Tel: (888) 337-BIGGE or (510) 638-8100 Web: www.bigge.com

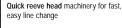


BİGGE

# 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™



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 sheave is 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.

Link-Belt

# HTC-8670 Long Boom

All the great features of the HTC-8670 PLUS:

- Longer boom
- Longer fly

# 4-section full power boom with attachment flexibility

- 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

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°



Lightweight fiberglass engine hood is common

B mode



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

- · intermediate extension · full extension

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



CONSTRUCTION EQUIPMENT



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

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.





# 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 directional vents
- Sliding right side, rear windows and swing-up roof window
- Single foot pedal control
- Automotive-style windshield Corner-post-mounted, 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 Microquard 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.

adjusters

### 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.





compartment is superb with strategicallylocated 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.

Another first from Link-Belt, the axle lift system holds the rear axles level while the crane is on outriggers

Aluminum fuel tank

interchangeable with

of equal sizes.

all HTC and RTC cranes

eliminates internal corrosion and is



Lightweight aluminum outrigger floats with "quick

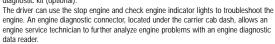


Non-slip surface strips on carrier deck

Bigge

# Serviceability

Wide opening engine doors 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).



# **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

### Stowable attachments

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



# 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:



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



Lexington, Kentucky www.linkbelt.com

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

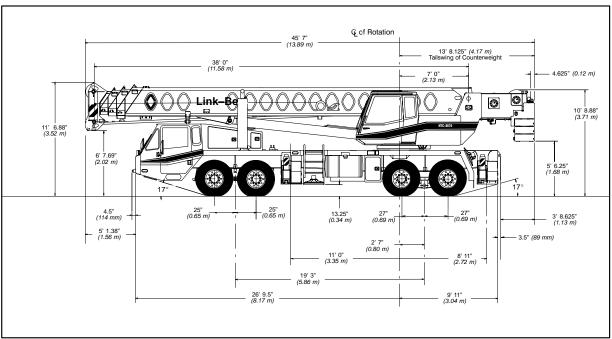


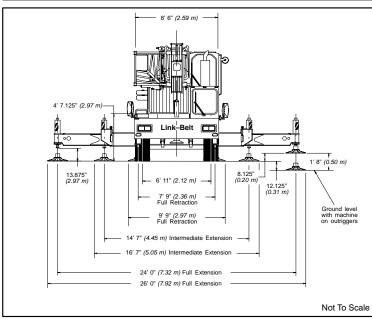
# Specifications

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

Litho in U.S.A. 3/03 #5382 (supersedes #5354)



# **Upper Structure**

# Boom

### **Patented Design**

- Boom side plates have diamond shaped impressions for superior strength to weight ratio and 100,000 p.s.i. (689.5 MPa) steel angle chords for lateral stiffness.
- Boom telescope sections are supported by top, bottom and adjustable side wear shoes to prevent metal to metal contact.

### Boom

- 38 115' (11.58 35.05 m) four-section full power boom.
- · Two mode boom extension
- The basic mode is the full power, synchronized mode of telescoping all sections proportionally to 115' (35.05 m).
- The exclusive "A-max" mode (or mode 'A') extends only the inner mid section to 63' 6" (19.39 m) offering increased capacities for in-close, maximum capacity picks.

### **Boom Head**

- Five 16–1/2" (0.42 m) root diameter nylon sheaves with a fifth nylon sheave available to handle up to 10 parts of wire rope.
- Easily removable wire rope guards
- Rope dead end lugs provided on each side of boom head.
- Boom head designed for quick reeve of 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  $-3^{\circ}$  to  $+78^{\circ}$ .

### **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 (bifold) lattice fly, stowable, offsettable to 2° 20° or 40°

### Cab and Controls

## Environmental Ultra-Cab™

Laminated fiborus composite material; isolated from sound with acoustical fabric insulation.

- Windows are tinted and tempered safety
- 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
- Mirrors

Circulating fan

Warning horn

Dome light

Cup holder

Sun screen

· Hand throttle

Top hatch window wiper Defroster fan

# 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

· Single axis controls · Auxiliary winch

## Cab Instrumentation

Cornerpost-mounted gauges for:

- Hydraulic oil temperature
- Audio/Visual warning system Tachometer
- · Oil pressure
- Voltmeter

- Fuel
- Water temperature

# Rated Capacity Limiter

Microguard 434 Graphic audio-visual warning system built into dash with antitwo block and function limiters

Operating data available includes:

- Machine configuration.
- Boom length
- Boom angle Head height Radius of load
- Allowed load
- · Actual load

- % of allowed load
- Presettable alarms include: Maximum and minimum boom angles.
- Maximum tip height.
- Maximum boom length.
- Swing left/right positions.
- Operator defined area alarm is standard.
- Anti-two block weight designed for quick reeve of hookblock.

### 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 presettable alarms with a series of three lights; green, yellow and red.

# Swina

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.

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

# Hydraulic System

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

# Pilot Pressure / Counterweight Removal

· Pressure compensated piston pump powered by carrier engine with pump disconnect. Operates at 1,500 psi (10 343 kPa)

# Steering / Fifth Outrigger Pump

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

(continued on next page)

HTC-8670 -2-



(continued from page 2)

### Filtration

- One, 10-micron filter located inside hydraulic reservoir
- Accessible for easy replacement

### Control valves

Six separate pilot operated control valves allow simultaneous operation of all crane

# 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 lockout. Power up/down modes.
- Hoist drum cable followers.
- Third wrap indicators.

# Carrier

# Type

• 8' 6" (2.59 m) wide, 231" (5.87 m) wheelbase. 8 x 4 drive - standard

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

- Carrier mounted storage boxes
- Pintle hook
- Electric and air connections for trailers and **Transmission** 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

· Solid mount, bogie beam type

# Wheels

### Standard

Front and rear hub piloted aluminum disc

# Optional

Spare tire and wheel assemblies

## I Tires

# **Standard Front**

445/65R22.5 (Load range "L") single tube-

# Standard Rear

12R22.5 (Load range "L") dual tubeless radials

### Brakes

### Service

- · Full air brakes on all wheel ends with automatic slack adjustors. 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.

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) centerlineto-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
  - · Travel lights Mud flaps
- Fire extinguisher
  - Ashtray 36,000 BTU heater Defroster
- Dome light
  - Cruise control High beam light switch

### Cab instrumentation

- Illuminated instrument panel speedometer.
- Tachometer Fuel gauge
- Hourmeter Fuses
- Oil pressure gauge
  - Odometer
- Turn signal indicator Voltmeter
- 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

-3-HTC-8670



# ■ Carrier Speeds (Manual Transmission – Standard tires)

Ge	ear		Hi	gh				Low			De redu		Hi rev.	Lo rev.	Deep reduction	Deep reduction @ 600 rpm	Deep reduction @ 600 rpm
		8	7	6	5	4	3	2	1	Low	LL2	LL1	Rev.	Rev.	Rev.	LL1	Low
Ra	tio	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
Conned	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	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	0.72

# Engine

•	_				
Engine	Detroit Diesel Series 60 12.7 L				
Cylinders – cycle Bore Stroke Displacement Maximum brake hp.	6 / 4 5.12" (0.13 m) 6.30" (0.16 m) 778 cu. in. (12 751 cm <sup>3</sup> ) 365 @ 1,800 rpm; 350 @ 2,100 rpm				
Peak torque Electric system Fuel capacity Alternator Crankcase capacity	1,350 ft. lbs. (1 831 J) @ 1,200 rpm 12-volt neg. ground / 12 volt starting 100 gallons (378.5 L) 12 volt, 130 amps 32 qts. (30 L)				
Engine brake – star	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,	CV	M/ _	Upper Facing Front					
2M main winch with 2-speed hoisting and power up/down, 630' (192.02 m),				Axle	Rear Axle			
3/4" (19 mm) wire rope, 8 x 4, 8.5' (2.59 m) carrier with Detroit Diesel Series 60	lbs.	kg.	lbs.	kg.	lbs.	kg.		
engine, 100 gal. (378 L) fuel and no counterweight.	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	<b>–</b> 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	-2,140	-971	6,140	2 785		
Two slabs of counterweight on upper	8,000	3 628	-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 2 5 7	-8,561	-3 883	24,561	11 140		
Fly brackets on boom base section for fly options	160	72	147	68	11	5		
36.5' (11.13 m) offsettable fly with tip lugs – stowed	1,542	700	1,349	612	193	88		
36.5' to 61 ft. (11.13 – 18.59 m) two-piece fly – stowed	2,248	1 020	1,711	776	537	244		
40-ton (36.3 mt) hookblock at front bumper	720	327	1,175	533	-455	-206		
70-ton (63.5 mt) hookblock at front bumper	1,400	635	2,284	1 036	-884	-401		
Hookball to front bumper	360	163	587	266	-227	-103		
Auxiliary arm	125	57	230	104	-105	<del>-4</del> 8		

	Front	Front axle		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	<i>–4</i> 838
Transfer three slabs of counterweight to carrier deck	15,999	7 2 5 7	-15,999	-7257

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

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HTC-8670 -4







# Lifting Capacities

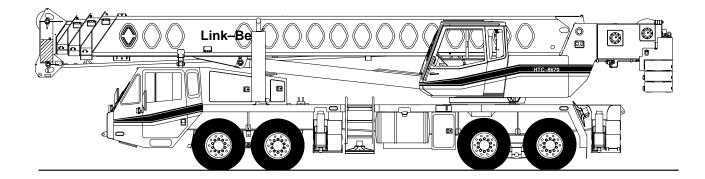
Telescopic Hydraulic Truck Crane

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.

Litho in U.S.A. 12/00 – 1 – #6291 (Supersedes #6219)







# WARNING

READ AND UNDERSTAND THE OPERATOR'S AND SAFETY MANUALS AND THE FOLLOWING INSTRUCTIONS AND RATED LIFTING CAPACITIES BEFORE OPERATING THE CRANE. OPERATION WHICH DOES NOT FOLLOW THESE INSTRUCTIONS MAY RESULT IN AN ACCIDENT.

# OPERATING INSTRUCTIONS GENERAL:

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

# **SET UP:**

- 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.
- 3. 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.)
- 5 . 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.

# **OPERATION:**

- 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.
- 2. 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.
- 4. 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.
- 7 . 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.
- 8. 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.
  - b. For load radii not listed, use rating for next larger radius.

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- 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".

### **DEFINITIONS:**

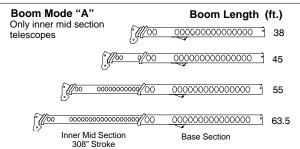
- Load Radius: Horizontal distance from a projection of the axis of rotation to the supporting surface before loading to the center of the vertical hoist line or tackle with load applied.
- Loaded Boom Angle: The angle between the boom base section and horizontal with freely suspended load at the rated radius.
- Working Area: Area measured in a circular arc about the center line of rotation as shown on the Working Area Diagram.
- 4. Freely Suspended Load: Load hanging free with no direct external force applied except by the hoist line.
- 5. Side Load: Horizontal side force applied to the lifted load either on the ground or in the air.
- No 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.
- 7 . Load Factor: Load applied at the boom tip which gives the same moment effect as the boom mass.

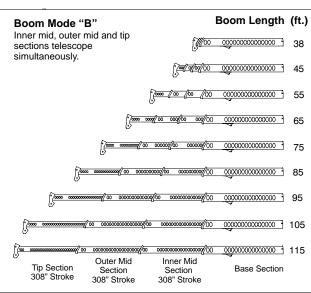
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# Link-Belt CONSTRUCTION EQUIPMENT

### **BOOM EXTENSION**





# 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

Load Handling 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)				
Lifting From Main Boom With: (				
36.5 ft. or 61 ft. fly stowed on base (see operation note 4)				
36.5 ft. offset fly erected but not used				
61 ft. offset fly erected but not used				
Lifting From 36.5 ft. Offset Fly With:				
24.5 ft. fly tip erected but not used PROHIBITE				
24.5 ft. fly tip stowed on 36.5 ft. offset fly PROHIBITE				
Note: Capacity deductions are for Link–Belt supplied equipment only.				

# **WINCH PERFORMANCE**

	Winch Line Pull	Drum Rope (	Canacity (ft )			
Wire	Two Speed Winch		Druin Kope C	Sapacity (it.)		
Rope	Low Speed	High Speed	Layer	Total		
Layer	Available lbs.*	Available lbs.	Layer	iotai		
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		
*Maximu	*Maximum lifting capacity: Type RB Rope = 12,920 Type ZB Rope = 15,600					

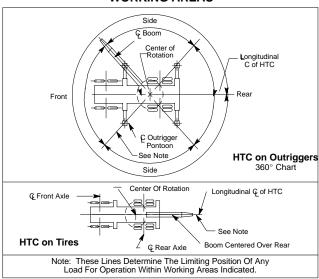
### WIRE ROPE CAPACITY

Maximum	Maximum Lifting Capacities Based On Wire Rope Strength					
Parts of Line	3/4"	3/4"	Notes			
Faits of Line	Type RB	Type ZB	Notes			
1	12,920	15,600				
2	25,840	31,200	Capacities shown are in pounds			
3	38,760	46,800	and working loads must not ex- ceed the ratings on the capacity			
4	51,680	62,400	charts in the Crane Rating Manual.			
5	64,600	78,000	3			
6	77,520	93,600	Study Operator's Manual for wire			
7	90,440	109,200	rope inspection procedures and single part of line applications.			
8	103,360	124,800	ango pan a ma approxima			
9	116,280	140,400				
10	129,200	156,000				
LBCE	DESCRIPTION					
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

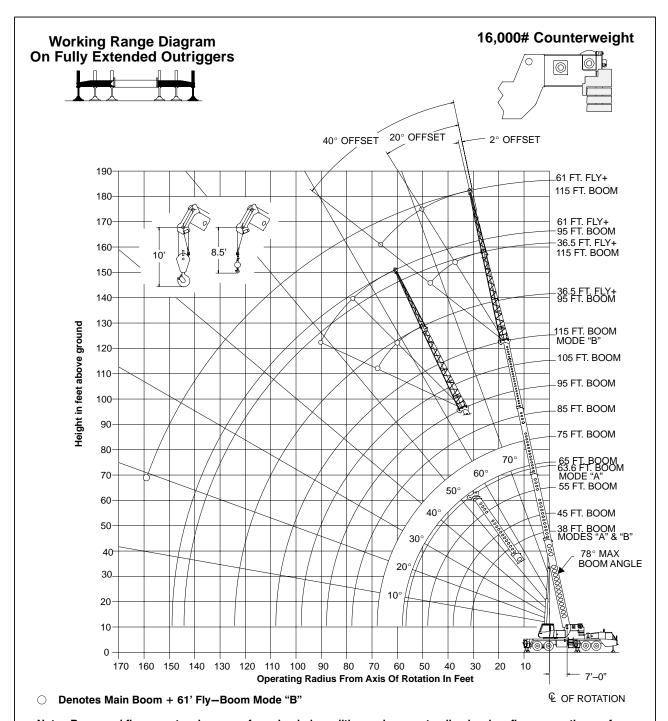
# **WORKING AREAS**



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# **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 As Shown In The Lift Charts For The Boom Lengths Given. Loss Of Stability Will Occur Causing A Tipping Condition.

