

# Technical Data

## Specifications & Capacities

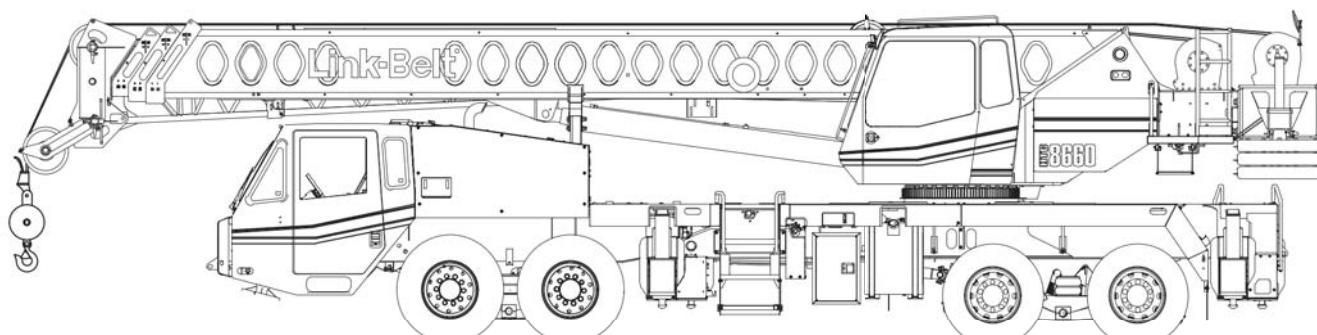
HTC 8660

Series II

HTC 8640

XL

Telescopic Boom Truck Crane  
40 US ton



**CAUTION:** This material is supplied for reference use only. Operator must refer to in-cab Crane Rating Manual and Operator's Manual to determine allowable crane lifting capacities and assembly and operating procedures.

**This page intentionally left blank**

# Table Of Contents

<b>Boom, Attachments, and Upper Structure</b> .....	<b>1</b>
Boom .....	1
Boom Head .....	1
Boom Elevation .....	1
Auxiliary Lifting Sheave – Optional .....	1
Hook Blocks and Balls – Optional .....	1
Fly – Optional .....	1
Upper Operator’s Cab and Controls .....	1
Swing .....	2
Electrical .....	2
Load Hoist System .....	3
Load Hoist Performance .....	3
2M Main and Optional Auxiliary Winches .....	3
Hydraulic System .....	3
Counterweight .....	3
<b>Carrier</b> .....	<b>4</b>
General .....	4
Outriggers .....	4
Steering and Axles .....	4
Suspension .....	4
Tires and Wheels .....	4
Brakes .....	4
Electrical .....	4
Engine .....	4
Transmission .....	5
Carrier Speeds and Gradeability .....	5
Fuel Tank .....	5
Hydraulic System .....	5
Pump Drive .....	5
Lower Cab and Controls .....	6
Additional Equipment .....	6
<b>Axle Loads</b> .....	<b>7</b>
<b>General Dimensions</b> .....	<b>9</b>
EPA 2013 .....	9
<b>Working Range Diagram</b> .....	<b>11</b>

<b>Boom Extend Modes .....</b>	<b>12</b>
<b>Main Boom Lift Capacity Charts – Optional .....</b>	<b>15</b>
15,100 lb Counterweight – Fully Extended Outriggers – 360° Rotation .....	15
15,100 lb Counterweight – On Tires – Stationary – Boom Centered Over Rear .....	16
15,100 lb Counterweight – On Tires – Pick & Carry (1 mph) – Boom Centered Over Rear .....	16
<b>Fly Attachment Lift Capacity Charts – Optional .....</b>	<b>17</b>
15,100 lb Counterweight – Fully Extended Outriggers – 360° Rotation .....	18
110 ft Main Boom Length 2° Fly Offset .....	18
110 ft Main Boom Length 20° Fly Offset .....	18
110 ft Main Boom Length 40° Fly Offset .....	18

# Boom, Attachments, and Upper Structure

## ■ Boom

**Design** — Four section, box type construction of high tensile steel consisting of one base section and three telescoping sections. The vertical side plates have diamond shaped impression for superior strength to weight ratio. The first telescoping section extends independently by means of one double-acting, single stage hydraulic cylinder with integrated holding valves. The second and third telescoping sections extend proportionally by means of one double-acting, single stage cylinder with integrated holding valves and cables.

### Boom

- 35.5–110 ft (10.8–33.5m) four-section full power boom
- Two mode boom extension: A—max mode provides superior capacities by extending the first telescope section to 60.3 ft (18.4m). Standard mode synchronizes all the telescoping sections proportionally to 110 ft (33.5m). Controlled from operator's cab.
- Mechanical boom angle indicator
- Maximum tip height for A—max mode is 68.8 ft (21.0m) and standard mode is 117.4 ft (35.8m).

### Boom Head

- Four 16.5 in (41.9cm) root diameter nylon sheaves to handle up to eight parts of line
- Easily removable wire rope guards
- Rope dead end lugs on each side of the boom head
- Boom head is designed for quick-reeve of the hook block

### Boom Elevation

- One double acting hydraulic cylinder with integral holding valve
- Boom elevation:  $-3^{\circ}$  to  $78^{\circ}$

### Auxiliary Lifting Sheave — Optional

- Single 16.5 in (41.9m) root diameter nylon sheave
- Easily removable wire rope guards
- Does not affect erection of the fly or use of the main head sheaves

### Hook Blocks and Balls — Optional

- 25 ton (22.7mt) 3 sheave quick-reeve hook block with safety latch
- 40 ton (36.3mt) 4 sheave quick-reeve hook block with safety latch
- 50 ton (45.4mt) 5 sheave quick-reeve hook block with safety latch
- 8.5 ton (7.7mt) swivel and non-swivel hook balls with safety latch
- 60 ton (54.4mt) 5 sheave quick-reeve hook block with safety latch
- 45 ton (40.8mt) 3 sheave quick-reeve hook block with safety latch

### Fly — Optional

- 28.5 ft (8.7m) one piece lattice fly, stowable, offsettable to  $2^{\circ}$ ,  $20^{\circ}$ , and  $40^{\circ}$ . Maximum tip height is 144.8 ft (44.1m).
- 28.5–51 ft (8.7–15.5m) two piece bi-fold lattice fly, stowable, offsettable to  $2^{\circ}$ ,  $20^{\circ}$  and  $40^{\circ}$ . Maximum tip height is 166.9 ft (50.9m).

## ■ Upper Operator's Cab and Controls

**Environmental Cab** — Fully enclosed, one person cab of galvalneal steel structure with acoustical insulation. Equipped with:

- Tinted and tempered glass windows
- Extra-large fixed front window with windshield wiper and washer
- Swing up roof window with windshield wiper and washer
- Sliding left side door with large fixed window
- Sliding rear and right side windows for ventilation
- Six way adjustable, cushioned seat with seat belt and storage compartment
- Diesel fired warm-water heater with air ducts for front windshield defroster and cab floor
- Defroster fan for the front window
- Bubble level
- Circulating fan
- Adjustable sun visor
- LED Dome light
- Cup holder
- Fire extinguisher
- Left side viewing mirror
- Pull-out cabwalk
- Two position travel swing lock
- AM/FM Radio

**Air Conditioning — Optional** — Integral with cab heating system utilizing the same ventilation outlets

**Armrest Controls** — Two dual axis hydraulic joystick controllers or optional single axis hydraulic controllers for:

- Swing
- Boom hoist
- Main rear winch
- Auxiliary front winch — optional
- Drum rotation indication
- Drum rotation indicator activation switch
- Swing park brake switch
- Winch high/low speed and disable switch(es)
- Telescope override switch
- Warning horn button
- Pump enable
- Heating controls
- Air conditioning — optional
- Engine throttle block

**Outrigger Controls** — Hand held control box with umbilical cord gives the operator the freedom to view operation while setting the outriggers.

