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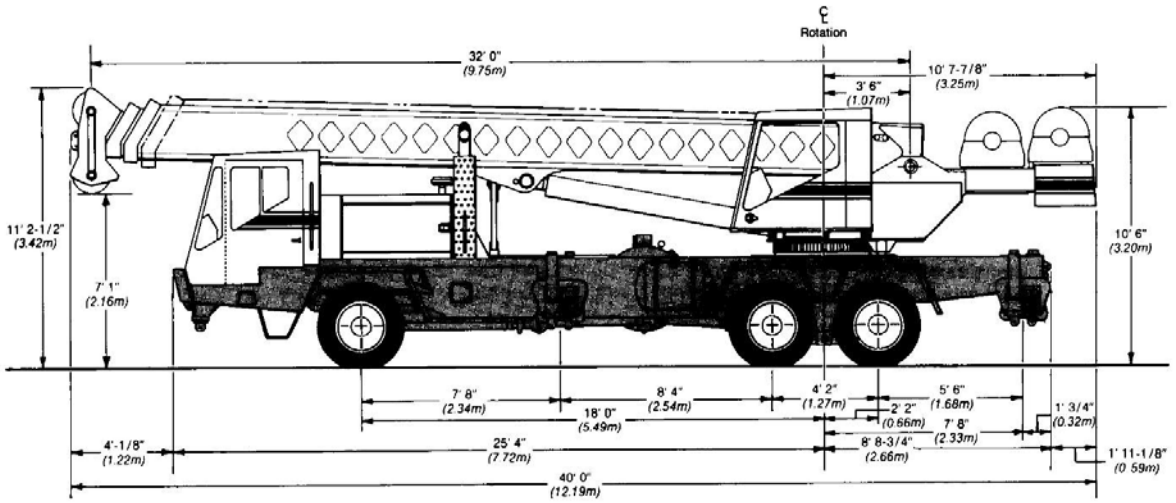
Link-Belt CONSTRUCTION EQUIPMENT

Specifications

Hydraulic Truck Crane

HTC-830

30-ton (*27.23 metric ton*)



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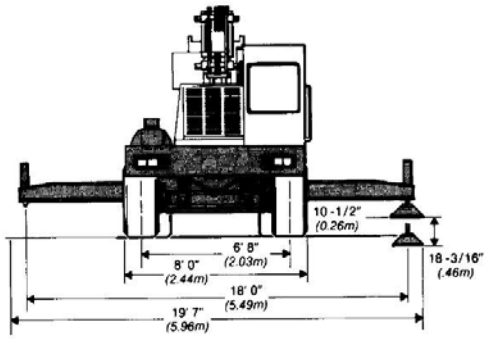

Not to Scale

General dimensions	feet	*meters*
Tailswing of counterweight	10'-11.5"	*3.34*
Ground clearance - Standard Tires	9.0"	*.23*
Ground clearance - Optional Tires	9.6"	*.24*
Turning radius C/L of tire – Std. tires	46' 11"	*14.30*
Turning radius - wall to wall *(outside front bumper)*	50' 7"	*15.42*

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Upperstructure

Boom

Link-Belt patented design. 32' 0" - 80' 0" *(9.75 m - 24.38 m)* three-section boom with two power sections. Boom side plates have diamond shaped impressions for superior strength to weight ratio and are offset welded to carefully machined 100,000 p.s.i. *(689.5 MPa)* steel angle chords for maximum integrity and strength. Boom telescope sections are supported by wear shoes both vertically and horizontally. Anti-two block device, electronic boom length/angle indicator and function kickout.

Load Moment Indicator — Audio-visual warning system with anti-two block and function kickouts. Constant display of boom length and angle, tip height, radius of load, machine configuration, allowed load, actual load and % of allowed load. Presettable alarms for maximum and minimum boom angles, maximum tip height and maximum boom length.

Optional boom — 32' 0" - 101' 0" *(9.75 m- 30.78 m)* four-section boom includes base section, two power sections, and manual fourth section. Fourth section is power pinned by manually activating a cylinder locking system.

Boom head — Standard; three 14.5" *(0.37 m)* root diameter head sheaves with four 14.5" *(0.37 m)* root diameter head sheaves available to handle up to 8 parts of 5/8" *(16 mm)* wire rope. Two removable wire rope guards and rope dead end lugs are provided on each side of the boom head. Meets 24:1 ratio European safety code with 5/8" *(16 mm)* wire rope.

Auxiliary lifting sheave — *Optional*; Single 14.5" *(0.37 m)* root diameter head sheave with removable wire rope guards, mounted to boom. For use with one or two parts of line off the optional auxiliary winch. Does not affect erection of jib or use of main head sheaves for multiple reeving.

Boom elevation — One Link-Belt designed hydraulic boom hoist cylinder with holding valves. Hand or optional foot controls for boom elevation from -3° to 80°.

Fly

Optional — 29' 0" *(8.84 m)* stowable one-piece lattice type, with 2° offset.

Jib

Optional — 21' 0" *(6.40 m)* stowable A-frame. Attaches to fly only. Can be offset 5°,17.5° and 30°.

Cab and Controls

Environmental cab; isolated from sound and vibration by rubber mounts. All tinted and tempered safety glass windows. For maximum visibility and ventilation, sliding right side and rear windows and swing up roof window supported with two gas cylinders. Slide-by-door opens to 3' 0" *(0.91 m)* width. Six-way adjustable operator's seat. Control levers for swing, boom telescope, winch and boom hoist, with foot control for swing brake and optional boom hoist. Outrigger controls, sight level bubble.

