<u>Technical Data</u>

Specifications & Capacities





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



Upper Structure

Boom

Patented Design

- Boom side plates have diamond shaped impressions for superior strength to weight ratio and 100,000 psi (689.5MPa) 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

- 33-105 ft (10.06-32.00m) four-section full power boom.
- Two mode boom extension
- The basic mode is the full power, synchronized mode of telescoping all sections proportionally to 105 ft (32.00m)
- The exclusive "A-max" mode (or mode 'A') extends only the inner mid section to 57 ft (17.37m) offering increased capacities for in-close, maximum capacity picks
- · Mechanical boom angle indicator

Boom Head

- Four 16.5 in (0.42m) root diameter nylon sheaves to handle up to eight 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

Boom Elevation

- One Link-Belt designed hydraulic cylinder with holding valve and bushing in each end
- Hand control for controlling boom elevation from -3° to +78°

Optional Auxiliary Lifting Sheave

- Single 16.5 in (0.42m) 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

- 25-ton (22.7mt) quick reeve hook block
- 40-ton (36.3mt) quick reeve hook block •
- 8.5-ton (7.7mt) hook ball
- Boom floodlight

Fly

Optional

- 28.5 ft (8.69m) offsettable stowable one piece lattice type with lugs to allow for addition of second section. Can be offset 2°, 20°, or 40°.
- 28.5-51 ft (8.69-15.54m) offsettable stowable 2-piece lattice type. Can be offset 2°, 20°, or 40°.

Cab and Controls

Environmental Ultra – Cab [™]

- Laminated fibrous composite material; isolated from sound with acoustical fabric insulation
- · Windows are tinted and tempered safety glass
- Sliding rear and right side windows and swing-up roof window for maximum visibility and ventilation
- Slide-by-door opens to 3 ft (0.91m) width
- Six-way adjustable seat for maximum operator comfort
- Hand-held outrigger controls and sight level bubble located in cab
- Diesel cab heater
- Pull-out Cabwalk™ Circulating fan Warning horn

Cup holder

- Audible swing alarm
- Fire extinguisher
 - 12-volt accessory outlet Sun screen
 - Electric windshield wiper · Hand throttle Mirrors
 - Windshield washer Dome light
 - Top hatch window wiper

Optional

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

Controls

- Hydraulic controls (joy-stick type) for:
- Swing Main winch 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 Oil pressure

Fuel

- Tachometer
 - Voltmeter
- 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 Head height
- Radius of load Allowed load
 - Actual load

Boom angle

% 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 hook block

Optional

- Internal RCL light bar: Visually informs operator when crane is approaching maximum load capacity with a series of three lights; green, yellow, and red
- 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 2.8 rpm
- 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 – Bolted to upper structure
- frame. 4,700 lb (2 132kg) one piece design

• Optional - 2,000 lb (907kg) additional counterweight can be inserted into pockets in main counterweight

Optional

 360° swing lock. Meets New York City requirements

Hydraulic System

Main Pump

- One gear pump with a total of four sections
- Combined pump capacity of 131 gpm
 (488Lpm)
- Powered by carrier engine through power take-off (PTO)
- Spline type pump disconnect, mechanically activated pump disconnect engaged/ disengaged from carrier cab
- Maximum system operating pressure is 3,350 psi (23 098kPa)
- O-ring face seals technology used throughout with hydraulic oil cooler standard

Steering / Fifth Outrigger Pump

 Single gear type pump, 6 gpm (23Lpm) Powered by carrier engine through front gear housing • Max. pump operating pressure is 2,000 psi (13 790kPa). Reservoir – 131 gal (507.2L) capacity. One diffuser for deaeration

Filtration

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

Control valves

 Five separate pilot operated control valves allow simultaneous operation of all crane functions

Load Hoist System

Standard

- 2M main winch with grooved lagging
- Two-speed motor and automatic brake
- Power up/down mode of operation
- 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

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- Pressure compensated winch circuit 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 13,010 lb (5 901kg) and maximum line speed of 480 fpm (146m/min) on 10.63 in (0.27m) 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

🗖 Туре

8 ft 6 in (2.59m) wide, 257 in (6.53m) wheelbase. 6 x 4 drive – standard.

