke</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inner Mid Section</td>
<td>57</td>
<td>57</td>
</tr>
<tr>
<td>Base Section</td>
<td>33</td>
<td>33</td>
</tr>
<tr>
<td>Outer Mid Section</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Tip Section</td>
<td>70</td>
<td>70</td>
</tr>
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</table>

**Winch Line Pulls**

<table>
<thead>
<tr>
<th>Wire Rope Layer</th>
<th>Two Speed Winch</th>
<th>Drum Rope Capacity (ft.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low Speed</td>
<td>High Speed</td>
</tr>
<tr>
<td>1</td>
<td>13,010</td>
<td>6,418</td>
</tr>
<tr>
<td>2</td>
<td>11,768</td>
<td>5,805</td>
</tr>
<tr>
<td>3</td>
<td>10,742</td>
<td>5,299</td>
</tr>
<tr>
<td>4</td>
<td>9,881</td>
<td>4,874</td>
</tr>
<tr>
<td>5</td>
<td>9,118</td>
<td>4,513</td>
</tr>
</tbody>
</table>

*Maximum lifting capacity: Type RB Rope=9,080, Type ZB Rope=11,080*

**Tire Inflation**

<table>
<thead>
<tr>
<th>Tire Size</th>
<th>Operation</th>
<th>Tire Pressure (psi)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 R 22.5</td>
<td>Creep</td>
<td>120</td>
</tr>
<tr>
<td></td>
<td>2.5 mph</td>
<td>110</td>
</tr>
</tbody>
</table>

**PonToon Loadings**

<table>
<thead>
<tr>
<th>Maximum Pontoon Load:</th>
<th>Maximum Pontoon Ground Bearing Pressure:</th>
</tr>
</thead>
<tbody>
<tr>
<td>61,750 lbs.</td>
<td>137 psi</td>
</tr>
</tbody>
</table>

**Hydraulic Circuit Pressure Settings**

<table>
<thead>
<tr>
<th>Function</th>
<th>Pressure (PSI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front And Rear Winch</td>
<td>3100</td>
</tr>
<tr>
<td>Outriggers</td>
<td>3000</td>
</tr>
<tr>
<td>Boom Hoist</td>
<td>3350</td>
</tr>
<tr>
<td>Telescope</td>
<td>3000</td>
</tr>
<tr>
<td>Swing</td>
<td>1500</td>
</tr>
<tr>
<td>Steering</td>
<td>2000</td>
</tr>
<tr>
<td>Bumper Outrigger</td>
<td>650</td>
</tr>
<tr>
<td>Pilot Control</td>
<td>500</td>
</tr>
</tbody>
</table>

**Wire Rope Capacity**

Maximum Lifting Capacities Based On Wire Rope Strength

<table>
<thead>
<tr>
<th>Parts of Line</th>
<th>5/8&quot; Lb.</th>
<th>5/8&quot; Lb.</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type RB</td>
<td>9080</td>
<td>11080</td>
<td></td>
</tr>
<tr>
<td>Type ZB</td>
<td>18160</td>
<td>22160</td>
<td></td>
</tr>
</tbody>
</table>

*Capacities shown are in pounds and working loads must not exceed the ratings on the capacity charts in the Crane Rating Manual. Study Operator's Manual for wire rope inspection procedures and single part of line applications.*

**LBCD Description**

- **Type RB**: 18 X 19 Rotation Resistant – Compact Strand, High Strength Preformed, Right Regular Lay
- **Type ZB**: 36 X 7 Rotation Resistant – Extra Improved Plow Steel – Right Regular Lay

**Working Areas**

Note: These Lines Determine The Limiting Position Of Any Load For Operation Within Working Areas Indicated.
Note: Boom and fly geometry shown are for unloaded condition and crane standing level on firm supporting surface. Boom deflection, subsequent radius and boom angle change must be accounted for when applying load to hook.

**WARNING**

Do Not Lower The Boom Below The Minimum Boom Angle For No Load Stability As Shown In The Lift Charts For The Boom Lengths Given. Loss Of Stability Will Occur Causing A Tipping Condition.
<table>
<thead>
<tr>
<th>Load</th>
<th>Radius</th>
<th>Note: Refer To Page 5 For &quot;Capacity Deductions For Auxiliary Load Handling Equipment.&quot;</th>
<th>Rear</th>
</tr>
</thead>
<tbody>
<tr>
<td>33 Ft.</td>
<td>40 Ft.</td>
<td>FULL EXTENSION MAIN BOOM “A”</td>
<td>9</td>
</tr>
<tr>
<td>9</td>
<td>66.0</td>
<td>80,000</td>
<td>80,000</td>
</tr>
<tr>
<td>10</td>
<td>66.0</td>
<td>72,300</td>
<td>72,300</td>
</tr>
<tr>
<td>12</td>
<td>62.0</td>
<td>65,500</td>
<td>65,200</td>
</tr>
<tr>
<td>15</td>
<td>55.5</td>
<td>55,600</td>
<td>57,300</td>
</tr>
<tr>
<td>20</td>
<td>43.5</td>
<td>42,200</td>
<td>41,900</td>
</tr>
<tr>
<td>25</td>
<td>26.5</td>
<td>29,900</td>
<td>29,700</td>
</tr>
<tr>
<td>30</td>
<td>31.0</td>
<td>21,500</td>
<td>21,500</td>
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</table>