### Foot Controls

- Boom telescope
- Swing brake
- Engine throttle

**Right Front Console** – Controls and indicators for:

- Engine ignition
- Function disable
- Front windshield wiper and washer
- Cab floodlights
- Warning horn
- Console dimmer switch
- Bubble level
- 12 volt power connection
- Boom floodlight – optional
- Rotating beacon or strobe light switch – optional
- Third wrap selector switch – optional

**Camera Display** – Located on dash console

- Displays right side of upper
- Displays main and auxiliary winches

**Cab Instrumentation** – Ergonomically positioned LCD display, CANBUS instrumentation for crane operation including:

- Tachometer
- Engine water temperature
- Fuel level
- Hydraulic oil temperature
- Stop engine
- Check engine
- Diesel exhaust fluid
- Regeneration disabled light (EPA 2013 engine only)
- DPF regeneration light (EPA 2013 engine only)
- High exhaust temperature light (EPA 2013 engine only)
- Malfunction indicator lamp (EPA 2013 engine only)
- Engine oil pressure
- Swing park brake light
- Battery voltage
- Fuel rate (gal/hr)
- Engine load
- Engine Diagnostics
- Third wrap indicator

**Link-Belt Pulse** – The Link-Belt in-house designed, total crane operating system that utilizes the display as a readout and operator interface for the following systems:

- **Rated capacity limiter** – LCD graphic audio – visual warning system integrated into the dash with anti – two block and function limiter. Operating data includes:
  - Crane configuration
  - Boom length and angle
  - Boom head height
  - Allowed load and % of allowed load
  - RCL light bar
  - Boom angle
  - Radius of load
  - Actual load
  - Wind speed
  - Highlighted unit of measurement on working screen
  - Telescope operation displayed in real time
  - Diagnostics
  - Operator settable alarms (include):
    - Maximum and minimum boom angles
    - Maximum tip height
    - Maximum boom length
    - Swing left/right positions
    - Operator defined area (imaginary plane)
- **Telematics** – Cellular–based data logging and monitoring system that provides:
  - Location and operational settings
  - Routine maintenance
  - Crane and engine monitoring
  - Diagnostic and fault codes

**Integrated Third Wrap Indicator – Optional** – Link–Belt Pulse color display visually and audibly warns the operator when the wire rope is on the first/bottom layer and when the wire rope is down to the last three wraps.

**Integrated Third Wrap Function Kickout – Optional** – Link–Belt Pulse color display visually and audibly warns the operator when the wire rope is on the first/bottom layer and provides a function kickout when the wire rope is down to the last three wraps.

**Internal RCL Light Bar** – Visually informs the operator when crane is approaching maximum load capacity with a series of green, yellow, and red lights.

**External RCL Light Bar – Optional** – Visually informs the ground crew when crane is approaching maximum load capacity with a series of green, yellow, and red lights.

## ■ Swing

**Motor/Planetary** – Bi–directional hydraulic swing motor mounted to a planetary reducer for 360° continuous smooth swing at 2.5 rpm.

**Swing Park Brake** – 360°, electric over hydraulic, (spring applied/hydraulic released) multi–disc brake mounted on the speed reducer. Operated by a switch from the operator’s cab.

**Swing Brake** – 360°, foot operated, hydraulic applied disc brake mounted to the speed reducer.

**Swing Lock** – Two–position swing lock (boom over front or rear) operated from the operator’s cab.

**360° Positive Swing Lock – Optional** – Meets New York City requirement.

## ■ Electrical

**Swing Alarm** – Audio warning device signals when the upper is swinging.

### Lights

- Two LED working lights on front of the cab
- One LED working light on the top of the cab – optional
- One amber strobe beacon on top of the cab – optional
- Boom floodlight – Single – optional
- Boom floodlight – Dual – optional
- Boom floodlight – High intensity remote controlled – optional

## Load Hoist System

### Load Hoist Performance

Main (Rear) and Auxiliary (Front) Winches — 5/8 in (16mm) Rope										
Layer	Maximum Line Pull		Normal Line Speed		High Line Speed		Layer		Total	
	lb	kN	ft/min	m/min	ft/min	m/min	ft	m	ft	m
1	15,871	70.59	166	50.5	329	100.2	97	29.6	97	29.6
2	14,356	63.86	183	55.8	364	110.8	108	32.6	205	62.5
3	13,104	58.29	201	61.2	398	121.4	117	36.0	322	98.1
4	12,054	53.62	218	66.5	433	132.0	128	39.0	450	137.2
5	11,159	49.64	236	71.8	468	142.6	139	42.1	589	179.5
6	10,388	46.21	253	77.2	502	153.2	148	45.1	737	224.6

Wire Rope Application		Diameter		Type	Maximum Permissible Load	
		in	mm		lb	kg
Main (Rear) Winch	Standard	5/8	16	18x19 rotation resistant — right regular lay (Type RB)	9,080	4 118.6
	Optional	5/8	16	34x7 rotation resistant — right regular lay (Type ZB)	11,080	5 030
Auxiliary (Front) Winch	Standard	5/8	16	18x19 rotation resistant — right regular lay (Type RB)	9,080	4 118.6
	Optional	5/8	16	34x7 rotation resistant — right regular lay (Type ZB)	11,080	5 030

### 2M Main and Optional Auxiliary Winches

- Axial piston, full and half displacement (2—speed) motors driven through planetary reduction unit for positive control under all load conditions.
- Grooved lagging
- Power up/down mode of operation
- Hoist drum cable follower — optional
- Drum rotation indicator
- Drum diameter: 10.63 in (27.0cm)
- Rope length:
  - Main: 550 ft (167.6m)
  - Auxiliary: 450 ft (137.2m) or 550 ft (167.6m)
- Terminator style socket and wedge

### Hydraulic System

**Counterbalance Valves** — All hoist motors, boom extend cylinders, and boom hoist cylinder are equipped with counterbalance valves to provide load lowering and to prevent accidental load drop if hydraulic power is suddenly reduced.

**Hydraulic Oil Cooler** — Carrier mounted cooler removes heat from the hydraulic oil. Cooler is integral to the engine radiator/charge air cooler.

