



HTC-8670

Hydraulic Truck Crane

- 70-ton (63.50 mt) at 9' (2.74 m) radius
- 115' (35.05 m) four-section, full power boom with quick-reeve boom head
- 182' (55.47 m) maximum tip height
- Optional 61' (18.59 m) two-piece (bi-fold) lattice fly, stowable, offsettable to 2°, 20° and 40°
- No deducts for stowed attachments
- Full-deck aluminum fenders
- Pilot-operated hydraulic controls
- On-highway 365 hp electronic Cummins engine with Jake brake
- 16,000 lb (7 258 kg) counterweight

HTC-8670

(63.50 mt)

70-ton
Hydraulic Truck Crane

The HTC-8670 Long Boom boasts all of the outstanding features of the HTC-8670, in addition to:

- 127' (38.71 m) four-section, full power boom with quick reeve boom head
- 200' (60.96 m) maximum tip height
- Optional 67' (20.42 m) two-piece (bi-fold) lattice fly, stowable, offsettable to 2°, 20° and 40°



Link-Belt
CONSTRUCTION EQUIPMENT

HTC-8670

World class combination of form and function ... only from Link-Belt!

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

HTC-8670

All the great features of the HTC-8670 PLUS:

- Longer boom
- Longer fly

4-section full power boom with attachment flexibility

- HTC-8670:
 - 38' to 115' (11.58 - 35.05 m)
 - Maximum tip height is 182' (55.47 m) with the attachment and main boom used in combination
- HTC-8670 LB:
 - 41' to 127' (12.50 - 38.71 m)
 - Maximum tip height is 200' (60.96 m) with the attachment and main boom used in combination
- Features the "Boss," 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 63' 6" (19.39 m) on the HTC-8670 and 69' 6" (21.21 m) on the HTC-8670 LB, 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

- HTC-8670: 36' 6" - 61' (11.13 - 18.59 m)
- HTC-8670 LB: 39' 6" - 67' (12.04 - 20.42 m)
- Erection of two-piece (bi-fold) lattice fly is a one-man operation
- Exclusive design reduces side deflection when lifting load
- Easy to erect and stow
- Also available: One-piece lattice fly with lugs to allow addition of second section
 - HTC-8670: 36' 6" (11.13 m), HTC-8670 LB: 39' 6" (12.04 m)
- Attachments offset to 2°, 20° and 40°



The Confined Area Lifting Capacities (CALC) system provides three outrigger positions:

- full retraction
- intermediate extension
- full extension

Outrigger pins eliminate guesswork by automatically positioning outriggers at midpoint position.

Sheppard rack & pinion steering system provides 40° wheel cuts. The HTC-8670 has a 38' 10" (11.84 m) turning radius, and the HTC-8670 LB has a 41' 7" (12.67 m) turning radius.

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 are significantly reduced when service work and disassembly are required. The paint is totally cured using an oven-baking process prior to assembly.

All powder-coated hydraulic lines and electrical routings are tied off with brass clamps. Nylatron insulators are impervious to salt or chemicals.

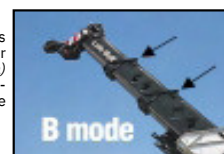
Quick reeve head machinery for fast, easy line change

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 increases lift capacities.

Available auxiliary lifting sheaves pinned on (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.



Lightweight fiberglass engine hood is common to all HTC cranes, and can be removed as a complete unit for heavy engine maintenance.



All-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, 70-ton and smaller.

Link-Belt
CONSTRUCTION EQUIPMENT



Piston motor hydraulic hoist system

Standard load hoist system consists of a main winch with two-speed motor and automatic brake for power up/down mode of operation. A bi-directional piston-type hydraulic motor, driven through 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.

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 rear windows and swing-up roof window
- Single foot pedal control
- Automotive-style windshield
- Corner post-mounted, sliding right side backlit gauges
- Large, sweeping electric wipers
- Dashless design
- 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-8670 and HTC-8670 LB 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.



Superior accessibility

Access to the operator's cab and engine compartment is superb with strategically located ladders and steps. The pull-out CabWalk™ slides out from its secured travel position underneath the operator's cab to give the operator a platform to stand on for easy entry and exit from the cab.

Smooth ride with air-ride suspension

Standard air-ride suspension provides a smooth ride and precise handling. For "pick-and-carry" operations, the air bags are deflated, allowing the suspension to rest solid on the carrier frame. When the "pick-and-carry" operation is completed, simply flip a switch and the air bags automatically re-inflate.



Serviceability

Wideopening enginedoors provide excellent accessibility, 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.

Transportability

The HTC-8670 and HTC-8670 LB come standard with 12,000 lbs of counterweight and can also use two auxiliary 2,000 lb counterweights. The hydraulic counterweight removal system can position 12,000 lbs of counterweights on the carrier deck for transport.

Stowable attachments

Swing-away lattice flies are easily stored for transport or can be removed to meet specific road laws.



Carrier cab

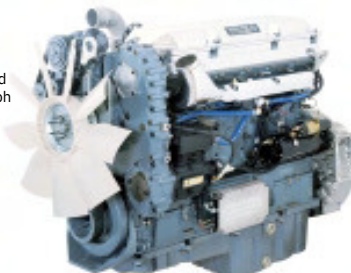
The carrier cab and engine cowling are manufactured of the same LFC 2000 construction process as the upper operator's cab. This rust-free, laminated fibrous composite material combined with additional acoustical treatments assure the operator of maximum highway comfort. And the rack and pinion steering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

- Dash-mounted comprehensive instrumentation with backlit gauges
- Sliding side and rear windows and roll up/down door window provides excellent ventilation
- Fully adjustable air ride fabric seat
- Suspended pedals
- Rear view mirrors

Cruise to your next job site

Utilizing a Detroit Diesel Series 60 engine and an Eaton transmission, the HTC-8670 and HTC-8670 LB can run up to 58.20 mph (93.66 km/hr) top speed on the highway, unmatched in the industry today. Move it on the job site at less than 0.5 mph (.80 km/hr) creep speed at idle for maximum maneuverability.

- Detroit Diesel 365 horsepower (272 kW) engine
- Eaton 11-speed forward, 3-speed reverse transmission
- Electronic throttle control
- Cruise control



FOR MORE INFORMATION, CONTACT YOUR AUTHORIZED LINK-BELT DISTRIBUTOR:

Link-Belt

CONSTRUCTION EQUIPMENT

Lexington, Kentucky
www.linkbelt.com

® Link-Belt is a registered trademark. Copyright 2001. All rights reserved. We are constantly improving our products and therefore reserve the right to change designs and specifications.