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# Link-Belt

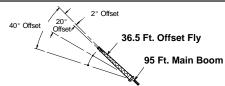
# Note: Refer To Page 4 For "Capacity Deductions" Caused By Auxiliary Load Handling Equipment.

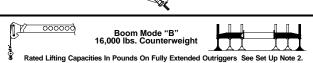
INC	ite: Refe	пога	ge 4 For	Сарас	ity Deu	uctions
Rated Lifti	1 ing Capacities	6,000 lbs. (	Mode "A" Counterwei		s See Set Up	Note 2.
		38 Ft.			45 Ft.	
Load Radius (ft)	Loaded Boom Angle (Deg.)	360°	Over Rear	Loaded Boom Angle (Deg.)	360°	Over Rear
9	69.0	140,000	140,000			
10	67.0	132,000	132,000	71.0	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
		55 Ft.	1		60.3 Ft.	
Load Radius (ft)	Boom Angle (Deg.)	360°	Over Rear	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

	^									
	ff)	7 00	00000					пп	П	п
	عق ا		,	Boon	n Mode '	"B"				
	Ş A		10	6,000 lbs	. Counte	erweight				$\bot$
	Rat	ed Lifting	Capacities	s In Pound	ls On Full	y Extende	d Outrigg	ers See	Set Up No	te 2.
			35.5 Ft.			45 Ft.			55 Ft.	
	Load	Loaded		0	Loaded		0	Loaded		0
K	adius (ft)	Boom Angle	360°	Over Rear	Boom Angle	360°	Over Rear	Boom Angle	360°	Over Rear
		(Deg.)			(Deg.)			(Deg.)		
	9	69.0	140,000	140,000						
	10	67.0	132,000	132,000	71.0	42,000	42,000	74.5	42,000	42,000
	12	64.0	116,900	116,900	68.0	42,000	42,000	72.5	42,000	42,000
	15	58.5	100,200	100,200	64.0	42,000	42,000	69.0	42,000	42,000
	20	48.5	75,900	75,900	56.5	42,000	42,000	63.5	42,000	42,000
	25	36.5	58,700	58,700	48.0	42,000	42,000	57.5	42,000	42,000
	30	17.5	45,400	45,400	38.0	42,000	42,000	50.5	42,000	42,000
	35				24.5	35,600	35,600	43.0	36,300	36,300
	40							34.0	29,100	29,100
L	45							22.0	23,800	23,800
1	lin.Bm Ang./ Cap.	<b>0</b> (31.0)	25,200	25,200	<b>0</b> (38.0)	19,200	19,200	<b>0</b> (48.0)	13,700	13,700
			65 Ft.	-		75 Ft.			85 Ft.	
R	Load adius (ft)	Loaded Boom Angle (Deg.)	360°	Over Rear	Loaded Boom Angle (Deg.)	360°	Over Rear	Loaded Boom Angle (Deg.)	360°	Over Rear
-	12	75.5	42,000	42,000	(Dog.)			(D09.)		
	15	73.0	42,000	42,000	75.5	42,000	42,000	77.5	42,000	42,000
	20	68.0	42,000	42,000	71.5	42,000	42,000	74.5	42,000	42,000
	25	63.5	42,000	42,000	68.0	42,000	42,000	71.0	41,800	41,800
	30	58.0	42,000	42,000	63.5	42,000	42,000	67.0	36,900	36,900
	35	52.5	36,600	36,600	59.0	36,800	36,800	63.5	32,900	32,900
	40	46.5	29,400	29,400	54.0	29,600	29,600	59.5	29,700	29,700
	45	39.5	24,300	24,300	49.0	24,500	24,500	55.0	24,600	24,600
	50	31.5	20,300	20,300	43.0	20,600	20,600	50.5	20,700	20,700
	55	20.0	17,200	17,200	37.0	17,500	17,500	46.0	17,600	17,600
	60				29.5	15,000	15,000	40.5	15,100	15,100
	65				19.0	12,900	12,900	34.5	13,100	13,100
	70							27.5	11,400	11,400
	75							18.0	9,900	9,900
1	lin.Bm Ang./ Cap.	<b>0</b> (58.0)	10,100	10,100	<b>0</b> (68.0)	7,600	7,600	<b>0</b> (78.0)	5,700	5,700
-	•		95 Ft.			105 Ft.	( - 7)		115 Ft.	
	Load adius	Loaded			Loaded			Loaded		
K	(ft)	Boom Angle (Deg.)	360°	Over Rear	Boom Angle (Deg.)	360°	Over Rear	Boom Angle (Deg.)	360°	Over Rear
	20	76.5	38,600	38,600						
	25	73.5	33,800	33,800	75.5	30,300	30,300	77.0	24,500	24,500
	30	70.0	29,800	29,800	72.5	27,000	27,000	74.5	24,500	24,500
	35	67.0	26,600	26,600	69.5	24,100	24,100	72.0	22,200	22,200
	40	63.5	23,900	23,900	66.5	21,700	21,700	69.5	20,000	20,000
	45	60.0	21,700	21,700	63.5	19,600	19,600	66.5	18,100	18,100
	50	56.0	19,800	19,800	60.5	17,900	17,900	63.5	16,300	16,300
	55	52.5	17,700	17,700	57.0	16,200	16,200	61.0	14,900	14,900
	60	48.0	15,200	15,200	53.5	14,900	14,900	58.0	13,600	13,600
	65	43.5	13,200	13,200	50.0	13,300	13,300	54.5	12,500	12,500
	70	38.5	11,600	11,600	46.0	11,600	11,600	51.5	11,600	11,600
	75	33.0	10,100	10,100	41.5	10,200	10,200	48.0	10,300	10,300
	80	26.5	8,800	8,800	37.0	8,900	8,900	44.0	9,000	9,000
	85	17.0	7,700	7,700	31.5	7,800	7,900	40.0	7,800	7,900
	90				25.5	6,800	6,900	35.5	6,900	7,000
	95				16.5	5,900	6,000	30.5	6,000	6,100
	100							24.5	5,200	5,400
$\vdash$	105							16.0	4,600	4,700
1	lin.Bm Ang./ Cap.	<b>0</b> (88.0)	4,300	4,300	0 (98.0)	3,100	3,100	0 (108.0)	2,200	2,200

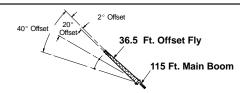
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# Link-Belt CONSTRUCTION EQUIPMENT



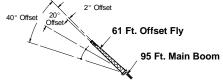


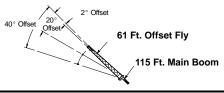
	2° C	Offset	20°	Offset	40°	Offset
Load Radius (ft)	Loaded Boom Angle (Deg.) 360°		Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°
30	76.5	16,900				
35	74.0	14,400				
40	72.0	13,700	76.5	10,200		
45	69.5	13,100	74.5	9,600		
50	67.5	12,400	72.0	9,100	76.5	6,800
55	65.0	11,800	69.5	8,700	74.0	6,800
60	62.5	11,200	67.0	8,300	71.5	6,600
65	60.0	10,500	64.5	7,900	68.5	6,400
70	57.5	9,800	62.0	7,600	66.0	6,300
75	55.0	9,300	59.5	7,300	63.0	6,100
80	52.0	8,700	56.5	7,000	60.0	6,000
85	49.0	8,300	53.5	6,700	57.0	5,900
90	46.0	7,800	50.5	6,500	53.5	5,800
95	42.5	7,200	47.0	6,300	50.0	5,700
100	39.0	6,500	43.5	6,100	46.0	5,700
105	35.0	5,800	39.5	6,000	41.5	5,700
110	30.5	5,100	35.0	5,400		
115	25.0	4,600	29.5	4,800		
120	18.5	4,100	22.0	4,200		
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.											
	2° Offset 20° Offset 40° Offset										
Load Radius (ft)	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					

8,000 7.000 85 57.0 7,400 61.0 64.0 6.000 90 95 61.5 59.0 54.5 6,900 58.5 6,800 5,900 52.0 6,400 56.0 6,500 5,800 100 49.0 5,900 53.5 6,100 56.5 5,700 105 5.500 46.5 50.5 5,600 53.5 5,700 110 43.5 4,900 48.0 5,200 50.5 5,400 115 120 40.5 4,300 44.5 41.0 4,700 47.0 4.900 37.0 3,800 4,100 43.0 4,300 125 33.0 3,300 37.0 3,600 130 135 2,900 2,500 32.5 27.5 3,100 2,700 29.0 24.0 2,200 20.5 2,300 Min.Bm. Ang./Cap 400 500 0 400 0





	Lifting Capac	16,000 lb	m Mode "B s. Counterv s On Fully Ex		gers See Set	Up Note 2.
	2° C	Offset	20°	Offset	40°	Offset
Load Radius	Loaded		Loaded		Loaded	

	2° C	ffset	20°	Offset	40°	Offset
Load Radius (ft)	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	77.0	5,200		
60	68.0	6,900	75.0	4,900		
65	66.0	6,400	73.0	4,600		
70	64.0	6,000	71.0	4,400	77.5	3,400
75	62.0	5,600	69.0	4,200	75.0	3,300
80	60.0	5,300	66.5	4,000	73.0	3,200
85	57.5	5,000	64.5	3,900	70.5	3,100
90	55.5	4,700	62.5	3,700	68.0	3,100
95	53.0	4,500	60.0	3,600	65.5	3,000
100	50.5	4,200	57.5	3,400	63.0	2,900
105	48.0	4,000	55.0	3,300	60.0	2,900
110	45.5	3,800	52.0	3,200	57.5	2,800
115	43.0	3,600	49.5	3,100	54.0	2,800
120	40.0	3,500	46.5	3,000	50.5	2,800
125	36.5	3,300	43.0	2,900	47.0	2,800
130	33.0	3,200	39.5	2,900	42.5	2,800
135	29.0	3,100	35.0	2,800		
140	24.5	3,000	30.0	2,800		
145	18.0	2,700	22.5	2,800		
Min.Bm. Ang./Cap.	0	700	0	800	0	1,000

العلاق		m Mode "E s. Counter On Fully Ext	weight	ers See Set	Up Note 2.
	2° Offset	20°	Offset	40°	Offset

	2° C	Offset	20°	Offset	40°	Offset
Load Radius (ft)	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	76.5	3,300
85	63.5	5,300	69.0	4,000	74.5	3,200
90	61.5	5,100	67.5	3,900	72.5	3,100
95	59.5	4,800	65.5	3,700	70.5	3,000
100	57.5	4,600	63.5	3,600	68.5	3,000
105	55.5	4,400	61.5	3,500	66.5	2,900
110	53.5	4,200	59.5	3,400	64.0	2,900
115	51.5	4,000	57.0	3,300	62.0	2,800
120	49.0	3,800	55.0	3,200	59.5	2,800
125	46.5	3,400	52.5	3,100	57.0	2,800
130	44.0	3,100	50.0	3,000	54.0	2,700
135	41.5	2,900	47.5	2,900	51.0	2,700
140	38.5	2,600	44.5	2,800	48.0	2,700
145	35.5	2,300	41.5	2,500	44.0	2,700
150	32.0	2,000	38.0	2,300		
155	28.0	1,700	33.5	2,000		
160	23.5	1,400	28.5	1,600		
		<b>A</b> V	WADNIN	10		

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.

i Is 108 Ft. Or Less, Since Loss Of Stability Will Occur Causing A Tipping Condition.

HTC-8670

Tel: (888) 337-BIGGE or (510) 638-8100 ● Fax: (510) 639-4053 ● Email: info@bigge.com



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Link-Belt Construction Equipment Company

Lexington, Kentucky

www.linkbelt.com

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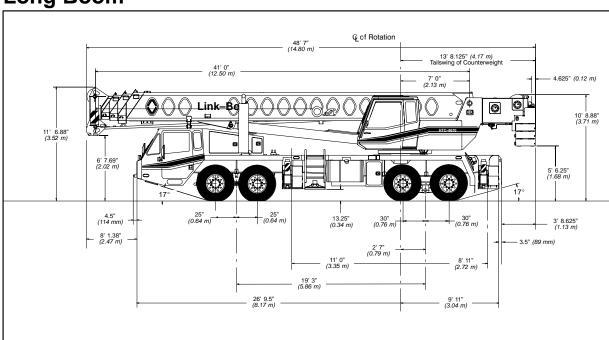
# **Specifications**

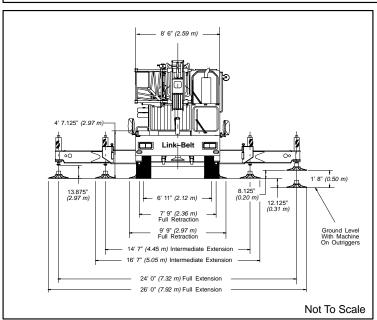
Telescopic Boom Truck Crane

# 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

Litho in U.S.A. 3/03 #5383 (Supersedes #5353)





# **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 Controls 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  $-3^{\circ}$  to  $+78^{\circ}$

### **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

- 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 fiborus composite material; isolated from sound with acoustical fabric insulation.

- Windows are tinted and tempered safety
- 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

# Defroster fan

- Optional Amber strobe light
- Amber rotating beacon
- Hydraulic heater
- Air conditioning

Hydraulic controls (joystick type) for:

- Swing
- Main winch

Circulating fan

· Warning horn

Dome light

Cup holder

Sun screen

Mirrors

· Hand throttle

- 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
- · Oil pressure
- Fuel
- Water temperature

# Rated Capacity Limiter

Microguard 434 Graphic audio-visual warning system built into dash with antitwo block and function limiters.