Cab instrumentation — Dash mounted gauges for hydraulic oil temperature, fuel, water temperature, and oil pressure.

Swing

Bi-directional hydraulic swing motor mounted to a planetary reducer for 360° continuous smooth swing at 2.05 r.p.m.

Swing brake — Standard; Foot operated, spring released disc brake mounted on the speed reducer.

Swing lock — Standard; 360° position pin-type controlled from the operator's cab. Two position house lock for travel and pick and carry modes.

Counterweight — Pinned to upperstructure frame.

Hydraulic System

Main pump — Three-section gear-type pump. Combined pump capacity of 133 gpm *(503.4 lpm)*. Powered by carrier engine with pump disconnect. Pump disconnect is a jaw-type clutch engaged/disengaged from carrier cab. Maximum pressure at 2900 p.s.i. *(200 Bars)*. Hydraulic oil cooler is standard.

Reservoir — Link-Belt, 110 gallon *(416 L)* capacity. Diffusers for deaeration.

Filtration — One six-micron filter located inside the hydraulic reservoir.

Control valves — Six separate control valves allow simultaneous operation of all crane functions.

Load Hoist System

Standard — Model 2M main winch with two-speed motor and automatic brake, power up/power down mode of operation. Bi-directional, gear-type hydraulic motor.

Optional — Model 2M auxiliary winch with two-speed motor and automatic brake, power up/power down mode of operation. Bi-directional, gear-type hydraulic motor.

Optional — Model 3M winch with two-speed motor and automatic brake; power up/power down mode and exclusive controlled true gravity free fall. Available on main or both winches.

Line pulls and speeds — Maximum line pull is 11,700 lbs. *(5 307 kgs.)* and maximum line speed is 414 f.p.m. *(129.19 m/min)* on 10-5/8" *(0.27 m)* root diameter smooth drum.

Additional Upperstructure Equipment - Optional

Boom hoist foot control, drum rotation indicators, propane heater, diesel heater, 25 ton *(22.70 metric ton)* or 35 ton *(31.77 metric ton)* hook block, roof window windshield wiper, 8-1/2 ton *(7.72 metric ton)* ball and swivel, flood lights, lifting lug package, hand throttle, windshield washer, amber rotating beacon, cab mounted spotlight, tachometer and engine monitoring system.

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Link-Belt CONSTRUCTION EQUIPMENT

Carrier

Type

Link-Belt 8' 0" *(2.44 m)* wide, 216" *(5.49 m)* wheelbase.

Standard — 6 X 4 drive

Optional — 6 X 6 drive

Frame — All-welded high strength alloy steel plate construction with box-type design and integral 100,000 p.s.i. *(689.5 MPa)* steel outrigger boxes.

Outriggers

Standard — Power hydraulic, double box, single beam outriggers, front and rear. Vertical jack cylinders, each equipped with integral holding valve. Beams extend to 18' 0" *(5.49 m)* centerline-to-centerline and retract to within 8' 0" *(2.44 m)* overall width. Equipped with stowable, 19" *(.48 m)* square lightweight floats. Controls and sight level bubble located in upperstructure cab.

Front bumper outrigger— Standard; Front center vertical jack mounted under bumper with 19" *(.48 m)* square light-weight float. Provides 360° lifting capacities.

Axles

Front- Standard; Single axle, 81" *(2.06 m)* track.

Optional; Single drive axle, 79.75" *(2.03 m)* track.

Rear- Tandem axle, 71.77" *(1.82 m)* track. 6.14 to 1 ratio with interaxle differential.

Suspension

Front- Spring suspension.

Rear- Solid mount 50" *(1.27 m)* bogie beam.

Wheels

Front- Cast six spoke

Rear- Cast six spoke

Tires

Standard Front — 16.5 x 22.5 (16 PR) transport type tubeless.

Standard Rear — 10.0 x 20.0 (12 PR) transport type with tube.

Optional Rear — 10.0 X 20.0 (12 PR) or 11.0 x 20.0 (12-PR) lug type.

Optional Front — 425/65R22.5 XZY lug type radials.

Optional Rear — 11R20 XZY lug type radials.

Brakes

Full air on all wheels. Air dryer is standard.

Service

Front — Standard; 6 x 4 Cam-type 17-1/4" x 6" *(.44 m x .10 m)* shoe diameter.

Front — *Optional*; 6 x 6, 15" x 5" *(.38 m x .13 m)* shoe diameter.

Rear — Cam-type 16-1/2" X 7" *(.42 m X .18 m)* shoe diameter.

Parking & emergency — One spring set, air released chamber per rear axle end. Parking brake applied with valve mounted on carrier dash. Emergency brakes apply automatically when air pressure drops below 40 p.s.i. *(2.76 Bars)* in both systems.

Steering

Sheppard Steering, rack-and-pinion design. Provides wall-to-wall turning radius of 50' 7" *(15.42 m)*.

Optional; Remote steering control system. Operated from upperstructure cab instrumentation includes toggle switch steering control, wheel position indicator, brake and transmission controls and parking brake control.

Clutch — Lipe-Rollway 14" *(0.36 m)* diameter, spring loaded, single plate dry disc.

Universals — Rockwell or spicer; easy service type.

Transmission

Standard — Fuller Roadranger RT-6613; 13 speeds forward, 3 reverse.

Optional — Allison MT-653DR; 5-speed automatic with lock-up converter.