Litho in U.S.A. 09/01 #4262

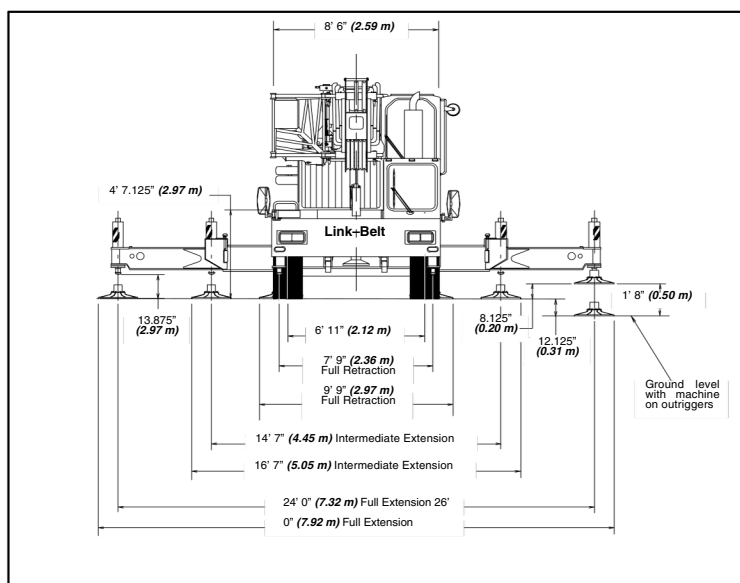
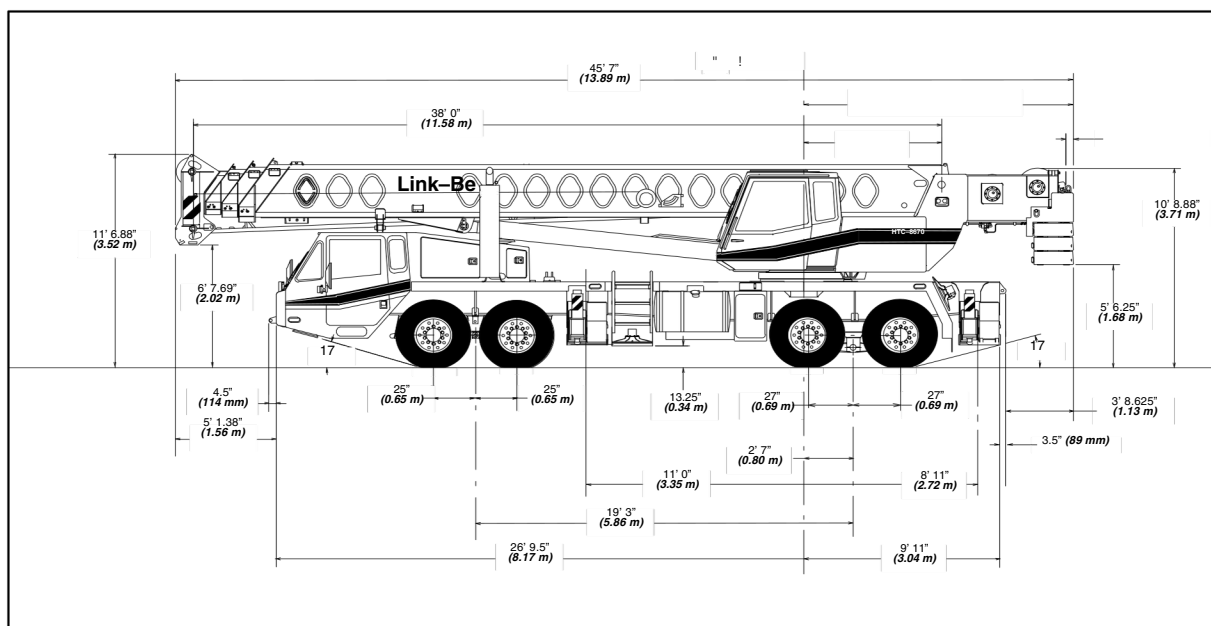


Specifications

Telescopic Boom Truck Crane

HTC-8670

70-ton (63.5 metric tons)



General Dimensions	feet	meters
Turning radius (wall to wall)	49' 1.5"	14.97
Turning radius (curb to curb)	41' 10.5"	12.76
Ground clearance	13.25"	0.34
Tailswing	13' 8.125"	4.17

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
Ropedeadendlugsprovided on each side of boom head.

Boom head designed for quick reeve of hook block.

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.

Optional

70-ton (**63.5 mt**) quick reeve hook block.

8–1/2 ton (**7.7 mt**) hook ball.

Boom floodlight.

Mechanical Boom Angle Indicator

Fly

Optional

36" 6" (**11.13 m**) One piece lattice fly, stowable, offsettable to 2', 20' and 40'.

Lugs to allow for second section.

36" 6" – 61' (**11.13 – 18.59 m**) Two piece (half) 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.

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

Optional auxiliary winch Boom hoist

Foot controls for:

Boom telescope

Engine throttle

Swing brake

Optional

Single axis controls

Auxiliary winch

Cab Instrumentation

Cornerpost-mounted gauges for:

Hydraulic oil temperature

Audio/Visual warning system

Tachometer

Voltmeter

Water temperature

Oil pressure

Fuel

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

Actual load

Allowed load

% of allowed load

Presetable alarms include:

Maximum and minimum boom angles.

Maximum fly height.

Maximum boom length.

Swing left/right positions.

Operator defined area alarm is standard.

Anti-two block weight designed

for quick

reeve of hookblock.

Optional

Internal RCL light bar: Visually informs operator when crane is approaching maximum load capacity with a series of green, yellow and red lights.

External RCL light bar: Visually informs ground crew when crane is approaching maximum load capacity kickouts and pre-settable 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 1.7 r.p.m.

Swing parkbrake – 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.

Optional

360 (Pawl-in-Gear) swing lock. Meets New York City requirements.

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 3,500psi (**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 on next page)

(continued from page 2)

Filtration

One, 10-micron filter located inside hydraulic reservoir

Accessible for easy replacement

Control valves

Si\$ 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.

Rotation resistant wire rope.

Drum Rotation Indicators.

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 lock- out. Power up/down modes.

Hoist drum cable followers.

Third wrap indicators.

Carrier Type

8' 6" (**2.59 m**) wide, 231" (**5.87 m**) wheel-base. 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

Solid mount, bogie beam type

Wheels

Standard

Front and rear hub piloted aluminum disc

Optional

Spare tire and wheel assemblies

Tires

Standard Front

445/65R22.5 (Load range "L") single tubeless radials

Standard Rear

12R22.5 (Load range "L") 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 (**275.8 kPa**) in both systems.

Steering

Sheppard rack and pinion design.

Transmission

Standard – Eaton RTO-14709MLL; 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 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.

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 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

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.

Check engine and stop engine lights.

Automotive type ignition.

Optional – Amber strobe light.