### Operating data available includes:

- Machine configuration.
- Boom length
- Boom angle
- Head height Allowed load
- Radius of load · Actual load
- % of allowed load

# Presettable alarms include:

- Maximum and minimum boom angles
- Maximum tip height
- Maximum boom length Swing left/right positions
- Operator defined area alarm is standard.
- Anti-two block weight designed for quick reeve of hookblock.

### Optional

- Internal RCL light bar: Visually informs operator when crane is approaching maximum load capacity with a series of green, vellow and red lights
- External RCL light bar: Visually informs ground crew when crane is approaching maximum load capacity kickouts and presettable 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) fivepiece 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 Ipm). Powered by carrier engine with pump disconnect.
- Spline type pump disconnect, engaged / disengaged from carrier cab
- Maximum system operating pressure is 3,500 psi (24 133 kPa)

## Pilot Pressure / Counterweight Removal **Pump**

Pressure compensated piston pump powered by carrier engine with pump disconnect. Operates at 1,500 psi (10 343 kPa) maximum.

## Steering / Fifth Outrigger Pump

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

HTC-8670 Long Boom





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## **Filtration**

- One, 10-micron filter located inside hydraulic reservoir
- Accessible for easy replacement

### **Control valves**

Six separate pilot operated control valves allow simultaneous operation of all crane

# 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 lockout. Power up/down modes.
- Hoist drum cable followers
- Third wrap indicators

# Carrier

8' 6" (2.59 m) wide, 231" (5.87 m) wheelbase. 8 x 4 drive - standard

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

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

· 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 adjustors. 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) centerlineto-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.

-3-

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 Travel lights
- Rotating beacon Horn
  - Mud flaps Ashtrav
- Fire extinguisher 36,000 BTU heater
  - Defroster
- - Dome light Cruise control
- High beam light switch

# Cab instrumentation

- Illuminated instrument panel speedometer.
- **Tachometer**
- Hourmeter Fuses
- Fuel gauge
- Odometer Oil pressure gauge •
- Turn signal indicator Voltmeter
- 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





This information is for reference use only. Operators manual should be consulted and adhered to. Please contact Bigge Crane and Rigging Co. at 888-337-BIGGE or email info@bigge.com for further information.



Bigge

# ■ Carrier Speeds (Manual Transmission – Standard tires)

G	ear		Hi	gh			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.
Ra	atio	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
Speeu	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 <sup>3</sup> )
Maximum brake hp.	365 @ 1,800 rpm; 350 @ 2,100 rpm
Peak torque	1,350 ft. lbs. (1 831 J) @ 1,200 rpm
Electric system	12-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 – stand	dard • Ether injection starting package – optional

# Axle Loads

Base machine with standard 41' – 127' (12.50 – 38.71 m) four–section boom,	CV	\A/ _	Upper Facing Front					
2M main winch with 2–speed hoisting and power up/down, 670' (204.21 m),	G.V.	VV. 🗓	Front	Axle	Rear	Axle		
3/4" (19 mm) wire rope, 8 x 4, 8.5' (2.59 m) carrier with Detroit Diesel Series 60	lbs.	kg.	lbs.	kg.	lbs.	kg.		
engine, 100 gal. (378 L) fuel and no counterweight.	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	<b>-</b> 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	160	72	147	68	11	5		
39.5' (12.04 m) offsettable fly with tip lugs – stowed	1,602	700	1,349	703	52	24		
39.5' - 67 ft. (12.04 - 20.42 m) two-piece fly - stowed	2,380	1 020	1,711	912	370	168		
40-ton (36.3 mt) hookblock at front bumper	720	327	1,175	533	-455	-206		
70-ton (63.5 mt) hookblock at front bumper	1,400	635	2,284	1 036	-884	-401		
Hookball to front bumper	360	163	587	266	-227	-103		
Auxiliary arm	125	57	230	104	-105	-48		

	Front axle		Rear	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	<i>−4</i> 838	
Transfer three slabs of counterweight to carrier deck	15,999	7 2 5 7	-15,999	-7 257	

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

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HTC-8670 Long Boom

4







# **Lifting Capacities**

Telescopic Hydraulic Truck Crane

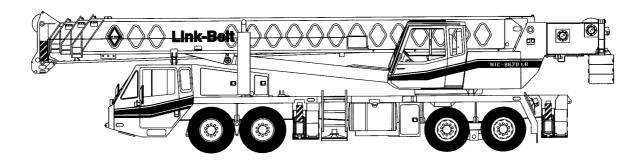
# **HTC-8670LB**

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 (0, 4,000, 8,000, 12,000 and 16,000 lb. Counterweight)
- 41' to 69' 6" main boom capacities, A-max Mode
- 41' to 127' main boom capacities, Basic Mode "B"
- 39' 6" offset fly capacities, Basic Mode "B" (4,000, 8,000, 12,000 and 16,000 lb. Counterweight)
- 39' 6" to 67' Two-piece offsettable fly capacities, Basic Mode "B" (8,000, 12,000 and 16,000 lb. Counterweight)



CAUTION: This material is supplied for reference only. Operator must refer to in-cab crane rating manual to determine allowable machine lifting capacities and operating procedures.

Litho in U.S.A. 3/99

#6243





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# Operating Instructions

# **OPERATING INSTRUCTIONS GENERAL:**

- 1. 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.
- 3. 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.

### SET UP:

- 1. The crane shall be leveled on a firm supporting 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.
- 2. 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.
- 3. When operating on fully retracted outriggers, do not exceed 67° maximum boom angle with 16,000 lb. counterweight, or 73° boom angle with 12,000 lb. counterweight. Loss of backward stability will occur causing a backward tipping condition.
- 4. When making lifts on tires, they must be inflated to the recommended pressure. (See Operation note 20 and Tire Inflation.)
- 5. 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 50° boom angle maintained.

- For required parts of line, see Wire Rope Capacity and Winch Performance.
- Before setting up on outriggers or tires, refer to Working Range Diagrams and rated lifting capacities to determine allowable configurations.

## **OPERATION:**

- 1. 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 60 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.
- 2. 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 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 The rated lifting capacities in of test. non-shaded areas 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 ball/block, 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



# Operating Instructions (continued)

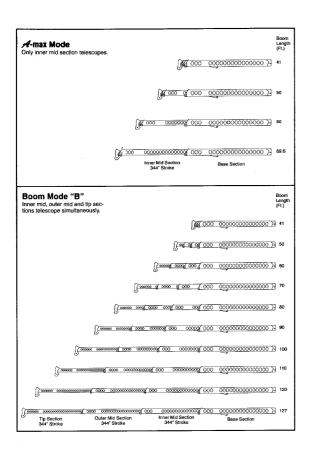
- erected, but not used, see Capacity Deductions For Auxiliary Load Handling Equipment.
- Rated lifting capacities are based on freely suspended loads. No attempt shall be made to move a load horizontally on the ground in any direction.
- Rated lifting capacities are for lift crane service only.
- Do 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.
- 8. 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.
- 9. For main boom capacities when either boom length or radius or both are between values listed, proceed as follows:
  - a. For boom lengths not listed, use rating for next longer boom length or next shorter boom length, whichever is smaller.
  - b. 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 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. The least stable rated working area depends on the configuration of the crane set up.
- 15. 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.

- 16. 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 load radius is for reference only.
- 17. For fly capacities with main boom length less than 127 ft. and greater than 100 ft., the rated capacities are determined by the boom angle using the 127 ft. boom and fly chart. For angles not shown use the next lower boom angle to determine the rated capacity.
- 18. For fly capacities with main boom length less than 100 ft., the rated capacities are determined by the boom angle only using the 100 ft. boom and fly chart. For angles not shown, use the next lower boom angle to determine the rated capacity.
- 19. The 41 ft. boom length structural lifting capacities are based on boom fully retracted. If the boom is not fully retracted, do not exceed capacities shown for the 50 ft. boom length.
- 20. 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. 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. Pick and carry operations are restricted to maximum speed of 1 mph. For correct tire pressure, see Tire Inflation.

### **DEFINITIONS:**

- 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.
- Working Area: Area measured in a circular arc about the center line of rotation as shown on the Working Area Diagram.
- Freely Suspended Load: Load hanging free with no direct external force applied except by the hoist line.
- Side Load: Horizontal side force applied to the lifted load either on the ground or in the air.
- No 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.
- 7. Load Factor: Load applied at the boom tip which gives the same moment effect as the boom mass.





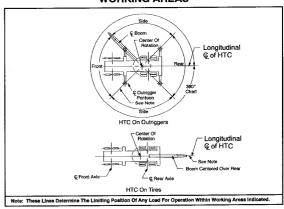
### WINCH PERFORMANCE

	Winch Line Pulls	Down Born Consults (F4)			
	Two Spe	ed Winch	Drum Rope Capacity (F		
Wire Rope	Low Speed	High Speed			
Layer	Available Lbs.*	Available Lbs.	Layer	Total	
1	17,117	8,453	114	114	
2	15,737	7,771	124	238	
3	14,563	7,192	134	372	
4	13,552	6,692	144	516	
5	12,672	6,258	154	670	
6	N/A	N/A	164	834	
*Maximi	ım lifting capacity: T	ype RB Rope=12,920	Type ZB Rope:	15,600	

### WIDE BODE CARACITY

WIRE ROPE CAPACITY							
Maximum Lifting Capacities Based On Wire Rope Strength							
Parts		3/4"					
of Line	Type RB	Туре ZB	Notes				
1	12,920*	15,600	Capacities shown are in pounds and				
2	25,840	31,200	working loads must not exceed the ratings on the capacity charts in the Crane Rating				
3	38,760	46,800	Manual.				
4	51,680	62,400	Study Operator's Manual for wire rope				
5	64,600	78,000	inspection procedures.				
6	77,520	93,600	*Use of swivel end with 1 part of line is not recommended.				
7	90,440	109,200	Todoninonada.				
8	103,360	124,800					
9	116,280	140,400					
10	129,200	156,000					
LBCE	DESCRIPTI	ON					
TYPE RB	Right Regular	Lay	Compact Strand - High Strength Preformed,				
TYPE ZB	TYPE ZB 36 X 7 Rotation Resistant - Extra Improved Plow Steel - Right Regular Lay						

### **WORKING AREAS**



### HYDRAULIC CIRCUIT PRESSURE SETTINGS

Function	Pressure (PSI)
Front And Rear Winch	3500
Outriggers	3000
Boom Hoist	3500
Telescope	3000
Swing	1500
Steering	2000
Bumper Outrigger	650
Pilot Control	500
Counterweight Removal	1700
Swing Park Brake Release	250

# CAPACITY DEDUCTIONS FOR AUXILIARY LOAD HANDLING EQUIPMENT

Load Handling Equipment	Weight (Lbs.
Auxiliary Head Attached	100
40 Ton Quick Reeve 4 Sheave Hook Block (See Hook Block For Actual Weight)	720
60 Ton Quick Reeve 4 Sheave Hook Block (See Hook Block For Actual Weight)	1100
70 Ton Quick Reeve 5 Sheave Hook Block (See Hook Block For Actual Weight)	1400
8.5 Ton Hook Ball (See Hook Ball For Actual Weight)	360
Lifting From Main Boom With:	
39.5 Ft. Or 67 Ft. Fly Stowed On Base (See Operation Note 4)	0
39.5 Ft. Offset Fly Erected But Not Used	4100
67 Ft. Offset Fly Erected But Not Used	8200
Lifting From 39.5 Ft. Offset Fly With:	
27.5 Ft. Fly Tip Erected But Not Used	PROHIBITED
27.5 Ft. Fly Tip Stowed On 39.5 Ft. Offset Fly	PROHIBITED
Note: Capacity deductions are for Link-Belt supplied equipment only.	

# TIRE INFLATION

1312 131 2 1310							
Tire Size	Operation	Tire Pressure (PSI)					
12 R 22.5	1 MPH Stationary	120 120					

# **PONTOON LOADINGS**

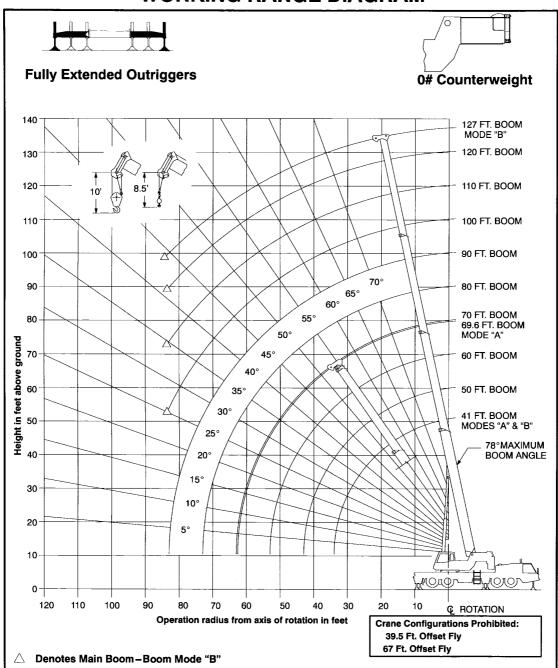
Maximum Pontoon Load:	Maximum Pontoon Ground Bearing Pressure			
97,400 Lbs.	215 PSI			

### **OUTRIGGER SPREAD**

Position	Distance					
Fully Retracted	(93") 7'-9"					
Intermediate Extended	(175") 14'-7"					
Fully Extended	(288") 24'-0"					



# **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.



# Fully Extended Outriggers - Main Boom Capacities - 0 lb. Counterweight

	ote 2.		F	ULL	O#		"A"
Load	41 Ft.			50 Ft.			Load
Radius (Ft.)	×°	360°	Over Rear	×°	360°	Over Rear	Radius (Ft.)
10	69.0	119,300	119,300	73.0	75,100	75,100	10
12	66.0	106,200	106,200	70.5	75,100	75,100	12
15	61.0	90,800	90,800	67.0	75,100	75,100	15
20	52.5	65,700	65,700	60.5	65,100	65,100	20
25	42.0	44,500	44,500	53.0	43,600	43,600	25
30	29.0	31,400	31,400	45.0	30,900	30,900	30
35		1		36.0	22,900	22,900	35
40		1		23.0	17,100	17,400	40
Min. Boom Angle/Cap.	0 (34.0)	21,100	21,100	0 (43.0)	14,300	14,800	Min. Boom Angle/Cap.