Frame

 100,000 psi (689.5MPa) steel, double walled construction with integral 100,000 psi steel outrigger boxes

Optional

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

Axles

Front

• Single, 83.22 in (2.11m) track

Rear

• Tandem, 76.17 in (1.93m) track. 5.57 to 1.0 ratio with interaxle differential with lockout (6.17:1 ratio with automatic transmission)

Suspension

Front axle

Leaf spring suspension

Rear axle

• Air-ride, bogie beam type, suspension

Wheels

Standard

Hub piloted steel disc

Optional

- Hub piloted aluminum disc
- Spare tire and wheel assemblies

Tires

Standard Front

 425/65R22.5 (Load range "L") single tubeless radials

Standard Rear

 275/80R22.5 (Load range "H") dual tubeless radials

Optional Rear

11R22.5 (Load range "H") 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 (275.8kPa) in both systems

Steering

Sheppard rack and pinion design
Optional

Remote drive and steer

Transmission

Standard

Eaton RTX-11609B; 9 speeds forward, 2 reverse

Optional

 Automatic Allison MD 3066, 65:1 high, 3.49:1 low

Auxiliary

 Eaton 2A-92, two speed- High: 1.0:1 Low: 2.3:1 (with automatic transmission only)

Electrical

- Two 12-volt batteries provide 12-volt starting. 160-amp alternator.
- 1,400 cold cranking amps available
- 12-volt operating system

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

or operator's cab

(CALC [™]) System

tion positions

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- Three position operation capability
- Four hydraulic, telescoping beam and jack outriggers
- Vertical jack cylinders equipped with integral holding valve
- Beams extend to 20' 6" (6.25m) centerline - to - centerline and retract to within 8' 6" (2.59m) overall width
- Equipped with stowable, lightweight 24" (0.61m) diameter aluminum floats
 Standard fifth outrigger, 16" (0.41m) self

Hand-held controls and sight level

bubble located on carrier deck Confined Area Lifting Capacities

storing steel pad is operable from ground

The crane is operational in one of the three

confined areas in two positions (intermedi-

Intermediate position - 14 ft 1.70 in (4.31m)

Capacities are available with the outrigger

beams in the intermediate and full retrac-

(located on the outrigger beams) are en-

gaged, the operator can set the crane in

position without having to leave the cab

the intermediate or full retraction outrigger

outriggers positions and operational in

ate and full retraction. The three

• Full extension - 20 ft 6 in (6.25m)

Full retraction - 7 ft 9.24 in (2.36m)

When the outrigger position levers

outrigger positions are:

• Amber Strobe Light

• Fuses

Carrier Cab

One-man cab of laminated fibrous composite material acoustical insulation with cloth covering

Equipped with:

- Air-ride, six-way adjustable operator's seat ٠
- Four-way adjustable tilting and lockable
- steering wheel ٠
- 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 ٠
- Back-up warning alarm ٠
- Tow hooks and shackles •
- Aluminum fenders with ground control outriggers

• Defroster

Cruise control

- Electric windshield wiper and washer •
 - **Travel lights** Horn Ashtray
 - Fire extinguisher
- 36,000 BTU heater ٠
 - Dome light
- ٠ Mud flaps

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Optional

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- Rotating Beacon
- Air conditioning

Cab instrumentation

- Illuminated instrument panel speedometer • Hourmeter
 - Tachometer
- Fuel gauge
- Oil pressure gauge • Odometer
- Turn signal indicator Voltmeter
- Water temperature gauge
- Front and rear air pressure gauges •
- Audio/visual warning system
- Automotive type ignition •

Carrier Speeds (Manual Transmission – Standard tires)

Ge	ar		Hi	gh		Low			Hi Rev.	Lo Rev.	Low Rev. @700 rpm	Low @700 rpm		
		8	7	6	5	4	3	2	1	Low	Rev.	Rev.	Low Rev.	Low
Ratio		0.73	1.00	1.38	1.95	2.79	3.83	5.28	7.47	12.57	3.43	13.14	13.14	12.57
Croad	mph	58.92	43.01	31.17	22.06	15.42	11.23	8.15	5.76	3.42	12.54	3.12	1.04	1.09
Speed	km/hr.	94.80	69.20	50.15	35.49	24.08	18.07	13.11	9.26	5.51	20.18	5.03	1.68	1.75

Engine

Engine – standard Cummins ISC 350		Engine – optional	Cummins ISL 330 with Jake Brake
Cylinders – cycle	6 / 4	Cylinders – cycle	6 / 4
Bore	4.49 in (114mm)	Bore	4.49 in (114mm)
Stroke	5.32 in (135mm)	Stroke	5.69 in (145mm)
Displacement	504.5 cu. in. (8 268cm ³)	Displacement	540 cu. in. (8 849cm ³)
Maximum brake hp.	350 @ 2,000 rpm; 335 @ 2,200 rpm	Maximum brake hp.	345 @ 1,900 rpm; 330 @ 2,100 rpm
Peak torque	1,050 ft lb (1 560J) @ 1,300 rpm	Peak torque	1,150 ft lb (1 559.2 J) @ 1,300 – 1,400 rpm
Electric system	12-volt neg. ground/12 volt starting	Electric system	12-volt neg. ground / 12 volt starting
Fuel capacity	75 gal (284L)	Fuel capacity	75 gal (284L)
Alternator	12 volt, 160 amps	Alternator	12 volt, 160 amps
Crankcase capacity	20 qt <i>(19L)</i>	Crankcase capacity	29 qt <i>(28L)</i>