Optional – Air conditioning



Carrier Speeds (Manual Transmission – Standard tires)

Gear	High					Low					Deep reduction		Hi rev.	Lo rev.	Deep reduction	Deep reduction	Deep reduction
	8	7	6	5	4	3	2	1	Low	LL2	LL1	Rev.	Rev.	Rev.	@ 600 rpm	@ 600 rpm	@ 600 rpm
Ratio	0.73	1.00	1.38	1.95	2.77	3.79	5.23	7.41	16.30	11.85	26.08	4.15	15.76	25.21	26.08	25.21	
Speed mph	58.20	42.49	30.79	21.79	15.34	11.21	8.12	5.73	2.61	3.59	1.63	10.24	2.70	1.69	0.47	0.48	
Speed k m/hr.	93.65	68.36	49.54	35.06	24.68	18.04	13.07	9.23	4.19	5.77	2.62	16.47	4.34	2.71	0.75	0.72	

Engine

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 cm ³)
Maximum brake hp.	365 @ 1,800 rpm; 350 @ 2,100 rpm
Peak torque	1,350 ft. lbs. (1 831 J) @ 1,200 rpm 12–
Electric system	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 brake—standard

Ether injection starting package – optional

Axle Loads

Base machine with standard 38.5' – 115' (11.73 – 35.05 m) 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) carrier with Detroit Diesel Series 60 engine, 100 gal. (378 L) fuel and no counterweight.

	G.V.W.		Upper Facing Front			
	lbs.	kg.	Front Axle		Rear Axle	
	76,118	34 527	34,542	15 668	41,576	18 859
Cold weather starting aids – propane and ether	40	18	57	26	–17	–8
Aluminum storage box	57	26	16	7	41	19
Driver in carrier cab	200	91	254	185	–54	–24
Pintle hook w/air and electrical hook-ups	30	14	–12	–5	42	19
Air conditioning in carrier cab	100	45	127	57	–27	–12
Auxiliary winch with 630' (192.02 m) front rope	855	388	–282	–128	1,137	516
Hydraulic heater	170	77	1	0.5	169	77
Air conditioning in upper cab	120	54	–4	–2	124	56
One slab of counterweight on upper	4,000	1 814	–971	–971	124	2 785
Two slabs of counterweight on upper	8,000	3 628	–2,140	–1 942	6,140	5 571
Three slabs of counterweight on upper	12,000	5 443	–4,281	–2 913	12,281	8 356
Three slabs of counterweight on upper plus two cheek weights	16,000	7 257	–6,421	–3 883	18,421	11 140
Fly brackets on boom base section for fly options	160	72	–8,561	68	24,561	5
36.5' (11.13 m) offsettable fly with tip lugs – stowed	1,542	700	147	612	11	88
36.5' to 61 ft. (11.13 – 18.59 m) two-piece fly – stowed	2,248	1 020	1,349	776	193	244
40-ton (36.3 mt) hookblock at front bumper	720	327	1,711	533	537	–206
70-ton (63.5 mt) hookblock at front bumper	1,400	635	1,175	1 036	–455	–401
Hookball to front bumper	360	163	2,284	266	–884	–103
Auxiliary arm	125	57	587	104	–227	–48
			230		–105	
	Front axle		Rear axle			
Transfer one slab of counterweight to carrier deck	5,333	2 419	–5,333	–2 419		
Transfer two slabs of counterweight to carrier deck	10,666	4 828	–10,666	–4 838		
Transfer three slabs of counterweight to carrier deck	15,999	7 257	–15,999	–7 257		

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

3%.

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

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

Link-Belt Construction Equipment Company

Lexington, Kentucky

www.linkbelt.com

Link-Belt is a registered trademark. Copyright 2003. All rights reserved. We are constantly improving our products and therefore reserve the right to change designs and specifications.

Lifting Capacities

Telescopic Hydraulic Truck Crane

HTC-8670

70-ton(63.5 metric ton)

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

Fully Extended Outriggers

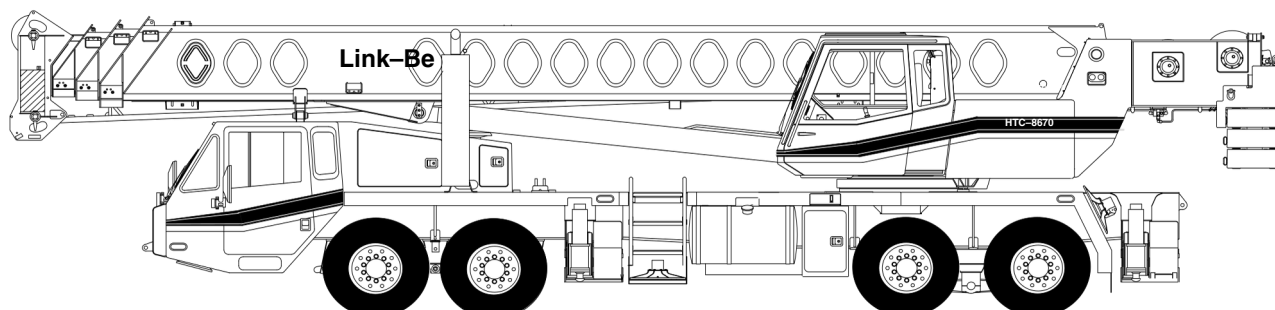
Working Range Diagram (16,000 lbs. Counterweight)

38 to 63.5 ft. (11.58 – 19.39 m) main boom capacities, **A-max** mode

38 to 115 ft. (11.58 – 35.05 m) main boom capacities, Basic Mode “B”

36.5 (11.13 m) ft. offset fly capacities, Basic Mode “B”

36.5 to 61 ft. (11.13 – 18.59 m) 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.



OPERATING INSTRUCTIONS

- 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.
- 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.
- 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.
- The rated lifting capacities are based on crane standing level on firm supporting surface.

- 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.
- 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.
- When operating on fully retracted outriggers, do not exceed 64° maximum boom angle with 16,000 lb. counterweight or 71° maximum boom angle with 12,000 lb. counterweight. Loss of backward stability will occur causing a backward tipping condition.
- When making lifts on tires, they must be inflated to the recommended pressure. (See Operation note 19 and Tire Inflation.)
- Before swinging boom to over side position on tires, or on fully retracted outriggers where capacities are not published, boom sections must be fully retracted and 45° boom angle maintained.
- For required parts of line, see Wire Rope Capacity and Winch Performance.
- Before setting up on intermediate outriggers, retracted outriggers, or tires, refer to Working Range Diagrams and rated lifting capacities to determine allowable crane configurations.