<table>
<thead>
<tr>
<th>Load</th>
<th>Radius</th>
<th>Note: Refer To Page 5 For &quot;Capacity Deductions For Auxiliary Load Handling Equipment.&quot;</th>
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</tr>
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<tbody>
<tr>
<td>33 Ft.</td>
<td>40 Ft.</td>
<td>FULL EXTENSION MAIN BOOM “B”</td>
<td>9</td>
</tr>
<tr>
<td>9</td>
<td>66.0</td>
<td>80,000</td>
<td>80,000</td>
</tr>
<tr>
<td>10</td>
<td>66.0</td>
<td>72,300</td>
<td>72,300</td>
</tr>
<tr>
<td>12</td>
<td>62.0</td>
<td>65,500</td>
<td>65,200</td>
</tr>
<tr>
<td>15</td>
<td>55.5</td>
<td>55,600</td>
<td>57,300</td>
</tr>
<tr>
<td>20</td>
<td>43.5</td>
<td>42,200</td>
<td>41,900</td>
</tr>
<tr>
<td>25</td>
<td>26.5</td>
<td>29,900</td>
<td>29,700</td>
</tr>
<tr>
<td>30</td>
<td>31.0</td>
<td>21,500</td>
<td>21,500</td>
</tr>
</tbody>
</table>

Note: Refer To Page 5 For "Capacity Deductions For Auxiliary Load Handling Equipment." °:° Loaded Boom Angle In Degrees. ( ) Reference Radius For Min. Boom Angle Capacities (Shown in Parentheses) Are In Feet.
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.
**General Dimension**

<table>
<thead>
<tr>
<th>Description</th>
<th>Feet</th>
<th>Meters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turning radius – wall to wall</td>
<td>44' 2&quot;</td>
<td>13.46</td>
</tr>
<tr>
<td>Turning radius – curb to curb</td>
<td>39' 6&quot;</td>
<td>14.44</td>
</tr>
<tr>
<td>Ground clearance</td>
<td>13&quot;</td>
<td>0.33</td>
</tr>
<tr>
<td>Tailswing</td>
<td>11' 6&quot;</td>
<td>3.51</td>
</tr>
</tbody>
</table>

Not To Scale
### Upper Structure

#### Boom

**Patented Design**
- Boom side plates have diamond shaped impressions to prevent metal to metal contact
- Boom telescope sections are supported by top, bottom, and adjustable side wear shoes to prevent metal to metal contact
- Boom angle chords for lateral stiffness
- Boom floodlight
- Boom side plates have diamond shaped impressions for in-close, maximum capacity picks
- Boom telescope sections are supported proportionally to 105 ft (32.00m)
- The exclusive “A-max” mode (or mode ‘A’) extends only the inner mid section to 57 ft (17.37m) offering increased capacities for in-close

**Rated Capacity Limiter**
- **Microguard 434** Graphic audio–visual warning system built into dash with anti-two block and function limiters

**Operating data available includes:**
- Machine configuration
- Boom length
- Boom angle
- Head height
- Allowed load
- Actual load
- % of allowed load

**Presetable alarms include:**
- Maximum and minimum boom angles
- Maximum tip height
- Maximum boom length
- Swing left/right positions
- Operator defined area alarm is standard
- Anti-two block weight designed for quick reeve of hook block

**Fly**

**Optional**
- 28.5 ft (8.69m) one-piece lattice fly, stowable, offsettable to 2°, 20°, and 40°
- 28.5–51 ft (8.69–15.54m) two-piece (bi-fold) fly, stowable, offsettable to 2°, 20°, and 40°

**Rated Capacity**
- **Microguard 434** Graphic audio–visual warning system built into dash with anti-two block and function limiters

**Operating data available includes:**
- Machine configuration
- Boom length
- Boom angle
- Head height
- Allowed load
- Actual load
- % of allowed load

**Presetable alarms include:**
- Maximum and minimum boom angles
- Maximum tip height
- Maximum boom length
- Swing left/right positions
- Operator defined area alarm is standard
- Anti–two block weight designed for quick reeve of hook block

**Swing**

- Bi–directional hydraulic swing motor mounted to a planetary reducer for 360° continuous smooth swing at 2.8 rpm
- Swing park brake – 360°, electric over hydraulic (spring applied, hydraulic released) multi-disc brake mounted on the speed reducer. Operated by toggle switch in overhead control console.
- Swing brake – 360°, foot operated, hydraulic applied disc brake mounted on the speed reducer.
- Swing lock – Standard, two position travel lock operated from the operator’s cab

**Counterweight**
- Standard – Bolted to upper structure frame. 9,700 lb (4,400kg) consisting of 4,700 lb (2,132kg) base counterweight and 5,000 lb (2,268kg) of removable counterweights.