Electrical System

Two 12-volt batteries; 1,950 cold cranking amps available, 105 amp alternator.

Lights — Four dual-beam sealed headlights, front and rear directional signals, stop and tail lights, four-way emergency flashers, back-up lights, front, rear and side clearance lights with integral reflectors, and license plate light.

Carrier Cab

One-man cab. Acoustical insulation with vinyl covering. Equipped with electric windshield wiper and washer, horn, four-way adjustable seat with seat belt, dome and dash lights, cigar lighter, ashtray, 22,400 BTU capacity heater, defroster, door and window locks, fire extinguisher, LH/RH rear view mirrors, tilt/telescoping steering wheel and sliding LH/RH and rear tinted windows.

Cab instrumentation — Standard; illuminated instrument panel with speedometer, odometer, tachometer, voltmeter, hourmeter, front and rear air pressure gauges, low air pressure light and warning buzzer, automotive-type ignition (common with upper), engine oil pressure gauge, water temperature gauge, fuel gauge, turn signal indicator, high beam light switch, adjustable defroster vents and circuit breakers.

Additional Equipment - Standard

Front and rear fenders, air dryer, back-up warning alarm, cab steps, access ladder to rear carrier deck with hand grab rails, front/rear tow loops, skid-resistant finish on carrier deck, mud flaps, and 120 volt 1000 watt engine coolant heater.

Additional Equipment - Optional

Propane engine block heater, ether injection starting package, spare tire and rim assemblies, towing shackles and engine monitoring system.

Travel Speeds and Gradeability ?

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Link-Belt
CONSTRUCTION EQUIPMENT

Travel speeds and gradeability ①

Engine	Maximum Speed		Maximum Gradeability at Peak Torque	
	mph	*km/h*		
Cummins 6CTA8.3	47.3	*76.12*	Manual — 60.4%	Automatic — 70.9% (stall)

① Maximum speed based on full load r.p.m. Gradeability is based on peak torque of the engine and machine equipped with standard tires and G.V.W.

Engine specifications

Engine	Cummins 6CTA8.3
Cylinders -- cycle	6 -- 4
Bore	4.49" *(.11 m)*
Stroke	5.32" *(.13 m)*
Displacement	504.5 cu. in. *(8 269 cm³)*
Gross engine power	210 hp @ 2,400 rpm
Peak torque	605 ft. lbs. *(820 J)*
Electric system	12 volt negative ground
Fuel capacity	60 gallons *(227 L)*
Alternator	105 amp
Crankcase capacity	25.2 qts. *(23.8 L)*
Air compressor	12 c.f.m. *(.34 m³/min)*
Coolant capacity	10.8 gal. *(40.9 L)*

Axle loads

Base machine with 32' 0" - 80' *(9.75 m-24.38 m)* 3-section boom, 450' *(137.16 m)* of 5/8" *(16 mm)* wire rope, two-speed main winch, 6x4 carrier with Cummins 6CTA8.3 diesel engine, full fuel, front bumper outrigger, 16.5x22.5 front tires, 10x20 highway rear tires, full hydraulic oil, pontoons stored, 2,700 lbs. *(1 224 kg)* counterweight and Roadranger transmission	G.V.W. ①		Upper facing front				Upper facing rear			
			Front axle		Rear axle		Front axle		Rear axle	
	lbs.	*kg*	lbs.	*kg*	lbs.	*kg*	lbs.	*kg*	lbs.	*kg*
	48,543	*22 019*	16,174	*7 337*	32,369	*14 682*	7,242	*3 285*	41,301	*18 734*
32'-101' *(9.75 m - 30.78 m)* 4-section boom with 4,500 lb. *(2 041 kg)* counterweight	4,220	*1 914*	565	*256*	3.655	*1 658*	-565	*-256*	4,785	*2 171*
3M freefall rear winch with 450' *(137.16 m)* rope	41	*19*	-20	*-9*	61	*28*	20	*9*	21	*10*
Power up/down front winch with 350' *(106.68 m)* rope	516	*234*	-80	*-36*	596	*270*	80	*36*	436	*198*
(2) 3M freefall winches with 350' *(106.68 m)* rope on front and 450' *(137.16 m)* on rear	491	*223*	-44	*-20*	535	*243*	44	*20*	447	*203*
29' *(8.84 m)* lattice fly, stowed	1,080	*490*	629	*285*	451	*205*	-629	*-285*	1,709	*775*
21' *(6.40 m)* A-frame jib, stowed	970	*440*	490	*222*	480	*218*	-490	*-222*	1,460	*662*
Hookblock at bumper	650	*295*	903	*410*	-253	*-115*	903	*410*	-253	*-115*
Heeadache ball at bumper	325	*147*	481	*218*	-156	*-71*	481	*218*	-156	*-71*
Auxiliary lifting sheave	125	*57*	205	*93*	-80	*-36*	-205	*-93*	330	*150*
11 x 20 optional rear tires & rims	128	*58*	-	-	128	*58*	-	-	128	*58*
11R20 rear radials	400	*181*	-	-	400	*181*	-	-	400	*181*
6 x 6 drive	786	*356*	602	*273*	184	*83*	602	*273*	184	*83*

① Adjust gross vehicle weight & axle loading according to component weight. **NOTE**:All weights are ± 3%.

② When selecting a tire & drive combination, the front axle load with upper facing front should not exceed the limits in the table below.