- 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 7,000 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 7,000 pounds or 80% of rated lifting capacity, whichever is less. For clamshell and magnet operation, maximum boom length is restricted to 55 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.
- 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. Rated lifting capacities in the shaded areas above the bold lines, 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 below the bold lines are based on stability ratings. Some capacities are limited by a maximum obtainable 78° boom angle.
- Rated lifting capacities include the weight of the hook block, hook ball, 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.
- 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. Rated lifting capacities are for lift crane service only.
- 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. 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.
- For main boom capacities when either boom length or radius or both are between values listed, proceed as follows:
 - For boom lengths not listed, use rating for next longer boom length or next shorter boom length, whichever is smaller.
 - 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 .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.
 - 15 .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 loaded radius is for reference only.
 - 16 .For fly capacities with main boom length less than 115 ft. and greater than 95 ft., the rated capacities are determined by the boom angle using the 115 ft. boom and fly chart. For angles not shown use the next lower boom angle to determine the rated capacity.
 - 17 .For fly capacities with main boom length less than 95 ft., the rated capacities are determined by the boom angle only using the 95 ft. boom and fly chart. For angles not shown, use the next lower boom angle to determine the rated capacity.
 - 18 .The 38 ft. boom length rated lifting capacities are based on boom fully retracted. If the boom is not fully retracted, do not exceed capacities shown for the 45 ft. boom length.
 - 19 .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. Pick and carry operations are restricted to maximum speed of 1 mph. 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. For correct tire pressure, see "Tire Inflation".
-
- 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: 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.
- F**reely Suspended Load: Load hanging free with no direct external force applied except by the hoist line.
- S**ide Load: Horizontal side force applied to the lifted load either on the ground or in the air.
- N**o 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.
- L**oad Factor: Load applied at the boom tip which gives the same moment effect as the boom mass.

BOOM EXTENSION

Boom Mode "A"	Boom Length (ft.)
Only inner mid section telescopes	
	Inner Mid Section 308" Stroke Base Section

Boom Mode "B"	Boom Length (ft.)
Innermid,outermid and tip sections telescope simultaneously.	
	Tip Section 308" Stroke Outer Mid Section 308" Stroke Inner Mid Section 308" Stroke Base Section

TIRE INFLATION

Tire Size	Operation	Tire Pressure (psi)
12 R 22.5	1 MPH Stationary	120
		120

PONTOON LOADINGS

Maximum Pontoon Load:	Maximum Pontoon Ground Bearing Pressure:
97,400 lbs.	215 psi

CAPACITY DEDUCTIONS FOR AUXILIARY LOAD HANDLING EQUIPMENT

LoadHandling Equipment:	(lbs.)
Auxiliary Head Attached	150
70-ton quick reeve 5 sheave hook block (see hook block for actual weight)	1,400
40-ton quick reeve 4 sheave hook block (see hook block for actual weight)	720
8.5-ton hook ball (see hook ball for actual weight)	360
Lifting From Main Boom With:	(lbs.)
36.5 ft. or 61 ft. fly stowed on base (see operation note 4)	0
36.5 ft. offset fly erected but not used	6,100
61 ft. offset fly erected but not used	7,600
Lifting From 36.5 ft. Offset Fly With:	
24.5 ft. fly tip erected but not used	PROHIBITED
24.5 ft. fly tip stowed on 36.5 ft. offset fly	PROHIBITED
Note: Capacity deductions are for Link-Belt supplied equipment only.	

WINCH PERFORMANCE

Wire Rope Layer	Winch LinePulls		Drum Rope Capacity (ft.)	
	Two Speed Winch		Layer	Total
	Low Speed Available lbs.*	High Speed Available lbs.		
1	16,805	8,290	110	110
2	15,620	7,710	118	228
3	14,590	7,200	126	354
4	13,690	6,760	134	488
5	12,890	6,360	143	631
6	12,190	6,020	151	782

*Maximum lifting capacity: Type RB Rope = 12,920 Type ZB Rope = 15,600

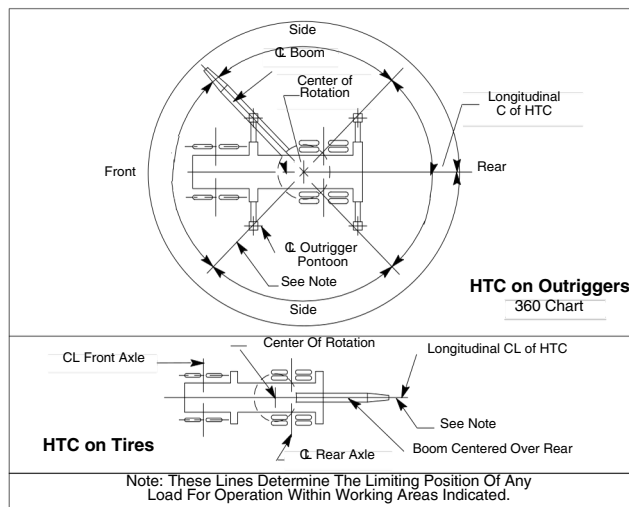
WIRE ROPE CAPACITY

Maximum Lifting Capacities BasedOnWireRopeStrength			
Parts of Line	3/4"	3/4"	Notes
	Type RB	Type ZB	
1	12,920	15,600	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.
2	25,840	31,200	
3	38,760	46,800	
4	51,680	62,400	
5	64,600	78,000	
6	77,520	93,600	
7	90,440	109,200	
8	103,360	124,800	
9	116,280	140,400	
10	129,200	156,000	
LBCEDESCRIPTION			
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		

