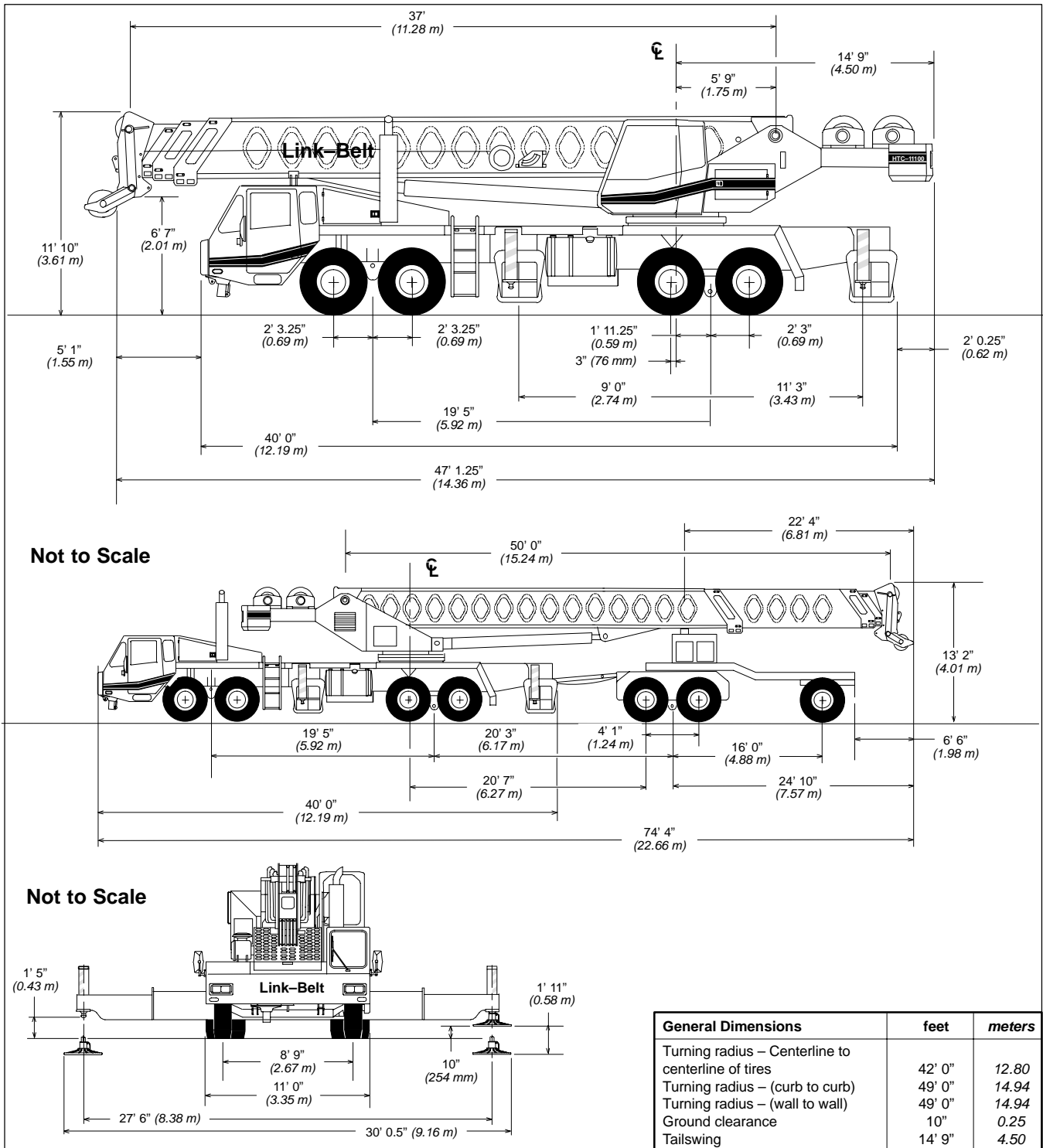


Specifications

Telescopic Boom Truck Crane

HTC-11100

100-ton (90.72 metric tons)



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

- 37' – 115' (11.28 – 35.05 m) four-section boom includes base section, two power sections and a power-pinned fourth section.
- Mechanical Boom Angle Indicator

Optional

- 37' – 115' (11.28 – 35.05 m) four-section, full power boom. Includes base section and three power sections.
- Mechanical Boom Angle Indicator

Boom Head

- Six 17.25" (0.44 m) root diameter nylon sheaves.
- Rope dead end lugs provided on each side of boom head.
- Easily removable wire rope guards
- 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 +80°.