Maximum FrontAxle Load Table

Drive	Tire	Maximum Axle Load @ 50 mph *(80.45 km/h)**
6 x 4	16.5 x 22.5 H	19,700 lbs. *(8 935 kg)*
6 x 6	16.5 x 22.5 H	19,700 lbs. *(8 935 kg)*

* For speeds exceeding 50 mph *(80.45 km/h)* see Operator's Manual

Link-Belt Construction Equipment Company Lexington, Kentucky

A unit of Sumitomo Construction Machinery Co., Ltd.

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Link-Belt
CONSTRUCTION EQUIPMENT

Lifting Capacities

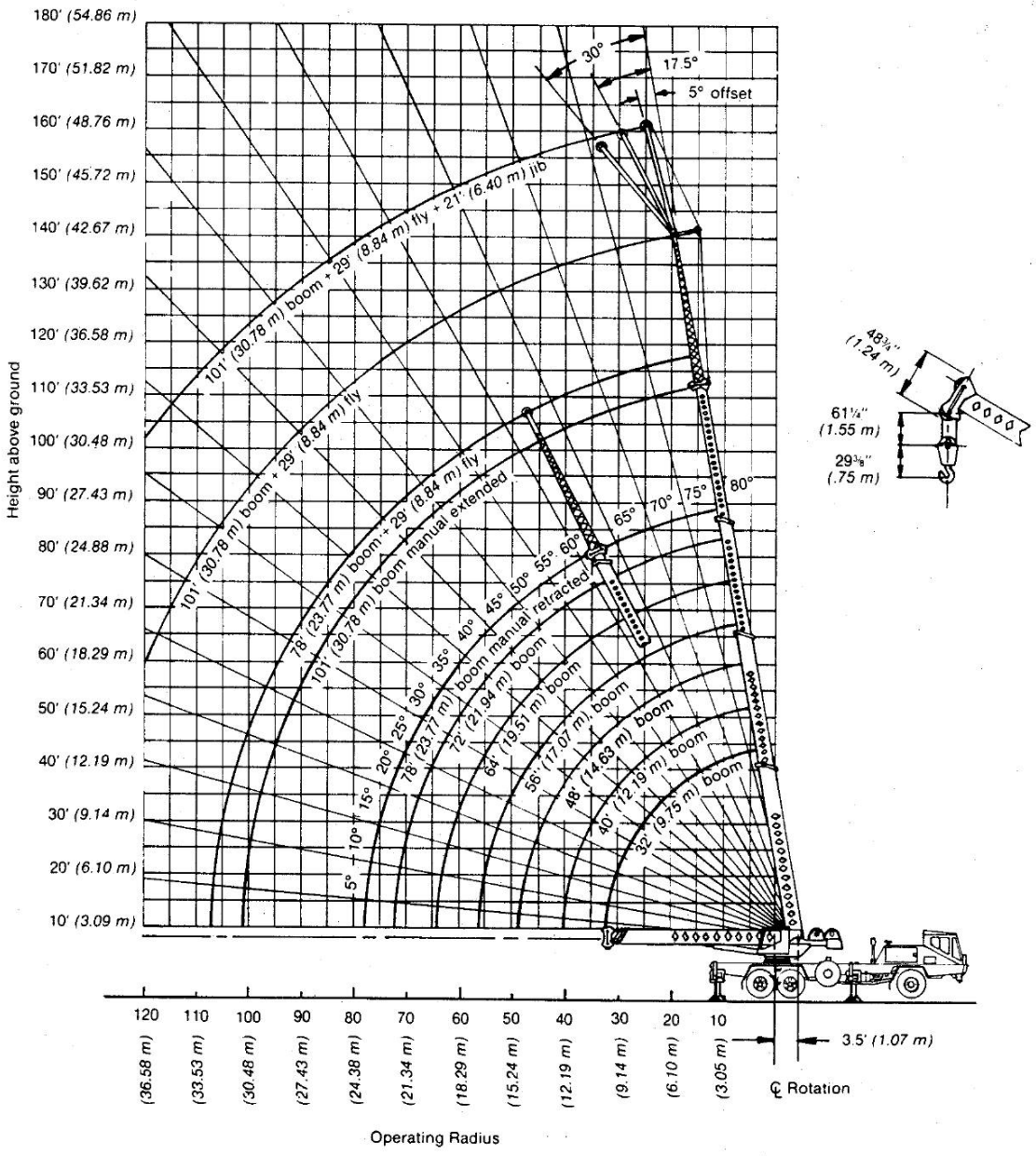
Hydraulic Crane

GENERAL INFORMATION ONLY

PCSA Class 10-84

HTC-830 30-ton *(27.22 metric ton)*

4-Section Boom



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

CAUTION: This material is supplied for reference only. Operator MUST refer to in-cab capacity plate to determine allowable machine lifting capacities and operating precedures.