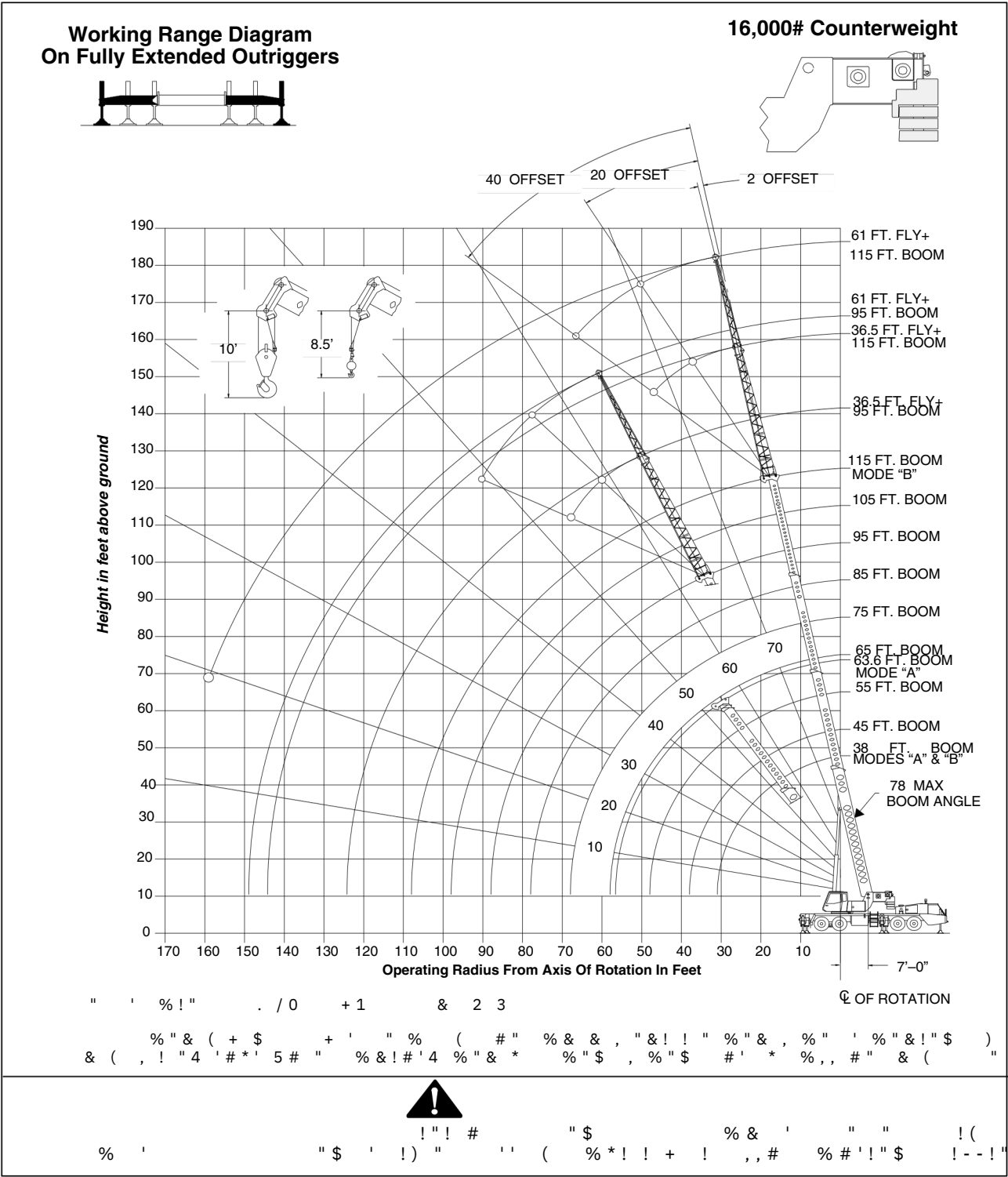
HYDRAULIC CIRCUIT PRESSURE SETTINGS

Function	Pressure (PSI)
Front and Rear Winch	3,500
Outriggers	3,000
Boom Hoist	3,500
Telescope	3,000
Swing	1,500
Steering	1,600
Bumper Outrigger	650
Pilot Control	500
Counterweight Removal	1,700
Swing Park Brake Release	250

WORKING AREAS

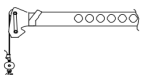
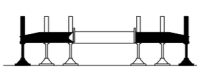


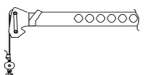
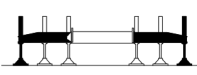
WORKING RANGE DIAGRAM

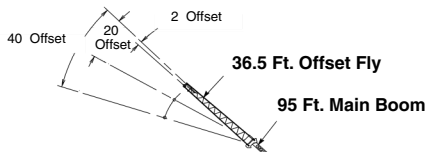




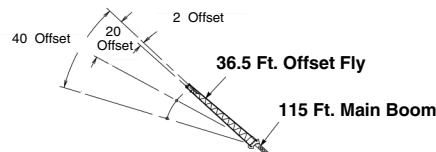
Note: Refer To Page 4 For “Capacity Deductions” Caused By Auxiliary Load Handling Equipment.

Boom Mode “A” 16,000 lbs. Counterweight 						
Rated Lifting Capacities In Pounds On Fully Extended Outriggers See Set Up Note 2.						
Load Radius (ft)	38 Ft.			45 Ft.		
	Loaded Boom Angle (Deg.)	360°	Over Rear	Loaded Boom Angle (Deg.)	360°	Over Rear
9	69.0	140,000	140,000			
10	67.0	132,000	132,000	71.0	87,400	87,400
12	64.0	116,900	116,900	68.5	87,400	87,400
15	58.5	100,200	100,200	64.0	87,400	87,400
20	48.5	75,900	75,900	56.5	75,500	75,500
25	36.5	58,700	58,700	48.0	58,300	58,300
30	17.5	45,400	45,400	38.0	45,100	45,100
35				24.5	34,500	34,500
Min.Bm. Ang./Cap.	0 (31.0)	25,200	25,200	0 (38.0)	20,200	20,200
Load Radius (ft)	55 Ft.			60.3 Ft.		
	Loaded Boom Angle (Deg.)	360°	Over Rear	Loaded Boom Angle (Deg.)	360°	Over Rear
10	75.0	85,600	85,600			
12	73.0	85,600	85,600	75.5	56,300	56,300
15	69.5	85,600	85,600	73.0	56,300	56,300
20	64.0	75,000	75,000	68.0	53,000	53,000
25	57.5	57,900	57,900	63.0	44,900	44,900
30	51.0	44,400	44,400	57.5	38,700	38,700
35	43.0	34,100	34,100	51.5	33,700	33,700
40	34.5	27,000	27,000	45.5	26,700	26,700
45	22.0	21,800	21,800	38.0	21,600	21,600
50				29.0	17,700	17,700
55				16.0	14,600	14,600
Min.Bm. Ang./Cap.	0 (48.0)	14,100	14,100	0 (56.6)	10,400	10,400