Axle Loads

Base machine with standard 33-105 ft (10.06-32.00m) four-section			Upper Facing Front				
boom, 2M main winch with 2-speed hoisting and power up/down, 450 ft	G.V.	VV. 🗇	Front	Axle	Rear	Axle	
(13/m), 5/8 in (19mm) wire rope, 8 x 4, 8.5 ft (2.59m) carrier with Cum- mins ISC 350 Engine 75 gal (284) fuel aluminum fenders and 4 700 lb	lb	kg	lb	kg	lb	kg	
(2 132kg) counterweight.	56,828	25 777	17,607	7 986	39,221	17 790	
One must be table of discret fuel	304	170	260	100	105	57	
One-quarter tank of diesel fuel	-394	- 179	-209	- 122	- 125	-57	
Left side carrier aluminum storage box	57	20	14	0	43	20	
Right side carrier aluminum storage box	57	20	14	10	43	20	
Cummins ISL-330 engine with engine brake	25	11	23	10	2	1	
Six-speed automatic transmission and two-speed auxiliary transmission with engine brake	601	273	266	121	335	152	
Tire and aluminum disc 425/65R22.5 fronts - 11R22.5 rears	-520	-236	-110	-50	-410	- 186	
Air conditioning – Carrier cab	124	56	135	61	-11	-5	
Pintle hook w/air and electrical hook – ups	32	15	-9	-4	41	19	
Driver in carrier cab	200	91	236	107	-36	- 16	
Cab heater assembly (hydraulic)	110	50	-8	-4	118	5	
Air conditioning – Operator cab	315	143	-35	-16	350	159	
Rear winch roller	77	35	31	-14	108	49	
Front winches with two speeds and 450 ft (137.2m) of wire rope	312	141	-93	-43	405	184	
Front winch roller	77	35	-22	-10	99	45	
Remove rear winch rope (450 ft)	-365	- 166	161	73	-526	-239	
Remove front winch rope (450 ft)	-365	-166	120	54	-485	-220	
360° Mechanical House Lock	60	27	-2	-1	62	28	
Add 2,000 lb of counterweight (6,700 lb total)	2,000	907	-868	-394	2,868	1 801	
Fly brackets to boom base section for fly options	116	53	62	28	54	24	
28.5 ft (8.69m) offsettable fly w/ATB weight (stowed)	1,184	537	839	381	345	156	
28.5-51 ft (8.69-15.54m) offsettable fly w/ATB weight (stowed)	1,757	797	1,141	518	616	279	
Floodlight to front of boom base section	10	5	13	6	-3	-1	
25-ton (22.7mt) hook block stowed behind bumper (3-sheaves)	670	304	784	356	-114	-52	
40-ton (36.3mt) hook block stowed behind bumper (4-sheaves)	780	354	913	414	-133	-60	
Hookball to front bumper	360	163	421	191	-61	-28	
Auxiliary arm w/ATB switch to boomhead	110	50	153	69	-43	-20	

I Adjust gross vehicle weight & axle loading according to component weight.

Note: All weights are \pm 3%

Axle	Maximum Load @ 65 mph (105km/h)
Front	22,700 lb (10 297kg) - steel or aluminum disc wheels
Rear	44,000 lb (19 958kg) - steel or aluminum disc wheels

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:

- 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 ². safety standards for cranes.
- 4. 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 surface. Depending on the nature of the supporting surface, it may be necessary to have structural supports under the 3. 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 making lifts on tires, they must be inflated to the recommended pressure. (See Operation note 20 and Tire Inflation.)
- 4. Before swinging boom to over side position on tires, boom sections must be fully retracted.
- 5. For required parts of line, see Wire Rope Capacity and Winch Performance.
- 6. 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 1 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 6,000 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 6,000 pounds or 80% of rated lifting capacity, whichever is less. For clamshell and magnet operation, maximum boom length is restricted to 50 ft and the boom angle is restricted to a minimum of 35 degrees. Lifts with either fly erected is prohibited for both clam and magnet operation.
 - Rated lifting capacities shown on fully extended outriggers do not exceed 85% of the tipping loads. Rated lifting capacities shown on intermediate extended or fully retracted outriggers are determined by the formula, rated load = (tipping load – 0.1 X load factor)/1.25. Rated lifting capacities shown on tires do not exceed 75% of the tipping loads. Tipping loads are determined by SAE crane stability test code J-765.
 - Rated lifting capacities in the shaded areas 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 in 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 erected, but not used, see Capacity Deductions For Auxiliary Load Handling Equipment.