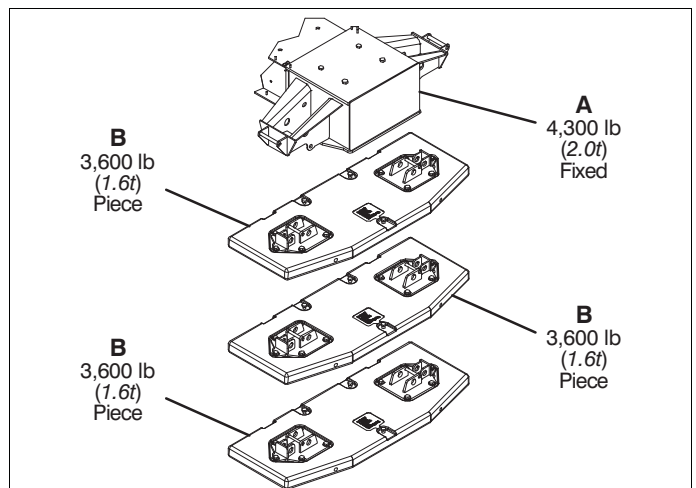
**Boom Hoist Float Valves (Optional)** — For transporting the boom over the rear of the crane with a boom dolly. Allows hydraulic oil within the boom hoist cylinder to flow between piston side and rod side, allowing the boom to float while on the boom dolly.

**Swing Brake Release** — For transporting the boom over the rear of the crane with a boom dolly. Holds the 360° swing park brake in the released position allowing free rotation of the upper structure.

### Counterweight

**Standard** — 11,500 lb (5.2t) total counterweight consisting of two, hydraulically removable 3,600 lb (1.6t) counterweights with capacities for 4,300 lb (2.0t) and 7,900 lb (3.6t) counterweight configurations. Assembled and disassembled by hydraulic cylinders controlled from both sides of the upper structure.

**Optional** — 3,600 lb (1.6t) in addition to standard counterweight for a total of 15,100 lb (6.8t).



Counterweight Packages		11,500 lb (5.2t) — Standard			
		15,100 lb (6.8t) — Optional			
Counterweight Pieces		A	B	B	B
		4,300 lb (2t) Fixed	3,600 lb (1.6t) Piece	3,600 lb (1.6t) Piece	3,600 lb (1.6t) Piece
A	4,300 lb (2t)	X			
A,B	7,900 lb (3.6t)	X	X		
A,B,B	11,500 lb (5.2t)	X	X	X	
A,B,B,B	15,100 lb (6.8t)	X	X	X	X

# Carrier

## General

- 8 ft 6 in (2.6 m) wide
- 23 ft 10 in (7.26m) wheelbase (centerline of first axle to centerline of fourth axle)
- **Frame** — Box-type, torsion resistant, welded construction made of high tensile steel. Equipped with front and rear towing and tie-down lugs, tow connections, and access ladders.

## Outriggers

**Boxes** — Two double box, front and rear welded to the carrier frame.

**Beams and Jacks** — Four single stage beams with Confined Area Lifting Capacities (CALC) provide selectable outrigger extensions of full, intermediate, and retracted positions. Jacks with integral check valve, hydraulically controlled from the operator's cab and on both sides of carrier. A fifth front bumper outrigger with integral check valve is hydraulically controlled from the operator's cab and at the front bumper of carrier.

### Pontoons

- **Main** — Four lightweight, stow'n go, 23.5" x 27.25" (59.7 x 69.2cm) hexagonal steel pontoons with a contact area of 485 in<sup>2</sup> (3 129cm<sup>2</sup>) can be stored for road travel in either the storage racks on the carrier or under the outrigger boxes
- **Front Bumper** — One, lightweight, self-storing, 16" (40.6cm) diameter steel pontoon with a contact area of 201 in<sup>2</sup> (1 296cm<sup>2</sup>)

### Jack Reaction

- **Main** — 76,000 lb (338.1kN) force and 157 psi (1 082.5kPa) ground bearing pressure
- **Front Bumper** — 37,000 lb (164.6kN) force and 184 psi (21 269kPa) ground bearing pressure

## Steering and Axles

- Sheppard full integral master gear/slave gear steering system provides hydraulic assisted steering with mechanical link between steering wheel and wheels
- **Drive** — 8 x 4 for on/off-highway travel
- **Axle 1 & 2** — Tandem steered, non-driven
- **Axle 3 & 4** — Tandem non-steered, driven with reduction: 5.38 to 1
- **Inter-Axle Differential Lock** — Traction adding device that locks axle 3 with axle 4. Operated by a switch from the carrier cab.

## Suspension

**Front** — Raydan Air Link walking beam air suspension

**Rear** — Raydan Air Link walking beam air suspension

- **Axle Lift System — Optional** — Improves rear tire ground clearance when the crane is up on outriggers. The rear air suspension can be raised or lowered with a switch in the carrier cab. The axle lift system can be controlled with a switch on both sides of the carrier.

## Tires and Wheels

**Front** — Four (single) 425/65R22.5 tires on aluminum disc wheels

**Rear** — Eight (dual) 11R22.5 tires on aluminum outer/steel inner disc wheels

- Spare tires and wheels — optional

- Tire inflation kit — optional

## Brakes

**Service** — Full air anti-lock (ABS) brakes on all wheel ends. Dual circuit compressed air system with air dryer.

**Parking/Emergency** — Spring loaded type, acting on 3rd and 4th axles automatically apply when air pressure drops below 40 psi (275.8kPa) in both circuits.

## Electrical

**Battery** — Three batteries provide 12 volt starting and operation

### Lights

- Front lighting includes two main daytime running/headlights, two high beam lights, two parking/directional indicators, and three cab marker lights.
- Side lighting includes three parking/directional indicators per side.
- Rear lighting includes two parking/directional indicators, two parking/brake lights, two reverse lights, three marker lights, and a license plate light.
- Other equipment includes hazard/warning system, two cab LED dome lights, instrument panel back lighting, and signal horn.
- One amber strobe beacon behind the cab.

## Engine

Specification	Cummins ISL9	Cummins QSM
Emissions Compliance Level:	EPA 2013 (1)	Tier 3/Stage IIIA(2)
Maximum Allowable Sulfur Content of Fuel (PPM):	15	5000
Numbers of cylinders:	6	6
Cycle:	4	4
Bore and Stroke: inch (mm)	4.49 x 5.69 (114x144)	4.9 x 5.8 (125x147)
Piston Displacement: in <sup>3</sup> (L)	543 (8.9)	660 (10.8)
Max. Brake Horsepower: hp (kW)	370 (276) @ 1,700 rpm 365 (272) @ 2,100 rpm	400 (298) @ 1,800 rpm 375 (280) @ 2,100 rpm
Peak Torque: ft lb (Nm)	1,250 (1 694.7) @ 1,400 rpm	1,400 (1 898) @ 1,300 rpm
Alternator: volts — amps	12 — 145	12 — 160
Crankcase Capacity: qt (L)	26 (24.6)	40 (38)

- Cruise control
- Cummins ISL — Three stage compression brake
- Cummins QSM — Two stage compression brake
- Thermostatically controlled, hydraulically driven radiator fan
- 120 volt engine block heater
- Ether injection system — optional (QSM only)
- Grid heater starting aid standard on ISL9
- Engine equipped with on-board diagnostics — ISL

(1) Can only be sold and/or operated where EPA2013 on-highway emission standards are accepted.

(2) Can only be sold and/or operated where Tier 3/Stage IIIA off-highway emission standards are accepted.