Optional

- 100-ton (90.78 mt) quick reeve hook block
- 8.5-ton (7.71 mt) hook ball.
- Boom floodlight.

■ Fly

Standard

- 33' (10.06 m) offsettable stowable one-piece lattice type

■ Jib

Optional

- 27' (8.23 m) offsettable stowable "A"-frame. Can be offset 5°, 15° or 30°.
- 88' (26.82 m) pendant supported lattice jib.
- Lattice sections provide alternate jib lengths of 43' (13.11 m), 58' (17.68 m) and 73' (22.25 m). All can be offset 5°, 17.5°, 30° or 45°.
- 103' (31.39 m) pendant supported lattice jib.

■ Cab and Controls

Environmental Ultra-Cab™

- LFC-2000 construction process featuring laminated fibrous composite material.
- Isolated from sound with acoustical fabric insulation.
- Six-way adjustable operator's seat with seat belt.
- 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.
- Hand-held outrigger controls and sight level bubble located in operator's cab.
 - Circulating fan
 - Audible swing alarm
 - Fire extinguisher
 - Defroster fan
 - Electric windshield wiper
 - Windshield washer
 - Top hatch window wiper
 - Cab mounted work lights

Optional

- Amber strobe light
- Amber rotating beacon
- Diesel or hydraulic heater
- Air conditioning

Controls

Hydraulic controls (joystick type) for:

- Swing
- Optional auxiliary winch
- Drum rotation indicators
- Main 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
- Check engine and stop engine lights
- 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
- Head height
- Allowed load
- % of allowed load
- Boom angle
- Radius of load
- Actual 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.

Optional

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

- **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 1.8 r.p.m.

- **Swing park brake** – 360°, electric over hydraulic (spring applied, hydraulic released) multi-disc brake mounted on the speed reducer. Operated by toggle switch in overhead control console.
- **Swing brake** – 360°, foot operated, hydraulic applied disc brake mounted on the speed reducer.
- **Travel Swing lock** – Standard; two position travel swing lock (pin device) operated from the operator's cab.
- **Counterweight** – Pinned to upper structure frame with standard counterweight removal system. 8,500 lb. (3 856 kg) with single winch system. 6,500 lb. (2 948 kg) with two winch system.

Optional

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

■ Hydraulic System

Main Pump

- One gear pump with three sections.
- One gear pump with two sections.
- Combined pump capacity of 265 gpm (1 003 lpm).
- A pressure compensated piston pump with a total capacity of 8.5 gpm (32 lpm) supplies pressure for control functions.
- Powered by engine carrier with pump disconnect.
- Spline type pump disconnect engaged / disengaged from carrier cab.
- Maximum system operating pressure is 3,250 psi (22 850 kPa).
- O-ring face seals technology used throughout with hydraulic oil cooler standard.

Steer Pump

- Single gear type pump, 21 gpm (79 lpm) supplies oil to the steering and fifth outrigger functions.

Reservoir

- 250 gallon (946.3 L) capacity. One diffuser for deaeration.

Filtration

- One 6-micron filter located inside hydraulic reservoir.
- Accessible for easy replacement

Control valves

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

Load Hoist System

Standard

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

- Winch circuit control provides balanced oil flow to both winches for smooth, simultaneous operation.
- Pressure compensated winch circuit provides balanced oil flow to both winches for smooth, simultaneous operation.
- Rotation resistant wire rope.
- Drum Rotation Indicators.

- Maximum line speed of 506 f.p.m. (154 m/min) on 18" (0.46 m) root diameter grooved drum.

Optional

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

Line Pulls and Speeds

- Maximum available line pull 18,650 lbs. (8 460 kg).

