Specifications
Hydraulic Truck Terrain Crane

HTT–8670LB 70–ton (63.5 metric tons)
Long Boom

General Dimensions

<table>
<thead>
<tr>
<th></th>
<th>feet</th>
<th>meters</th>
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<tbody>
<tr>
<td><strong>Front Steer</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turning radius (wall to wall)</td>
<td>51' 2.75&quot;</td>
<td>15.61</td>
</tr>
<tr>
<td>Turning radius (curb to curb)</td>
<td>41' 10.5&quot;</td>
<td>12.76</td>
</tr>
<tr>
<td><strong>All–Wheel Steer</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turning radius (wall to wall)</td>
<td>38' 1.43&quot;</td>
<td>11.62</td>
</tr>
<tr>
<td>Turning radius (curb to curb)</td>
<td>28' 7.25&quot;</td>
<td>8.72</td>
</tr>
<tr>
<td><strong>Ground clearance</strong></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>13.25&quot;</td>
<td>0.34</td>
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</table>

Litho in U.S.A. 3/03  
#5386 (Supersedes #5344)
Upper Structure

### Boom

**Patented Design**
- Boom side plates have diamond shaped impressions for superior strength to weight ratio and 100,000 p.s.i. (889.5 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 Elevation**
- 41° – 127° (12.50 m - 38.71 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 127° (38.71 m).
- The exclusive “A–max” mode (or mode ‘A’) extends only the inner mid section to 69.6° (21.21 m) offering increased capacities for in–close, maximum capacity picks.

**Boom Head**
- 15,000 lbs. (6.80 mt) main head sheaves for multiple reeving.
- 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.

**Fly**

**Optional**
- 39.5° (12.04 m) One–piece lattice fly, stowable, offsettable to 2°, 20° and 40°.
- Lugs to allow for second section.
- 39.5° – 67° (12.04 – 20.42 m) Two–piece (bifold) lattice fly, stowable, offsettable to 2°, 20° or 40°.

**Cab and Controls**

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

**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 hookblock.

### Swing

- Bi–directional hydraulic swing motor mounted to a planetary reducer for 360° continuous smooth swing at 1.7 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 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.

### Cab Instrumentation

**Cornerpost–mounted gauges for:**
- Hydraulic oil temperature
- Swing pressure
- Oil pressure
- Water temperature
- Boom hoist speed
- Warning horn
- Dome light
- Backup alarm
- Cireulating fan
- Cup holder
- Fire extinguisher
- Hand throttle
- Red light
- Visual alarm
- Warning signal
- Foot controls for:
  - Boom telescope
  - Swing brake
  - Engine throttle

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

**Rated Capacity Limiter**

**Pilot Pressure / Counterweight Removal Pump**
- Pressure compensated piston pump 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)

**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.
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

Optional
- Frame mounted storage box
- Pintle hook
- Electric and air connections for trailers and boom dollies

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 outrigger controls
- Screw type outriggers
- Electric and air connections for trailers and boom dollies

Axles

Front
- Tandem, 84.38" (2.14 m) track

Rear
- Tandem, 81.89" (2.08 m) track. 7.29 to 1.0 ratio with interaxle differential and cross axle lock capability.

Suspension

Front axle
- Leaf spring suspension

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

Wheels

Standard
- Hub piloted aluminum disc
- Spare tire and wheel assemblies

Tires

Standard Front and Rear
- 445/65R22.5 (Load range "L") single tubeless radials

Brakes

Service
- Full air brakes on all wheel ends with automatic adjustors. Dual circuit with modulated emergency brakes.
- Front – 16.5 x 6 S–Cam brakes
- Rear – 16.1 x 7 Wedge brakes

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

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.
- Rotation resistant wire rope
- Drum rotation indicators

Emergency brakes apply automatically when air drops below 40 psi (275.8 kPa) in both systems

Steering

Four steer capabilities; front, rear, all–wheel and "crab" steer.