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GENERAL INFORMATION ONLY

HTC-830 Lifting Capacities

8' (2.44 m) carrier

32'-101' (9.75 - 30.78 m) 4-section boom

Refer to **Operating Instructions** page 4

Capacities On Outriggers **Manual Section Retracted**

Load radius	32' (9.75 m)		40' (12.19 m)		48' (14.63 m)		56' (17.07 m)		64' (19.50 m)		72' (21.95 m)		78' (23.77 m)		78' (23.77 m) boom plus 29' (2.84 m) fly		
	Side	Rear	Side	Rear	Side	Rear	Side	Rear	Side	Rear	Side	Rear	Side	Rear	Boom angle	Side	Rear
10' 3.05m	60,000 27 216	60,000 27 216	51,800 23 496	51,800 23 496	50,900 23 088	50,900 23 088	50,400 22 861	50,400 22 861	41,700 18 915	41,700 18 915					See Note ①		
12' 3.66m	56,500 25 628	56,800 25 764	51,800 23 496	51,800 23 496	50,900 23 088	50,900 23 088	50,400 22 861	50,400 22 861	38,600 17 509	38,600 17 509	32,300 14 651	32,300 14 651					
15' 4.57m	43,100 19 550	48,200 21 863	43,100 19 550	48,200 21 863	43,000 19 505	48,100 21 818	43,000 19 505	45,900 20 820	34,600 15 694	34,600 15 694	29,200 13 245	29,200 13 245	24,700 11 204	24,700 11 204			
20' 6.10m	30,800 13 971	35,800 16 239	30,800 13 971	35,800 16 239	30,800 13 971	35,800 16 239	30,800 13 971	35,800 16 239	29,200 13 245	29,200 13 245	25,000 11 340	25,000 11 340	22,600 10 251	22,600 10 251	79°	14,500 6 577	14,500 6 577
25' 7.62m	21,500 9 752	26,100 11 839	21,500 9 752	26,100 11 839	21,500 9 752	26,100 11 839	21,500 9 752	26,100 11 839	21,500 9 752	25,200 11 431	21,400 9 707	21,400 9 707	19,400 8 800	19,400 8 800	77°	13,600 6 168	13,600 6 168
30' 9.14m			15,100 6 849	19,100 8 664	15,100 6 849	19,100 8 664	15,100 6 849	19,100 8 664	15,100 6 849	19,100 8 664	15,100 6 849	18,900 8 573	15,100 6 849	17,100 7 756	74°	12,100 5 488	12,100 5 488
35' 10.67m					11,200 5 080	14,600 6 622	11,200 5 080	14,600 6 622	11,200 5 080	14,600 6 622	11,200 5 080	14,600 6 622	11,200 5 080	14,600 6 622	72°	11,500 5 216	11,500 5 216
40' 12.19m					8,400 3 810	11,500 5 216	8,400 3 810	11,500 5 216	8,400 3 810	11,500 5 216	8,400 3 810	11,500 5 216	8,400 3 810	11,500 5 216	69°	10,000 4 536	10,500 4 762
45' 13.72m							6,500 2 948	9,200 4 173	6,500 2 948	9,200 4 173	6,500 2 948	9,200 4 173	6,500 2 948	9,200 4 173	66°	7,900 3 583	8,700 3 946
50' 15.24m							5,000 2 268	7,400 3 357	5,000 2 268	7,400 3 357	5,000 2 268	7,400 3 357	5,000 2 268	7,400 3 357	63°	6,400 2 903	7,900 3 583
55' 16.76m									3,900 1 769	6,100 2 767	3,900 1 769	6,100 2 767	3,900 1 769	6,100 2 767	60°	5,100 2 313	7,200 3 265
60' 18.29m									2,900 1 315	4,900 2 223	2,900 1 315	4,900 2 223	2,900 1 315	4,900 2 223	56°	4,200 1 905	6,100 2 766
65' 19.81m											2,200 998	4,000 1 814	2,200 998	4,000 1 814	53°	3,400 1 542	5,200 2 358
70' 21.34m													1,600 726	3,300 1 497	49°	2,700 1 224	4,400 1 995
75' 22.86m															45°	2,100 952	3,700 1 678
80' 24.38m															41°	1,600 725	3,100 1 406
85' 25.90m															36°	1,200 544	2,600 1 179
90' 27.43m															30°		2,100 952

Note: For 360° capacities, use the over side capacities with the bumper outrigger set in proper working position.

①Capacities for boom plus fly can be extended or retracted, but are based on boom angle only; see Operating Instructions Number 16.

Main Boom Capacities① On Tires

Load radius		1.0 m.p.h. (1.61 km/hr) over rear only	
Feet	meters	Pounds	kilograms
10	3.05	19,500	8 845
12	3.66	16,000	7 257
15	4.57	11,700	5 171
20	6.10	7,300	3 311
25	7.62	4,600	2 086
30	9.14	2,800	1 270
35	10.67	1,600	725

Crane capacities on tires depend on tire capacity, condition of tires, and tire pressures.

Tires	Ply rating	1.0 m.p.h. (1.61 km.hr) inflation
10.0 x 20.0	12	65 p.s.i. (4.48 Bars)
11.0 x 20.0	12	55 p.s.i. (3.79 Bars)
16.5 x 22.5	16	90 p.s.i. (6.21 Bars)

①See Operating Instructions; Set-Up Number 3 and 4

Deductions For Auxiliary Load Handling Equipment	
Picking From Main Boom With	
Aux. Head	200 Lbs.
Jib Stowed	600 Lbs.
Fly Stowed	600 Lbs.
Fly Erected	1500 Lbs.
Fly & Jib Stowed	1200 Lbs.
Fly & Jib Erected	4200 Lbs.
Picking From 29 Ft. Fly With	
Jib Erected	1300 Lbs.
Jib Stowed	600 Lbs.