Load		60 Ft.			69.6 Ft.		
Radius (Ft.)	×°	360°	Over Rear	Χ°	360°	Over Rear	Radius (Ft.)
10	76.5	74,000	74,000				10
12	74.5	74,000	74,000	76.5	43,900	43,900	12
15	71.5	74,000	74,000	74.5	43,900	43,900	15
20	66.0	64,600	64,600	70.0	43,900	43,900	20
25	60.5	42,800	42,800	65.5	42,300	42,300	25
30	54.5	30,200	30,200	60.5	29,700	29,700	30
35	48.0	22,400	22,400	55.5	22,000	22,000	35
40	41.0	16,600	17,100	50.0	16,200	16,700	40
45	32.5	12,500	13,200	44.0	12,100	12,900	45
50	21.0	9,400	10,200	37.5	9,100	10,000	50
55			İ	29.5	6,800	7,700	55
60			l	18.0	4,900	5,800	60
Min. Boom Angle/Cap.	0 (53.0)	7,800	8,600	0 (62.6)	4,000	4,900	Min. Boom Angle/Cap.

	xtended Ou	es in Pounds triggers	FL		<b>7</b>		/‰_/∞ IN BOOM "B"
Load		41 Ft.			50 Ft.		Load
Radius (Ft.)	×°	360°	Over Rear	x°	360°	Over Rear	Radius (Ft.)
10	69.0	119,300	119,300	73.0	38,000	38,000	. 10
12	66.0	106,200	106,200	70.5	38,000	38,000	12
15	61.0	90,800	90,800	67.0	38,000	38,000	15
20	52.5	65,700	65,700	60.5	38,000	38,000	20
25	42.0	44,500	44,500	53.0	38,000	38,000	25
30	29.0	31,400	31,400	45.0	32,400	32,400	30
35				38.0	24,400	24,400	35
40				23.0	18,600	18,800	40
Min.Bm. Ang/Cap.	0 (34.0)	21,100	21,100	0 (43.0)	14,900	14,900	Min.Bm Ang/Cap
Load	60 Ft.				70 Ft.		Load
Radius (Ft.)	×°	360°	Over Rear	x °	380°	Over Rear	Radius (Ft.)
10	76.0	38,000	38,000			0.000	10
12	74.0	38,000	38,000	76.5	38,000	38,000	12
15	71.0	36,000	38,000	74.5	38,000	38,000	15
20	66.0	38,000	38,000	70.0	38,000	38,000	20
25	60.5	38,000	38,000	65.5	38,000	38,000	25
30	54.5	32,900	32,900	60.5	33,200	33,200	30
35	48.0	24,900	24,900	55.5	25,300	25,300	35
40	41.0	19,200	19,500	50.0	19,500	19,800	40
45	32.5	14,900	15,400	44.5	15,300	15,800	45
50	21.0	11,800	12,400	38.0	12,200	12,800	50
55				30.0	9,800	10,500	55
60				19.0	7,800	8,500	60
							Min.Bm

	t Up Note	e z.		FULL			O# MAIN B			"
Load		80 Ft.			90Ft.			100 Ft.		
Radius (Ft.)	X°	360°	Over Rear	Δ°	360°	Over Rear	X °	360°	Over Rear	Radius (Ft.)
15	76.5	38,000	38,000			~2.2758				15
20	73.0	38,000	38,000	75.0	38,000	38,000	77.0	37,400	37,400	20
25	69.0	38,000	38,000	72.0	38,000	38,000	74.0	32,700	32,700	25
30	65.0	33,500	33,500	68.5	33,600	33,600	71.0	29,000	29,000	30
35	60.5	25,500	25,500	65.0	25,600	25,600	68.0	25,700	25,700	35
40	56.5	19,800	20,000	61.0	20,000	20,200	64.5	20,100	20,300	40
45	51.5	15,500	16,100	57.0	15,700	16,200	61.0	15,800	16,300	45
50	47.0	12,400	13,100	53.0	12,600	13,200	57.5	12,700	13,300	50
55	41.5	10,000	10,800	48.5	10,200	10,900	54.0	10,300	11,100	55
60	35.5	8,100	8,900	44.0	8,300	9,100	50.0	8,400	9,200	60
65	28.0	6,500	7,300	39.0	6,700	7,500	46.0	6,800	7,600	65
70	18.0	5,200	5,900	33.5	5,400	6,200	42.0	5,500	6,300	70
75				26.5	4,300	5,000	37.0	4,400	5,200	75
80				17.0	3,300	4,000	31.5	3,500	4,200	80
Min.Bm. Angle/ Cap.	0 (73.0)	4,500	5,200	0 (83.0)	2,800	3,500	25.0 (85.0)			Min.Bm Angle/ Cap.

Note: Refer To Page 5 For "Capacity Deductions For Auxiliary Load Handling Equip

On Ful	Rated Lifting Capacities In Pounds On Fully Extended Outriggers See Set Up Note 2.				FULL			0# MAIN E		
Load		110 Ft.		120 Ft.			127 Ft.			Load
Radius (Ft.)	X°	360°	Over Rear	X °	360°	Over Rear	×°	360°	Over Rear	Radius (Ft.)
25	76.0	29,400	29,400	77.5	23,300	23,300	78.0*	19,600	19,600	25
30	73.5	26,200	26,200	75.0	23,300	23,300	76.0	19,600	19,600	30
35	70.5	23,500	23,500	72.5	21,500	21,500	74.0	19,600	19,600	35
40	67.5	20,200	20,400	70.0	19,400	19,400	71.5	18,400	18,400	40
45	64.5	15,900	16,400	67.5	16,000	16,500	69.0	16,000	16,400	45
50	61.5	12,700	13,400	64.5	12,800	13,500	66.5	12,800	13,500	50
55	58.5	10,400	11,200	61.5	10,500	11,200	64.0	10,500	11,300	55
60	55.0	8,500	9,300	58.5	8,600	9,300	61.0	8,600	9,400	60
65	51.5	6,900	7,700	55.5	7,000	7,800	58.0	7,000	7,800	65
70	48.0	5,600	6,400	52.5	5,700	6,500	55.5	5,700	6,500	70
75	44.0	4,500	5,300	49.5	4,600	5,400	52.5	4,700	5,400	75
80	40.0	3,600	4,400	46.0	3,700	4,400	49.5	3,700	4,500	80
85	35.5	2,800	3,500	42.5	2,900	3,600	46.0	2,900	3,700	85
Min.Bm. Angle/ Cap.	35.0 (86.0)			41.0 (86.5)			44.0 (87.5)			Min.Bm. Angle/ Cap.

Note: Refer To Page 5 For "Capacity Deductions For Auxillary Load Handling Equip

<sup>∠</sup> Loaded Boom Angle In Degrees.

<sup>( )</sup> Reference Radius For Minimum Boom Angle Capacities (Shown In Parenthesis) Are In Feet.

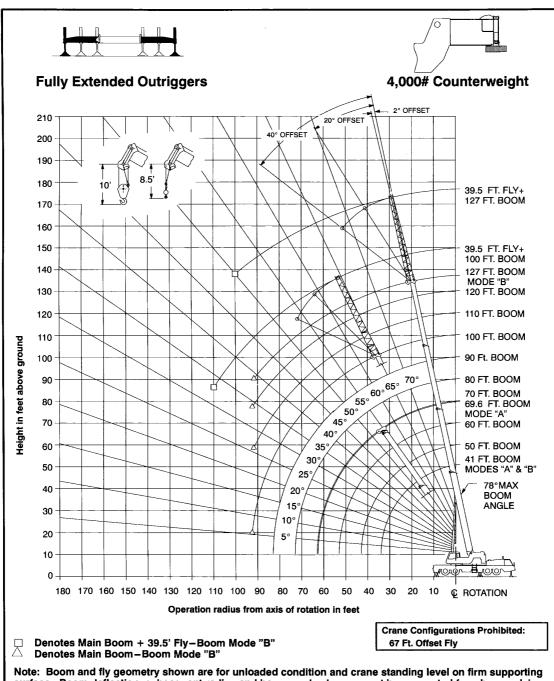
<sup>∠</sup> Loaded Boom Angle In Degrees.

 $<sup>{\</sup>it X}^{\circ}$  Loaded Boom Angle In Degrees. ( ) Reference Radius For Minimum Boom Angle Capacities (Shown in Parenthesis) Are in Feet.

<sup>∠</sup> Loaded Boom Angle In Degrees.



# **WORKING RANGE DIAGRAM**



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.



# Fully Extended Outriggers - Main Boom Capacities - 4,000 lb. Counterweight

Rated Lifting On Fully Exte See Set Up N	ended Outri		FULL		4,000#	MAIN BOOM "A"	
Load		41 Ft.			50 Ft.		Load
Radius (Ft.)	×°	360°	Over Rear	× °	360°	Over Rear	Radius (Ft.)
10	69.0	121,900	121,900	73.0	75,100	75,100	10
12	66.0	108,600	108,600	70.5	75,100	75,100	12
15	61.0	92,900	92,900	67.0	75,100	75,160	15
20	52.5	68,100	68,100	60.5	67,600	67,600	20
25	42.5	49,100	49,100	53.0	48,100	48,100	25
30	29.0	34,900	34,900	45.5	34,300	34,300	30
35				36.0	25,700	25,700	35
40				23.0	19,800	19,800	40
Min.Bm. Ang/Cap.	0 (34.0)	21,100	21,100	0 (43.0)	15,900	15,900	Min.Bm. Ang/Cap

Load		60 Ft.			69.6 Ft.		Load
Radius (Ft.)	×°	360°	Over Rear	x°	360°	Over Rear	Radius (Ft.)
10	76.5	74,000	74,000		3.00		10
12	74.5	74,000	74,000	76.5	43,900	43,900	12
15	71.5	74,000	74,000	74.5	43,900	43,900	15
20	66.0	67,100	67,100	70.0	43,900	43,900	20
25	60.5	47,400	47,400	65.5	43,900	43,900	25
30	54.5	33,700	33,700	60.5	33,200	33,200	30
35	48.5	25,200	25,200	55.5	24,800	24,800	35
40	41.0	19,500	19,500	50.0	19,100	19,100	40
45	32.5	15,000	15,200	44.0	14,600	14,900	45
50	21.0	11,600	12,000	37.5	11,300	11,800	50
55				29.5	8,700	9,300	55
60				18.5	6,600	7,200	60
Min.Bm. Ang/Cap.	0 (53.0)	9,800	10,300	0 (62.6)	5,600	6,200	Min.Bm. Ang/Cap.

- ∠ Loaded Boom Angle In Degrees.
- ( ) Reference Radius For Minimum Boom Angle Capacities (Shown In Parenthesis) Are In Feet.

On Fully	Extended Ip Note 2	icities in i i Outrigge	rs	FULL			4,000# MAIN BC			OM
Load		80 Ft.			90 Ft.		100 Ft.			Load
Radius (Ft.)	Χ°	360°	Over Rear	×°	360°	Over Rear	¥°	360°	Over Rear	Radius (Ft.)
15	76.5	38,000	38,000		1200	are en				15
20	73.0	38,000	38,000	75.0	38,000	38,000	77.0	37,400	37,400	20
25	69.0	38,000	38,000	72.0	38,000	38,000	74.0	32,700	32,700	25
30	65.0	36,900	36,900	68.5	37,100	37,100	71.0	29,000	29,000	30
35	61.0	28,200	28,200	65.0	28,400	28,400	68.0	26,000	26,000	35
40	56.5	22,400	22,400	61.0	22,500	22,500	65.0	22,600	22,600	40
45	52.0	18,000	18,100	57.0	18,200	18,200	61.5	18,300	18,400	45
50	47.0	14,500	14,800	53.0	14,700	15,000	58.0	14,800	15,100	50
55	41.5	11,900	12,400	49.0	12,100	12,500	54.0	12,200	12,700	55
60	35.5	9,800	10,300	44.0	10,000	10,500	50.5	10,100	10,600	60
65	28.0	8,100	8,600	39.0	8,300	8,800	46.5	8,400	8,900	65
70	18.0	6,600	7,100	33.5	6,800	7,400	42.0	7,000	7,500	70
75		1		26.5	5,600	6,100	37.0	5,800	6,300	75
80				17.0	4,600	5,100	32.0	4,700	5,300	80
85						1	25.5	3,800	4,300	85
90					l	1	16.5	3,000	3,500	90
Min.Bm. Ang/ Cap.	0 (73.0)	5,500	5,500	0 (83.0)	3,900	3,900	5.5 (92.8)			Min.Bm Ang/ Cap.

- ∠ Loaded Boom Angle In Degrees.

	Capacities ended Outri lote 2.		FUL	<del>       </del>	4,000#		<sup>®</sup> <u>/∞</u> BOOM B"
Load		41 Ft.			50 Ft.		Load
Radius (Ft.)	×°	360°	Over Rear	×°	360°	Over Rear	Redius (Ft.)
10	69.0	121,900	121,900	73.0	38,000	38,000	10
12	66.0	108,600	108,600	70.5	38,000	38,000	12
15	61.0	92,900	92,900	67.0	38,000	38,000	15
20	52.5	68,100	68,100	60.5	. 38,000	38,000	20
25	42.5	49,100	49,100	53.0	38,000	38,000	25
30	29.0	34,900	34,900	45.0	35,900	35,900	30
35				36.0	27,100	27,100	35
40				23.0	21,100	21,100	40
Min.Bm. Ang/Cap.	0 (34.0)	21,100	21,100	0 (43.0)	14,900	14,900	Min.Bm Ang/Ca
Load		60 Ft.				Load	
Radius (Ft.)	Χ°	360°	Over Rear	Χ°	360°	Over Rear	Radius (Ft.)
10	76.0	38,000	38,000				10
12	74.0	38,000	38,000	76.5	38,000	38,000	12
15	71.0	38,000	38,000	74.5	38,000	38,000	15
20	66.0	38,000	38,000	70.0	38,000	38,000	20
25	60.5	38,000	38,000	65.5	38,000	38,000	25
30	54.5	36,400	36,400	60.5	36,700	36,700	30
35	48.0	27,700	27,700	55.5	28,000	28,000	35
40	41.0	21,800	21,800	50.0	22,200	22,200	40
45	32.5	17,400	17,500	44.5	17,800	17,900	45
50	21.0	13,900	14,200	38.0	14,300	14,600	50
		1	1	30.0	11,700	12,100	55
55		i	1 !	00.0	11,700	12,100	
55 60				19.0	9,500	10,000	60

∠ Loaded Boom Angle In Degrees

Min.Bm. Ang/Cap.