## ■ Transmission

**Automated** – ZF AS–TRONIC (no clutch pedal) manual transmission with 12 forward gears and 2 reverse gears.

## ■ Carrier Speeds and Gradeability

ZF Astronic		Governed Speed				Gradeability (@ Peak Torque Except Creep @ Idle)		
		EPA 2013		Tier 3/Stage IIIA		% Grade		
Gear	Ratio	mph	km/h	mph	km/h	EPA 2013	Tier 3/ Stage IIIA	
						12th	0.78	60.69
11th	1.00	47.22	75.97	47.03	75.68	2.35	3.92	
10th	1.27	37.27	59.96	37.12	59.73	2.98	5.34	
9th	1.63	28.99	46.64	28.87	46.46	3.83	7.19	
8th	2.10	22.47	36.16	22.38	36.01	4.94	9.56	
7th	2.70	17.49	28.14	17.42	28.03	6.35	12.54	
6th	3.55	13.29	21.39	13.24	21.30	8.35	16.74	
5th	4.57	10.34	16.64	10.30	16.57	10.73	21.72	
4th	5.78	8.16	13.14	8.13	13.08	13.59	27.71	
3rd	7.44	6.35	10.22	6.33	10.18	17.47	35.81	
2nd	9.59	4.92	7.92	4.90	7.88	22.54	43.10	
1st	12.33	3.83	6.16	3.82	6.14	28.97	43.10	
Reverse 1		11.41	4.14	6.66	4.12	6.63	26.82	43.10
Reverse 2		8.88	5.32	8.56	5.30	8.52	20.87	42.90
Creep @ idle	2nd	9.59	1.64	2.64	1.63	2.62	26.68	22.05
	1st	12.33	1.27	2.04	1.27	2.04	34.29	28.52
	Reverse 1	11.41	1.38	2.22	1.37	2.20	31.75	26.36
	Reverse 2	8.88	1.77	2.85	1.77	2.84	24.70	20.37

Based on a gross vehicle weight of 78,000 lb (35 380kg)

## ■ Fuel Tank

- One 75 gal (283.9L) capacity tank
- One 10 gal (37.8L) capacity diesel exhaust fluid (DEF) plastic tank

## ■ Hydraulic System

All functions are hydraulically powered allowing positive, precise control with independent or simultaneous operation of all functions.

### Main Pumps

- Four fixed displacement gear pumps with automatic disconnect for the main and auxiliary winches, swing, boom hoist, control circuit, and telescope for use when crane is in travel mode
- One fixed displacement gear pump for steering and the front bumper outrigger
- Two fixed displacement gear pumps for engine cooling fan and main outriggers. These pumps also provide flow to the winches and boom hoist for “pick & carry” mode. Operated by a switch in the carrier cab.
- Combined pump capacity of 190 gpm (719.2Lpm)

**Hydraulic Reservoir** – 144 gal (545.1L) capacity equipped with sight level gauge. Diffusers built in for deaeration.

**Filtration** – One 10 micron, full flow, return line filter. All oil is filtered prior to return to reservoir. Accessible for easy filter replacement.

## ■ Pump Drive

All pumps are mechanically driven by the diesel engine. Main and auxiliary winches, swing, boom hoist, control circuit, and telescope pumps are mounted to an automatic pump disconnect on the rear of the transmission to aid in cold weather starting as well as to reduce pump wear while traveling.

## ■ Lower Cab and Controls

**Environmental Cab** — Fully enclosed, one person cab of composite structure with acoustical insulation. Equipped with:

- Tinted and tempered glass windows
- Roll down left side window for ventilation
- Right side window
- Windshield wiper and washer
- Six way adjustable and air suspended driver's seat with seat belt
- Two adjustable rear view mirrors
- Engine dependent warm—water heater with air ducts for windshield defroster and cab floor
- Adjustable sun visor
- Two LED dome lights
- 12 volt connection
- Fire extinguisher

**Air Conditioning** — Integral with cab heating system utilizing the same ventilation outlets

**Overhead Console** — Located above the sun visor

- Document storage unit
- AM/FM Radio
- 12 volt accessory jack (switched)
- 12 volt accessory jack (unswitched)
- Strobe beacon switch

**Camera Display** — Located on dash console

- Displays right side of machine
- Displays rear view

**Cab Instrumentation** — Ergonomically positioned analog instrumentation for driving including:

- Speedometer with odometer, hourmeter, trip odometer
- Front and rear air pressure with warning indicator
- Engine coolant temperature with warning indicator
- Engine oil pressure with warning indicator
- Voltage indicator with warning indicator
- Fuel level
- Tachometer
- Diesel exhaust fluid with warning indicator (EPA 2013 Engine Only)

**Right Side Console** — Controls and indicators for:

- Transmission gear shifting
- Transmission gear selector
- Transmission digital readout
- Cruise controls
- Engine compression brake controls

**Dash Mounted Controls For:**

- Carrier lights
- Carrier/upper throttle control
- Engine cooling fan override
- Cab heater/air conditioning
- Console dimmer switch
- Anti—lock brake diagnostic switch
- Diesel particulate filter switch (EPA 2013 Engine Only)
- Park brake
- Pick & carry switch
- Inter—axle differential lock switch
- Engine ignition
- Rear axle lift system switch — optional
- Diesel particulate filter regeneration inhibit switch (EPA 2013 Engine Only)

**Dash Mounted Indicator For:**

- Check, stop, and service engine
- Turn signal indication
- Park brake
- Cruise activation
- High beam headlights
- Check anti—lock brake system
- Check anti—lock trailer brake system
- Diesel particulate filter indication (EPA 2013 Engine Only)
- High exhaust temperature indication (EPA 2013 Engine Only)
- Regeneration inhibit (EPA 2013 Engine Only)
- Wait to start (EPA 2013 Engine Only)
- Malfunction indicator lamp (EPA 2013 Engine Only)
- Engine air filter high restriction

**Steering Column Controls For:**

- Warning horn
- Turn indicators
- High beam headlights
- Steering wheel adjustments
- Intermittent windshield wiper and washer
- Hazard lights

**Foot Controls For:**

- Carrier service brakes
- Engine throttle

## ■ Additional Equipment

**Standard:**

- Aluminum full deck fenders with mud flaps
- Left and right bubble levels
- Air hose connection ports
- Clearance flags

**Optional:**

- Pneumatic and electrical quick disconnect connectors mounted on the rear for trailer or boom dolly brakes and lights
- Left side aluminum storage box
- Rear mounted pintle hook