**Optional**
- 360° swing lock. Meets New York City requirements.
Hydraulic System

Main Pump
- One gear pump with a total of four sections
- Combined pump capacity of 131 gpm (488Lpm)
- Powered by carrier engine through power take-off (PTO)
- Spline type pump disconnect, mechanically activated pump disconnect engaged/disengaged from carrier cab
- Maximum system operating pressure is 3,350 psi (23 098kPa)
- O-ring face seals technology used throughout with hydraulic oil cooler standard

Steering / Fifth Outrigger Pump
- Single gear type pump, 6 gpm (23Lpm). Powered by carrier engine through front gear housing

- Max. pump operating pressure is 2,000 psi (13 790kPa). Reservoir – 131 gal (507.2L) capacity. One diffuser for deaeration.

Filtration
- One 10–micron filter located inside hydraulic reservoir
- Accessible for easy replacement

Control valves
- Five separate pilot operated control valves allow simultaneous operation of all crane functions

Load Hoist System

Standard
- 2M main winch with grooved lagging
- Two-speed motor and automatic brake
- Power up/down mode of operation
- Bi-directional piston-type hydraulic motor driven through planetary reduction unit for positive control under all load conditions

- Asynchronous parallel double crossover grooved drums minimize rope harmonic motion
- Pressure compensated winch circuit provides balanced oil flow to both winches for smooth, simultaneous operation
- Rotation resistant wire rope
- Drum rotation indicators

Line Pulls and Speeds
- Maximum available line pull 13,010 lb (5 901kg) and maximum line speed of 480 fpm (146 m/min) on 10.63 in (0.27m) root diameter grooved drum

Optional
- 2M auxiliary winch with two-speed motor, automatic brake, and winch function lock-out. Power up/down modes
- Hoist drum cable followers
- Third wrap indicators

Carrier

Type
- 8 ft 6 in (2.59m) wide, 257 in (6.53m) wheelbase. 6 x 4 drive – standard.

Frame
- 100,000 psi (689.5MPa) steel, double walled construction with integral 100,000 psi steel outrigger boxes

Optional
- Carrier mounted storage boxes
- Pintle hook
- Electric and air connections for trailers

Axles

Front
- Single, 83.22 in (2.11m) track

Rear
- Tandem, 73.41 in (1.86m) track. 6.17 to 1.0 ratio with interaxle differential with lockout (6.64:1 ratio with automatic transmission)

Suspension

Front axle
- Leaf spring suspension

Rear axle
- Air–ride, bogle–beam type, suspension

Wheels

Standard
- Hub piloted aluminum disc

Tires

Standard Front
- 425/65R22.5 (Load range “L”) single tubeless radials

Standard Rear
- 12R22.5 (Load range “H”) dual tubeless radials

Brakes

Service
- Full air brakes on all wheel ends with automatic slack adjusters. Dual circuit with modulated emergency brakes.
- Front – 16.5 x 6 S–Cam brakes
- Rear – 16.5 x 7 S–Cam brakes

Parking/Emergency
- One spring set, air released chamber per rear axle end
- Parking brake applied with valve mounted on carrier dash
- Emergency brakes apply automatically when air drops below 40 psi (275.8kPa) in both systems

Steering
- Sheppard rack and pinion design

Optional
- Remote drive and steer

Transmission

Standard
- Eaton RTX–11609B; 9 speeds forward, 2 reverse

Optional
- Automatic Allison MD 3066, 65:1 high, 3.49:1 low

Auxiliary
- Eaton 2A–92, two speed – High: 1.0:1 Low: 2.3:1 (with automatic transmission only)

Electrical
- Two 12–volt batteries provide 12–volt starting. 160–amp alternator
- 1,400 cold cranking amps available
- 12–volt operating system

Lights
- Four dual beam sealed headlights
- Front, side, and rear directional signals
- Stop, tail and license plate lights
- Rear and side clearance lights
- Hazard warning lights

Outriggers

Three position operation capability
- Four hydraulic, telescoping beam and jack outriggers
- Vertical jack cylinders equipped with integral holding valve
- Beams extend to 20 ft 6 in (6.25m) centerline–to–centerline and retract to within 8 ft 6 in (2.59m) overall width
- Equipped with stowable, lightweight 24 in (0.61m) diameter aluminum floats
- Standard fifth outrigger, 16 in (0.41m) self storing steel pad is operable from ground or operator’s cab
- Hand–held controls and sight level bubble located on carrier deck