- 5. Rated lifting capacities are based on freely suspended 17. For fly capacities with main boom length less than 105 ft 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.
- Do not operate at radii or boom lengths (minimum or 7. maximum) where capacities are not listed. At these 18. For fly capacities with main boom length less than 105 ft positions, the crane can tip or cause boom failure.
- The maximum loads which can be telescoped are not 8. 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 19. For fly capacities with main boom length less than 80 ft, 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 lon- 20. The 33 ft boom length structural lifting capacities are ger 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 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 2. "B" all power sections must be extended or retracted equally.
- 14. The least stable rated working area depends on the 3. configuration of the crane set up.
- 15. Rated lifting capacities are based on correct reeving. Deduction must be made for excessive reeving. Any 4. reeving over minimum required (see Wire Rope Capacity) is considered excessive and must be 5. accounted for when making lifts. Use Working Range Diagram to estimate the extra feet of rope then deduct 1 6. Ib. 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 7. radius. The boom angle, before loading, should be greater to account for deflection. For main boom 8. capacities, the loaded boom angle is for reference only. For fly capacities, the load radius is for reference only.

- and greater than 80 ft, the rated capacities are determined by the boom angle using the 105 ft boom and fly chart. For angles not shown use the next lower boom angle to determine the rated capacity.
- and greater than 80 ft, the rated capacities are determined by the boom angle using the 105 ft boom and fly chart. For angles not shown use the next lower boom angle to determine the rated capacity.
- the rated capacities are determined by the boom angle only using the 80 ft boom and fly chart. For angles not shown, use the next lower boom angle to determine the rated capacity.
- based on boom fully retracted. If the boom is not fully retracted, do not exceed capacities shown for the 40 ft boom length.
- 21. 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. Rated lifting capacities on tires are limited to creep speed. For correct tire pressure, see Tire Inflation.

DEFINITIONS:

- 1. Load Radius: Horizontal distance from a projection of the axis of rotation to the supporting surface, before loading, to the center of the vertical hoist line or tackle with load applied.
- Loaded Boom Angle: \measuredangle 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.
- Load Factor: Load applied at the boom tip which gives the same moment effect as the boom mass.
- Creep: Crane movement not exceeding 200 ft in a 30 minute period and 1 mph maximum speed.

BOOM EXTENSION

Boom Mode "A"		Boom Lengt	h (ft)
telescopes	<i>[]</i> []/00	000000000000000000000000000000000000000	<u></u> 33
	<u></u>	000000000000000000000000000000000000000	<u></u> 40
6//00	000000000000000000000000000000000000000	000000000000000000000000000000000000000	<u> </u>
0000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	¹ 57
Inner Mid S 288" Stro	ection bke	Base Section	
Boom Mode "B"		Boom Lengt	h (ft)
Inner mid, outer mid and t sections telescope simultaneously.	ıp	<u> </u>	33
	0001	<u>//w//00000000000000000000000000000000</u>	40
	* <u>/0000 // 00 //</u> 0	»_ <u>//oo</u>	50
	<u> 0000 0000/00 000/00</u>	0000000000000000000000000000	60
<u>}</u>	xxxxxxxq/ 00 00000q/00 0		70
(°) (°) (°)	00 000000000000000000000000000000000000	xxxxxf/00 000000000000000000	80
€ <u>70000 00000000000000000000000000000000</u>	000000000000000000000000000000000000000	000000000000000000000000000000000000000	90
120000 00000000000000000000000000000000	00000000g/00 00000000000		100
	0000000/00 0000000000000000000000000000	<u></u>	105
Tip Section Outer M 288" Stroke 288" Stroke	n Section	n Base Section	

TIRE INFLATION

Tire Size	Operation	Tire Pressure (psi)
11 R 22.5	Creep	120
275/80 R 22.5	Creep	120

PONTOON LOADINGS

Maximum Pontoon Load:	Maximum Pontoon Ground Bearing Pressure:				
61,750 lb	137 psi				

CAPACITY DEDUCTIONS FOR AUXILIARY LOAD HANDLING EQUIPMENT

Load Handling Equipment:		(lb)		
Auxiliary Head Attached		100		
25-ton quick reeve 3 sheave hook block (see hook block for actual weight)				
40-ton quick reeve 4 sheave hook block (see hook block	40-ton quick reeve 4 sheave hook block (see hook block for actual weight)			
8.5-ton hook ball (see hook ball for actual weight)				
Lifting From Main Boom With:				
28.5 ft or 51 ft fly stowed on base (see operation note 4)				
28.5 ft offset fly erected but not used				
51 f. offset fly erected but not used				
Lifting From 28.5 ft Offset Fly With:				
22.5 ft fly tip erected but not used PROHIBIT				
22.5 ft fly tip stowed on 28.5 ft offset fly PROHIBIT				
Note: Capacity deductions are for Link – Belt supplied equipment only.				