( ) Reference Radius For Minimum Boom Angle Capacities (Shown In Parenthesis) Are in Feet.

	Extended Jp Note 2	l Outrigge	ers		FULL	XI. {	4,000#		MAIN BO	OM
Load		110 Ft.		120 Ft.			127 Ft.			Load
Radius (Ft.)	×°	360°	Over Rear	۲°	360°	Over Rear	ヹ゜	360°	Over Rear	Radius (Ft.)
25	76.0	29,400	29,400	77.5	23,300	23,300	78.0*	19,600	19,600	25
30	73.5	26,200	26,200	75.0	23,300	23,300	76.0	19,600	19,600	30
35	70.5	23,500	23,500	72.5	21,500	21,500	74.0	19,600	19,600	35
40	68.0	21,200	21,200	70.0	19,400	19,400	71.5	18,400	18,400	40
45	65.0	18,400	18,400	67.5	17,600	17,600	69.0	16,400	16,400	45
50	61.5	14,900	15,200	65.0	15,000	15,300	66.5	14,900	14,900	50
55	58.5	12,300	12,800	62.0	12,400	12,700	64.0	12,500	12,700	55
60	55.0	10,200	10,700	59.0	10,300	10,800	61.5	10,300	10,800	60
65	51.5	8,500	9,000	56.0	8,600	9,100	58.5	8,600	9,100	65
70	48.0	7,100	7,600	53.0	7,100	7,700	55.5	7,200	7,700	70
75	44.0	5,900	6,400	49.5	5,900	6,500	52.5	6,000	6,500	75
80	40.0	4,800	5,400	46.0	4,900	5,500	49.5	4,900	5,500	80
85	35.5	3,900	4,500	42.5	4,000	4,600	46.0	4,100	4,600	85
90	30.5	3,200	3,700	38.5	3,200	3,800	43.0	3,300	3,800	90
Min.Bm. Ang/ Cap.	26.0 (93.7)			34.0 (94.9)			39.0 (95.2)			Min.Bm Ang/ Cap.

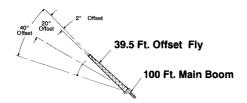
- ∠ Loaded Boom Angle In Degrees.
- ( ) Reference Radius For Minimum Boom Angle Capacities (Shown in Parenthesis) Are in Feet.

  \* This capacity based on maximum obtainable boom angle.

Bigge



# Fully Extended Outriggers - Fly Capacities - Boom Mode "B" - 4,000 lb. Counterweight



e Set Up			Ft	JLL	4,000#			
Load		Offset	20°	Offset	40°	Offset	Load Radius (Ft.)	
ladius (Ft.)	×°	360°	x °	360°	∡°	360°		
30	77.0	13,900	_	12.55		46 53.5	30	
35	75.0	13,400				William -	35	
40	73.0	12,800					40	
45	71.0	12,200	76.0	9,400			45	
50	69.0	11,700	74.0	8,900			50	
55	67.0	11,100	71.5	8,500	76.0	6,600	55	
60	64.5	10,600	69.5	8,100	73.5	6,400	60	
65	62.5	10,100	67.0	7,800	71.0	6,300	65	
70	59.5	8,700	64.5	7,400	68.5	6,100	70	
75	57.0	7,500	62.0	7,200	66.0	6,000	75	
80	54.5	6,400	59.5	6,900	63.5	5,800	80	
85	51.5	5,500	57.0	6,300	60.5	5,700	85	
90	46.5	4,700	54.0	5,400	57.5	5,600	90	
95	45.5	4,000	51.0	4,600	54.5	5,100	95	
100	42.5	3,400	47.5	3,900	51.0	4,300	100	
105	39.0	2,600	44.0	3,300	47.0	3,600	105	
110	35.5	2,300	40.0	2,700	42.5	2,900	110	
115			36.0	2.200	37.5	2,300	115	

Boom Length is 84 Ft. Or Less, Since Loss Of Stability Will Occur Causing A Tipping Condition Note: Refer To Page 5 For "Capacity Deductions For Auxiliary Load Handling Equipment"



e Set Up I	vote 2.		FU	ILL		4,00	0#
Load		Offset	20° Offset		40°	Loe	
Radius (Ft.)	Χ°	360°	Δ°	360°	x°	360°	Radi (Ft.
35	78.0*	8,300					35
40	76.5	8,300				FB 448	40
45	75.0	8,300				ALEN STATE	45
50	73.5	8,300	78.0*	В,200			50
55	71.5	8,300	76.0	8,000			55
60	70.0	8,300	74.5	7,800			60
65	68.5	8,300	72.5	7,600	76.0	6,200	65
70	66.5	8,300	71.0	7,400	74.5	6,100	70
75	64.5	7,100	69.0	7,200	72.5	6,000	75
80	62.5	6,000	67.0	7,000	70.5	5,800	80
85	60.0	5,100	65.0	6,000	68.5	5,700	85
90	58.0	4,300	62.5	5,200	66.5	5,700	90
95	55.5	3,600	60.5	4,400	64.0	5,000	95
100	53.5	3,000	58.0	3,700	61.5	4,200	100
105	51.0	2,400	55.5	3,100	58.5	3,600	108
110			53.0	2,500	56.0	2,900	110
115					53.0	2,400	115

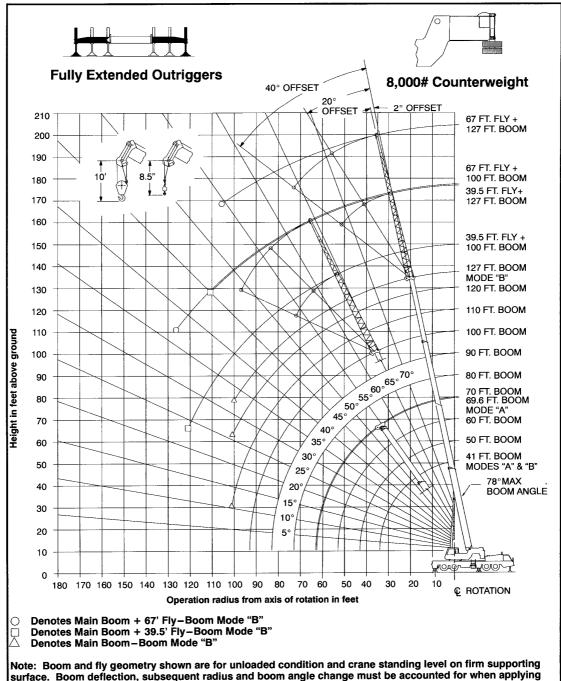
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 $oldsymbol{lpha}$  Loaded Boom Angle In Degrees.

<sup>\*</sup> This capacity based on maximum obtainable boom angle.



# **WORKING RANGE DIAGRAM**



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.



# Fully Extended Outriggers - Main Boom Capacities - 8,000 lb. Counterweight

	ctended Out	s in Pounds riggers	FL		8,0004	<u> </u>	AIN BOOM "A"
Load		41 Ft.			50 Ft.		Load
Radius (Ft.)	×°	360°	Over Rear	×°	360°	Over Rear	Radius (Ft.)
10	69.0	124,600	124,600	73.0	75,100	75,100	10
12	66.0	111,000	111,000	70.5	75,100	75,100	12
15	61.0	95,000	95,000	67.0	75,100 -	75,100	15
20	52.5	70,600	70,600	60.5	70,000	70,000	20
25	42.5	53,600	53,600	53.0	52,700	52,700	25
30	29.0	38,400	38,400	45.5	37,800	37,800	30
35		1		36.0	28,500	28,500	35
40				23.0	22,100	22,100	40
Min.Boom Ang/Cap.	0 (34.0)	21,100	21,100	0 (43.0)	15,900	15,900	Min.Boon Ang/Cap

Load		60 Ft.			69.6 Ft.		Load
Radius (Ft.)	۲°	360°	Over Rear	Δ°	360°	Over Rear	Radius (Ft.)
10	76.5	74,000	74,000		355 BBW		10
12	74.5	74,000	74,000	76.5	43,900	43,900	12
15	71.5	74,000	74,000	74.5	43,900	43,900	15
20	66.0	69,500	69,500	70.0	43,900	43,900	20
25	60.5	51,900	51,900	65.5	43,900	43,900	25
30	54.5	37,200	37,200	60.5	36,700	36,700	30
35	48.5	28,000	28,000	55.5	27,600	27,600	35
40	41.0	21,800	21,800	50.0	21,500	21,500	40
45	32.5	17,200	17,200	44.5	17,000	17,000	45
50	21.0	13,700	13,700	37.5	13,400	13,500	50
55				29.5	10,700	10,900	55
60				18.5	8,400	8,700	60
Min.Boom Ang/Cap.	0 (53.0)	10,800	10,800	0 (62.6)	7,300	7,300	Min.Boom Ang/Cap.

See Set Up			FU	LL	<sup>™</sup> 8,000#		IN BOOM "B"
Load		41 Ft.			50 Ft.		Load
Radius (Ft.)	× °	360°	Over Rear	×°	360°	Over Rear	Radius (Ft.)
10	69.0	124,600	124,600	73.0	38,000	38,000	10
12	66.0	111,000	111,000	70.5	38,000	38,000	12
15	61.0	95,000	95,000	67.0	38,000	38,000	15
20	52.5	70,600	70,600	60.5	38,000	38,000	20
25	42.5	53,600	53,600	53.0	38,000	38,000	25
30	29.0	38,400	38,400	45.0	38,000	38,000	30
35				36.0	29,900	29,900	35
40				23.0	23,500	23,500	40
Min.Bm. Ang/Cap.	0 (34.0)	21,100	21,100	0 (43.0)	14,900	14,900	Min.Bm Ang/Caj
Load		60 Ft.	1		70 Ft.		Load
Radius (Ft.)	×°	360°	Over Rear	۷°	360°	Over Rear	Radius (Ft.)
10	76.0	38,000	38,000				10
12	74.0	38,000	38,000	76.5	38,000	38,000	12
15	71.0	38,000	38,000	74.5	38,000	38,000	15
	66.0	38,000	38,000	70.0	38,000	38,000	20
20							
25	60.5	38,000	38,000	65.5	38,000	38,000	25

55.5

50.5

44.5

38.0

30.0

19.0

30,800

24,500

19,900

16,400

13,600

7,600

24,500

19,900

16,400

13,600

7,600

35

40

45

50

55

60

Min.Bm

0 (53.0) 10,500 0 (63.0) Note: Refer To Page 5 For "Capacity Deduction

24,200

19,500

48.0

41.0

32.5

40

45

50

55

60

Min.Br

30,500

24,200

19,500

10,500

<sup>( )</sup> Reference Radius For Minimum Boom Angle Capacities (Shown in Parenthesis) Are in Feet.

	t Up Not	ded Outrig e 2.	90.0	. 4. 4	- A A A FULL			0#	MAIN E	
Load		80 Ft.			90 Ft.			100 Ft.		
Radius (Ft.)	×°	360°	Over Rear	۲°	360°	Over Rear	×°	360°	Over Rear	Load Radius (Ft.)
15	76.5	38,000	38,000					DOM:	79000	15
20	73.0	38,000	38,000	75.0	38,000	38,000	77.0	37,400	37,400	20
25	69.5	38,000	38,000	72.0	38,000	36,000	74.0	32,700	32,700	25
30	65.0	38,000	38,000	68.5	37,900	37,900	71.0	29,000	29,000	30
35	61.0	31,000	31,000	65.0	31,200	31,200	68.0	26,000	26,000	35
40	56.5	24,700	24,700	61.0	24,900	24,900	65.0	23,400	23,400	40
45	52.0	20,100	20,100	57.5	20,300	20,300	61.5	20,400	20,400	45
50	47.0	16,600	16,600	53.0	16,800	16,800	58.0	16,900	16,900	50
55	41.5	13,800	13,900	49.0	14,000	14,100	54.5	14,100	14,200	55
60	35.5	11,500	11,700	44.5	11,700	11,900	50.5	11,800	12,100	60
65	28.0	9,700	9,900	39.0	9,800	10,100	46.5	10,000	10,200	65
70	18.0	8,100	8,300	33.5	8,300	8,600	42.0	8,400	8,700	70
75				26.5	6,900	7,200	37.5	7,100	7,400	75
80		1		17.0	5,800	6,100	32.0	5,900	6,300	80
85		1			1		25.5	5,000	5,300	85
90							16.5	4,100	4,400	90
Min.Bm. Ang/ Cap.	0 (73.0)	5,500	5,500	0 (83.0)	3,900	3,900	0 (93.0)	2,700	2,700	Min.Bm Ang/ Cap.

Note: Refer To Page 5 For "Capacity Deductions For Auxiliary Load Handling Equ

On Fu	Lifting Co lly Extend of Up Note	apacities i ied Outrig e 2.	n Pounds igers	, <del>  </del>	FULL			8,000# MAIN E		
Load		110 Ft.			120 Ft.			127 Ft.		
Radius (Ft.)	۲°	360°	Over Rear	Χ°	360°	Over Rear	×°	360°	Over Rear	Load Radiu (Ft.)
25	76.0	29,400	29,400	77.5	23,300	23,300	78.0*	19,600	19,600	25
30	73.5	26,200	26,200	75,0	23,300	23,300	76.0	19,600	19,600	30
35	70.5	23,500	23,500	72.5	21,500	21,500	74.0	19,600	19,600	35
40	68.0	21,200	21,200	70.0	19,400	19,400	71.5	18,400	18,400	40
45	65.0	19,200	19,200	67.5	17,600	17,600	69.0	16,400	16,400	45
50	62.0	17,000	17,000	65.0	15,800	15,800	66.5	14,900	14,900	50
55	58.5	14,200	14,200	62.0	14,200	14,300	64.0	13,600	13,600	55
60	55.5	11,900	12,100	59.0	12,000	12,200	61.5	12,100	12,300	60
65	52.0	10,100	10,300	56.0	10,100	10,400	58.5	10,200	10,400	65
70	48.0	8,500	8,800	53.0	8,600	8,900	56.0	8,600	8,900	70
75	44.5	7,200	7,500	49.5	7,200	7,600	53.0	7,300	7,600	75
80	40.5	6,000	6,400	46.5	6,100	6,500	49,5	6,200	6,500	80
85	35.5	5,100	5,400	42.5	5,100	5,500	46.5	5,200	5,600	85
90	30.5	4,200	4,600	38.5	4,300	4,700	43.0	4,300	4,700	90
95	24.5	3,500	3,800	34.5	3,600	3,900	39.5	3,600	4,000	95
100	18.0	2,800	3,100	29.5	2,900	3,200	35.5	2,900	3,300	100
Min.Bm. Ang/ Cap.	10.5 (101.9)			26.0 (102.8)			32.5 (103.1)			Min.Bn Ang/ Can.