Confined Area Lifting Capacities (CALC *) System
- The crane is operational in one of the three outriggers positions and operational in confined areas in two positions (intermediate and full retraction). The three outrigger positions are:
  - Full extension – 20 ft 6 in (6.25m)
  - Intermediate position – 14 ft 1.70 in (4.31m)
  - Full retraction – 7 ft 9.24 in (2.36m)
- Capacities are available with the outrigger beams in the intermediate and full retraction positions
- When the outrigger position levers (located on the outrigger beams) are engaged, the operator can set the crane in the intermediate or full retraction outrigger position without having to leave the cab
## Carrier Cab
- One-man cab of laminated fibrous composite material acoustical insulation with cloth covering

**Equipped with:**
- Air ride, six-way adjustable operator’s seat
- Four-way adjustable tilting and lockable steering wheel
- Door and windows locks
- Left-hand and right-hand rear view mirrors
- Sliding right-hand and rear tinted windows
- Roll up/down left-hand tinted window
- Desiccant—type air dryer
- Steps to upper, lower cab and rear carrier
- 120-volt electric engine block heater
- Back-up warning alarm
- Tow hooks and shackles
- Aluminum fenders with ground control outriggers
- Electric windshield wiper and washer
- Travel lights
- Fire extinguisher
- 36,000 BTU heater
- Dome light
- Mud flaps
- Horn
- Ashtray
- Defroster
- Cruise control

## Carrier Speeds (Manual Transmission – Standard tires)

<table>
<thead>
<tr>
<th>Gear</th>
<th>High</th>
<th>Low</th>
<th>Hi Rev.</th>
<th>Lo Rev.</th>
<th>Low Rev. @700 rpm</th>
<th>Low @700 rpm</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Ratio</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speed</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>mph</td>
<td>57.92</td>
<td>42.28</td>
<td>30.64</td>
<td>21.68</td>
<td>15.15</td>
<td>11.04</td>
</tr>
<tr>
<td>km/hr</td>
<td>93.42</td>
<td>68.19</td>
<td>49.42</td>
<td>35.00</td>
<td>24.44</td>
<td>17.81</td>
</tr>
</tbody>
</table>

## Engine
- Cummins ISL 330 with Jake Brake
- Cylinders – cycle: 6 / 4
- Bore: 4.49 in (114mm)
- Stroke: 5.69 in (145mm)
- Displacement: 540 cu. in. (8 849cm³)
- Maximum brake hp: 345 @ 1,900 rpm; 330 @ 2,100 rpm
- Peak torque: 1,150 ft lb (1 559.2) @ 1,300 – 1,400 rpm
- Electric system: 12-volt neg. ground / 12 volt starting
- Fuel capacity: 75 gallons (284L)
- Alternator: 12 volt, 160 amps
- Crankcase capacity: 29 qt (28L)

## Axle Loads
- Base machine with standard 33 – 105 ft (10.06 – 32.00m) four section boom, 2M main winch with 2-speed hoisting and power up/down, 450 ft (137m), S/B in (19mm) wire rope, 8 x 4, 8.5 ft (2.59m) carrier with Cummins ISL 330 Engine, 75 gal (284L) fuel, aluminum fenders, and 9,700 lb (4 400kg) counterweight.

<table>
<thead>
<tr>
<th>G.V.W.</th>
<th>Upper Facing Front</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Front Axle</td>
</tr>
<tr>
<td>lb</td>
<td>kg</td>
</tr>
<tr>
<td>62,185</td>
<td>28,207</td>
</tr>
</tbody>
</table>

- Left side carrier aluminum storage box: 57 lb (26 kg)
- Right side carrier aluminum storage box: 57 lb (26 kg)
- Six–speed automatic transmission and two–speed auxiliary transmission with engine brake: 576 lb (261 kg)
- Air conditioning – Carrier cab: 124 lb (56 kg)
- Pintle hook w/air and electrical hook–ups: 32 lb (15 kg)
- Driver in carrier cab: 200 lb (91 kg)
- Cab heater assembly (hydraulic): 110 lb (50 kg)
- Air conditioning – Operator cab: 315 lb (143 kg)
- Rear winch roller: 77 lb (35 kg)
- Front winches with two speeds and 450 ft (137.2m) of wire rope: 312 lb (141 kg)
- Front winch roller: 77 lb (35 kg)
- Remove rear winch rope (450 ft): –365 lb (–166 kg)
- Remove front winch rope (450 ft): –365 lb (–166 kg)
- 360° Mechanical House Lock: 60 lb (27 kg)
- Fly brackets to boom base section for fly options: 116 lb (53 kg)
- 28.5 ft (8.69m) offsettable fly w/ATB weight (stowed): 1,184 lb (537 kg)
- 28.5–51 ft (8.69 – 15.46m) offsettable fly w/ATB weight (stowed): 1,757 lb (787 kg)
- Floodlight to front of boom base section: 670 lb (304 kg)
- 25–ton (22.7m) hook block stowed behind bumper (3–sheaves): 780 lb (354 kg)
- 40–ton (36.3m) hook block stowed behind bumper (4–sheaves): 360 lb (163 kg)
- Hookblock to front basket: 110 lb (50 kg)
- Auxiliary arm w/ATB switch to boomhead: 47,270 lb (21 432kg) – aluminum disc wheels
- Adjust gross vehicle weight & axle loading according to component weight. Note: All weights are ± 3%