Carrier

Type

- 11' (3.35 m) wide, 233 in. (5.92 m) wheel-base.
- 8 x 4 drive – standard
- Towing shackles

Frame

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

Optional

- Pintle hook
- Electric and air connections for trailers

Axles

Front

- Tandem, 105" (2.67 m) track

Rear

- Tandem, 100.65" (2.56 m) track. 7.17 to 1.0 ratio with interaxle differential with lockout

Suspension

Front axle

- Spring suspension with torque rods

Rear axle

- Solid mount 54" (1.37 m) bogie beam type.

Wheels

Standard

- Front/Rear – Cast, six-spoke

Tires

- 14.00R20 (22PR) radials

Brakes

Service

- Full air brakes on all wheel ends with automatic slack adjusters. Dual circuit with modulated emergency brakes.
 - Front – S-Cam type, 16.5 x 6 (0.42 x 0.15 m) shoe diameter.
 - Rear – S-Cam type, 16.5 x 7 (0.42 x 0.18 m) shoe diameter.

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 45 psi (310 kPa) in both systems.

Steering

- Sheppard rack and pinion design

Transmission

Standard

- Fuller Roadranger RTO 14909ALL; 11 speeds forward, 3 reverse.

Electrical

- Four 12-volt batteries
- 130-amp alternator
- 3,000 cold cranking amps available

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

- Integral double box, power hydraulic dual beam outriggers, front and rear
- Upper and ground controlled
- Four hydraulic, telescoping beam and jack outriggers. Vertical jack cylinders equipped with integral holding valve.
- Beams extend to 27' 6" (8.38 m) center-line-to-centerline.
- Equipped with stowable, lightweight 30-1/2". (0.77 m) diameter aluminum floats.
- Standard fifth outrigger, 24" (0.61 m) self storing steel pad is operable from ground.

Carrier Cab

- One-man cab of LFC-2000 laminated fibrous composite material. Acoustical insulation with cloth covering.

Equipped with:

- Air-ride seat with seat belt
- Tilt steering wheel
- Door and windows locks
- Left 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
- Electric windshield wiper and washer
- Carrier-mounted outrigger controls with throttle control.
- Cruise control
- Horn
- Ashtray
- 36,000 BTU heater
- Dome light
- Travel lights
- Fire extinguisher
- Cruise control
- Defroster

Optional

- Ether injector starting package
- Air conditioning
- Spare tire and wheel assemblies
- Electrical and air connections for trailers and boom dollies
- Rotating beacon
- Amber strobe light

Cab instrumentation

- Illuminated instrument panel
- Speedometer
- Hourmeter
- Odometer
- Oil pressure gauge
- Turn signal indicator
- Water temperature gauge
- Front and rear air pressure gauges
- Audio/visual warning system
- Automotive type ignition
- High beam light switch
- Check and stop engine indicator lights
- Tachometer
- Fuel gauge
- Voltmeter

Axle	Max. Load @ 55 mph (88.50 km/hr)
Front	45,000 lbs. (20 412 kg)
Rear	76,000 lbs. (34 474 kg)

Carrier Speeds (Manual Transmission – Standard tires)

Gear	High				Low					Deep Reduction		Hi Rev.	Lo Rev.	Deep Reduction	Deep Reduction @ 700 rpm	Deep Reduction @ 70 rpm	
	8	7	6	5	4	3	2	1	Low	LL 2	LL 1	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	56.38	41.16	29.82	21.11	14.68	10.86	7.87	5.55	2.52	3.47	1.58	12.00	3.16	1.97	0.55	0.66
	km/hr.	90.72	66.22	47.97	33.96	23.91	17.47	12.66	8.94	4.05	5.58	2.54	19.31	5.09	3.17	0.88	1.06

■ Engine

Engine	Detroit Diesel Series 60 – 12.7 Liter
Cylinders	6
Bore	5.12" (130 mm)
Stroke	6.30" (160 mm)
Piston displacement	778 cu. in. (12 751 cm ³)
Maximum brake hp.	430 (321 kw) @ 2,100 rpm
Governed load speed	2,100 r.p.m.
Peak torque	1,450 ft. lbs. (1 966 J) @ 1,200 rpm
Electrical system	12-volt charging / 12-volt starting
Batteries	Four 12-volt
Air compressor	Bendix TU-FLO 1400

