Specifications
Telescopic Boom Truck Crane

HTC–8660 60–ton (54.43 metric tons)

General Dimensions

<table>
<thead>
<tr>
<th>Description</th>
<th>Feet</th>
<th>Meters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turning radius – wall to wall</td>
<td>49' 9.56&quot;</td>
<td>15.17</td>
</tr>
<tr>
<td>Turning radius – curb to curb</td>
<td>41' 10.5&quot;</td>
<td>12.76</td>
</tr>
<tr>
<td>Ground clearance</td>
<td>13' 25&quot;</td>
<td>3.45</td>
</tr>
<tr>
<td>Tailswing</td>
<td>13' 9.25&quot;</td>
<td>3.92</td>
</tr>
</tbody>
</table>

Ground Level With Crane On Outriggers

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. (699.5 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
- 35.5” – 110’ (10.82 – 33.53 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 110’ (33.53 m).
- The exclusive “A-max” mode (or mode ‘A’) extends only the inner mid section to 60.3’ (18.38 m) offering increased capacities for in-close, maximum capacity picks.
- Mechanical Boom Angle Indicator

Boom Head
- Five 16.5” (0.42 m) root diameter nylon sheaves to handle up to ten 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
- Two Link-Belt designed hydraulic cylinders with holding valves and bushings 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
- 40-ton (36.3 mt) quick-reeve hook block
- 60-ton (54.43 mt) quick-reeve hook block
- 70-ton (63.30 mt) quick-reeve hook block
- 8.5-ton (7.71 mt) hook ball
- Boom floodlight.

■ Fly

Optional
- 34’ (10.36 m) one-piece lattice fly, stowable, adjustable to 2°, 20° and 40°
- 34’ – 56’ (10.36 – 17.07 m) two-piece (bi-fold) lattice fly, stowable, adjustable to 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, with seat belt, for maximum operator comfort.
- Hand held outrigger controls and sight level bubble located in cab.
- Diesel cab heater
- Top hatch window wiper
- Audible swing alarm
- Fire extinguisher
- Sun screen
- Electric windshield wiper
- Windshield washer
- Cab work lights
- Pull-out Cabwalk™

Optional
- Amber strobe light
- Third wrap indicator
- Amber rotating beacon
- Hydraulic heater

Controls
Hydraulic controls (joystick type) for:
- Swing
- Optional auxiliary winch
- Foot controls for:
  - Boom telescope
  - Engine throttle

Optional
- Auxiliary winch
- Single axis controls

Cab Instrumentation
Cornerpost-mounted gauges for:
- Hydraulic oil temperature
- Audio/Visual warning system
- Check and stop engine indicator lights
- Tachometer
- Voltmeter
- Water temperature
- Oil pressure
- Fuel
- Warning horn
- Backup alarm
- Hand throttle
- Mirrors
- Defroster fan
- Circulating fan
- Diesel cab heater
- Power on indicator
- Battery indicator
- Foot controls for:
  - Boom telescope
  - Engine throttle
  - Boom hoist
  - Swing brake
  - Main winch
- 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:
- Boom angle
- Radius of load
- Actual load

■ External RCL light bar
- Visually informs ground crew when crane is approaching maximum load capacity kickouts and presettable alarms with a series of three lights: green, yellow and red.

■ Swing

Bi-directional hydraulic swing motor mounted to a planetary reducer for 360° continuous smooth swing at 2.1 r.p.m.

Sweep 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.

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

Sweep lock – Standard; two position travel lock (pin device) operated from the operator’s cab.

Counterweight
- Standard – Pinned to upper structure frame. 12,000 lbs. (5,443 kg) three-piece design. Consist of one 6,000 lbs. (2,722 kg) piece bolted to upper structure and two 3,000 lbs. (1,361 kg) pieces pinned to standard counterweight.
- Two counterweight sections can be hydraulically lowered on, and pinned to carrier deck to balance axle loadings for travel.
- 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 176 gpm (666 lpm)
- Powered by carrier engine with pump disconnect.
- Rocker switch controlled, air applied pump disconnect engaged / disengaged from carrier cab.
- Maximum system operating pressure is 3,000 psi (20,685 kPa).
- O–ring face seals technology used throughout with hydraulic oil cooler standard.