## Optional
- Rotating Beacon
- Amber Strobe Light
- Air conditioning

## Cab instrumentation
- Illuminated instrument panel speedometer
- Tachometer
- Fuel gauge
- Oil pressure gauge
- Turn signal indicator
- Voltmeter
- Water temperature gauge
- Front and rear air pressure gauges
- Audio/visual warning system
- Automotive type ignition
OPERATING INSTRUCTIONS

GENERAL:
1. Rated lifting capacities in pounds as shown on lift charts pertain to this crane as originally manufactured and normally equipped. Modifications to the crane or use of optional equipment other than that specified can result in a reduction of capacity.
2. Construction equipment can be dangerous if improperly operated or maintained. Operation and maintenance of this crane must be in compliance with the information in the Operator’s, Parts, and Safety Manuals supplied with this crane. If these manuals are missing, order replacements through the distributor.
3. The operator and other personnel associated with this crane shall read and fully understand the latest applicable American National Standards ASME B30.5 safety standards for cranes.
4. The rated lifting capacities are based on crane standing level on firm supporting surface.

SET UP:
1. The crane shall be leveled on a firm supporting surface. Depending on the nature of the supporting surface, it may be necessary to have structural supports under the outrigger pontoons or tires to spread the load to a larger bearing surface.
2. When making lifts on outriggers, all tires must be free of supporting surface. All outrigger beams must be extended to the same length; fully retracted, intermediate extended, or fully extended. The front bumper outrigger must be properly extended.
3. When making lifts on tires, they must be inflated to the recommended pressure. (See Operation note 20 and Tire Inflation.)
4. Before swinging boom to over side position on tires, boom sections must be fully retracted not exceeding a 72° boom angle.
5. For required parts of line, see Wire Rope Capacity and Winch Performance.
6. Before setting up on intermediate outriggers, retracted outriggers, or tires, refer to Working Range Diagrams and rated lifting capacities to determine allowable crane configurations.

OPERATION:
1. Rated lifting capacities at rated radius shall not be exceeded. Do not tip the crane to determine allowable loads. For concrete bucket operation, weight of bucket and load shall not exceed 80% of rated lifting capacities. For clamshell bucket operation, weight of bucket and bucket contents is restricted to a maximum weight of 6,000 pounds or 80% of rated lifting capacity, whichever is less. For magnet operation, weight of magnet and load is restricted to a maximum weight of 6,000 pounds or 80% of rated lifting capacity, whichever is less. For clamshell and magnet operation, maximum boom length is restricted to 50 ft and the boom angle is restricted to a minimum of 35 degrees. Lifts with either fly erected is prohibited for both clam and magnet operation.
2. Rated lifting capacities shown on fully extended outriggers do not exceed 85% of the tipping loads. Rated lifting capacities shown on intermediate extended or fully retracted outriggers are determined by the formula, rated load = (tipping load − 0.1 X load factor)/1.25. Rated lifting capacities shown on tires do not exceed 75% of the tipping loads. Tipping loads are determined by SAE crane stability test code J−765.
3. Rated lifting capacities in the shaded areas are based on structural strength or hydraulic limitations and have been tested to meet minimum requirements of SAE J−1063 cantilevered boom crane structures—method of test. The rated lifting capacities in non−shaded areas are based on stability ratings. Some capacities are limited by a maximum obtainable 78° boom angle.
4. Rated lifting capacities include the weight of the hook ball/block, slings, bucket, magnet and auxiliary lifting devices. Their weights must be subtracted from the listed rated capacity to obtain the net load which can be lifted. Rated lifting capacities include the deduct for either fly stowed on the base of the boom. For deducts of either fly erected, but not used, see Capacity Deductions For Auxiliary Load Handling Equipment.
5. Rated lifting capacities are based on freely suspended loads. No attempt shall be made to move a load horizontally on the ground in any direction.

6. Rated lifting capacities are for lift crane service only.

7. Do not operate at radii or boom lengths (minimum or maximum) where capacities are not listed. At these positions, the crane can tip or cause boom failure.

8. The maximum loads which can be telescoped are not definable because of variation in loadings and crane maintenance, but it is permissible to attempt retraction and extension within the limits of the applicable load rating chart.

9. For main boom capacities when either boom length or radius or both are between values listed, proceed as follows:
   a. For boom lengths not listed, use rating for next longer boom length or next shorter boom length, whichever is smaller.
   b. For load radii not listed, use rating for next larger radius.

10. The user shall operate at reduced ratings to allow for adverse job conditions, such as: soft or uneven ground, out of level conditions, wind, side loads, pendulum action, jerking or sudden stopping of loads, hazardous conditions, experience of personnel, traveling with loads, electrical wires, etc. Side load on boom or fly is dangerous and shall be avoided.