# Axle Loads

Base crane with full tank of fuel and 4,300 lb (2.0t) counterweight		Gross Vehicle Weight <sup>(1)</sup>		Front Axles		Rear Axles	
		lb	kg	lb	kg	lb	kg
		EPA 2013	65,428	29 678	29,264	13 274	36,164
	Tier 3/Stage IIIA	65,651	29 779	29,624	13 437	36,027	16 342
Driver in carrier cab		250	113	328	149	-78	-35
Rear pintle hook		34	15	-13	-6	47	21
Pneumatic and electrical connectors for trailer or boom dolly		11	5	-4	-2	15	7
Carrier aluminum storage box		66	30	20	9	46	21
Air ride lift system – rear axles		52	24	7	3	45	20
Ether injection		5	2	5	2	0	0
Hoist drum follower – main		75	34	-27	-13	102	47
Auxiliary winch with 450 ft (137.2m) of 5/8" (16mm) type "RB" rope		414	188	-98	-45	512	232
Hoist drum follower – auxiliary		75	34	-16	-8	91	42
Substitute 450 ft (137.2m) with 550 ft (167.6m) rope – auxiliary		72	33	-17	-8	89	40
Remove 550 ft (167.6m) of rope from rear (main) winch		-482	-219	183	83	-665	-302
Remove 450 ft (137.2m) of rope from front (auxiliary) winch		-396	-180	95	43	-491	-223
Air conditioner – operator's cab		179	81	3	1	176	80
360° mechanical swing lock		60	27	6	3	54	24
One slab of counterweight on upper		3,582	1 625	-1,375	-624	4,957	2 248
Two slabs of counterweight on upper		7,164	3 250	-2,750	-1 247	9,914	4 497
Three slabs counterweight on upper		10,746	4 874	-4,125	-1 871	14,871	6 745
Floodlight to the front of boom base section		10	5	15	7	-5	-2
Fly mounting brackets to boom base section for fly options		99	45	87	39	12	5
28.5 ft (8.7m) offsettable, one-piece lattice fly – stowed		1,238	562	1,312	595	-74	-34
28.5–51 ft (8.7–15.5m) offsettable, two-piece (bi-fold) lattice fly – stowed		1,830	830	1,810	821	20	9
Auxiliary lifting sheave		91	41	165	75	-74	-34
25 ton (22.7mt) 3-sheave hook block at boom head		670	304	1,169	530	-499	-226
40 ton (36.3mt) 4-sheave hook block at boom head		780	354	1,360	617	-580	-263
50 ton (45.4mt) 5-sheave hook block at boom head		1,090	494	1,901	862	-811	-368
60 ton (54.4mt) 5-sheave hook block at boom head		1,122	509	1,957	888	-835	-379
8.5 ton (7.7mt) hook ball at boom head		360	163	641	291	-281	-127
Hook block/ball storage box		375	170	-143	-65	518	235
25 ton (22.7mt) 3-sheave hook block in storage box		670	304	-256	-116	926	420
40 ton (36.3mt) 4-sheave hook block in storage box		780	354	-298	-135	1,078	489
50 ton (45.4mt) 5-sheave hook block in storage box		1,090	494	-417	-189	1,507	684
60 ton (54.4mt) 5-sheave hook block in storage box		1,122	509	-429	-195	1,551	704
8.5 ton (7.7mt) hook ball in storage box		360	163	-138	-63	498	226

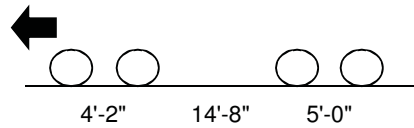
Counterweight Load Transfer	Front Axles		Rear Axles	
	lb	kg	lb	kg
Transfer one 3,600lb (1.6t) slab of counterweight to carrier deck	4,091	1 856	-4,091	-1 856
Transfer two 3,600lb (1.6t) slabs of counterweight to carrier deck	8,182	3 711	-8,182	-3 711
Transfer three 3,600lb (1.6t) slabs of counterweight to carrier deck	12,273	5 567	-12,273	-5 567

Axle	Maximum Load @ 65 mph (105km/h)
Front	45,400 lb (20 593kg) – aluminum disc wheels with 425/65R22.5 tires
Rear	47,250 lb (21 432kg) – aluminum disc wheels with 11R22.5 tires

(1) Adjust gross vehicle weight and axle loading according to component weight. All weights are ±3%.

# HTC-8660 Series II - HTC8640XL Weight Distribution

Distributor:  
Customer: **Dielco**



Metric

	GVW (lbs)	Front (lbs)	Rear (lbs)
Base machine with full tank of fuel and 4,300 lb counterweight	65,428	29,264	36,164
<input checked="" type="checkbox"/> Driver in carrier cab	250	328	-78
<input type="checkbox"/> Rear pintle hook	34	-13	47
<input type="checkbox"/> Pneumatic and electrical connectors for trailer or boom dolly	11	-4	15
<input checked="" type="checkbox"/> Carrier aluminum storage box	66	20	46
<input type="checkbox"/> Air ride lift system - rear axles	52	7	45
<input type="checkbox"/> Ether injection	7	7	0
<input checked="" type="checkbox"/> Hoist drum follower - main	75	-27	102
<input checked="" type="checkbox"/> Auxiliary winch with 450 ft of 5/8" type RB rope	414	-98	512
<input checked="" type="checkbox"/> Hoist drum follower - auxiliary	75	-15	90
<input type="checkbox"/> Substitute 450 ft rope with 550 ft rope - auxiliary	72	-17	89
<input type="checkbox"/> Remove 550 ft of rope from rear (main) winch	-482	183	-665
<input type="checkbox"/> Remove 450 ft of rope from front (auxiliary) winch	-396	95	-491
<input checked="" type="checkbox"/> Air conditioning - operator	179	3	176
<input type="checkbox"/> 360° mechanical swing lock	60	6	54
<input checked="" type="checkbox"/> 3,600 lb counterweight on upper	3,582	-1,375	4,957
<input checked="" type="checkbox"/> Transfer counterweight to the carrier deck		4,091	-4,091
<input checked="" type="checkbox"/> 3,600 lb counterweight on upper	3,582	-1,375	4,957
<input checked="" type="checkbox"/> Transfer counterweight to the carrier deck		4,091	-4,091
<input checked="" type="checkbox"/> 3,600 lb counterweight on upper	3,582	-1,375	4,957
<input type="checkbox"/> Transfer counterweight to the carrier deck		4,091	-4,091
<input type="checkbox"/> Floodlight to the front of boom base section	10	15	-5
<input checked="" type="checkbox"/> Fly mounting brackets to boom base section for fly options	99	87	12
<input type="checkbox"/> 28.5 ft offsettable, one-piece (bi-fold) lattice fly - stowed	1,238	1,312	-74
<input checked="" type="checkbox"/> 28.5-51 ft offsettable, two-piece (bi-fold) lattice fly - stowed	1,830	1,810	20
<input checked="" type="checkbox"/> Auxiliary lifting sheave *	91	165	-74
<input type="checkbox"/> 25-ton 3-sheave hook block at front bumper	670	1,169	-499
<input type="checkbox"/> 40 ton 4-sheave hook block at front bumper	780	1,360	-580
<input checked="" type="checkbox"/> 50 ton 5-sheave hook block at front bumper	1,090	1,901	-811
<input checked="" type="checkbox"/> 8.5 ton hook ball at front bumper	360	641	-281
<input type="checkbox"/> Hook block/ball storage box	375	-143	518
<input type="checkbox"/> 25-ton 3-sheave hook block in storage box	670	-256	926
<input type="checkbox"/> 40 ton 4-sheave hook block in storage box	780	-298	1,078
<input type="checkbox"/> 50 ton 5-sheave hook block in storage box	1,090	-417	1,507
<b>Total Weight</b>	<b>80,702</b>	<b>38,134</b>	<b>42,568</b>