WINCH PERFORMANCE

	Winch Line Pull	Drum Bone Canacity (ft)			
Wire	Two Speed	l Winch	Drain hope capacity (it)		
Rope	Low Speed	High Speed		-	
Layer	Available" (lb)	Available (lb)	Layer	Total	
1	13,010	6,418	77	77	
2	11,768	5,805	85	162	
3	10,742	5,299	93	255	
4	9,881	4,874	101	356	
5 9,148 4,5		4,513	109	465	
*Maxim	um lifting capacity:	Type RB Rope=9	,080, Type ZB R	ope=11,080	

WIRE ROPE CAPACITY

Maximum I	Lifting Capa	cities Base	d On Wire Rope Strength					
	5/8"	5/8"	Neter					
Parts of Line	Type RB	Type ZB	NOTES					
1	9,080	11,080						
2	18,160	22,160	Capacities shown are in pounds					
3	27,240	33,240	and working loads must not ex-					
4	36,320	44,320	ceed the ratings on the capacity charts in the Crane Rating Manual.					
5	45,400	55,400	g					
6	54,480	66,480	Study Operator's Manual for wire					
7	63,560	77,560	single part of line applications.					
8	72,640	88,640						
9	81,720	_						
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	3,100
Outriggers	3,000
Boom Hoist	3,350
Telescope	3,000
Swing	1,500
Steering	2,000
Bumper Outrigger	650
Pilot Control	500
Pilot Control	500

WORKING AREAS



WORKING RANGE DIAGRAM



Rated Liftin Pounds Fully Extend See Set Up	Rated Lifting Capacities In Pounds Fully Extended Outriggers See Set Up Note 2								
Load		33 ft		40 ft					
Radius (ft)	×°	360°	Over Rear	చ°	360°	Over Rear			
9	68.0	80,000	80,000						
10	66.0	72,300	72,300	70.5	72,300	72,300			
12	62.0	65,500	65,500	67.5	65,200	65,200			
15	55.5	55,600	55,600	62.5	55,100	55,100			
20	43.5	38,400	38,500	54.0	37,900	37,900			
25	26.5	25,600	25,600	43.5	25,300	25,300			
30				31.0	18,100	18,100			
Min.Bm Ang/Cap	0 (27.5)	18,400	18,400	0 (34.5)	13,700	13,700			
Load		50 ft		57 ft					
Radius (ft)	∡°	360°	Over Rear	∡°	360°	Over Rear			
10	75.0	67,500	67,500	77.0	43,800	43,800			
12	73.0	61,200	61,200	75.0	43,800	43,800			
15	69.0	53,400	53,400	72.0	42,100	42,100			
20	62.5	37,300	37,300	66.5	34,300	34,300			
25	55.5	24,900	24,900	60.5	24,600	24,600			
30	48.0	17,900	17,900	54.5	17,600	17,600			
35	39.0	13,200	13,200	47.5	13,100	13,100			
40	27.5	9,800	10,000	40.0	9,600	9,900			
45				30.5	7,200	7,600			
50				16.0	5,200	5,700			
Min.Bm Ang/Cap	0 (44.5)	7,400	7,800	0 (51.5)	4,700	5,200			

Note: Refer To "Capacity Deductions For Auxiliary Load Handling Equipment". \overleftrightarrow Loaded Boom Angle In Degrees.

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

Rated Lifting Capacities					4,700 lb							
In Pounds	ng Oupu			FULL EXTENS								
See Set U	p Note 2	inggers	(e) / 0000									
					<u>/////////////////////////////////////</u>			UIVI D				
Load		33 ft	-		40 ft		50 ft	-				
Radius (ft)	∡°	360°	Over Rear	∡°	360°	Over Rear	∡°	360°	Over Rear			
9	68.0	80,000	80,000									
10	66.0	72,300	72,300	70.5	35,000	35,000	74.5	35,000	35,000			
12	62.0	65,500	65,500	67.5	35,000	35,000	72.5	35,000	35,000			
15	55.5	55,600	55,600	62.5	35,000	35,000	68.5	35,000	35,000			
20	43.5	38,400	38,500	54.0	35,000	35,000	62.5	35,000	35,000			
25	26.5	25,600	25,600	43.5	26,300	26,300	55.5	26,800	26,800			
30				31.0	19,000	19,000	47.5	19,600	19,600			
35							39.0	14,900	14,900			
40				-			27.5	11,500	11,600			
Min.Bm Ang/Cap	0 (27.5)	18,400	18,400	0 (34.5)	13,500	13,500	0 (44.5)	9,100	9,200			
Load		60 ft			70 ft			80 ft				
ft)	∡°	360°	Over Rear	చ°	360°	Over Rear	∡°	360°	Over Rear			
10	77.5	35,000	35,000									
12	75.5	35,000	35,000									
15	72.5	35,000	35,000	75.5	35,000	35,000						
20	67.5	35,000	35,000	71.5	35,000	35,000	74.5	30,700	30,700			
25	62.0	27,000	27,000	67.0	27,100	27,100	71.0	26,400	26,400			
30	56.5	19,800	19,800	62.5	19,900	19,900	66.5	20,000	20,000			
35	50.0	15,200	15,200	57.5	15,300	15,300	62.5	15,400	15,400			
40	43.5	11,800	11,900	52.0	12,000	12,100	58.0	12,100	12,200			
45	35.0	9,300	9,500	46.5	9,400	9,700	53.5	9,500	9,800			
50	25.0	7,300	7,700	40.0	7,500	7,900	48.5	7,600	8,100			
55 60				32.5	4 800	5,400	43.5	5,000	5,000			
65				23.0	4,800	5,200	30.5	4,000	4 400			
70							21.5	3 100	3,600			
Min.Bm	0	5 900	6.300	0	3 800	4 300	0	2 500	2 900			
Ang/Cap	(54.5)	0,000	0,000	(64.5) 0,000 1,000			(74.5) 105 #					
Load		901			100 11		-	105 11				
Radius (ft)	∡°	360°	Over Rear	∡°	360°	Over Rear	∡°	360°	Over Rear			
20	77.0	27,400	27,400									
25	73.5	23,500	23,500	76.0	21,000	21,000		17,500	17,500			
30	70.0	20,100	20,100	73.0	18,700	18,700	74.0	17,500	17,500			
35	66.5	15,500	15,500	69.5	15,600	15,600	71.0	15,600	15,600			
40	62.5	12,200	12,300	66.5	12,200	12,300	68.0	12,200	12,400			
45	58.5	9,600	9,900	63.0	9,600	10,000	64.5	9,700	10,000			
50	54.5	7,700	8,100	59.5	7,800	8,200	61.5	7,800	8,200			
55	50.5	6,200	6,700	55.5	6,300	6,800	58.0	6,300	6,800			
60	46.0	5,000	5,500	52.0	5,100	5,600	54.5	5,100	5,600			
65	41.0	4,100	4,500	48.0	4,100	4,600	50.5	4,100	4,600			
70	35.5	3,200	3,700	43.5	3,300	3,800	47.0	3,300	3,800			
75	29.0	2,500	3,000	39.0	2,600	3,100	42.5	2,600	3,100			
80	20.5	1,900	2,400	34.0	2,000	2,500	38.0	2,000	2,500			
міп.Вт Ang/Cap	16.5 (81.8)			30.5 (82.6)			35.0 (83.3)					

