Specifications
Telescopic Boom Truck Crane

HTC–8670 70–ton (63.5 metric tons)

General Dimensions

<table>
<thead>
<tr>
<th></th>
<th>feet</th>
<th>meters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turning radius (wall to wall)</td>
<td>49' 1.5&quot;</td>
<td>14.97</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>0.34</td>
</tr>
<tr>
<td>Tailswing</td>
<td>13' 8.125&quot;</td>
<td>4.17</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. (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**
- 38 – 115’ (11.58 – 35.05 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 115’ (35.05 m).
- The exclusive “A-max” mode (or mode ‘A’) extends only the inner mid section to 63’ 6” (19.39 m) offering increased capacities for in-close, maximum capacity picks.

**Boom Head**
- Five 16-1/2” (0.42 m) root diameter nylon sheaves with a fifth nylon sheave available to handle up to 10 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 hookblock.
- Fly pinning alignment tool.

**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 16-1/2” (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.

**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 on left side of cab.
- Diesel cab heater
- Pull-out Cabwalk™
- Audible swing alarm
- Backup alarm
- Fire extinguisher
- 12-volt accessory outlet
- Electric windshield wiper
- Windshield washer
- Top hatch window wiper

**Optional**
- Amber strobe light
- Emergency steering system
- Amber rotating beacon
- Hydraulic heater
- Air conditioning

**Controls**
- Hydraulic controls (joystick type) for:
  - Swing
  - Main winch
  - Boom hoist
  - Swing brake

**Foot controls for:**
- Boom telescope
- Engine throttle

**Optional**
- Single axis controls
- Auxiliary winch

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

- 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 hookblock.

**Swing**

Bi-directional hydraulic swing motor mounted to a planetary reducer for 360° continuous smooth swing at 1.7 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 – Pinned to upper structure frame. 12,000 lbs. (5,443 kg) three-piece design (4,000 lbs. each).
- Optional – 16,000 lbs. (7,258 kg) five piece design. (Dolly required for five piece arrangement).
- Hydraulically controlled counterweight removal, standard. Counterweight sections may be lowered on and pinned to carrier deck to balance axle loadings for travel.

**Hydraulic System**

**Main Pump**
- Two gear pump with a total of five sections.
- Combined pump capacity of 152 gpm (575 lpm). Powered by carrier engine with pump disconnect.
- Spline type pump disconnect, engaged / disengaged from carrier cab.
- Maximum system operating pressure is 3,500 psi (24,133 kPa).

**Pilot Pressure / Counterweight Removal Pump**
- Pressure compensated piston pump powered by carrier engine with pump disconnect. Operates at 1,500 psi (10,343 kPa) maximum.

**Steering / Fifth Outrigger Pump**
- Single gear type pump, 8 gpm (30 lpm).
  - Powered by carrier engine through front gear housing. Max. pump operating pressure is 2,000 psi (13,790 kPa).
  - Reservoir – 169 gallon (639.7 L) capacity.
  - One diffuser for deaeration.
(continued from page 2)

**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.
- Two-speed motor and automatic brake.

- Power up/down mode of operation.
- Hoist drum cable followers.
- 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.
- Winch circuit control provides balanced oil flow to both winches for smooth, simultaneous operation.
- Drum resistant wire rope.
- Drum Rotation Indicators.

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

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**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.

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**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.

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**Suspension**

**Front axle**
- Leaf spring suspension.

**Rear axle**
- Solid mount, bogie beam type.

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**Wheels**

**Standard**
- Front and rear hub piloted aluminum disc.

**Optional**
- Spare tire and wheel assembles.

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**Tires**

**Standard Front**
- 445/65R22.5 (Load range “L”) single tubeless radials.

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

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**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.

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** Carrier Cab**

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

**Equipped with:**
- Air–ride adjustable operator’s seat with seat belt.
- Tilting and locking 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 and mud flaps.
- Carrier mounted outrigger controls with throttle control.
- Electric windshield wiper and washer.
- Rotating beacon.
- Horn.
- Fire extinguisher.
- 36,000 BTU heater.
- Dome light.
- High beam light switch.
- Travel lights.
- Mud flaps.
- Ashtray.
- Defroster.
- Cruise control.

**Cabin 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.
- Check engine and stop engine lights.
- Automotive type ignition.
- Optional – Amber strobe light.
- Optional – Air conditioning.

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**Line Pulls and Speeds**

- Maximum available line pull 16,506 lbs. (7,484 kg) and maximum line speed of 513 f.p.m. (156 m/min) on 16” (0.41 m) root diameter grooved drum.

**Optional**
- 2M auxiliary winch with two-speed motor, automatic brake, and winch function lockout. Power up/down modes.

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**Pumping/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.

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**Steering**

- Sheppard rack and pinion design.

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**Transmission**

**Standard**
- Eaton RTO–14709MLL; 11 speeds forward, 3 reverse.

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**Electrical**

- Four, 12–volt batteries provide 12–volt starting.
- 2,800 cold cranking amps available.
- 12–volt operating system, 130–amp alternator.

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**Lights**

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

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**Outriggers**

- Three position operation capability.
- Four hydraulic, telescoping beam and jack outriggers.
- Vertical jack cylinders equipped with integral holding valve.
- Beams extend to 24’ (7.32 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, 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 on carrier deck.