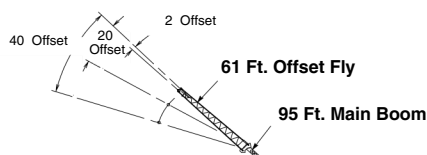
Boom Mode “B” 16,000 lbs. Counterweight 								
Rated Lifting Capacities In Pounds On Fully Extended Outriggers See Set Up Note 2.								
Load Radius (ft)	35.5 Ft.			45 Ft.			55 Ft.	
	Loaded Boom Angle (Deg.)	360°	Over	Loaded Boom Angle (Deg.)	360°	Over	Loaded Boom Angle (Deg.)	360°
9	69.0	140,000	140,000					
10	67.0	132,000	132,000	71.0	42,000	42,000	74.5	42,000
12	64.0	116,900	116,900	68.0	42,000	42,000	72.5	42,000
15	58.5	100,200	100,200	64.0	42,000	42,000	69.0	42,000
20	48.5	75,900	75,900	56.5	42,000	42,000	63.5	42,000
25	36.5	58,700	58,700	48.0	42,000	42,000	57.5	42,000
30	17.5	45,400	45,400	38.0	42,000	42,000	50.5	42,000
35				24.5	35,600	35,600	43.0	36,300
40							34.0	29,100
45							22.0	23,800
Min.Bm. Ang./Cap.	0 (31.0)	25,200	25,200	0 (38.0)	19,200	19,200	0 (48.0)	13,700
Load Radius (ft)	65 Ft.			75 Ft.			85 Ft.	
	Loaded Boom Angle (Deg.)	360°	Over Rear	Loaded Boom Angle (Deg.)	360°	Over Rear	Loaded Boom Angle (Deg.)	360°
12	75.5	42,000	42,000					
15	73.0	42,000	42,000	75.5	42,000	42,000	77.5	42,000
20	68.0	42,000	42,000	71.5	42,000	42,000	74.5	42,000
25	63.5	42,000	42,000	68.0	42,000	42,000	71.0	41,800
30	58.0	42,000	42,000	63.5	42,000	42,000	67.0	36,900
35	52.5	36,600	36,600	59.0	36,800	36,800	63.5	32,900
40	46.5	29,400	29,400	54.0	29,600	29,600	59.5	29,700
45	39.5	24,300	24,300	49.0	24,500	24,500	55.0	24,600
50	31.5	20,300	20,300	43.0	20,600	20,600	50.5	20,700
55	20.0	17,200	17,200	37.0	17,500	17,500	46.0	17,600
60				29.5	15,000	15,000	40.5	15,100
65				19.0	12,900	12,900	34.5	13,100
70							27.5	11,400
75							18.0	9,900
Min.Bm. Ang./Cap.	0 (58.0)	10,100	10,100	0 (68.0)	7,600	7,600	0 (78.0)	5,700
Load Radius (ft)	95 Ft.			105 Ft.			115 Ft.	
	Loaded Boom Angle (Deg.)	360°	Over Rear	Loaded Boom Angle (Deg.)	360°	Over Rear	Loaded Boom Angle (Deg.)	360°
20	76.5	38,600	38,600					
25	73.5	33,800	33,800	75.5	30,300	30,300	77.0	24,500
30	70.0	29,800	29,800	72.5	27,000	27,000	74.5	24,500
35	67.0	26,600	26,600	69.5	24,100	24,100	72.0	22,200
40	63.5	23,900	23,900	66.5	21,700	21,700	69.5	20,000
45	60.0	21,700	21,700	63.5	19,600	19,600	66.5	18,100
50	56.0	19,800	19,800	60.5	17,900	17,900	63.5	16,300
55	52.5	17,700	17,700	57.0	16,200	16,200	61.0	14,900
60	48.0	15,200	15,200	53.5	14,900	14,900	58.0	13,600
65	43.5	13,200	13,200	50.0	13,300	13,300	54.5	12,500
70	38.5	11,600	11,600	46.0	11,600	11,600	51.5	11,600
75	33.0	10,100	10,100	41.5	10,200	10,200	48.0	10,300
80	26.5	8,800	8,800	37.0	8,900	8,900	44.0	9,000
85	17.0	7,700	7,700	31.5	7,800	7,900	40.0	7,800
90				25.5	6,800	6,900	35.5	6,900
95				16.5	5,900	6,000	30.5	6,000
100							24.5	5,200
105							16.0	4,600
Min.Bm. Ang./Cap.	0 (88.0)	4,300	4,300	0 (98.0)	3,100	3,100	0 (108.0)	2,200



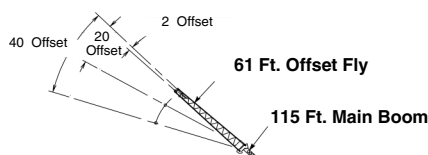
Boom Mode "B" 16,000 lbs. Counterweight Rated Lifting Capacities In Pounds On Fully Extended Outriggers See Set Up Note 2.						
Load Radius (ft)	2' Offset		20' Offset		40' Offset	
	Loaded Boom Angle (Deg.)	360	Loaded Boom Angle (Deg.)	360	Loaded Boom Angle (Deg.)	360
30	76.5	16,900				
35	74.0	14,400				
40	72.0	13,700				
45	69.5	13,100	76.5	10,200		
50	67.5	12,400	74.5	9,600		
55	65.0	11,800	72.0	9,100	76.5	6,800
60	62.5	11,200	69.5	8,700	74.0	6,800
65	60.0	10,500	67.0	8,300	71.5	6,600
70	57.5	9,800	64.5	7,900	68.5	6,400
75	55.0	9,300	62.0	7,600	66.0	6,300
80	52.0	8,700	59.5	7,300	63.0	6,100
85	49.0	8,300	56.5	7,000	60.0	6,000
90	46.0	7,800	53.5	6,700	57.0	5,900
95	42.5	7,200	50.5	6,500	53.5	5,800
100	39.0	6,500	47.0	6,300	50.0	5,700
105	35.0	5,800	43.5	6,100	46.0	5,700
110	30.5	5,100	39.5	6,000	41.5	5,700
115	25.0	4,600	35.0	5,400		
120	18.5	4,100	29.5	4,800		
Min. Bm. Ang./Cap.	0	1,600	0	1,700	0	1,900



Boom Mode "B" 16,000 lbs. Counterweight Rated Lifting Capacities In Pounds On Fully Extended Outriggers See Set Up Note 2.						
Load Radius (ft)	2' Offset		20' Offset		40' Offset	
	Loaded Boom Angle (Deg.)	360	Loaded Boom Angle (Deg.)	360	Loaded Boom Angle (Deg.)	360
35	76.5	10,500				
40	75.0	10,500				
45	73.0	10,500	77.5	9,200		
50	71.5	10,500	75.5	8,900		
55	69.5	10,500	73.5	8,600	77.5	6,800
60	68.0	10,500	71.5	8,200	75.0	6,600
65	66.0	10,200	69.5	8,000	73.0	6,500
70	63.5	9,500	67.5	7,700	71.0	6,300
75	61.5	8,700	65.5	7,400	68.5	6,200
80	59.0	8,000	63.5	7,200	66.5	6,100
85	57.0	7,400	61.0	7,000	64.0	6,000
90	54.5	6,900	58.5	6,800	61.5	5,900
95	52.0	6,400	56.0	6,500	59.0	5,800
100	49.0	5,900	53.5	6,100	56.5	5,700
105	46.5	5,500	50.5	5,600	53.5	5,700
110	43.5	4,900	48.0	5,200	50.5	5,400
115	40.5	4,300	44.5	4,700	47.0	4,900
120	37.0	3,800	41.0	4,100	43.0	4,300
125	33.0	3,300	37.0	3,600		
130	29.0	2,900	32.5	3,100		
135	24.0	2,500	27.5	2,700		
140	17.5	2,200	20.5	2,300		
Min. Bm. Ang./Cap.	0	400	0	400	0	500