Pilot Pressure / Counterweight Removal Pump
- Pressure compensated piston pump powered by carrier engine. Maximum pump operating pressure is 1,500 psi (10,342 kPa).

Steering / Fifth Outrigger Pump
- Single gear type pump, 8 gpm (30 lpm).
- Powered by carrier engine through front gear housing.
- Maximum pump operating pressure is 2,000 psi (13,790 kPa)

Reservoir
- 169 gallon (639.7 L) capacity. One diffuser for deaeration.
Filtration
- One 10-micron filter located inside hydraulic reservoir
- Accessible for easy replacement

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

Load Hoist System
- Standard: 2M main winch with grooved lagging
- Optional: 2M auxiliary winch with two-speed motor, automatic brake, and winch function lockout. Power up/down modes.
- Third wrap indicators

Carrier
- Type
  - 8’ 6” (2.59 m) wide, 231” (5.87 m) wheelbase. 8 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 and boom dollies

Axles
- Front: Tandem, 84.38” (2.14 m) track
- Rear: Tandem, 72.8” (1.85 m) track, 6.17 to 1.0 ratio with interaxle differential with lockout.

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

Wheels
- Standard: Hub piloted aluminum disc
- Optional: Hub piloted aluminum disc
- Spare tire and wheel assemblies

Tires
- Standard Rear: 12R22.5 (Load range “H”) rib type, dual tubeless radials

Brakes
- Service: Full air brakes on all wheel ends with automatic slack adjustors. 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 (275.8 kPa) in both systems.

Transmission
- Standard: Eaton RTO-14909ALL; 11 speeds forward, 3 reverse with Series 60 engine

Electrical
- Two 12-volt batteries provide 12-volt starting. 130–amp alternator
- 2,800 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–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, 14 3/4” (0.37 m) self storing steel pad is operable from ground or operator’s cab.
- Hand-held controls and sight level bubble located in operators cab and 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).

Line Pulls and Speeds
- Maximum available line pull 16,438 lbs. (7,454 kg) and maximum line speed of 463 f.p.m. (141 m/min) on 16” (0.41 m) root diameter grooved drum.

Optional
- Electric windshield wiper and washer.
- Travel lights
- Fire extinguisher
- 36,000 BTU heater
- Dome light
- Mud flaps
- Automatic type ignition

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
  - 110–volt electric engine block heater
  - Back-up warning alarm
  - Tow hooks and shackles
  - Aluminum fenders with ground control outriggers.
  - Electric windshield wiper and washer.
  - Horn
  - Ashtray
  - Defroster
  - Cruise control

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

-3–
Carrier Speeds (Manual Transmission – Standard tires)

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<tr>
<td></td>
<td></td>
<td></td>
<td>LL2</td>
<td>Rev</td>
<td>Rev</td>
<td>LL1</td>
<td>Rev</td>
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<tr>
<td>High</td>
<td>7.27</td>
<td>3.79</td>
<td>5.23</td>
<td>7.41</td>
<td>16.30</td>
<td>11.85</td>
<td>26.08</td>
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<tr>
<td>Low</td>
<td>2.61</td>
<td>1.63</td>
<td>12.13</td>
<td>3.19</td>
<td>5.13</td>
<td>0.88</td>
<td>1.06</td>
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<tr>
<td>Speed (mph)</td>
<td>58.20</td>
<td>42.49</td>
<td>30.79</td>
<td>21.79</td>
<td>15.34</td>
<td>11.21</td>
<td>8.12</td>
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<tr>
<td>km/hr</td>
<td>93.65</td>
<td>68.36</td>
<td>49.54</td>
<td>35.06</td>
<td>24.68</td>
<td>18.04</td>
<td>13.07</td>
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<td>Max. Load @ 65 mph.</td>
<td>24,181</td>
<td>9.23</td>
<td>42.49</td>
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<td>5.73</td>
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<td>Deep reduction @ 700 rpm</td>
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<td>20.85</td>
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<tr>
<td>Rear Axle</td>
<td>0.88</td>
<td>0.55</td>
<td>7</td>
<td>2.61</td>
<td>4.19</td>
<td>5.77</td>
<td>3.20</td>
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<td>1.63</td>
<td>12.13</td>
<td>3.19</td>
<td>5.13</td>
<td>0.88</td>
<td>1.06</td>
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<td>3.19</td>
<td>5.13</td>
<td>0.88</td>
<td>1.06</td>
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<td>0.88</td>
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<td>7</td>
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</tbody>
</table>