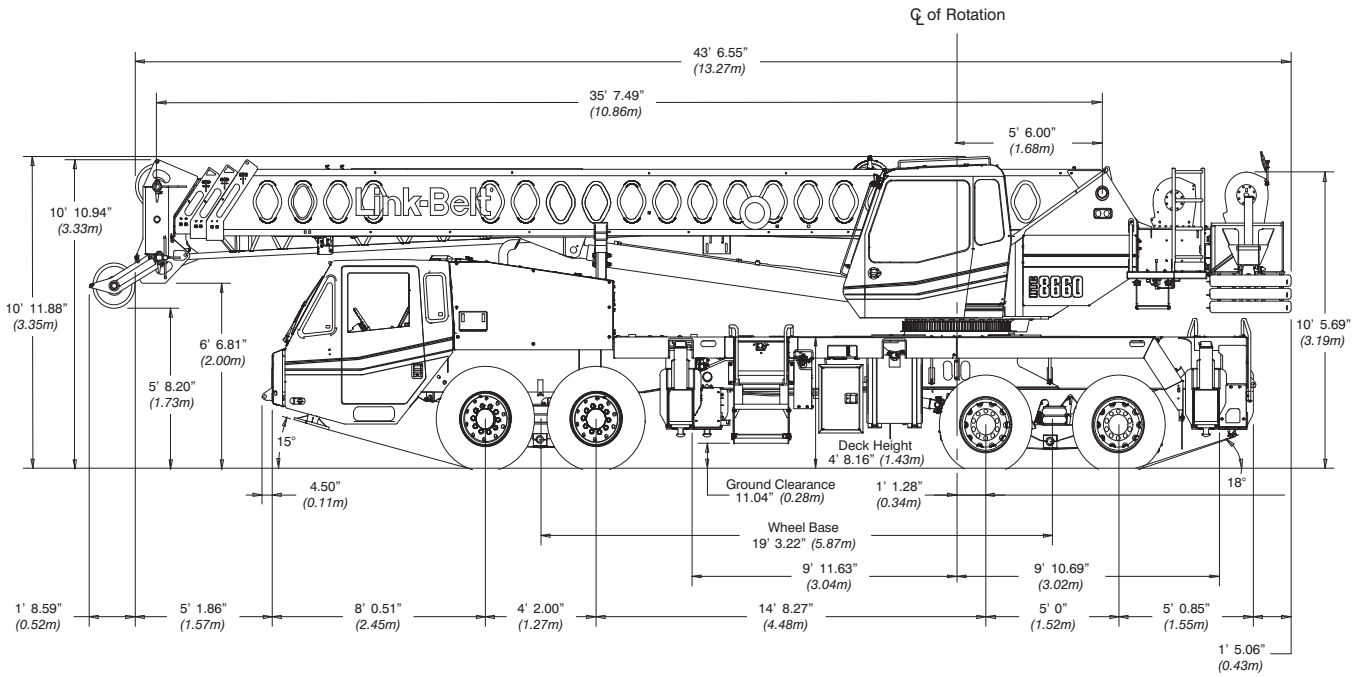
Total counterweight added to the crane: 10,800 lbs.      \* **Note:** Aux. lifting sheave extends with boom.  
 Counterweight on carrier deck: 7,200 lbs.  
 Counterweight on upper structure: 3,600 lbs.

Front tandem steer axle limits with 425/65R22.5 tires: 45,400 lbs.      22700  
 Rear tandem drive axle limits with 11R22.5 tires: 47,250 lbs.      23625