Boom Mode "B" 16,000 lbs. Counterweight Rated Lifting Capacities In Pounds On Fully Extended Outriggers See Set Up Note 2.						
Load Radius (ft)	2' Offset		20' Offset		40' Offset	
	Loaded Boom Angle (Deg.)	360	Loaded Boom Angle (Deg.)	360	Loaded Boom Angle (Deg.)	360
35	77.5	9,500				
40	75.5	9,100				
45	74.0	8,500				
50	72.0	7,900				
55	70.0	7,400				
60	68.0	6,900	77.0	5,200		
65	66.0	6,400	75.0	4,900		
70	64.0	6,000	73.0	4,600		
75	62.0	5,600	71.0	4,400	77.5	3,400
80	60.0	5,300	69.0	4,200	75.0	3,300
85	57.5	5,000	66.5	4,000	73.0	3,200
90	55.5	4,700	64.5	3,900	70.5	3,100
95	53.0	4,500	62.5	3,700	68.0	3,100
100	50.5	4,200	60.0	3,600	65.0	3,000
105	48.0	4,000	57.5	3,400	63.0	2,900
110	45.5	3,800	55.0	3,300	60.0	2,900
115	43.0	3,600	52.0	3,200	57.5	2,800
120	40.0	3,500	49.5	3,100	54.0	2,800
125	36.5	3,300	46.5	3,000	50.5	2,800
130	33.0	3,200	43.0	2,900	47.0	2,800
135	29.0	3,100	39.5	2,900	42.5	2,800
140	24.5	3,000	35.0	2,800		
145	18.0	2,700	30.0	2,800		
Min. Bm. Ang./Cap.	0	700	0	800	0	1,000



Boom Mode "B" 16,000 lbs. Counterweight Rated Lifting Capacities In Pounds On Fully Extended Outriggers See Set Up Note 2.						
Load Radius (ft)	2' Offset		20' Offset		40' Offset	
	Loaded Boom Angle (Deg.)	360	Loaded Boom Angle (Deg.)	360	Loaded Boom Angle (Deg.)	360
40	77.5	7,100				
45	76.5	7,100				
50	75.0	7,100				
55	73.5	7,000				
60	72.0	6,700	78.0*	4,900		
65	70.0	6,400	76.0	4,700		
70	68.5	6,200	74.5	4,500		
75	67.0	5,900	73.0	4,300		
80	65.0	5,600	71.0	4,200		
85	63.5	5,300	69.0	4,000	76.5	3,300
90	61.5	5,000	67.5	3,900	74.5	3,200
95	59.5	4,800	65.5	3,700	72.5	3,100
100	57.5	4,600	63.5	3,600	70.5	3,000
105	55.5	4,400	61.5	3,500	68.5	3,000
110	53.5	4,200	59.5	3,400	66.5	2,900
115	51.5	4,000	57.0	3,300	64.0	2,900
120	49.0	3,800	55.0	3,200	62.0	2,800
125	46.5	3,600	52.5	3,100	59.5	2,800
130	44.0	3,400	50.0	3,000	57.0	2,800
135	41.5	3,200	47.5	2,900	54.0	2,700
140	38.5	3,000	44.5	2,800	51.0	2,700
145	35.5	2,800	41.5	2,600	48.0	2,700
150	32.0	2,600	38.0	2,500	44.0	2,700
155	28.0	2,400	35.0	2,300		
160	23.5	2,200	32.5	2,200		

Do Not Lower 61 Ft. Offset Fly In Working Position Below 20 Degrees Unless Main Boom Length Is 108 Ft. Or Less, Since Loss Of Stability Will Occur Causing A Tipping Condition.



! " 6 1 " ' # , ! " 5 # ! - " - % " + ! "

Link-Belt is a registered trademark. Copyright 2000. All rights reserved. We are constantly improving our products and therefore reserve the right to change designs and specifications.



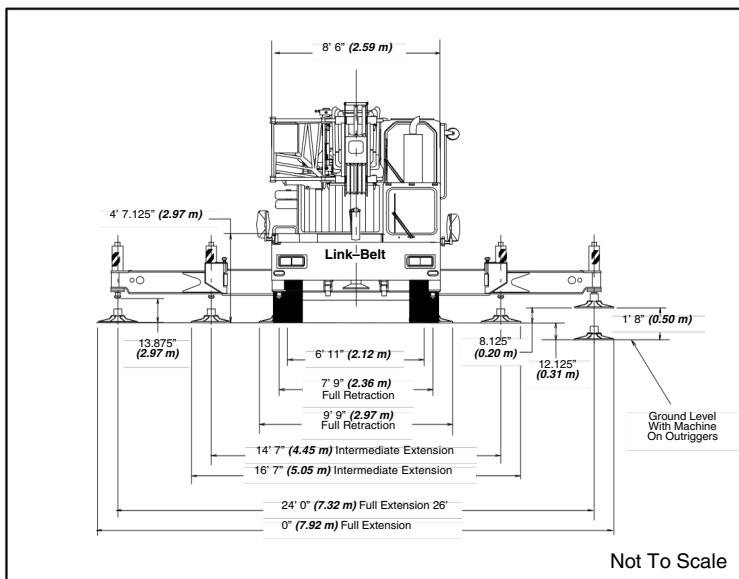
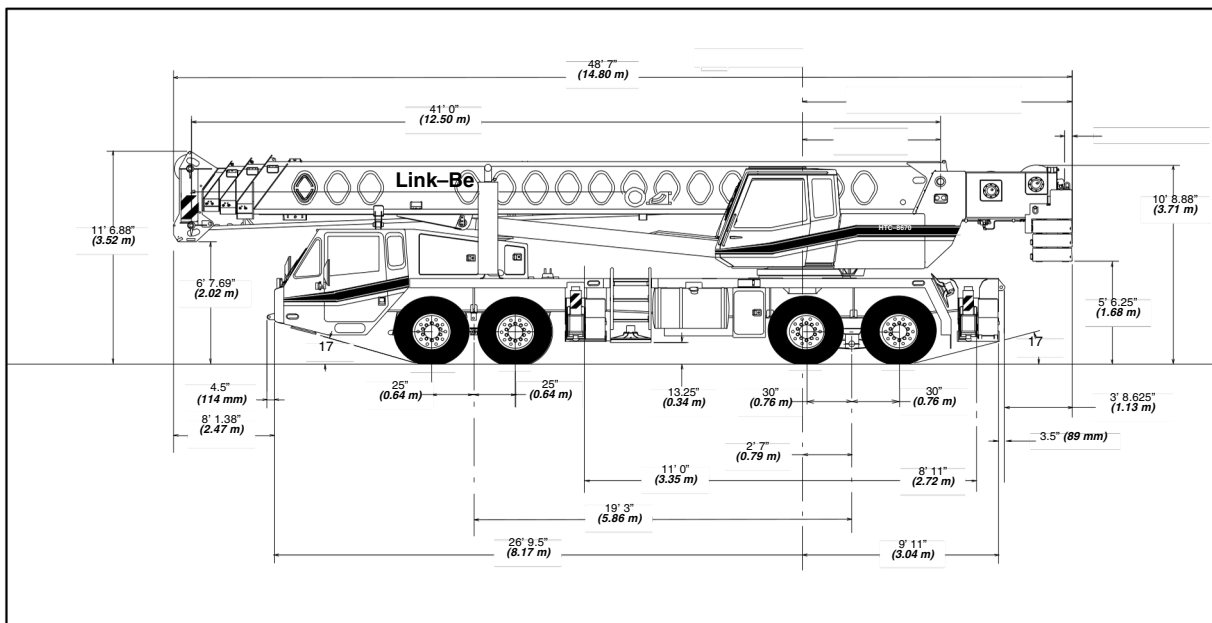
Specifications

Telescopic Boom Truck Crane

HTC-8670 LB

70-ton (63.5 metric tons)

Long Boom



General Dimensions	feet	meters
Turning radius (wall to wall)	51' 2.75"	15.61
Turning radius (curb to curb)	41' 10.5"	12.76
Ground clearance	13.25"	0.34
Tailswing	13' 8.125"	4.17

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

41' – 127' (**12.50 – 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.