Wire rope size and type

Wire rope application	Size and type used	Wire rope description
Main winch	5/8" (16 mm) diameter, Type "N"	Type "N" - 6 x 25 (6 x 19 class) filler wire, extra improved plow steel, preformed, independent wire rope core, right lay, regular lay.
Auxiliary winch	5/8" (16 mm) diameter, Type "N"	
Jib frontstay pendants ①	1/2" (13 mm) diameter, Type "N"	
Jib backstay pendants ②	1/2" (13 mm) diameter, Type "N"	

①Jib frontstay pendants - 24' 3-5/8" (7.45 m)

②Jib backstay pendants - 32' 3/4" (9.77 m)

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GENERAL INFORMATION ONLY

Link-Belt CONSTRUCTION EQUIPMENT

HTC-830 Lifting Capacities

8' *(2.44m)* carrier

32' - 101' *(9.75 - 30.78 m)*4-section boom

Refer to **Operating Instructions** page 4

Capacities On Outriggers **Manual Section Extended**

Load radius	101' *(30.78 m)*			101' *(30.78 m)* plus 29' *(8.84 m)* fly		
	Boom angle	Side	Rear	Boom angle	Side	Rear
		See Note ①			See Note ②	
20' *6.10 m*	79°	14,800 *6 713*	14,800 *6 713*			
25' *7.62 m*	76°	14,300 *6 486*	14,300 *6 486*			
30' *9.14 m*	74°	13,800 *6 259*	13,800 *6 259*	78°	7,000 *3 175*	7,000 *3 175*
35' *10.67 m*	71°	12,500 *5 670*	12,500 *5 670*	76°	7,000 *3 175*	7,000 *3 175*
40' *12.19 m*	68°	9,800 *4 445*	11,100 *5 034*	74°	7,000 *3 175*	7,000 *3 175*
45' *13.72 m*	65°	7,700 *3 492*	9,900 *4 490*	72°	7,000 *3 175*	7,000 *3 175*
50' *15.24 m*	61°	6,200 *2 812*	8,600 *3 900*	70°	6,800 *3 084*	6,800 *3 084*
55' *16.76 m*	58°	5,000 *2 268*	7,200 *3 265*	67°	5,600 *2 540*	6,200 *2 812*
60' *18.29 m*	54°	4,100 *1 859*	6,000 *2 721*	65°	4,600 *2 086*	5,700 *2 585*
65' *19.81 m*	50°	3,300 *1 496*	5,100 *2 313*	62°	3,800 *1 723*	5,200 *2 358*
70' *21.34 m*	46°	2,600 *1 179*	4,300 *1 950*	60°	3,100 *1 406*	4,700 *2 131*
75' *22.86 m*	42°	2,000 *907*	3,600 *1 632*	57°	2,600 *1 179*	4,100 *1 859*
80' *24.38 m*	37°	1,600 *725*	3,100 *1 406*	54°	2,100 *952*	3,500 *1 587*
85' *25.90 m*	31°	1,200 *544*	2,500 *1 134*	51°	1,600 *725*	3,000 *1 360*
90' *27.43 m*	27°		2,100 *952*	48°	1,300 *589*	2,600 *1 179*
95' *28.95 m*				44°		2,200 *997*
100' *30.48 m*				40°		1,800 *816*

Note: For 360° capacities, use the over side capacities with the bumper outrigger set in proper working position.

①Calculating capacities for extended or retracted boom with manual section extended must be based on boom angle only; see Operating Instructions Number 15.

①Capacities for boom plus fly can be extended or retracted, but are based on boom angle only; see Operating Instructions Number 16.

Jib Capacities

29' *(8.84 m)* fly plus 21' *(6.40 m)* jib

Boom angle	Jib Offset		
	5°	17.5°	30°
80°	4,000 *1 814*	4,000 *1 814*	4,000 *1 814*
75°	4,000 *1 814*	4,000 *1 814*	3,600 *1 632*
70°	3,800 *1 723*	3,300 *1 496*	2,900 *1 315*
65°	2,500 *1 134*	2,200 *997*	1,900 *861*
60°	1,500 *680*	1,300 *589*	1,200 *544*

Drum wire rope capacities

Wire rope layer	Main and auxiliary drum 10¾" *(.27 m)* root diameter smooth lagging; 5/8" *(16 mm)* wire rope			
	Rope per layer		Total wire rope	
	Feet	*meters*	Feet	*meters*
1	74	*22 55*	74	*22 55*
2	85	*25 91*	159	*48 46*
3	90	*27 43*	249	*75 89*
4	98	*29 87*	347	*105 76*
5	106	*32 31*	453	*138 07*
6	115	*35 05*	568	*173 13*

Wire rope layer	Main and auxiliary drum 15¼" *(.38 m)* root diameter grooved lagging; 5/8" *(16 mm)* wire rope			
	Rope per layer		Total wire rope	
	Feet	*meters*	Feet	*meters*
1	103	*31 39*	103	*31 39*
2	111	*33 83*	214	*65 23*
3	120	*36 58*	334	*101 80*
4	128	*39 01*	462	*140 82*
5	136	*41 52*	598	*182 27*
6	144	*43 89*	742	*226 16*