Note: Refer To Page 5 For "Capacity Deductions For Auxiliary Load Handling Equipment".

<sup>∠</sup> Loaded Boom Angle in Degrees.

() Reference Radius For Minimum Boom Angle Capacities (Shown in Parenthesis) Are in Feet.

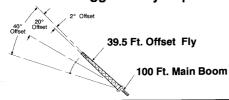
<sup>∠</sup> Loaded Boom Angle in Degrees.

( ) Reference Radius For Minimum Boom Angle Capacities (Shown in Parenthesis) Are in Feet.

Hotercac Radius For Minimum Boom Angle Capacities (Shown In Parenthesia) Are in Feet.
 This capacity based on maximum obtainable boom angle.



Fully Extended Outriggers - Fly Capacities - Boom Mode "B" - 8,000 lb. Counterweight



-				JLL O# :		000#	
Load Radius	2° (	Offset	20°	Offset	40°	Load Radius	
(Ft.)	X °	360°	X	360°	X ·	360°	(Ft.)
30	77.0	13,900		1188/193		NaΣ	30
35	75.0	13,400		1			35
40	73.0	12,800		Sales, 6			40
45	71.0	12,200	76.0	9,400			45
50	69.0	11,700	74.0	8,900			50
55	67.0	11,100	71.5	8,500	76.0	6,600	55
60	64.5	10,600	69.5	8,100	73.5	6,400	60
65	62.5	10,100	67.0	7,800	71.0	6,300	65
70	60.0	9,700	64.5	7,400	68.5	6,100	70
75	57.5	8,800	62.0	7,200	66.0	6,000	75
80	54.5	7,600	59.5	6,900	63.5	5,800	80
85	52.0	6,600	57.0	6,600	60.5	5,700	85
90	49.0	5,700	54.0	6,400	57.5	5,600	90
95	46.0	5,000	51.0	5,600	54.5	5,500	95
100	42.5	4,300	48.0	4,900	51.0	5,200	100
105	39.5	3,700	44.5	4,200	47.5	4,500	105
110	35.5	3,100	40.5	3,600	43.0	3,800	110
115	31.5	2,700	36.5	3,000		1	115
120	27.0	2,200	31.5	2,500		1	120
125			25.5	2,000		ł	125

Do Not Lower 39.5 Ft. Offset Fly in Working Position Below 23.5 Degrees Main Boom Angle Unles Boom Length is 92 Ft. Or Less, Since Loss Of Stability Will Occur Causing A Tipping Condition

Refer To Page 5 For "Capacity Deductions For Auxiliary Load Ha

aded Boom Angle in Degrees



	ng Capacitie xtended Out Note 2.			FULL	8,000#			
Load	2° (	Offset	20°	Offset	40°	40° Offset		
Radius (Ft.)	×°	360°	Δ°	360°	x°	360°	Radius (Ft.)	
35	78.0*	8,300		100		1.1	35	
40	76.5	8,300				LA	40	
45	75.0	8,300					45	
50	73.5	8,300	78.0°	8,200			50	
55	71.5	8,300	76.0	8,000			55	
60	70.0	8,300	74.5	7,800			60	
65	68.5	8,300	72.5	7,600	76.0	6,200	65	
70	67.0	8,300	71.0	7,400	.74.5	6,100	70	
75	65.0	7,800	69.0	7,200	72.5	6,000	75	
80	63.0	7,100	67.0	7,000	70.5	5,800	80	
85	60.5	6,200	65.5	6,800	68.5	5,700	85	
90	58.5	5,400	63.0	6,200	66.5	5,700	90	
95	56.0	4,600	60.5	5,400	64.0	5,600	95	
100	53.5	3,900	58.5	4,600	62.0	5,200	100	
105	51.5	3,300	56.0	4,000	59.0	4,400	105	
110	49.0	2,800	53.5	3,400	56.5	3,800	110	
115	46.0	2,300	50.5	2,800	53.5	3,200	115	
120	İ		48.0	2,300	50.5	2,600	120	
125			1		47.5	2,100	125	

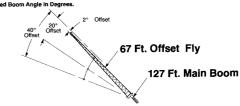
ng Position Below 45 Degrees Main Boom Angle Unie 195 Of Stability Will Occur Causing A Tipping Conditi Note: Refer To Page 5 For "Capacity De

∠ Loaded Boom Angle in Degrees.

\* This capacity based on maximum



	xtended Out	s In Pounds riggers			8,000#				
Load	2° (	Offset	20°	Offset	40°	Load			
Radius (Ft.)	×°	360°	Δ°	360°	Δ°	360°	Radius (Ft.)		
40	77.0	8,300					40		
45	75.5	7,900					45		
50	73.5	7,500					50		
55	72.0	7,100					55		
60	70.0	6,600	77.0	4,700			60		
65	68.5	6,200	75.5	4,500			65		
70	66.5	5,800	73.5	4,200			70		
75	64.5	5,500	71.5	4,000			75		
80	62.5	5,200	69.5	3,900	76.0	3,000	80		
85	60.5	4,900	67.5	3,700	74.0	3,000	85		
90	58.5	4,600	65.5	3,500	72.0	2,900	90		
95	56.5	4,400	63.5	3,400	69.5	2,800	95		
100	54.5	4,200	61.5	3,300	67.5	2,700	100		
105	52.0	3,900	59.0	3,200	65.0	2,700	105		
110	50.0	3,800	57.0	3,100	62.5	2,600	110		
115	47.5	3,400	54.5	3,000	60.0	2,600	115		
120	44.5	2,900	52.0	2,900	57.0	2,500	120		
125	42.0	2,500	49.0	2,800	54.0	2,500	125		
130	39.0	2,100	46.5	2,700	50.5	2,500	130		
135	1	1	43.0	2,300	47.0	2,500	135		
140		1 1	39.5	1,900	42.5	2,100	140		



e Set Up N	ended Outrig lote 2.	-	♣ △ △ FUI	_ <del>_</del>	8,000#			
Load	2° (	Offset	20°	Offset	40°	Load		
Radius (Ft.)	×°	360°	×°	360°	ヹ゜	360°	Radius (Ft.)	
50	76.5	5,500		14			50	
55	75.5	5,500					55	
60	74.0	5,500					60	
65	73.0	5,500					65	
70	71.5	5,500	77.5	4,200			70	
75	70.0	5,300	76.0	4,000			75	
80	68.5	5,100	74.5	3,900			80	
85	67.0	4,900	73.0	3,800			85	
90	65.5	4,800	71.5	3,600	77.0	2,900	90	
95	64.0	4,600	70.0	3,500	75.0	2,800	95	
100	62.0	4,300	68.0	3,400	73.5	2,800	100	
105	60.5	3,900	66.5	3,300	71.5	2,700	105	
110	58.5	3,400	64.5	3,200	70.0	2,600	110	
115	56.5	2,900	63.0	3,100	68.0	2,600	115	
120			61.0	3,000	66.0	2,600	120	
125			59.0	2,800	64.0	2,500	125	
130			57.0	2,400	61.5	2,500	130	
135			l		59.5	2,500	135	
140	İ	j	1		57.0	2,000	140	

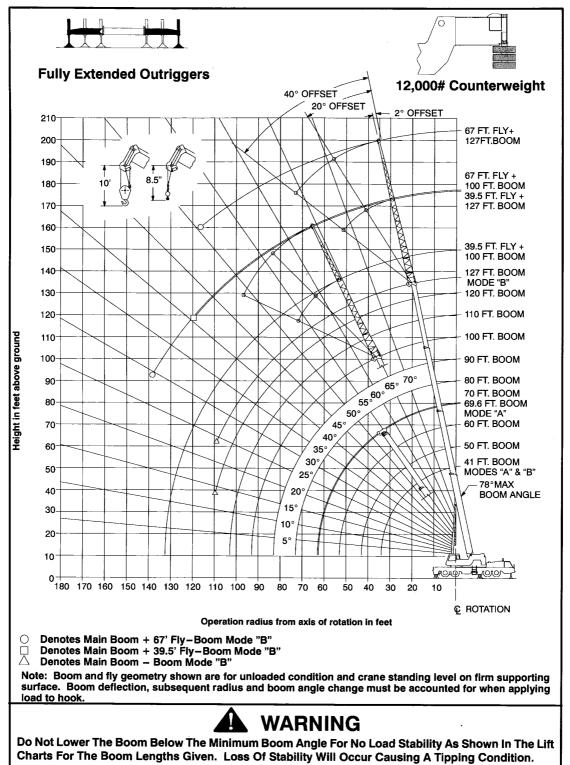
Do Not Lower 67 Ft. Offset Fly In Working Position Below 54.5 Degrees Main Boom Angle Unless Mair Boom Length is 98 Ft. Or Less, Since Loss Of Stability Will Occur Causing A Tipping Condition.

Note: Refer To Page 5 For "Capacity De Loaded Boom Angle In Degrees.

**— 13** —



# **WORKING RANGE DIAGRAM**



**— 14 —** 



# Fully Extended Outriggers - Main Boom Capacities - 12,000 lb. Counterweight

	xtended Out	s In Pounds riggers	1		12,000	MA	IN BOOM "A"
Load		41 Ft.			50 Ft.		Load
Radius (Ft.)	×°	360°	Over Rear	*	360°	Over Rear	Radius (Ft.)
9	70.5	140,000	140,000				9
10	69.0	127,500	127,500	73.0	75,100	75,100	10
12	66.0	113,600	113,600	70.5	75,100	75,100	12
15	61.0	97,300	97,300	67.0	75,100	75,100	15
20	52.5	73,100	73,100	60.5	72,500	72,500	20
25	42.5	56,100	56,100	53.0	55,600	55,600	25
30	29.0	41,900	41,900	45.5	41,300	41,300	30
35				36.0	31,300	31,300	35
40				23.0	24,500	24,500	40
Min.Boom Ang/Cap.	0 (34.0)	21,100	21,100	0 (43.0)	15,900	15,900	Min.Boom Ang/Cap.

Load		60 Ft.			69.6 Ft.		Load
Radius (Ft.)	Χ°	360°	Over Rear	x°	360°	Over Rear	Radius (Ft.)
10	76.5	74,000	74,000				10
12	74.5	74,000	74,000	76.5	43,900	43,900	12
15	71.5	74,000	74,000	74.5	43,900	43,900	15
20	66.0	72,000	72,000	70.0	43,900	43,900	20
25	60.5	55,200	55,200	65.5	43,900	43,900	25
30	54.5	40,600	40,600	61.0	37,900	37,900	30
35	48.5	30,800	30,800	55.5	30,400	30,400	35
40	41.0	24,200	24,200	50.5	23,800	23,800	40
45	32.5	19,300	19,300	44.5	19,000	19,000	45
50	21.0	15,500	15,500	37.5	15,300	15,300	50
55				29.5	12,500	12,500	55
60				18.5	10,100	10,100	60
Min.Boom Ang/Cap.	0 (53.0)	10,800	10,800	0 (62.6)	7,300	7,300	Min.Boom Ang/Cap.

Note: Refer To Page 5 For "Capacity Deductione For Auxiliery Load Handling Equip X Loaded Boom Angle in Degreea.

	t Up Note	u 2.		FULL			12,00	0#		MAIN BOOM "B"	
Load		80 Ft.			90 Ft.			100 Ft.		Load	
Radius (Ft.)	x °	360°	Over Rear	×°	360°	Over Rear	∡°	360°	Over Rear	Radius (Ft.)	
15	76.5	38,000	38,000		entran a			hers al	h. 997293	15	
20	73.0	38,000	38,000	75.0	38,000	38,000	77.0	37,400	37,400	20	
25	69.5	38,000	38,000	72.0	38,000	38,000	74.0	32,700	32,700	25	
30	65.0	38,000	38,000	68.5	37,900	37,900	71.0	29,000	29,000	30	
35	61.0	33,800	33,800	65.0	33,900	33,900	68.0	26,000	26,000	35	
40	56.5	27,000	27,000	61.5	27,200	27,200	65.0	23,400	23,400	40	
45	52.0	22,200	22,200	57.5	22,300	22,300	61.5	21,200	21,200	45	
50	47.0	18,400	18,400	53.5	18,600	18,600	58.0	18,700	18,700	50	
55	41.5	15,500	15,500	49.0	15,600	15,600	54.5	15,800	15,800	55	
60	35.5	13,100	13,100	44.5	13,300	13,300	50.5	13,400	13,400	60	
65	28.0	11,200	11,200	39.5	11,400	11,400	46.5	11,500	11,600	65	
70	18.0	9,500	9,500	33.5	9,700	9,800	42.0	9,800	9,900	70	
75		ł		26.5	8,300	8,400	37.5	8,400	8,500	75	
80		i		17.0	7,000	7,100	32.0	7,200	7,300	80	
85							25.5	6,100	6,300	85	
90		l			1		16.5	5,200	5,300	90	
Min.Bm. Ang/ Cap.	0 (73.0)	5,500	5,500	0 (83.0)	3,900	3,900	0 (93.0)	2,700	2,700	Min.Bm Ang/ Cap.	