■ Axle Loads

Base machine with standard 37' – 115' (11.28 – 35.05 m) four-section manual boom, 33' (10.06 m) lattice fly, 2-speed rear winch with rope, Link-Belt 8x4 11' (3.35 m) wide carrier with Detroit Diesel Series 60 12.7 liter diesel engine, Roadranger transmission, full fuel and hydraulics, counterweight, counterweight removal system and aluminum fenders.	G.V.W.		Boom Over Front			
			Front Axle		Rear Axle	
	lbs.	kg.	lbs.	kg.	lbs.	kg.
	112,230	50 908	39,605	17 965	72,625	32 943
Add						
Hookblock in storage compartment	1,700	771	2,249	1 020	-549	-249
Headache ball on boom head	325	147	514	233	-189	-86
Full power boom	2,450	1 111	1,356	615	1,094	496
Auxiliary lifting sheave	182	83	330	150	-148	-67
A-frame jib (manual boom only)	1,345	610	840	381	505	229
Two-winch power up/down	673	305	126	57	547	248
Remove						
Lattice fly	-1,575	-714	-1,433	-650	-142	-64
A-frame jib (manual boom only)	-1,345	-610	-840	-381	-505	-229
Rear outrigger beams/jacks	-5,193	-2 356	+2,491	+1 130	-7,684	-3 485
Front outrigger beams/jacks	-5,193	-2 356	-2,925	-1 327	-2,268	-1 029
* 8,500 lbs. (3 856 kg) counterweight	-8,500	-3 856	+5,025	+2 279	-13,525	-6 135
** 6,500 lbs. (2 948 kg) counterweight	-6,500	-2 948	+3,842	+1 743	-10,342	-4 691

* – Use 8,500 lbs (3 856 kg) counterweight for main hoist.

** – Use 6,500 lbs (2 948 kg) counterweight for main hoist.

■ Axle Loads with Boom Trailer

Base machine with standard 37' – 115' (11.28 – 35.05 m) four-section manual boom, 33' (10.06 m) lattice fly, 2-speed rear winch with rope, Link-Belt 8x4 11' (3.35 m) wide carrier with Detroit Diesel Series 60 12.7 liter diesel engine, Roadranger transmission, full fuel and hydraulics, counterweight, counterweight removal system and aluminum fenders.	G.V.W.		Boom Over Rear				Boom Trailer			
			Front Axle		Rear Axle		Tandem Axle		Rear Axle	
	lbs.	kg.	lbs.	kg.	lbs.	kg.	lbs.	kg.	lbs.	kg.
	121,415	55 074	34,735	15 756	51,339	23 287	28,727	13 031	6,614	3 000
Add										
Hookblock on boom head	1,700	771	-453	-205	-691	-313	2,429	1 102	415	188
Headache ball in storage compartment	325	147	430	195	-105	-48	n/a	n/a	n/a	n/a
Full power boom	2,450	1 111	505	229	770	349	1,004	455	171	78
Auxiliary lifting sheave	182	83	-51	-23	-79	-36	267	121	46	21
A-frame jib (manual boom only)	1,345	610	253	115	386	175	604	274	103	47
Two-winch power up/down	673	305	8	4	665	301	n/a	n/a	n/a	n/a
Remove										
Lattice fly	-1,575	-714	-182	-83	-278	-126	-953	-432	-163	-74
A-frame jib (manual boom only)	-1,345	-610	-253	-115	-386	-175	-604	-274	-103	-47
Rear outrigger beams/jacks	-5,193	-2 356	+2,491	+1 130	-7,684	-3 485	n/a	n/a	n/a	n/a
Front outrigger beams/jacks	-5,193	-2 356	-2,925	-1 327	-2,268	-1 029	n/a	n/a	n/a	n/a
* 8,500 lbs. (3 856 kg) counterweight	-8,500	-3 856	+5,025	+2 279	-13,525	-6 135	n/a	n/a	n/a	n/a
** 6,500 lbs. (2 948 kg) counterweight	-6,500	-2 948	+3,842	+1 743	-10,342	-4 691	n/a	n/a	n/a	n/a