Line speeds and pulls

Layer	Speed	Main or auxiliary winch - 10¾" *(.27 m)* drum						Main or auxiliary winch - 15¼" *(.38 m)* drum					
		Line speeds		Line pulls				Line speeds		Line pulls			
				Available*		Permissible				Available*		Permissible	
		F.p.m.	*m/min.*	Lbs.	*kgs.*	Lbs.	*kgs.*	F.p.m.	*m/min.*	Lbs.	*kgs.*	Lbs.	*kgs.*
1st	Low	133	*40.54*	12,970	*5 883*	11,700	*5 307*	186	*56.69*	9,260	*4 200*	8,420	*3 819*
	High	266	*81.08*	6,480	*2 939*	5,890	*2 672*	372	*113.38*	4,630	*2 100*	4,210	*1 910*
2nd	Low	148	*45.11*	11,670	*5 207*	10,610	*4 812*	201	*61.26*	8,570	*3 887*	7,790	*3 533*
	High	296	*90.22*	5 840	*2 649*	5,300	*2 404*	402	*122.52*	4,290	*1 945*	3,900	*1 769*
3rd	Low	163	*49.68*	10,610	*4 812*	9,640	*4 372*	216	*65.83*	7,980	*3 619*	7,260	*3 293*
	High	325	*99.06*	5,310	*2 408*	4,820	*2 186*	432	*131.67*	3 990	*1 809*	3,630	*1 646*
4th	Low	177	*53.94*	9,730	*4 413*	8,840	*4 009*	231	*70.40*	7,470	*3 388*	6,790	*3 079*
	High	355	*108.20*	4,860	*2 204*	4,420	*2 004*	462	*140.81*	3,730	*1 691*	3,390	*1 537*
5th	Low	192	*58.52*	8,980	*4 073*	8,160	*3 701*	246	*74.98*	7,020	*3 184*	6,380	*2 893*
	High	384	*117.04*	4,490	*2 036*	4,080	*1 850*	492	*149.96*	3,510	*1 592*	3,190	*1 446*
6th	Low	207	*63.09*	8,340	*3 783*	7,580	*3 438*	261	*79.55*	6,620	*3 003*	6,010	*2 726*
	High	413	*125.88*	4,170	*1 891*	3,790	*1 719*	522	*159.11*	3,310	*1 501*	3,010	*1 365*

*Developed by machinery with first layer of wire rope, but not based on wire rope strength.

HTC-830 hydraulic circuit pressure settings	
Function	**Pressure**
Boom hoist	2,900 p.s.i. *(200.0 Bars)*
Wire rope hoist	2,500 p.s.i. *(172.45 Bars)*
Swing	1,500 p.s.i. *(103.45 Bars)* at port relief
Innermid telescope	2,500 p.s.i. *(172.41 Bars)*
Outermid telescope	2,500 p.s.i. *(172.41 Bars)*
Steering	2,100 p.s.i. *(144.79 Bars)*
Outriggers	2,500 p.s.i. *(172.41 Bars)*
Winch brake and clutch	1,500 p.s.i. *(103.45 Bars)*

BIGGE ⚠ 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

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Link-Belt
CONSTRUCTION EQUIPMENT

HTC-830 Warning and Operating Instructions

Read and understand these operating instructions and the chart values before operating crane. Operation which does not follow these instructions may result in an accident.

General:

1. Rated lifting capacities in pounds as shown on lift chart pertain to this machine as originally manufactured and normally equipped by Link-Belt Construction Equipment Company. Modifications to the machine or use of optional equipment other than that specified can result in a reduction of capacity.
2. Construction equipment can be dangerous if improperly operated or maintained. Operation and maintenance of this machine must be in compliance with the information in the operator's parts and safety manuals supplied with this machine. If these manuals are missing, order replacements through the distributor.
3. The operator and other personnel associated with this machine shall fully acquaint themselves with the latest applicable American National Standards Institute (ANSI) Safety Standards for cranes.
4. The maximum allowable lifting capacities are based on machine standing level on firm supporting surface.

Set-Up:

1. The machine 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 floats or tires to spread the load to a larger bearing surface.
2. When making lifts on outriggers, outrigger beams must be fully extended with tires free of supporting surface.
3. Crane capacities on tires depend on tire capacity, condition of tires, and tire pressure. On-tire picks require lifting from main boom head only on a smooth and level surface. Boom sections must be extended equally. Pick and carry operations are restricted to 1 m.p.h. *(1.61 km/hr)* maximum speed. The boom must be centered over rear with swinglock engaged and the load must be restrained from swinging. Lifts with manual extended, fly or fly-jib combination erected are prohibited on tires.
4. When making lifts on rubber, tires must be inflated to the recommended pressure.
5. For machine equipped with front bumper outrigger, the front bumper outrigger must be set in proper working position before swinging boom lengths greater than 32' *(9.75 m)* 360.
6. Outriggers must be set before swinging boom to over side position as defined on working area plate No. 59P0009.
7. When installing or removing counterweight, use fully retracted boom only. Do not swing counterweight beyond a 25' *(7.62 m)* radius. Machine must be on outriggers during this operation.
8. For required parts of line see wire rope strength plate.