Note: Refer To Page 5 For "Capacity Deductions For Auxiliary Load Handling Equipment".  $\angle$  Loaded Boom Angle in Degrees.

	extended Ou	es in Pounds triggers		ULL	12,000#	MA	M BOOM "B"
Load		41 Ft.			50. Ft.		Load
Radius (Ft.)	Δ°	360°	Over Rear	×°	360°	Over Rear	Radius (Ft.)
9	70.5	140,000	140,000				- 9
10	69.0	127,500	127,500	73.0	38,000	38,000	10
12	66.0	113,600	113,600	70.5	38,000	38,000	12
15	61.0	97,300	97,300	67.0	38,000	38,000	15
20	52.5	73,100	73,100	60.5	38,000	38,000	20
25	42.5	56,100	56,100	53.0	38,000	38,000	25
30	29.0	41,900	41,900	45.5	38,000	38,000	30
35		]		36.0	32,800	32,800	35
40	1	1		23.0	25,800	25,800	40
Min.Bm. Ang/Cap.	0 (34.0)	21,100	21,100	0 (43.0)	14,900	14,900	Min.Bm Ang/Cap
Load		60 Ft.			70 Ft.		Load
Radius (Ft.)	Δ°	360°	Over Rear	x °	360°	Over Rear	Radius (Ft.)
10	76.0	38,000	38,000				10
12	74.0	38,000	38,000	76.5	38,000	38,000	12
15	71.0	38,000	38,000	74.5	38,000	38,000	15
20	66.0	38,000	38,000	70.0	38,000	38,000	20
25	60.5	38,000	38,000	65.5	38,000	38,000	25
30	54.5	38,000	38,000	60.5	38,000	38,000	30
35	48.0	33,300	33,300	55.5	33,600	33,600	35
40	41.0	26,500	26,500	50.5	26,800	26,800	40
45	32.5	21,500	21,500	44.5	21,900	21,900	45
50	21.0	17,700	17,700	38.0	18,200	18,200	50
55				30.0	15,200	15,200	55
		1	1	19.5	12,800	12,800	60
60		1			,	12,000	

( ) Reference Radius For Minimum Boom Angle Capacities (Shown In Parenthesis) Are In Feet.

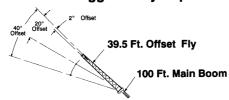
On Ful		pacities l led Outrig 2.		FULL			12,00		MAIN E	воом
Load	l	110 Ft.			120 Ft.			127 Ft.		Load
Radius (Ft.)	×°	360°	Over Rear	×°	360°	Over Rear	×°	360°	Over Rear	Radius (Ft.)
25	76.0	29,400	29,400	77.5	23,300	23,300	78.0*	19,600	19,600	25
30	73.5	26,200	26,200	75.0	23,300	23,300	76.0	19,600	19,600	30
35	70.5	23,500	23,500	72.5	21,500	21,500	74.0	19,600	19,600	35
40	68.0	21,200	21,200	70.0	19,400	19,400	71.5	18,400	18,400	40
45	65.0	19,200	19,200	67.5	17,600	17,600	69.0	16,400	16,400	45
50	62.0	17,400	17,400	65.0	15,800	15,800	66.5	14,900	14,900	50
55	59.0	15,800	15,800	62.0	14,400	14,400	64.0	13,600	13,600	55
60	55.5	13,500	13,500	59.5	13,200	13,200	61.5	12,500	12,500	60
65	52.0	11,600	11,600	56.5	11,700	11,700	59.0	11,500	11,500	65
70	48.5	9,900	10,000	53.0	10,000	10,100	56.0	10,000	10,100	70
75	44.5	8,500	8,600	50.0	8,600	8,700	53.0	8,600	8,800	75
80	40.5	7,300	7,500	46.5	7,300	7,500	50.0	7,400	7,600	80
85	36.0	6,200	6,400	43.0	6,300	6,500	46.5	6,300	6,500	85
90	30.5	5,300	5,500	39.0	5,400	5,600	43.0	5,400	5,600	90
95	24.5	4,500	4,700	34.5	4,600	4,800	39.5	4,600	4,800	95
100	16.0	3,700	3,900	29.5	3,800	4,100	35.5	3,900	4,100	100
105				23.5	3,200	3,400	31.0	3,200	3,500	105
110				15.5	2,600	2,800	25.5	2,700	2,900	110
Min.Bm. Ang/ Cap.	0 (103.0)	1,700	1,700	13.5 (110.9)			24.0 (111.2)			Min,Bm. Ang/ Cap.

Note: Refer To Page 5 For "Capacity Deductions For Auxiliary Load Handling Equipment".

( ) Reference Radius For Minimum Boom Angle Capacities (Shown in Parenthesis) Are in Feet.

\* This capacity based on maximum obtainable boom angle.

# Fully Extended Outriggers - Fly Capacities - Boom Mode "B" - 12,000 lb. Counterweight



On Fully Ex See Sat Up		យពិពិទនេ	111	FULL		12,	000#
Load	2° Offset		20°	Offset	40°	Load	
Radius (Ft.)	X.	360°	×°	360°	×°	360°	Radius (Ft.)
30	77.0	13,900		acreouliste Nov.			30
35	75.0	13,400		60.00			35
40	73.0	12,800					40
45	71.0	12,200	76.0	9,400		A Pile	45
50	69.0	11,700	74.0	8,900			50
55	67.0	11,100	71.5	8,500	76.0	6,600	55
60	64.5	10,600	69.5	8,100	73.5	6,400	60
65	62.5	10,100	67.0	7,800	71.0	6,300	65
70	60.0	. 9,700	64.5	7,400	68.5	6,100	70
75	57.5	9,200	62.0	7,200	66.0	6,000	75
80	55.0	8,700	59.5	6,900	63.5	5,800	80
85	52.0	7,800	57.0	6,600	60.5	5,700	85
90	49.5	6,600	54.0	6,400	57.5	5,600	90
95	46.0	6,000	51.5	6,200	54.5	5,500	95
100	43.0	5,200	48.0	5,800	51.5	5,500	100
105	39.5	4,600	44.5	5,100	47.5	5,400	105
110	36.0	4,000	41.0	4,400	43.5	4,600	110
115	32.0	3,500	36.5	3,800	38.5	4,000	115
120	27.5	3,000	31.5	3,300			120
125	21.5	2,600	25.5	2,700		I	125
130	14.0	2,200					130
Min.Boom Ang/Cap.	0	600	0	600	0	700	Min.Boom Ang/Cap.

Note: Refer To Page 5 For "Capacity Deductions For Audiliary Load Handling Equipment"

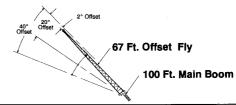
∠ Loaded Boom Angle In Degrees



	xtended Out	e in Pounds Iriggers		FULL		12,000#			
Load	2° (	Offset	20°	Offset	40°	Offset	Load		
Radius (Ft.)	×°	360°	×°	360°	Χ°	360°	Radius (Ft.)		
35	78.0*	8,300		45.750 FF		dig	35		
40	76.5	8,300					40		
45	75.0	8,300					. 45		
50	73.5	8,300	76.0*	8,200			50		
55	71.5	8,300	76.0	8,000		alama.	55		
60	70.0	8,300	74.5	7,800			60		
65	68.5	8,300	72.5	7,600	76.0	6,200	65		
70	67.0	8,300	71.0	7,400	74.5	6,100	70		
75	65.0	7,800	69.0	7,200	72.5	6,000	75		
80	63.0	7,100	67.0	7,000	70.5	5,800	80		
85	60.5	6,600	65.5	6,800	68.5	5,700	85		
90	58.5	6,000	63.0	6,300	66.5	5,700	90		
95	56.5	5,600	61.0	5,800	64.0	5,600	95		
100	54.0	4,900	56.5	5,300	62.0	5,500	100		
105	51.5	4,200	56.5	4,900	59.5	5,100	105		
110	49.0	3,600	53.5	4,200	57.0	4,600	110		
115	46.5	3,100	51.0	3,600	54.0	4,000	115		
120	44.0	2,600	48.0	3,100	51.0	3,400	120		
125			45.5	2,600	48.0	2,900	125		
130		l	42.0	2,200	44.5	2,400	130		

Loaded Boom Angle in Degrees.
This capacity based on maximum obtainable boom angle

Note: Refer To Page 5 For "Capacity Deductions



	xtended Out	s In Pounds riggers		FULL		12,000#			
Load	2° (	Offset	20°	Offset	40°	Load			
Radius (Ft.)	×°	360°	×°	360°	×°	360°	Radius (Ft.)		
40	77.0	8,300		1000			40		
45	75.5	7,900		ed model of		the second	45		
50	73.5	7,500		Manual Control			50		
55	72.0	7,100					55		
60	70.0	6,600	77.0	4,700			80		
65	68.5	6,200	75.5	4,500			65		
70	86.5	5,800	73.5	4,200			70		
75	64.5	5,500	71.5	4,000			75		
80	62.5	5,200	69.5	3,900	76.0	3,000	80		
85	60.5	4,900	67.5	3,700	74.0	3,000	85		
90	58.5	4,600	65.5	3,500	72.0	2,900	90		
95	56.5	4,400	63.5	3,400	69.5	2,800	95		
100	54.5	4,200	61.5	3,300	67.5	2,700	100		
105	52.0	3,900	59.0	3,200	65.0	2,700	105		
110	50.0	3,800	57.0	3,100	62.5	2,600	110		
115	47.5	3,600	54.5	3,000	60.0	2,600	115		
120	45.0	3,400	52.0	2,900	57.0	2,500	120		
125	42.5	3,200	49.0	2,800	54.0	2,500	125		
130	39.5	2,800	46.5	2,700	50.5	2,500	130		
135	36.0	2,400	43.0	2,600	47.0	2,500	135		
140	33.0	2,100	39.5	2,500	42.5	2,500	140		
145		l	35.5	2,100			145		
150		1	30.5	1,800	l	l	150		

**WARNING** 

Do Not Lower 67 Ft. Offset Fly In Working Position Below 29.5 Degrees Main Boom Angle Unless Main Boom Length is 92 Ft. Or Less, Since Loss Of Stability Will Occur Causing A Tipping Condition.

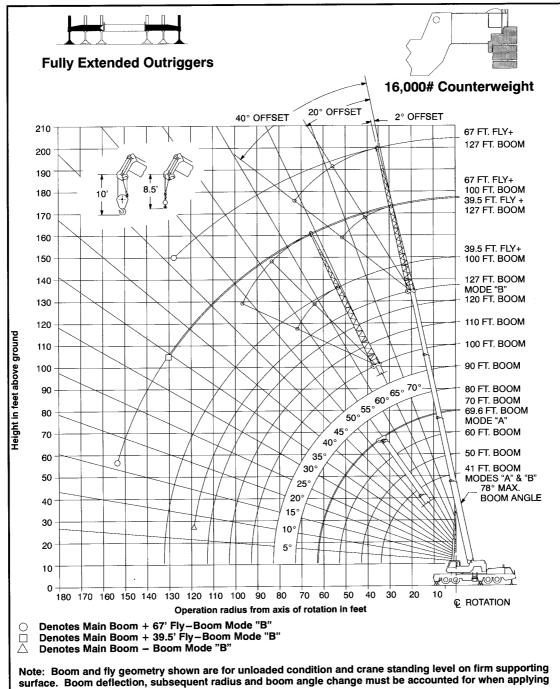


See Set Up	Note 2.		- 🚣 🛆 🗸	FULL		12,0	100#
Load	2° (	Offset	20°	Offset	40°	Offset	Load
Radius (Ft.)	×°	360°	×°	360°	Χ°	360°	Radiu: (Ft.)
50	76.5	5,500				all many	50
55	75.5	5,500		- 6 (1.6)			55
60	74.0	5,500					60
65	73.0	5,500				Lagrange (	65
70	71.5	5,500	77.5	4,200			70
75	70.0	5,300	76.0	4,000		Francisco de la con-	75
80	68.5	5,100	74.5	3,900			80
85	67.0	4,900	73.0	3,800		0.00 200	85
90	65.5	4,800	71.5	3,600	77.0	2,900	90
95	64.0	4,600	70.0	3,500	75.0	2,800	95
100	62.0	4,300	68.0	3,400	73.5	2,800	100
105	80.5	3,900	66.5	3,300	71.5	2,700	105
110	58.5	3,600	64.5	3,200	70.0	2,600	110
115	56.5	3,200	63.0	3,100	68.0	2,600	115
120	54.5	2,900	61.0	3,000	66.0	2,600	. 120
125	52.5	2,700	59.0	2,900	64.0	2,500	125
130			57.0	2,600	61.5	2,500	130
135			54.5	2,300	59.5	2,500	135
140			52.5	2,100	57.0	2,300	140
145		l			54.5	2,000	145
150		1	l	1	51.5	1.800	150

Boom Length is 92 Ft. Or Less, Since Loss Of Stability Will Occur Causing A Tipping Condition. Note: Refer To Page 5 For "Capacity Deductions For Auditary Load Handling Equipment".



# **WORKING RANGE DIAGRAM**



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.



# Fully Extended Outriggers - Main Boom Capacities - 16,000 lb. Counterweight

Rated Lifting On Fully Ext See Set Up I	ended Outrl	In Pounda ggers	FUL	#1	16,000#	6	IN BOOM	
Load	41 Ft.		41 Ft.			50 Ft.		Load
Radius (Ft.)	Χ°	360°	Over Rear	Δ°	360°	Over Rear	Radius (Ft.)	
9	70.5	140,000	140,000		11 (154) 1740 (11		9	
10	69.0	128,600	128,600	73.0	75,100	75,100	10	
12	66.0	116,000	116,000	70.5	75,100	75,100	12	
15	61.0	99,400	99,400	67.0	75,100	75,100	15	
20	52.5	75,300	75,300	60.5	74,700	74,700	20	
25	42.5	58,100	58,100	53.5	57,600	57,600	25	
30	29.0	45,300	45,300	45.5	44,700	44,700	30	
35				36.0	34,100	34,100	35	
40				23.0	26,800	26,600	40	
Min.Boom Ang/Cap.	0 (34.0)	21,100	21,100	0 (43.0)	15,900	15,900	Min.Boom Ang/Cap.	

Load		60 Ft.			69.6 Ft.		Load
Radius (Ft.)	×°	360°	Over Rear	Δ°	360°	Over Rear	Radius (Ft.)
10	76.5	74,000	74,000		and the street, and	- 11 12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	10
12	74.5	74,000	74,000	76.5	43,900	43,900	12
15	71.5	74,000	74,000	74.5	43,900	43,900	15
20	66.0	74,000	74,000	70.0	43,900	43,900	20
25	60.5	57,200	57,200	65.5	43,800	43,900	25
30	55.0	44,100	44,100	61.0	37,900	37,900	30
35	48.5	33,600	33,600	56.0	33,200	33,200	35
40	41.0	26,500	26,500	50.5	26,100	26,100	40
45	32.5	21,300	21,300	44.5	21,000	21,000	45
50	21.0	17,300	17,300	37.5	17,100	17,100	50
55				29.5	14,000	14,000	55
60				18.5	11,500	11,500	60
Min.Boom Ang/Cap.	0 (53.0)	10,800	10,800	0 (62.6)	7,300	7,300	Min.Boom Ang/Cap.

Note: Refer To Page 5 For "Capacity Deductions For Auxiliary Load Handling Equipment".