Engine

Cylinders – cycle | 6 / 4
Bore           | 5.12” (0.13 m)
Stroke         | 6.30” (0.16 m)
Displacement   | 778 cu. in. (12 751 cm³)
Maximum brake hp. | 365 @ 1,800 rpm; 350 @ 2,100 rpm
Peak torque    | 1,350 ft. lbs. (1 831 J) @ 1,200 rpm
Electric system | 12–volt neg. ground / 12 volt starting
Fuel capacity  | 100 gallons (378.5 L)
Alternator     | 12 volt, 130 amps
Crankcase capacity | 32 qts. (30 L)

• Engine – standard
• Ether injection starting package – optional

Axle Loads

Base machine with standard 35.5’ – 110’ (10.82 – 33.53 m) four–section boom, 2M main winch with 2–speed hoisting and power up/down, 600’ (182.88 m), 3/4’ (19 mm) wire rope, 8 x 4, 8.5’ (2.69 m) carrier with Detroit Diesel Series 60 12.7 L engine, 100 gal. (378.5 L) fuel, aluminum fenders and 12,000 lb. (5 443 kg.) 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>lbs.</td>
<td>kg.</td>
</tr>
<tr>
<td>82,052</td>
<td>37,218</td>
</tr>
</tbody>
</table>

Carrier aluminum storage box | 57 | 26
Engine block heater – propane | 83 | 38
Other injection | 6 | 3
Air conditioning – Carrier cab | 124 | 56
Pintle hook | 25 | 11
Electrical and air electrical hook–ups for dolly or trailer | 7 | 3
Driver in carrier cab | 200 | 91
Cab heater assembly (hydraulic) | 129 | 59
Cab air conditioning | 264 | 120
Remove one slab of counterweight on upper | –3,000 | –1,361
Remove two slabs of counterweight on upper | –6,000 | –2,722
Rear winch roller | 93 | 42
Winch with two speeds and 600’ (182.88 m) of wire rope | 712 | 323
Front winch roller | 93 | 42
Remove 600’ (182.88 m) of rope from rear winch | –660 | –299
Remove 600’ (182.88 m) of rope from front winch | –660 | –299
Boom float kit | 56 | 25
Add fly brackets to boom base section fly options | 160 | 73
Add 34’ (10.36 m) offsettable fly w/ATB weight (stowed) | 1,478 | 670
Add 34’ – 56’ (10.36 – 17.07 m) offsettable fly w/ATB weight (stowed) | 2,134 | 968
Add floodlight to front of boom base section | 10 | 5
Add 40-ton (36.43 m3) hookblock stowed behind bumper (4–sheaves) | 720 | 327
Add 60-ton (54.43 m3) hookblock stowed behind bumper (5–sheaves) | 1,109 | 503
Hookblock to front bumper | 360 | 163
Auxiliary arm w/ATB switch to boomhead | 95 | 43

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

Axle Max. Load @ 65 mph. (105 km/h)

<table>
<thead>
<tr>
<th></th>
<th>Front</th>
<th>Rear</th>
</tr>
</thead>
<tbody>
<tr>
<td>lbs.</td>
<td>46,400 (21 047 kg) – Aluminum disc wheels with 445/65R22.5 tires</td>
<td>50,350 lbs. (22 838 kg) – Aluminum disc wheels with 12R22.5 tires</td>
</tr>
</tbody>
</table>

Link–Belt Construction Equipment Company

Lexington, Kentucky  www.linkbelt.com

HTC–8660 –4–

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