11. Rated lifting capacities do not account for wind on suspended load or boom. Rated capacities and boom length shall be appropriately reduced as wind velocity approaches or exceeds 20 mph.

12. When making lifts with auxiliary head machinery, the effective length of the boom increases by 2 ft.

13. Power sections of boom must be extended in accordance with boom mode “A” or “B”. In boom mode “B” all power sections must be extended or retracted equally.

14. The least stable rated working area depends on the configuration of the crane set up.

15. Rated lifting capacities are based on correct reeving. Deduction must be made for excessive reeving. Any reeving over minimum required (see Wire Rope Capacity) is considered excessive and must be accounted for when making lifts. Use Working Range Diagram to estimate the extra feet of rope then deduct 1 lb. for each extra foot of wire rope before attempting to lift a load.

16. The loaded boom angle combined with the boom length give an approximation of the operating radius. The boom angle, before loading, should be greater to account for deflection. For main boom capacities, the loaded boom angle is for reference only. For fly capacities, the load radius is for reference only.

17. For fly capacities with main boom length less than 105 ft and greater than 80 ft, the rated capacities are determined by the boom angle using the 105 ft boom and fly chart. For angles not shown use the next lower boom angle to determine the rated capacity.

18. For fly capacities with main boom length less than 80 ft, the rated capacities are determined by the boom angle using the 80 ft boom and fly chart. For angles not shown use the next lower boom angle to determine the rated capacity.

19. The 33 ft boom length structural lifting capacities are based on boom fully retracted. If the boom is not fully retracted, do not exceed capacities shown for the 40 ft boom length.

20. Rated lifting capacities on tires depend on tire capacity, condition of tires, and tire air pressure. On tire capacities require lifting from main boom head only on a smooth and level surface. The boom must be centered over the rear of the crane with two position travel swing lock engaged and the load must be restrained from swinging. Rated lifting capacities on tires are limited to creep and 2.5 mph speed. For correct tire pressure, see Tire Inflation.

DEFINITIONS:

1. Load Radius: Horizontal distance from a projection of the axis of rotation to the supporting surface, before loading, to the center of the vertical hoist line or tackle with load applied.

2. Loaded Boom Angle: \( \angle \) The angle between the boom base section and horizontal with freely suspended load at the rated radius.

3. Working Area: Area measured in a circular arc about the center line of rotation as shown on the Working Area Diagram.

4. Freely Suspended Load: Load hanging free with no direct external force applied except by the hoist line.

5. Side Load: Horizontal side force applied to the lifted load either on the ground or in the air.

6. No Load Stability Limit: The radius or boom angle beyond which it is not permitted to position the boom because the crane can overturn without any load on the hook.

7. Load Factor: Load applied at the boom tip which gives the same moment effect as the boom mass. Creep: Crane movement not exceeding 200 ft in a 30 minute period and 1 mph maximum speed.
**BOOM EXTENSION**

<table>
<thead>
<tr>
<th>Boom Mode “A”</th>
<th>Boom Length (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only inner mid section telescopes</td>
<td>33</td>
</tr>
<tr>
<td>Inner Mid Section 288” Stroke</td>
<td>40</td>
</tr>
<tr>
<td>Base Section</td>
<td>50</td>
</tr>
<tr>
<td>Inner Mid Section 288” Stroke</td>
<td>57</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Boom Mode “B”</th>
<th>Boom Length (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inner mid, outer mid and tip sections telescope simultaneously</td>
<td>33</td>
</tr>
<tr>
<td>Tip Section 288” Stroke</td>
<td>40</td>
</tr>
<tr>
<td>Outer Mid Section 288” Stroke</td>
<td>50</td>
</tr>
<tr>
<td>Inner Mid Section 288” Stroke</td>
<td>60</td>
</tr>
<tr>
<td>Base Section</td>
<td>70</td>
</tr>
<tr>
<td>Tip Section 288” Stroke</td>
<td>80</td>
</tr>
<tr>
<td>Inner Mid Section 288” Stroke</td>
<td>90</td>
</tr>
<tr>
<td>Base Section</td>
<td>100</td>
</tr>
<tr>
<td>Tip Section 288” Stroke</td>
<td>105</td>
</tr>
</tbody>
</table>

**TIRE INFLATION**

<table>
<thead>
<tr>
<th>Tire Size</th>
<th>Operation</th>
<th>Tire Pressure (psi)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12R22.5</td>
<td>Crawl 2.5 mph</td>
<td>120</td>
</tr>
<tr>
<td></td>
<td></td>
<td>110</td>
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</tbody>
</table>

**PONTOON LOADINGS**

<table>
<thead>
<tr>
<th>Maximum Pontoon Load</th>
<th>Maximum Pontoon Ground Bearing Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>61,750 lb</td>
<td>137 psi</td>
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</tbody>
</table>