Front
- Sheppard rack and pinion design

Rear
- Hydraulic power cylinders

Transmission

Standard – Eaton RTO–14909ALL; 11 speeds forward, 3 reverse.

Electrical

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

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 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, 14.75" (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).

The three outrigger positions are:
- Full extension – 24' 0" (7.32 m)
- Intermediate position – 14' 7" (4.45 m)
- Full retraction – 7' 9" (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 adjustable operator’s seat with seat belt
- 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 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

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

Optional
- Amber strobe light
- Air conditioning

Line Pulls and Speeds
- Maximum available line pull 16,506 lbs. (7484 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 lock–out. Power up/down modes.
- Hoist drum cable followers
- Third wrap indicators
### Carrier Speeds
(Manual Transmission – Standard tires)

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</thead>
<tbody>
<tr>
<td></td>
<td>8</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Ratio</td>
<td>0.73</td>
<td>1.00</td>
<td>1.38</td>
<td>1.95</td>
<td>2.77</td>
<td>3.79</td>
<td>5.23</td>
<td>7.41</td>
</tr>
<tr>
<td>Speed</td>
<td>mph</td>
<td>km/hr.</td>
<td>51.92</td>
<td>37.90</td>
<td>27.47</td>
<td>19.44</td>
<td>13.68</td>
<td>10.00</td>
</tr>
<tr>
<td></td>
<td>ton</td>
<td>(63.5 mt)</td>
<td>(36.3 mt)</td>
<td>8670LB</td>
<td>7257</td>
<td>4828</td>
<td>327</td>
<td>214</td>
</tr>
</tbody>
</table>

### Engine

**Detroit Diesel Series 60 12.7 L**

- **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.**: 385 @ 1,800 rpm; 350 @ 2,100 rpm
- **Peak torque**: 1,350 ft. lbs. (1 831 J)
- **Electric system**: 12-volt neg. ground / 12 volt starting
- **Fuel capacity**: 85 gallons (321.8 L)
- **Alternator**: 12 volt, 130 amps
- **Crankcase capacity**: 8670LB (321.8 L)

- Engine brake – standard
- Ether injection starting package – optional

### Axle Loads

**Base machine with standard 41” – 127” (10.50 – 32.31 m) four-section boom, 20M main winch with 2-speed hoisting and power up/down, 670’ (204.21 m), 3/4” (19 mm) wire rope, 8 x 4, 8.5” (2.19 m) x 4, 8.5” (204.21 m) wire rope – front, 408 ft. (124 m) wire rope, 8 x 4, 8.5” (204.21 m) wire rope – front, 3% offsettable fly with tip lugs and anti-block weight – stowed, 3 block weight – stowed, 4,000 ft. (1 221 m) fuel and no 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>78,294</td>
<td>35,514</td>
</tr>
</tbody>
</table>

- **Fly brackets on boom base section for fly options**
  - 160 | 72 | 147 | 68 | 11 | 5
- **Offsettable fly with tip lugs and anti-two block weight – stowed**
  - 1,062 | 727 | 1,538 | 698 | 64 | 29
- **Two-piece fly and anti-two block weight – stowed**
  - 2,380 | 1,080 | 1,995 | 905 | 385 | 175
- **Flylight to front of boom base section**
  - 10 | 5 | 17 | 8 | 7 | 3
- **Hookball to front bumper**
  - 360 | 163 | 587 | 266 | 227 | 103
- **Auxiliary lifting sheave**
  - 125 | 57 | 230 | 104 | 105 | 48

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

<table>
<thead>
<tr>
<th>Axle</th>
<th>Max. Load @ 65 mph. (105 km/h)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Front</td>
</tr>
<tr>
<td></td>
<td>Rear</td>
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Link-Belt Construction Equipment Company
Lexington, Kentucky
www.linkbelt.com

HTT–8670LB