Rated Lifting On Fully Ext See Set Up I	g Capacities ended Outri Note 2.	In Pounds Iggers	FUL	#	16,000#	MA	
Load		41 Ft.		50 Ft.			
Radius (Ft.)	Χ°	360°	Over Rear	Δ°	360°	Over Rear	Radius (Ft.)
9	70.5	140,000	140,000				9
10	69.0	128,600	128,600	73.0	38,000	38,000	10
12	66.0	116,000	116,000	70.5	38,000	38,000	12
15	61.0	99,400	99,400	67.0	38,000	38,000	15
20	52.5	75,300	75,300	60.5	38,000	38,000	20
25	42.5	58,100	58,100	53.0	38,000	38,000	25
30	29.0	45,300	45,300	45.5	38,000	38,000	30
35		l		36.0	35,600	35,600	35
40				23.0	28,200	28,200	40
Min.Bm. Ang/Cap.	0 (34.0)	21,100	21,100	0 (43.0)	14,900	14,900	Min.Bm. Ang/Cap
Load		60 Ft.			70 Ft.		Load
Radius (Ft.)	Χ°	360°	Over Rear	Χ°	360°	Over Rear	Radius (Ft.)
10	76.0	38,000	38,000				10
12	74.0	38,000	38,000	76.5	38,000	38,000	12
15	71.0	38,000	38,000	74.5	38,000	38,000	15
20	66.0	38,000	38,000	70.0	38,000	38,000	20

Load		60 Ft.			70 Ft.		Load
Radius (Ft.)	۸ů	360°	Over Rear	۲°	360°	Over Rear	Radius (Ft.)
10	76.0	38,000	38,000		REEL S		10
12	74.0	38,000	38,000	76.5	38,000	38,000	12
15	71.0	38,000	38,000	74.5	38,000	38,000	15
20	66.0	38,000	38,000	70.0	38,000	38,000	20
25	60.5	38,000	38,000	65.5	38,000	38,000	25
30	54.5	38,000	38,000	61.0	38,000	38,000	30
35	48.0	36,100	36,100	55.5	36,400	36,400	35
40	41.0	28,900	28,900	50.5	29,200	29,200	40
45	32.5	23,600	23,600	44.5	24,000	24,000	45
50	21.0	19,500	19,500	38.0	20,000	20,000	50
55				30.0	16,800	16,800	55
60				19.5	14,200	14,200	60
Min.Bm. Ang/Cap.	0 (53.0)	10,500	10,500	0 (63.0)	7,600	7,600	Min.Bm. Ang/Cap.

X Loaded Boom Angle In Degrees.
( ) Reference Radius For Minimum Boom Angle Capacities (Shown in Parenth

On Fully	fting Cap Extende Up Note:	acitles in d Outrigg 2.	Pounds ers	1	FULL	<del>                                      </del>	16,000#		√∞ ∕∞. MAIN I "E	300M
Load		80 Ft.		90 Ft.				Load		
Radius (Ft.)	x°	360°	Over Rear	Χ°	360°	Over Rear	Δ°	360°	Over Rear	Radius (Ft.)
15	76.5	38,000	38,000			Sec.				15
20	73.0	38,000	38,000	75.0	38,000	38,000	77.0	37,400	37,400	20
25	69.5	38,000	38,000	72.0	38,000	38,000	74.0	32,700	32,700	25
30	65.5	38,000	38,000	68.5	37,900	37,900	71.0	29,000	29,000	30
35	61.0	36,600	36,600	65.0	33,900	33,900	68.0	26,000	26,000	35
40	56.5	29,400	29,400	61.5	29,500	29,500	65.0	23,400	23,400	40
45	52.0	24,200	24,200	57.5	24,300	24,300	61.5	21,200	21,200	45
50	47.0	20,200	20,200	53.5	20,400	20,400	58.0	19,300	19,300	50
55	41.5	17,100	17,100	49.0	17,200	17,200	54.5	17,300	17,300	55
60	35.5	14,500	14,500	44.5	14,700	14,700	50.5	14,800	14,800	60
65	28.0	12,500	12,500	39.5	12,700	12,700	46.5	12,800	12,800	65
70	18.0	10,700	10,700	33.5	11,000	11,000	42.5	11,100	11,100	70
75		1		27.0	9,500	9,500	37.5	9,600	9,600	75
80				17.5	8,200	8,200	32.0	8,400	8,400	80
85							25.5	7,200	7,200	85
90							16.5	6,200	6,300	90
Vlin.Bm. Ang/ Cap.	(73.0)	5,500	5,500	0 (83.0)	3,900	3,900	0 (93.0)	2,700	2,700	Min.Bm Ang/ Cap.

Note: Refer To Page 5 For "Capacity Deductions For Auxiliary Load Handling Equipment".

On Fully	fting Cap Extende Up Note:	acities in d Outrigg 2.	Pounds ers	$\mathbb{H}$	FULL	H	16,000		/‱ /‰ MAIN E	
Load		110 Ft.			120 Ft.		Γ	127 Ft.		Load
Radius (Ft.)	Δ°	360°	Over Rear	Χ°	360°	Over Rear	Δ°	360°	Over Rear	Radius (Ft.)
25	76.0	29,400	29,400	77.5	23,300	23,300	78.0*	19,600	19,600	25
30	73.5	26,200	26,200	75.0	23,300	23,300	76.0	19,600	19,600	30
35	70.5	23,500	23,500	72.5	21,500	21,500	74.0	19,600	19,600	35
40	68.0	21,200	21,200	70.0	19,400	19,400	71.5	18,400	18,400	40
45	65.0	19,200	19,200	67.5	17,600	17,600	69.0	16,400	16,400	45
50	62.0	17,400	17,400	65.0	15,800	15,800	66.5	14,900	14,900	50
55	59.0	15,800	15,800	62.0	14,400	14,400	64.0	13,600	13,600	55
60	55.5	14,500	14,500	59.5	13,200	13,200	61.5	12,500	12,500	60
65	52.0	12,600	12,800	56.5	12,200	12,200	59.0	11,500	11,500	65
70	48.5	11,200	11,200	53.5	11,200	11,200	56.0	10,600	10,600	70
75	44.5	9,800	9,800	50.0	9,800	9,800	53.5	9,700	9,700	75
80	40.5	8,500	6,500	46.5	8,600	8,600	50.0	8,600	8,600	80
85	36.0	7,300	7,400	43.0	7,400	7,500	47.0	7,500	7,500	85
90	31.0	6,400	6,400	39.0	6,400	6,500	43.5	6,500	6,600	90
95	24.5	5,500	5,500	34.5	5,600	5,600	39.5	5,600	5,700	95
100	16.0	4,700	4,800	30.0	4,800	4,900	35.5	4,800	4,900	100
105				24.0	4,100	4,200	31.0	4,100	4,200	105
110				15.5	3,500	3,600	26.0	3,500	3,600	110
115					i		19.0	2,900	3,100	115
Min.Bm. Ang/ Cap.	0 (103.0)	1,700	1,700	0 (113.0)	900	900	7.5 (119.6)			Min.Bm. Ang/ Cap.

Note: Refer To Page 5 For "Capacity Deductions For Auxiliary Load Handling Equip

- ∠ Loaded Boom Angle In Degrees.
- ( ) Reference Radius For Minimum Boom Angle Capacities (Shown in Parenthesis) Are in Feet.

  \* This cepacity based on maximum obtainable boom angle.

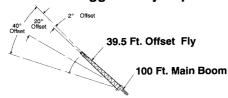
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Loaded Boom Angle in Degrees.

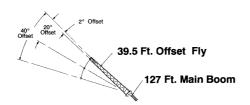
() Reference Radius For Minimum Boom Angle Capacities (Shown in Parenthesia) Are in Feet



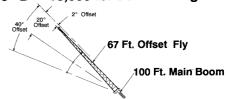
# Fully Extended Outriggers - Fly Capacities - Boom Mode "B" - 16,000 lb. Counterweight



e Set Up N	ended Outri lote 2.			FULL	_	16,00	0#
Load	2°	Offset	20°	Offset	40°	Load	
Radius (Ft.)	X °	360°	Δ°	360°	×°	360°	Radius (Ft.)
30	77.0	13,900		10.3			30
35	75.0	13,400		1885 I		1.00	35
40	73.0	12,800		Både.			40
45	71.0	12,200	76.0	9,400			45
50	69.0	11,700	74.0	8,900		10-85-6	50
55	67.0	11,100	71.5	8,500	76.0	6,600	55
60	64.5	10,600	69.5	8,100	73.5	6,400	60
65	62.5	10,100	67.0	7,800	71.0	6,300	65
70	60.0	9,700	64.5	7,400	68.5	6,100	70
75	57.5	9,200	62.0	7,200	66.0	6,000	75
80	55.0	8,700	59.5	6,900	63.5	5,800	80
85	52.5	8,300	57.0	6,600	60.5	5,700	85
90	49.5	7,900	54.0	6,400	57.5	5,600	90
95	46.5	7,000	51.5	6,200	54.5	5,500	95
100	43.5	6,200	48.0	6,000	51.5	5,500	100
105	40.0	5,500	45.0	5,900	47.5	5,400	105
110	36.0	4,800	41.0	5,300	43.5	5,400	110
115	32.0	4,300	37.0	4,600	38.5	4,800	115
120	27.5	3,800	32.0	4,000		1	120
125	22.0	3,300	26.0	3,500		1	125
130	14.0	2,900				i	130
Min.Boom Ang/Cap.	0	600	0	600	0	700	Min.Boor Ang/Cap



ted Lifting Fully Ext e Set Up I	Capacities ended Outri lote 2.	in Pounds ggers		H		16,000#			
	2° (	Offset	20°	ULL Offset	40°				
Load Radius (Ft.)	∡°	360°	∡°	360°	∡°	360°	Load Radius (Ft.)		
35	78.0*	8,300		100		26.19	35		
40	76.5	8,300		4.5		- 1	40		
45	75.0	8,300				7.5	45		
50	73.5	8,300	78.0*	8,200			50		
55	71.5	8,300	76.0	8.000		1 1 1 1 1 2 2	55		
60	70.0	8,300	74.5	7,800			60		
65	68.5	8.300	72.5	7,600	76.0	6,200	65		
70	67.0	8,300	71.0	7,400	74.5	6,100	70		
75	65.0	7,800	69.0	7,200	72.5	6,000	75		
80	63.0	7,100	67.0	7,000	70.5	5,800	80		
85	60.5	6,600	65.5	6,800	68.5	5,700	85		
90	58.5	6,000	63.0	6,300	66.5	5,700	90		
95	56.5	5,600	61.0	5,800	64.0	5,600	95		
100	54.5	5,100	58.5	5,300	62.0	5,500	100		
105	52.0	4,700	56.5	4,900	59.5	5,100	105		
110	49.5	4,300	54.0	4,500	57.0	4,700	110		
115	47.0	3,900	51.5	4,200	54.0	4,300	115		
120	44.5	3,400	48.5	3,800	51.5	4,000	120		
125	41.5	2,900	45.5	3,300	48.0	3,600	125		
130	38.5	2,500	42.5	2,900	44.5	3,100	130		
135		l	39.0	2,400	41.0	2,600	135		
140	l	l	35.5	2,000	l	I	140		



Fully Ext e Set Up I	ended Outri Note 2.	ggers		JII.	16,000#		
Load Radius (Ft.)	2° Offset		20° Offset		40° Offset		Load
	×°	360°	×°	360°	×°	360°	Radiu (Ft.)
40	77.0	8,300		270.10			40
45	75.5	7,900					45
50	73.5	7,500		1.00		33.68	50
55	72.0	7,100		1		3.01-4.70	55
60	70.0	6,600	77.0	4,700			60
65	68.5	6,200	75.5	4,500			65
70	66.5	5,800	73.5	4,200			70
75	64.5	5,500	71.5	4,000			75
80	62.5	5,200	69.5	3,900	76.0	3,000	80
85	60.5	4,900	67.5	3,700	74.0	3,000	85
90	58.5	4,600	65.5	3,500	72.0	2,900	90
95	56.5	4,400	63.5	3,400	69.5	2,800	95
100	54.5	4,200	61.5	3,300	67.5	2,700	100
105	52.0	3,900	59.0	3,200	65.0	2,700	105
110	50.0	3,800	57.0	3,100	62.5	2,600	110
115	47.5	3,600	54.5	3,000	60.0	2,600	115
120	45.0	3,400	52.0	2,900	57.0	2,500	120
125	42.5	3,300	49.0	2,800	54.0	2,500	125
130	39.5	3,100	46.5	2,700	50.5	2,500	130
135	36.5	3,000	43.0	2,600	47.0	2,500	135
140	33.0	2,800	39.5	2,600	42.5	2,500	140
145	29.0	2,400	35.5	2,600			145
150	24.5	2,100	31.0	2,400		1	150
155	19.0	1,800	24.0	2,000		1	155

WARNING



e Set Up N	iote 2.					16,000#		
	2° Offset		FULL 20° Offset		- 400 Off 1			
Load Radius (Ft.)					40° Uriset		Load Radiu	
	ヹ゙	360°	X	360°	X	360°	(Ft.)	
50	76.5	5,500					50	
55	75.5	5,500				40	55	
60	74.0	5,500					60	
65	73.0	5,500					65	
70	71.5	5,500	77.5	4,200			70	
75	70.0	5,300	76.0	4,000			<b>7</b> 5	
80	68.5	5,100	74.5	3,900			80	
85	67.0	4,900	73.0	3,800			85	
90	65.5	4,800	71.5	3,600	77.0	2,900	90	
95	64.0	4,600	70.0	3,500	75.0	2,800	95	
100	62.0	4,300	68.0	3,400	73.5	2,800	100	
105	60.5	3,900	66.5	3,300	71.5	2,700	105	
110	58.5	3,600	64.5	3,200	70.0	2,600	110	
115	56.5	3,200	63.0	3,100	66.0	2,600	115	
120	54.5	2,900	61.0	3,000	66.0	2,600	120	
125	52.5	2,700	59.0	2,900	64.0	2,500	125	
130	50.5	2,400	57.0	2,600	61.5	2,500	130	
135	48.5	2,200	54.5	2,300	59.5	2,500	135	
140			52.5	2,100	57.0	2,300	140	
145			50.0	1,900	54.5	2,000	145	
150			47.5	1,700	51.5	1,800	150	
155		l			48.5	1,600	155	



# 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

# Link-Belt Construction Equipment Company Lexington, Kentucky

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