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**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).
### Carrier Speeds (Manual Transmission – Standard tires)

<table>
<thead>
<tr>
<th>Gear</th>
<th>High Speed</th>
<th>Low Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mph (km/hr)</td>
<td>mph (km/hr)</td>
</tr>
<tr>
<td></td>
<td>58.20 (31.69)</td>
<td>93.65 (58.20)</td>
</tr>
<tr>
<td></td>
<td>42.49 (26.41)</td>
<td>68.36 (42.49)</td>
</tr>
<tr>
<td></td>
<td>30.79 (19.14)</td>
<td>49.54 (30.79)</td>
</tr>
<tr>
<td></td>
<td>21.79 (13.53)</td>
<td>35.06 (21.79)</td>
</tr>
<tr>
<td></td>
<td>15.34 (9.55)</td>
<td>24.68 (15.34)</td>
</tr>
<tr>
<td></td>
<td>11.21 (6.96)</td>
<td>18.04 (11.21)</td>
</tr>
<tr>
<td></td>
<td>8.12 (5.04)</td>
<td>13.07 (8.12)</td>
</tr>
<tr>
<td></td>
<td>5.73 (3.53)</td>
<td>9.23 (5.73)</td>
</tr>
<tr>
<td></td>
<td>2.61</td>
<td>4.19</td>
</tr>
<tr>
<td></td>
<td>3.59 (2.17)</td>
<td>5.77 (3.59)</td>
</tr>
<tr>
<td></td>
<td>1.63</td>
<td>2.62 (1.63)</td>
</tr>
<tr>
<td></td>
<td>1.04 (0.64)</td>
<td>1.69 (1.04)</td>
</tr>
<tr>
<td></td>
<td>0.47</td>
<td>0.75 (0.47)</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Engine</th>
<th>Detroit Diesel Series 60 12.7 L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cylinders – cycle</td>
<td>6 / 4</td>
</tr>
<tr>
<td>Bore</td>
<td>5.12” (0.13 m)</td>
</tr>
<tr>
<td>Stroke</td>
<td>6.30” (0.16 m)</td>
</tr>
<tr>
<td>Displacement</td>
<td>778 cu. in. (12.751 cm³)</td>
</tr>
<tr>
<td>Maximum brake hp.</td>
<td>985 @ 1,800 rpm; 350 @ 2,100 rpm</td>
</tr>
<tr>
<td>Peak torque</td>
<td>1,350 ft. lbs. (1,831 J) @ 1,200 rpm</td>
</tr>
<tr>
<td>Electric system</td>
<td>12-volt neg. ground / 12 volt starting</td>
</tr>
<tr>
<td>Fuel capacity</td>
<td>100 gallons (378.5 L)</td>
</tr>
<tr>
<td>Alternator</td>
<td>12 volt, 130 amps</td>
</tr>
<tr>
<td>Crankcase capacity</td>
<td>32 qts. (30 L)</td>
</tr>
</tbody>
</table>

### Axle Loads

#### G.V.W. (lbs. & kg.)

<table>
<thead>
<tr>
<th>Gear Type</th>
<th>Front Axle</th>
<th>Upper Facing Front</th>
<th>Rear Axle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front</td>
<td>76,118</td>
<td>34,527</td>
<td>41,576</td>
</tr>
<tr>
<td>Low</td>
<td>5,443</td>
<td>2,419</td>
<td>1,814</td>
</tr>
<tr>
<td>Hi rev.</td>
<td>17,111</td>
<td>7,571</td>
<td>6,421</td>
</tr>
<tr>
<td>Lo rev.</td>
<td>50,350</td>
<td>22,838</td>
<td>16,859</td>
</tr>
<tr>
<td>Deep reduction @ 600 rpm</td>
<td>25,21</td>
<td>10,666</td>
<td>5,333</td>
</tr>
<tr>
<td>Deep reduction @ 600 rpm</td>
<td>24,561</td>
<td>11,140</td>
<td>5,776</td>
</tr>
<tr>
<td>Deep reduction @ 600 rpm</td>
<td>23,876</td>
<td>10,241</td>
<td>4,281</td>
</tr>
</tbody>
</table>

#### Axle Loads

<table>
<thead>
<tr>
<th>Transfer</th>
<th>Front axle</th>
<th>Rear axle</th>
</tr>
</thead>
<tbody>
<tr>
<td>one slab</td>
<td>5,333</td>
<td>2,419</td>
</tr>
<tr>
<td>two slabs</td>
<td>10,666</td>
<td>4,828</td>
</tr>
<tr>
<td>three slabs</td>
<td>15,999</td>
<td>7,257</td>
</tr>
</tbody>
</table>

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

### Specifications

#### Engine

- **Base machine with standard 38.5” – 115” (97.78 – 291.45 cm) four-section boom, 2M main winch with 2-speed hoisting and power up/down, 630” (192.02 m), 3/4” (19 mm) wire rope, 8 x 4, 8.5 (2.59 m) carter with Detroit Diesel Series 60 engine, 100 gal. (379 L) fuel and no counterweight.**
- **Crankcase capacity:** 32 qts. (30 L)

#### Axle Loadings

- **Fly brackets on boom base section for fly options**
- **Three slabs of counterweight on upper plus two cheek weights**
- **Flybrackets on boom base section for fly options**
- **Transfer one slab of counterweight to carrier deck**
- **Transfer two slabs of counterweight to carrier deck**
- **Transfer three slabs of counterweight to carrier deck**

#### Key Points

- **Engine – Detroit Diesel Series 60 12.7 L**
- **Fuel capacity:** 100 gallons (378.5 L)
- **Alternator:** 12 volt, 130 amps
- **Crankcase capacity:** 32 qts. (30 L)
- **Engine brake – standard**
- **Ether injection starting package – optional**

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

**Axle Loadings:**

- **Front axle:** 46,400 lbs. (21,047 kg) – Aluminum disc wheels with 445/65R22.5 tires
- **Rear axle:** 50,350 lbs. (22,838 kg) – Aluminum disc wheels with 12R22.5 tires

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**Link–Belt Construction Equipment Company**

**Lexington, Kentucky**

**www.linkbelt.com**

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