**Input boom length to change axle loading**        
 Boom is extend out (boom mode A)      ft.

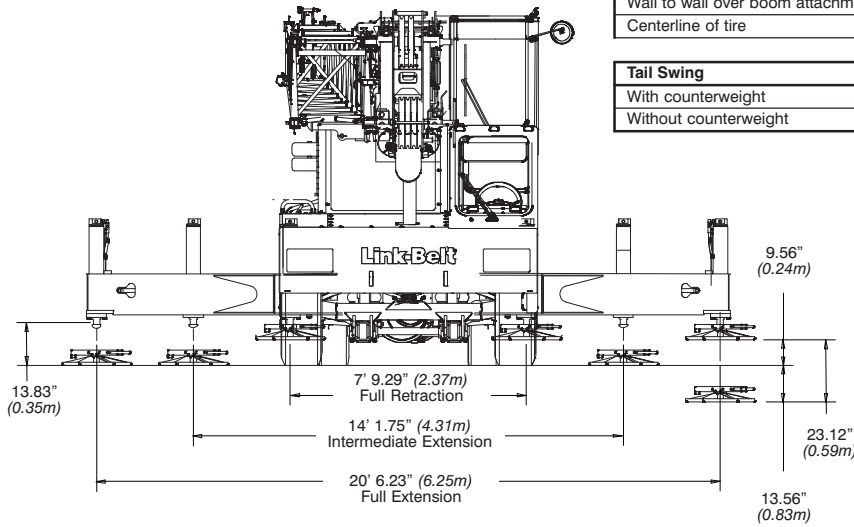
# General Dimensions

■ EPA 2013

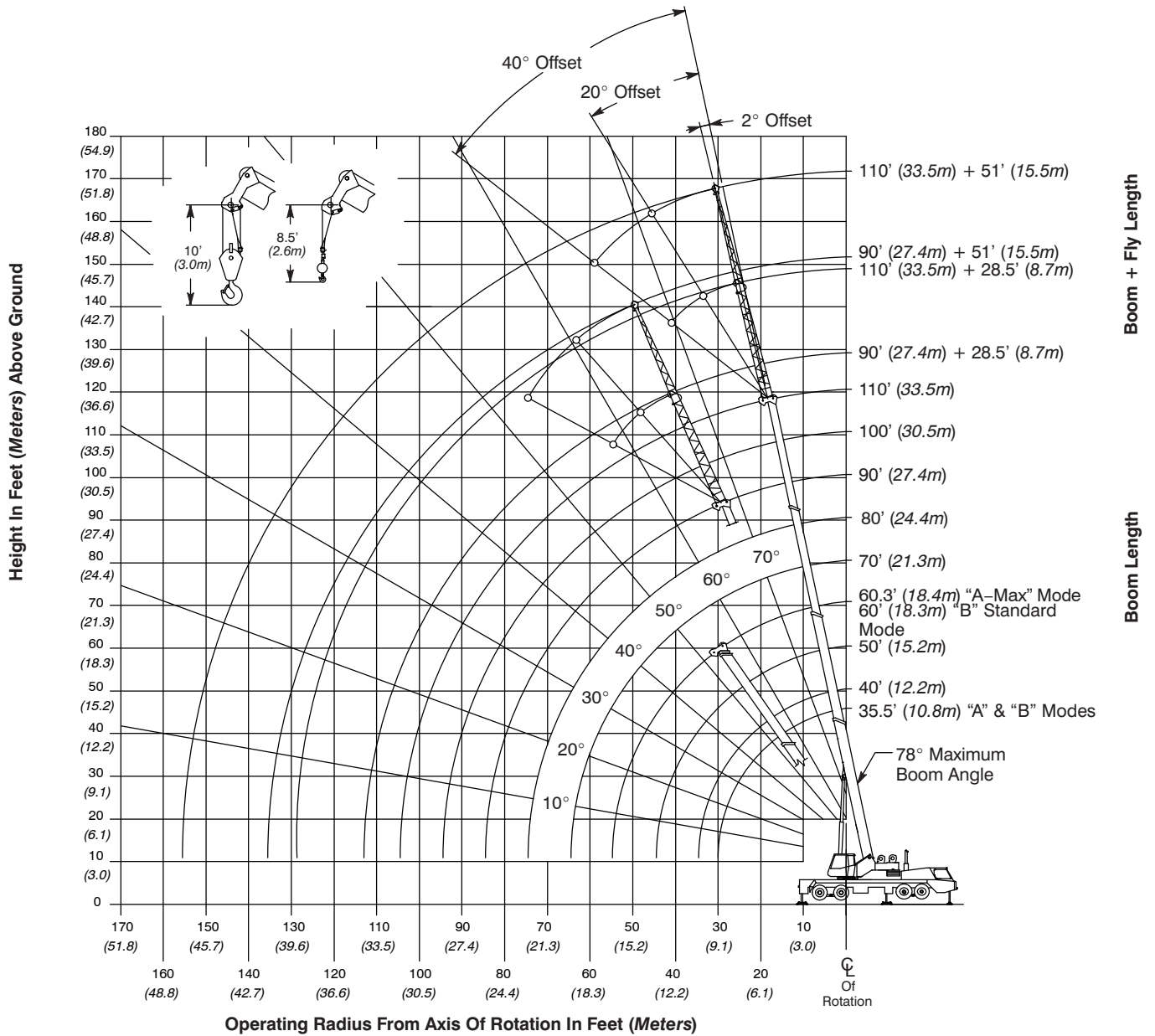


Turning Radius	English	Metric
Wall to wall over carrier	44' 1"	13.4m
Wall to wall over boom	45' 6"	13.9m
Wall to wall over boom attachment	46' 11"	14.3m
Centerline of tire	38' 7"	11.8m

Tail Swing	English	Metric
With counterweight	12' 8.5"	3.9m
Without counterweight	12' 5.25"	3.8m



# Working Range Diagram



**Note:** Boom and fly geometry shown are for unloaded condition and crane standing level on firm supporting surface. Boom deflection, subsequent radius, and boom angle change must be accounted for when applying load to hook.



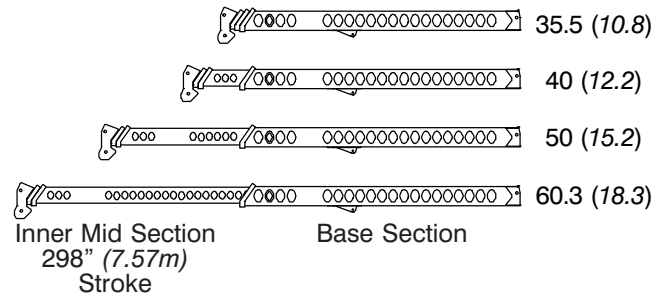
## WARNING

**Do Not Lower The Boom Below The Minimum Boom Angle For No Load Stability As Shown In The Lift Charts For The Boom Lengths Given. Loss Of Stability Will Occur Causing A Tipping Condition.**

# Boom Extend Modes

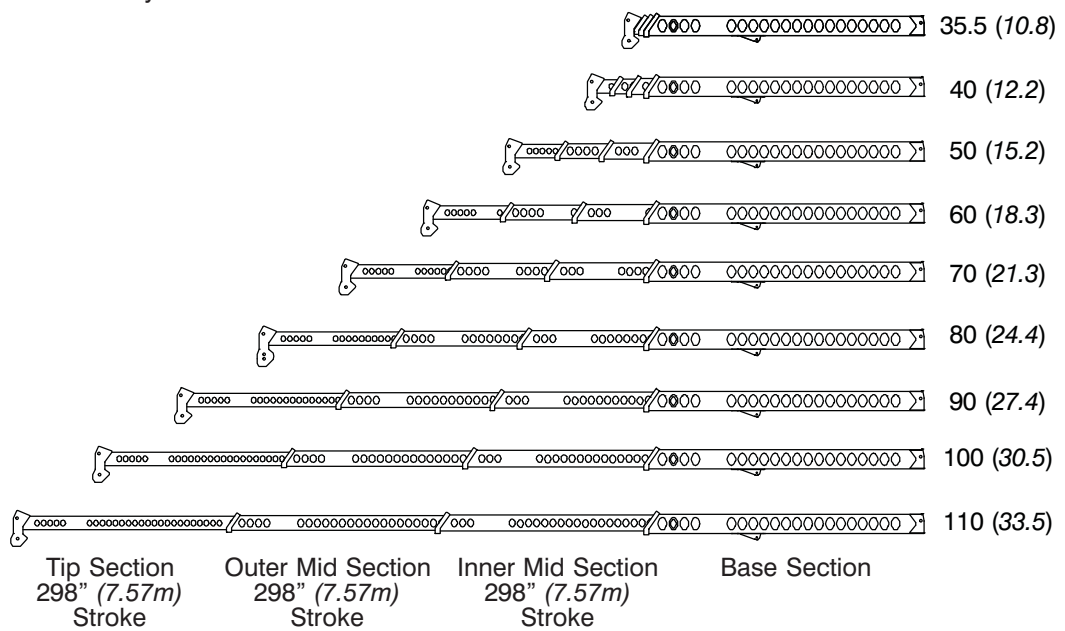
**Boom Mode “A” (A–Max)**  
Only inner mid section telescopes

Boom Length  
ft (m)



**Boom Mode “B” (Standard)**  
Inner mid, outer mid, and tip sections telescope simultaneously

Boom Length  
ft (m)



## Main Boom Lift Capacity Charts – Optional

15,100 lb Counterweight – Fully Extended Outriggers – 360° Rotation (All Capacities Are Listed In Pounds)										
Radius (ft)	Boom Length (ft)									Radius (ft)
	35.5	40	50	60	70	80	90	100	110	
7	80,000									7
10	80,000	80,000	72,800							10
12	76,000	73,200	65,800	50,900	37,900					12
15	65,800	63,600	57,700	47,300	37,900	35,400				15
20	53,400	52,000	47,500	39,300	37,900	34,700	28,900			20
25	41,900	41,700	40,300	37,900	37,900	34,300	28,300	24,000	19,500	25
30		32,900	33,600	33,900	32,900	30,400	24,900	22,600	19,500	30
35			25,400	25,800	25,900	26,100	22,100	20,100	18,500	35
40			19,900	20,400	20,600	20,700	19,800	18,000	16,500	40
45				16,500	16,700	16,800	16,900	16,200	14,700	45
50				13,500	13,800	13,900	14,000	14,100	13,300	50
55					11,500	11,700	11,800	11,800	11,900	55
60					9,700	9,900	10,000	10,100	10,200	60
65						8,400	8,600	8,600	8,700	65
70						7,100	7,300	7,400	7,500	70
75							6,200	6,300	6,400	75
80							5,300	5,400	5,500	80
85								4,600	4,700	85
90								4,000	4,000	90
95									3,400	95
100									2,900	100

This information is not for crane operation. Operator must refer to the in-cab information for crane operation. Rated lifting capacities shown on fully extended outriggers do not exceed 85% of the tipping loads and on tires do not exceed 75% of the tipping loads.