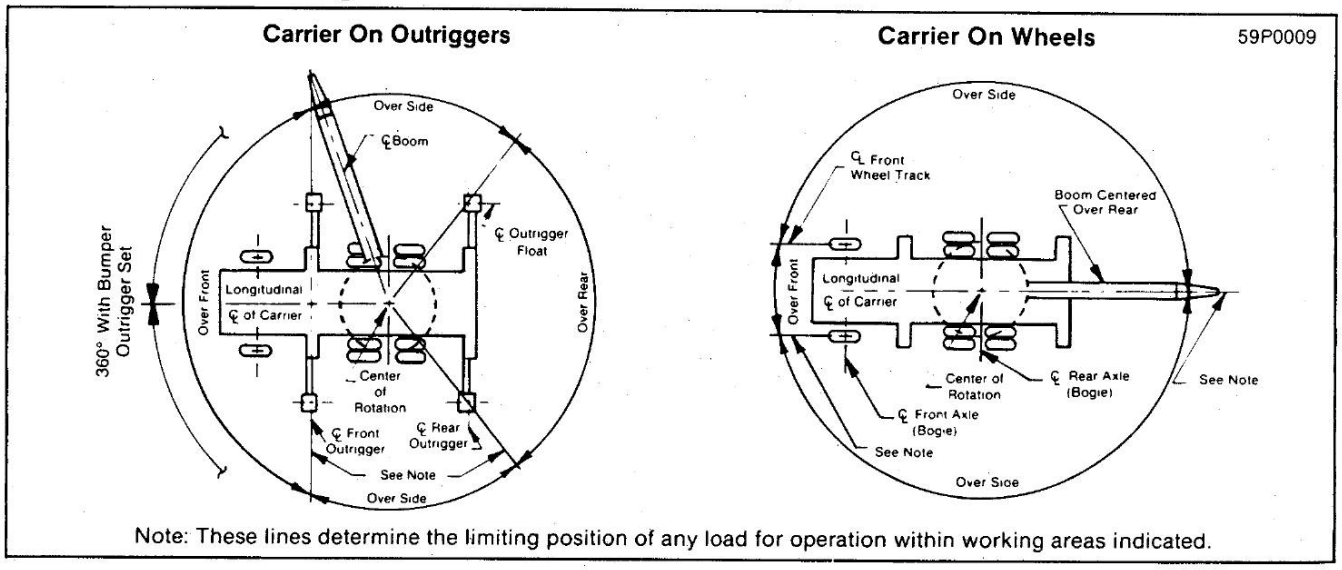
Operation:

1. Rated lifting capacities at rated radius shall not be exceeded. Do not tip machine to determine allowable load. For concrete bucket operation, weight of bucket and load shall not exceed 80% of rated lifting capacity. For clamshell bucket operation, weight of bucket and bucket content is restricted to a maximum of 6,000 lbs. *(2722 kg)* or 80% of rated lifting capacity, whichever is less. For magnet operation, weight of magnet and load is restricted to a maximum of 6,000 lbs. *(2722 kg)* or 80% of rated lifting capacity, whichever is less. For clamshell and magnet operation, maximum boom length is restricted to 50' *(15.24 m)* and the boom angle is restricted to a minimum of 35°. Manual extended, fly or fly-jib combinations are prohibited for both clam and magnet operations.
2. The crane capacities shown on outriggers do not exceed 85% of the tipping loads and crane capacities shown on tires do not exceed 85% of the tipping loads as determined by SAE crane stability test code J-765a.
3. The crane capacities above the bold lines are based on structural strength or hydraulic limitations.
4. Rated lifting capacities include the weight of hook block, slings, bucket, magnet and auxiliary lifting devices and their weights must be subtracted from the listed rated load to obtain the net load to be lfited. Also see in-cab capacity chart for deductions for auxiliary head, fly and jib.
5. 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.
6. Rated lifting capacities are for lift crane service only.
7. Do not operate at radii or boom lengths where capacities are not listed. At these positions, the machine can overturn without any load on the hook.
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 load rating chart.
9. When either boom length or radius or both are between values listed, the smallest load shown at either the next larger radius or boom length shall be used.
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, two machine lifts, traveling with loads, electrical wires, etc. Side load on boom, fly or jib is extremely dangerous.
11. When making lifts with auxiliary head machinery, the effective length of the boom increases by 2' (.61 m). Effective length of boom is length shown on boom length indicator plus 2' (.61 m).
12. Power sections must be extended equally.
13. The least stable rated working area on outriggers is over the side.
14. Rated lifting capacities are based on correct reeving. Deduction must be made for excessive reeving. Any reeving over minimum required (see wire rope strength plate) is considered excessive and must be accounted for. Use working range plate to estimate the extra feet or rope then deduct .72 lb. (.33 kg) for each foot of wire rope before attempting to lift a load.
15. For boom lengths less than 101' (32.61 m) with manual extended, the rated loads are determined by boom angle only in the column headed 101' (30.78 m). For angles not shown, use next lower boom angle to determine allowable capacity.
16. For boom lengths plus fly less than 107' (32.62 m) with manual retracted or less than 130' (39.62 m) with manual extended the rated loads are determined by boom angle only in the respective column. For angles not shown, use next lower boom angle to determine allowable capacity.
17. With front bumper outrigger set, use over side capacity values for 360 degree working area.
    Do not lower 78' (23.77 m) boom below 12 degrees. Do not lower 78' (23.77 m) boom with fly below 30 degrees. Do not lower 101' (30.78 m) boom with manual extended below 27 degrees. Do not lower 101' (30.78 m) boom with 29' (8.84 m) fly below 40 degrees. Failure to follow Note 18 will result in a tipping condition.
18. The 21' (6.40 m) jib capacities are based on main boom angle regardless of main boom length. For angles not shown use next lower boom angle to determine allowable capacity. Capacity values can be used to operate over rear or over side. Warning: do not lower 21' (6.40 m) jib in working position below 60 degrees unless boom is fully retracted.
19. The 32' (9.75 m) boom length capacities are based on boom fully retracted. If not fully retracted, do not exceed ratings for the 40' (12.19 m) boom length.

GENERAL INFORMATION ONLY

HTC-830 Working Areas

59P0009



Note: These lines determine the limiting position of any load for operation within working areas indicated.

Link-Belt Construction Equipment Company Lexington, Kentucky

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Please contact Bigge Crane and Rigging Co. at 888-337-BIGGE or email info@bigge.com for further information. ⚠ BIGGE