Mechanical Boom Angle Indicator

Boom Head

Five 16.5" (**0.42 m**) root diameter nylon sheaves with a fifth nylon sheave available 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

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 16.5" (**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 (**36.29 mt**) quick-reeve hook block

60-ton (**54.43 mt**) quick-reeve hook block

70-ton (**63.5 mt**) quick-reeve hook block

8.5-ton (**7.7 mt**) hook ball

Boom floodlight

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.

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 right 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

Amber rotating beacon

Hydraulic heater

Air conditioning

Controls

Hydraulic controls (joystick type) for:

Swing

Optional auxiliary 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

Circulating fan

Warning horn

Dome light

Cup holder

Sun screen

Hand throttle

Mirrors

Defroster fan

Optional

Internal RCL light bar: Visually informs operator when crane is approaching maximum load capacity with a series of green, yellow and red lights.

External RCL light bar: Visually informs ground crew when crane is approaching maximum load capacity kickouts and pre-settable 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 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.

Optional

360 (Pawl-in-Gear) swing lock. Meets New York City requirements

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

3,500psi (**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.

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

Boom angle

Radius of load

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 hookblock.

Filtration

One, 10-micron filter located inside hydraulic reservoir

Accessible for easy replacement

Control valves

Self 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.

Rotation resistant wire rope

Drum rotation indicators

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 lock-out. Power up/down modes.

Hoist drum cable followers

Third wrap indicators

Carrier Type

8' 6" **(2.59 m)** wide, 231" **(5.87 m)** wheel-base. 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 box
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

Front and rear hub piloted aluminum disc

Optional

Spare tire and wheel assemblies

Tires
Standard Front

445/65R22.5 (Load range "L") single tubeless radials

Standard Rear

12R22.5 (Load range "L") 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 **(275.8 kPa)** in both systems

Steering

Sheppard rack and pinion design

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

Audio/visual warning system

Check engine and stop engine lights

Automotive type ignition

Optional

Amber strobe light

Air conditioning

HTC-8670 Long Boom

Carrier Speeds (Manual Transmission – Standard tires)

Gear	High					Low				Deep reduction		Hi rev.	Lo rev.	Deep reduction	Deep reduction @ 700 rpm	Deep reduction @ 700 rpm	
	8	7	6	5	4	3	2	1	Low	LL2	LL1	Rev.	Rev.	Rev.	LL1	Rev.	
Ratio	0.73	1.00	1.38	1.95	2.77	3.79	5.23	7.41	16.30	11.85	26.08	3.43	13.03	20.85	26.08	20.85	
Speed	mph	58.20	42.49	30.79	21.79	15.34	11.21	8.12	5.73	2.61	3.59	1.63	10.24	2.70	1.69	0.47	0.48
	km/hr.	93.65	68.36	49.54	35.06	24.68	18.04	13.07	9.23	4.19	5.77	2.62	16.47	4.34	2.71	0.75	0.77

Engine

Engine – standard 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 cm ³)
Maximum brake hp.	365 @ 1,800 rpm; 350 @ 2,100 rpm
Peak torque	1,350 ft. lbs. (1 831 J) @ 1,200 rpm 12–
Electric system	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 brake—standard

Ether injection starting package – optional

Axle Loads

Base machine with standard 41'– 127' (12.50 – 38.71 m) four-section boom, 2M 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' (2.59 m) carrier with Detroit Diesel Series 60 engine, 100 gal. (378 L) fuel and no counterweight.

G.V.W.

Upper Facing Front

	G.V.W.		Front Axle		Rear Axle	
	lbs.	kg.	lbs.	kg.	lbs.	kg.
	77,614	35 205	37,123	16 839	40,491	18 366
Cold weather starting aids – propane and ether	40	18	57	26	–17	–8
Aluminum storage box	57	26	16	7	41	19
Driver in carrier cab	200	91	254	115	–54	–24
Pintle hook w/air and electrical hook-ups	30	14	–12	–5	42	19
Air conditioning in carrier cab	100	45	127	57	–27	–12
Auxiliary winch with 670' (204.21 m) front rope	899	408	–298	–135	1,197	543
Hydraulic heater	170	77	1	0.5	169	77
Air conditioning in upper cab	120	54	–4	–2	124	56
One slab of counterweight on upper	4,000	1 814	–2,140	–971	6,140	2 785
Two slabs of counterweight on upper	8,000	3 629	–4,281	–1 942	12,281	5 571
Three slabs of counterweight on upper	12,000	5 443	–6,421	–2 913	18,421	8 356
Three slabs of counterweight on upper plus two cheek weights	16,000	7 257	–8,561	–3 883	24,561	11 141
Fly brackets to boom base section for fly options		72		68		5
39.5' (12.04 m) offsettable fly with tip lugs – stowed	160	700	147	703	11	24
39.5' – 67 ft. (12.04 – 20.42 m) two-piece fly – stowed	1,602	1 020	1,349	912	52	168
40-ton (36.3 mt) hookblock at front bumper	2,380	327	1,711	533	370	–206
70-ton (63.5 mt) hookblock at front bumper	720	635	1,175	1 036	–455	–401
Hookball to front bumper	1,400	163	2,284	266	–884	–103
Auxiliary arm	360	57	587	104	–227	–48
	125		230		–105	
	Front axle		Rear axle			
Transfer one slab of counterweight to carrier deck	5,333	2 419	–5,333	–2 419		
Transfer two slabs of counterweight to carrier deck	10,666	4 828	–10,666	–4 838		
Transfer three slabs of counterweight to carrier deck	15,999	7 257	–15,999	–7 257		

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

3%

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

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

Link-Belt Construction Equipment Company

Lexington, Kentucky

www.linkbelt.com

Link-Belt is a registered trademark. Copyright 2003. All rights reserved. We are constantly improving our products and therefore reserve the right to change designs and specifications.

HTC-8670 Long Boom









































Bigge Crane and Rigging Co.

10700 Bigge Avenue
San Leandro, CA 94577
Phone: (888) 337-BIGGE or (510) 638-8100
Fax: (510) 639-4053
Email: info@bigge.com
Web site: www.bigge.com