**CAPACITY DEDUCTIONS FOR AUXILIARY LOAD HANDLING EQUIPMENT**

<table>
<thead>
<tr>
<th>Load Handling Equipment</th>
<th>lb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auxiliary Head Attached</td>
<td>100</td>
</tr>
<tr>
<td>25-ton quick reeve 3-sheave hook block (see hook block for actual weight)</td>
<td>670</td>
</tr>
<tr>
<td>40-ton quick reeve 4-sheave hook block (see hook block for actual weight)</td>
<td>780</td>
</tr>
<tr>
<td>8.5-ton hook ball (see hook ball for actual weight)</td>
<td>360</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Lifting From Main Boom With:</th>
<th>lb</th>
</tr>
</thead>
<tbody>
<tr>
<td>28.5 ft or 51 ft fly stowed on base (see operation note 4)</td>
<td>0</td>
</tr>
<tr>
<td>28.5 ft offset fly erected but not used</td>
<td>2,600</td>
</tr>
<tr>
<td>51 ft offset fly erected but not used</td>
<td>4,800</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lifting From 28.5 ft Offset Fly With:</th>
<th>PROHIBITED</th>
</tr>
</thead>
<tbody>
<tr>
<td>22.5 ft fly tip erected but not used</td>
<td></td>
</tr>
<tr>
<td>22.5 ft fly tip stowed on 28.5 ft offset fly</td>
<td></td>
</tr>
</tbody>
</table>

Note: Capacity deductions are for Link-Belt supplied equipment only.

**WINCH PERFORMANCE**

<table>
<thead>
<tr>
<th>Wire Rope Layer</th>
<th>Winch Line Pulls</th>
<th>Drum Rope Capacity (ft)</th>
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<tbody>
<tr>
<td>Low Speed</td>
<td>High Speed</td>
<td>Available* (lb)</td>
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<tr>
<td>Layer</td>
<td>Total</td>
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<tr>
<td>1</td>
<td>13,010</td>
<td>6,418</td>
</tr>
<tr>
<td>2</td>
<td>11,768</td>
<td>5,805</td>
</tr>
<tr>
<td>3</td>
<td>10,742</td>
<td>5,299</td>
</tr>
<tr>
<td>4</td>
<td>9,881</td>
<td>4,874</td>
</tr>
<tr>
<td>5</td>
<td>9,148</td>
<td>4,513</td>
</tr>
</tbody>
</table>

*Maximum lifting capacity: Type RB Rope=9,080, Type ZB Rope=11,080

**WIRE ROPE CAPACITY**

<table>
<thead>
<tr>
<th>Parts of Line</th>
<th>5/8”</th>
<th>5/8”</th>
<th>Notes</th>
</tr>
</thead>
</table>
| Type RB | 9,080 | 11,080 | Maximum lifting capacities are for Link-Belt supplied equipment only.

| Type ZB | Capacity shown in pounds and working loads must not exceed the ratings on the capacity charts in the Crane Rating Manual. |

**HYDRAULIC CIRCUIT PRESSURE SETTINGS**

<table>
<thead>
<tr>
<th>Function</th>
<th>Pressure (PSI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front And Rear Winch</td>
<td>3,100</td>
</tr>
<tr>
<td>Outriggers</td>
<td>3,000</td>
</tr>
<tr>
<td>Boom Hoist</td>
<td>3,350</td>
</tr>
<tr>
<td>Telescope</td>
<td>3,000</td>
</tr>
<tr>
<td>Swing</td>
<td>1,500</td>
</tr>
<tr>
<td>Steering</td>
<td>2,000</td>
</tr>
<tr>
<td>Bumper Outrigger</td>
<td>650</td>
</tr>
<tr>
<td>Pilot Control</td>
<td>500</td>
</tr>
</tbody>
</table>

**WORKING AREAS**

Note: These Lines Determine The Limiting Position Of Any Load For Operation Within Working Areas Indicated.
**WARNING**

Do Not Lower The Boom Below The Minimum Boom Angle For No Load Stability As Shown In The Lift Charts For The Boom Lengths Given. Loss Of Stability Will Occur Causing A Tipping Condition.
<table>
<thead>
<tr>
<th>Load Radius (ft)</th>
<th>θ°</th>
<th>360°</th>
<th>Over Rear</th>
<th>θ°</th>
<th>360°</th>
<th>Over Rear</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>68.0</td>
<td>80,000</td>
<td>80,000</td>
<td>70.5</td>
<td>72,300</td>
<td>72,300</td>
</tr>
<tr>
<td>10</td>
<td>66.0</td>
<td>72,300</td>
<td>72,300</td>
<td>70.5</td>
<td>72,300</td>
<td>72,300</td>
</tr>
<tr>
<td>12</td>
<td>62.0</td>
<td>65,500</td>
<td>65,500</td>
<td>67.5</td>
<td>65,200</td>
<td>65,200</td>
</tr>
<tr>
<td>15</td>
<td>55.5</td>
<td>55,600</td>
<td>55,600</td>
<td>62.5</td>
<td>55,300</td>
<td>55,300</td>
</tr>
<tr>
<td>20</td>
<td>43.5</td>
<td>42,200</td>
<td>42,200</td>
<td>54.0</td>
<td>41,900</td>
<td>41,900</td>
</tr>
<tr>
<td>25</td>
<td>26.5</td>
<td>29,900</td>
<td>29,900</td>
<td>44.0</td>
<td>29,700</td>
<td>29,700</td>
</tr>
<tr>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td>31.0</td>
<td>21,500</td>
<td>21,500</td>
</tr>
</tbody>
</table>