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

 $\breve{\Delta}$ Loaded Boom Angle In Degrees.

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





Π

Rated Lifti Fully Exter See Set U	ng Capacities nded Outrigge p Note 2	In Pounds rs	FULL	N	4,700 lb		
Load	2° 0	ffset	20° C	Offset	40° Offset		
Radius (ft)	×°	360°	×°	360°	×°	360°	
25	77.0	15,200					
30	74.5	13,900					
35	72.0	11,900	76.0	8,700			
40	69.0	11,000	73.0	8,100	77.0	6,100	
45	66.0	10,300	70.0	7,600	74.0	5,800	
50	63.0	8,900	67.0	7,100	71.0	5,600	
55	59.5	7,300	64.0	6,700	67.5	5,400	
60	56.5	6,100	61.0	6,400	64.0	5,300	
65	53.0	5,000	57.5	5,600	60.5	5,100	
70	49.0	4,200	53.5	4,600	57.0	5,000	
75	45.0	3,500	49.5	3,800	52.5	4,100	
80	41.0	2,900	45.0	3,200	47.5	3,400	
85	36.5	2,300	40.5	2,600	42.0	2,700	
90	31.0	1,900	35.0	2,000			
95	25.0	1,400	28.0	1,600			

Fully Exter	idea Outrigge	rs					
See Set U	p Note 2		FULL	4,700 lb			
Load	2° 0	ffset	20°	Offset	40° Offset		
Radius (ft)	×°	360°	×°	360°	×°	360°	
35	76.5	9,000					
40	74.5	9,000	78.0*	7,900			
45	72.5	8,800	76.0	7,500			
50	70.0	7,900	73.5	7,200	76.5	5,700	
55	67.5	7,000	71.0	6,600	74.0	5,500	
60	65.0	5,800	69.0	6,100	71.5	5,400	
65	62.5	4,800	66.0	5,400	69.5	5,200	
70	59.5	3,900	63.5	4,500	66.5	4,900	
75	56.5	3,200	60.5	3,700	63.5	4,100	
80	54.0	2,600	57.5	3,000	60.5	3,400	
85	51.0	2,100	54.5	2,400	57.0	2,700	
90			51.5	1,900	53.5	2,200	
95			48.0	1,500	50.0	1,700	

WARNING

Rated Lifting Capacities In Pounds

Do Not Lower 28.5 ft Offset Fly In Working Position Below 47° Main Boom Angle Unless Main Boor Length Is 74 ft Or Less, Since Loss Of Stability Will Occur Causing A Tipping Condition.

WARNING

Do Not Lower 28.5 ft Offset Fly In Working Position Below 23.5° Main Boom Angle Unless Main Boom Length Is 74 ft Or Less, Since Loss Of Stability Will Occur Causing A Tipping Condition.