**15,100 lb Counterweight – On Tires – Stationary – Boom Centered Over Rear**  
(All Capacities Are Listed In Pounds)

Radius (ft)	Boom Length (ft)						Radius (ft)
	35.5	40	50	60	70	80	
10	49,000						10
12	44,800	44,700					12
15	39,600	39,400	29,200				15
20	26,000	26,300	26,900	19,500			20
25	18,200	18,600	19,100	19,500	14,800		25
30		13,800	14,300	14,600	14,800	14,200	30
35			11,000	11,300	11,600	11,700	35
40			8,600	8,900	9,200	9,300	40
45				7,100	7,300	7,500	45
50				5,700	5,900	6,100	50
55					4,700	4,900	55
60					3,800	4,000	60
65						3,200	65
70						2,500	70

**15,100 lb Counterweight – On Tires – Pick & Carry (1 mph) – Boom Centered Over Rear**  
(All Capacities Are Listed In Pounds)

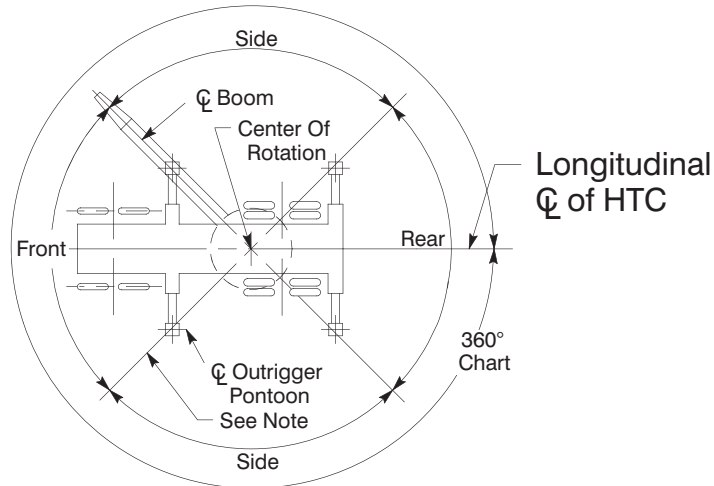
Radius (ft)	Boom Length (ft)						Radius (ft)
	35.5	40	50	60	70	80	
10	36,200						10
12	32,900	33,100					12
15	28,800	29,000	29,200				15
20	23,500	23,700	24,000	19,500			20
25	18,200	18,600	19,100	19,500	14,800		25
30		13,800	14,300	14,600	14,800	14,200	30
35			11,000	11,300	11,600	11,700	35
40			8,600	8,900	9,200	9,300	40
45				7,100	7,300	7,500	45
50				5,700	5,900	6,100	50
55					4,700	4,900	55
60					3,800	4,000	60
65						3,200	65
70						2,500	70

This information is not for crane operation. Operator must refer to the in-cab information for crane operation. Rated lifting capacities shown on fully extended outriggers do not exceed 85% of the tipping loads and on tires do not exceed 75% of the tipping loads.

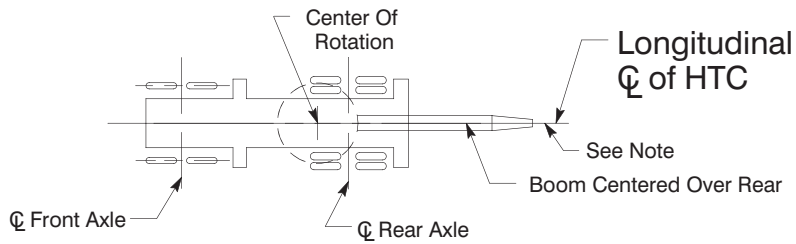
15,100 lb Counterweight – Fully Extended Outriggers – 360° Rotation (All Capacities Are Listed In Pounds)								
110 ft Main Boom Length 2° Fly Offset			110 ft Main Boom Length 20° Fly Offset			110 ft Main Boom Length 40° Fly Offset		
Radius (ft)	Fly Length (ft)		Radius (ft)	Fly Length (ft)		Radius (ft)	Fly Length (ft)	
	28.5	51		28.5	51		28.5	51
35	9,400		35			35		
40	9,400		40			40		
45	9,400	6,200	45	9,600		45		
50	9,400	6,200	50	9,200		50	7,600	
55	9,300	6,200	55	8,600		55	7,400	
60	8,600	6,200	60	8,000	4,900	60	7,200	
65	8,000	6,100	65	7,400	4,700	65	7,000	
70	7,500	5,800	70	7,000	4,500	70	6,600	
75	7,000	5,400	75	6,500	4,300	75	6,200	3,500
80	6,100	5,000	80	6,200	4,200	80	5,900	3,400
85	5,300	4,700	85	5,700	4,000	85	5,600	3,300
90	4,600	4,400	90	5,000	3,900	90	5,200	3,300
95	4,000	4,100	95	4,300	3,700	95	4,500	3,200
100	3,500	3,900	100	3,700	3,600	100	3,900	3,200
105	3,000	3,400	105	3,200	3,400	105	3,400	3,100
110	2,500	3,000	110	2,700	3,300	110	2,800	3,100
115	2,200	2,600	115	2,300	3,000	115		3,000
120	1,800	2,200	120	1,900	2,600	120		2,800
125	1,500	1,900	125	1,500	2,200	125		2,400
130	1,200	1,600	130		1,900	130		2,000
135		1,300	135		1,600	135		1,700
140			140		1,300	140		

This information is not for crane operation. Operator must refer to the in-cab information for crane operation. Rated lifting capacities shown on fully extended outriggers do not exceed 85% of the tipping loads and on tires do not exceed 75% of the tipping loads.

# Working Areas



HTC On Outriggers



HTC On Tires

**Note:** These Lines Determine The Limiting Position Of Any Load For Operation Within Working Areas Indicated.

# Capacity Deductions

Load Handling Equipment	Weight (lb)
41 US Ton Quick Reeve 3 Sheave Hook Block (Dielco)	830
8.5 US Ton Hook Ball (Dielco)	360

Auxiliary Lifting Devices	Weight (lb)
Auxiliary Head Attached	100
<b>Lifting From Main Boom With:</b>	
28.5 ft Or 51 ft Fly Stowed On Boom Base (See Operation Note 5)	0
28.5 ft Offset Fly Erected But Not Used	3,900
51 ft Offset Fly Erected But Not Used	7,800
<b>Lifting From 28.5 ft Offset Fly With:</b>	
22.5 ft Fly Tip Erected But Not Used	Prohibited
22.5 ft Fly Tip Stowed On 28.5 ft Offset Fly	Prohibited

**Note:** Capacity deductions are for Link-Belt supplied equipment only.

**Link-Belt Construction Equipment Company** Lexington, Kentucky [www.linkbelt.com](http://www.linkbelt.com)

®Link-Belt is a registered trademark. Copyright 2016. We are constantly improving our products and therefore reserve the right to change designs and specifications.