Min. Bm. Ang/Cap (27.5) 0 18,400 18,400 0 (34.5) 14,100 14,100

Note: Refer to "Capacity Deductions For Auxiliary Load Handling Equipment". θ° Loaded Boom Angle In Degrees. ( ) Reference Radius For Min. Boom Angle Capacities (Shown in Parenthesis) Are In Feet.

<table>
<thead>
<tr>
<th>Load Radius (ft)</th>
<th>θ°</th>
<th>360°</th>
<th>Over Rear</th>
<th>θ°</th>
<th>360°</th>
<th>Over Rear</th>
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</thead>
<tbody>
<tr>
<td>9</td>
<td>68.0</td>
<td>80,000</td>
<td>80,000</td>
<td>70.5</td>
<td>72,300</td>
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<tr>
<td>10</td>
<td>66.0</td>
<td>72,300</td>
<td>72,300</td>
<td>70.5</td>
<td>72,300</td>
<td>72,300</td>
</tr>
<tr>
<td>12</td>
<td>62.0</td>
<td>65,500</td>
<td>65,500</td>
<td>67.5</td>
<td>65,200</td>
<td>65,200</td>
</tr>
<tr>
<td>15</td>
<td>55.5</td>
<td>55,600</td>
<td>55,600</td>
<td>62.5</td>
<td>55,300</td>
<td>55,300</td>
</tr>
<tr>
<td>20</td>
<td>43.5</td>
<td>42,200</td>
<td>42,200</td>
<td>54.0</td>
<td>41,900</td>
<td>41,900</td>
</tr>
<tr>
<td>25</td>
<td>26.5</td>
<td>29,900</td>
<td>29,900</td>
<td>44.0</td>
<td>29,700</td>
<td>29,700</td>
</tr>
<tr>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td>31.0</td>
<td>21,500</td>
<td>21,500</td>
</tr>
</tbody>
</table>

Min. Bm. Ang/Cap (27.5) 0 18,400 18,400 0 (34.5) 13,500 13,500 0 (44.5) 9,300 9,300

Min. Bm. Ang/Cap (51.5) 0 9,300 9,300 0 (51.5) 6,900 6,900

Note: Refer to "Capacity Deductions For Auxiliary Load Handling Equipment". θ° Loaded Boom Angle In Degrees. ( ) Reference Radius For Min. Boom Angle Capacities (Shown in Parenthesis) Are In Feet.
Rated Lifting Capacities In Pounds
Fully Extended Outriggers
See Set Up Note 2

<table>
<thead>
<tr>
<th>Load Radius (ft)</th>
<th>2° Offset</th>
<th>20° Offset</th>
<th>40° Offset</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>77.0</td>
<td>13,300</td>
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<tr>
<td>30</td>
<td>74.5</td>
<td>19,900</td>
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</tr>
<tr>
<td>35</td>
<td>72.0</td>
<td>26,600</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>69.5</td>
<td>33,300</td>
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<tr>
<td>45</td>
<td>67.0</td>
<td>40,000</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>64.5</td>
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</tr>
<tr>
<td>60</td>
<td>59.5</td>
<td>60,100</td>
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<tr>
<td>65</td>
<td>57.0</td>
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</tr>
<tr>
<td>70</td>
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<td>75</td>
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<tr>
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<td>49.5</td>
<td>86,900</td>
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<tr>
<td>85</td>
<td>47.0</td>
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<td>44.5</td>
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<tr>
<td>100</td>
<td>39.5</td>
<td>113,700</td>
<td></td>
</tr>
</tbody>
</table>

- **WARNING**

Note: Refer To "Capacity Deductions For Auxiliary Load Handling Equipment". \( \Delta \alpha \) Loaded Boom Angle In Degrees. * This Capacity Based On Maximum Obtainable Boom Angle.

---

Rated Lifting Capacities In Pounds
Fully Extended Outriggers
See Set Up Note 2

<table>
<thead>
<tr>
<th>Load Radius (ft)</th>
<th>2° Offset</th>
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- **WARNING**

Note: Refer To "Capacity Deductions For Auxiliary Load Handling Equipment". \( \Delta \alpha \) Loaded Boom Angle In Degrees. * This Capacity Based On Maximum Obtainable Boom Angle.
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