)ffcot	200 (Offect	40° (4,700 lb		
Load Badius		Jisel	20 0	Jisel	40° Offset			
(ft)	X	360°	エ	360°	X	360°		
35	76.0	7,400						
40	74.0	6,700						
45	71.5	6,100	78.0*	4,200				
50	69.5	5,600	76.0	3,900				
55	67.0	5,100	73.5	3,700				
60	64.5	4,700	71.0	3,500	77.0	2,700		
65	62.0	4,300	68.5	3,300	74.5	2,600		
70	59.5	4,000	66.0	3,100	72.0	2,500		
75	57.0	3,800	63.0	2,900	69.0	2,400		
80	54.0	3,500	60.5	2,800	66.0	2,300		
85	51.0	2,900	57.5	2,700	62.5	2,300		
90	47.5	2,500	54.5	2,600	59.5	2,200		
95	44.5	2,000	51.0	2,500	55.5	2,200		
100	41.0	1,700	47.5	2,000	51.5	2,200		
105			43.0	1,700	47.0	1,900		
110			38.5	1,300	41.0	1,400		
		Δ 14		~				

Rated Lifti Fully Exte See Set U	ing Capacities nded Outrigge Ip Note 2	In Pounds ers	FULL	4,700 lb							
Load	2° 0	ffset	20°	Offset	40° Offset						
Radius (ft)	×°	360°	۲°	360°	۲°	360°					
40	77.5	5,800									
45	75.5	5,700									
50	74.0	5,400									
55	72.0	5,100	77.5	3,700							
60	70.5	4,800	75.5	3,500							
65	68.5	4,500	73.5	3,400							
70	66.5	4,200	71.5	3,200	76.5	2,500					
75	64.0	3,700	69.5	3,100	74.5	2,400					
80	62.0	3,100	67.5	2,900	72.5	2,400					
85	59.5	2,500	65.5	2,800	70.5	2,300					
90	57.0	2,100	63.5	2,700	68.0	2,300					
95			60.5	2,200	65.5	2,200					
100			58.0	1,800	63.0	2,200					
105					60.0	1,800					
110					57.0	1,400					
	WARNING										

Do Not Lower 51 ft Offset Fly In Working Position Below 55.5° Main Boom Angle Unless Main Boom Length Is 67 ft Or Less, Since Loss Of Stability Will Occur Causing A Tipping Condition.

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

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

X Loaded Boom Angle In Degrees. * This Capacity Based On Maximum Obtainable Boom Angle.

 \measuredangle Loaded Boom Angle In Degrees. * This Capacity Based On Maximum Obtainable Boom Angle.

WORKING RANGE DIAGRAM



Rated Liftir In Pounds Fully Exter See Set Up	ng Capacitie nded Outrigg p Note 2	es gers	× × × × × × × × × × × × × × × × × × ×		6,700		FULL EXTE	NSION	Rated Li In Pound Fully Ex See Set	fting Cap ds tended O Up Note	acities utriggers 2		000 / 00	6,700 l	ь 	FUL MAIN B	L EXTE	
1		33.#				40 ft		<u> </u>			33 ft	U		40 ft	,		50 ft	
Load Radius (ft)	×°	360°	(Over Rear	×°	360°	Over Rear	Load Radius (ft)	Load Radius (ft)	×°	360°	Over Rear	∡°	360°	Over Rear	×°	360°	Over Rear
9	68.0	80,000	8	0,000				9	9	68.0	80,000	80,000						
10	66.0	72,300	7	2,300	70.5	72,30	72,300	10	10	66.0	72,300	72,300	70.5	35,000	35,000	74.5	35,000	35,000
12	62.0	65,800	6	5,800	67.5	65,50	65,500	12	12	62.0	65,800	65,800	67.5	35,000	35,000	72.5	35,000	35,000
15	55.5	55,800	5	5,800	62.5	55,60	55,600	15	15	55.5	55,800	55,800	62.5	35,000	35,000	68.5	35,000	35,000
20	43.5	40,700	4	0,800	54.0	40,20	40,200	20	20	43.5	40,700	40,800	54.0	35,000	35,000	62.5	35,000	35,000
25	26.5	27,200	2	7,200	44.0	27,00	27,000	25	25	26.5	27,200	27,200	43.5	27,900	27,900	55.5	28,400	28,400
30					31.0	19,40	19,400	30	30				31.0	20,300	20,300	47.5	20,900	20,900
Min.Bm Ang./Cap	0 (27.5)	18,400	1	8,400	0 (34.5)	14,10	14,100	Min.Bm Ang./Cap	35							39.0	15,900	15,900
Load	(=)	5	i0 ft		(=)	57 ft		1 3	40							27.5	12,500	12,500
Radius	X°	3	60°	Ov	/er	х°	360°	Over	Min.Bm Ang/Cap	0 (27.5)	18,400	18,400	0 (34.5)	13,500	13,500	0 (44.5)	9,200	9,200
10	75.0	67	500	67.6	500	77.0	43 800 43 800		Load		60 ft	70 ft			80 ft			
12	73.0	6	200	61 2	200	75.0	43 800	43 800	Radius (ft)	х°	360°	Over	×°	360°	Over	×°	360°	Over
15	60.0	5	,_00	52	100	72.0	42,100	42,100	10	77.5	35 000	35 000			neai			neai
15	69.0	50	,400	53,4	+00	72.0	42,100	42,100	12	75.5	35,000	35,000						
20	62.5	39	9,600	39,6	500	66.5	34,300	34,300	15	72.5	35,000	35,000	75.5	35 000	35 000			
25	55.5	26	600	26,6	500	60.5	26,300	26,300	20	67.5	35.000	35.000	71.5	35,000	35.000	74.5	30,700	30,700
30	48.0	19	,100	19,1	100	54.5	18,900	18,900	25	62.0	28,600	28,600	67.0	28,700	28,700	71.0	26,400	26,400
35	39.0	14	,300	14,3	300	47.5	14,200	14,200	30	56.5	21,100	21,100	62.5	21,200	21,200	67.0	21,300	21,300
40	27.5	10	,900	10,9	900	40.0	10,800	10,800	35	50.0	16,300	16,300	57.5	16,400	16,400	62.5	16,500	16,500
45						30.5	8.200	8.300	40	43.5	12,800	12,800	52.0	13,000	13,000	58.0	13,100	13,100
50						10.0	6,100	6,400	45	35.5	10,300	10,300	46.5	10,400	10,500	53.5	10,500	10,600
50				_		16.0	6,100	6,400	50	25.0	8,200	8,400	40.0	8,400	8,600	48.5	8,500	8,800
Min.Bm. Ang/Cap	0 (44.5)	8	400	8,6	00	0 (51.5)	5,500	5,900	55				32.5	6,800	7,000	43.5	6,900	7,200
Note: Refer T	To "Capacity	/ Deducti	ons For	r Auviliar	v Load F	landling Eq	linment"	II	60				23.0	5,500	5,800	37.5	5,700	6,000
X Loaded	Boom Anal	e In Dea	rees	. , taxingi	, 20001	.a			65							30.5	4,600	4,900
() Reference	Badius For	Min Bo	o and and	ile Cana	cities (SI	hown in Pare	nthesis) Are I	n Feet	70							22.0	3,700	4,000
() release radius ron win. Boom Angre Capacities (Shown in Palentinesis) Are in reet.							Min.Bm Ang/Cap	0 (54.5)	6,500	6,500	0 (64.5)	4,500	4,600	0 (74.5)	3,000	3,300		

> **0** (84.5) 23.5 (87.7) 1,900 2.200 Ang/Cap (88.2) Note: Refer To "Capacity Deductions For Auxiliary Load Handling Equipment".

∠ Loaded Boom Angle In Degrees.

90 ft

360°

27,400

23,500

20,500

16,600

13,200

10.600

8,600

7,000

5,700

4,700

3,800

3.100

2,400

Load Radius

(ft)

20

25

30

35

40

45

50

55

60

65

70

75

80

85 Min.Bm 凶

77.0

73.5

70.0

66.5

62.5

59.0

55.0

50.5

46.0

41.0

35.5

29.0

20.5

Over Rear

27,400

23,500

20,500

16,600

13,200

10,700

8,800

7,300

6,100

5,000

4,200

3,400

2,800

X

76.0

73.0

70.0

66.5

63.0

59.5

56.0

52.0

48.0

44.0

39.0

34.0

28.0

100 ft

360°

21,000

18,700

16,500

13,200

10,600

8,700

7,100

5,800

4,800

3,900

3.200

2,500

2,000

Over Rear

21,000

18,700

16,500

13,200

10.700

8,900

7,400

6,100

5,100

4,200

3.500

2,900

2,300

X

76.5

74.0

71.0

68.0

64.5

61.5

58.0

54.5

51.0

47.0

43.0

38.5

33.0

29.5

105 ft

360°

17,500

17,500

15,700

13,300

10,700

8,700

7,100

5,800

4,800

3,900

3.200

2,500

2,000

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

Over Rear

17,500

17,500

15,700

13,300

10.800

8,900

7,400

6,200

5,200

4,300

3.500

2,900

2,300



Do Not Lower 51 ft Offset Fly In Working Position Below 31.5° Main Boom Angle Unless Main Boom Length Is 71 ft Or Less, Since Loss Of Stability Will Occur Causing A Tipping Condition.

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

arLambda Loaded Boom Angle In Degrees. * This Capacity Based On Maximum Obtainable Boom Angle.

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

🔏 Loaded Boom Angle In Degrees. * This Capacity Based On Maximum Obtainable Boom Angle.

Do Not Lower 51 ft Offset Fly In Working Position Below 52.5° Main Boom Angle Unless Main Boom Length Is 71 ft Or Less, Since Loss Of Stability Will Occur Causing A Tipping Condition. This page intentionally left blank

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