

Bid Specifications – Telescopic Service Crane

3,200 lb. Maximum Lifting Capacity
10,000 ft.-lb. Maximum Moment



Compliance to Specifications The Bidder shall indicate their compliance by checking "Yes" or "No" for each item specified. Any space not checked shall be interpreted as non-compliance and will result in disqualification of the bid.

Make & Model	<u>EHC-3.2 PR NexStar</u> <u>EHC-3.2 PRX NexStar</u> <u>EHC-3.2 PRFX NexStar</u>	Comply to Specification		Deviation from Specification
		Yes	No	
Capacity (Measured from Center of Rotation) (See full load and stability charts attached for reference)	3,200 lb. @ 3 ft.			
	2,500 lb. @ 4 ft.			
	2,000 lb. @ 5 ft.			
	1,670 lb. @ 6 ft.			
	1,500 lb. @ 7 ft.			
	1,250 lb. @ 8 ft.			
	1,100 lb. @ 9 ft.			
	1,000 lb. @ 10 ft.			
	900 lb. @ 11 ft.			
	830 lb. @ 12 ft.			
	770 lb. @ 13 ft.			
	710 lb. @ 14 ft.			
	660 lb. @ 15 ft.			
	650 lb. @ 15 ft. 4 in.			
Specifications & Standards	Overall dimensions (L x W x H) 110 in. x 20.63 in. x 24 in.			
	Weight of crane shall not exceed 795 lb. for PR 850 lb. for PRX 935 lb. for PRFX			
	Minimum truck chassis of: 8,800 lb. GVWR 210,600 in.-lb. RBM			
	Paint – Auto Crane White			
	Compliance with ANSI B30.5 standards and OSHA regulations concerning crawler locomotives and truck cranes (OSHA Title 29, Part 1910.180)			

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DC Power Unit	Electro-hydraulic system consists of an electric motor driving hydraulic pump which Provides fluid power to:			
	• Boom Lift / Lower			
	• First Section Boom Extension / Retraction (on PRX version only)			
	• Hydraulic Full Extension / Retraction (on PRFX only)			
	• Rotation			
	• Hoist Up / Down			
	Electric motor – 12V DC series wound			
	Hydraulic:			
	• Gear pump, .065 cu. in./rev. displacement • 2.4 gallon nominal-capacity reservoir			
	System:			
	• Set full by-pass relief @ 2,200 PSI. • Output: 1.0 GPM minimum @ 2,750 PSI. @ 239 amps max.			

Boom – Lift	Hydraulically actuated			
	Lift angle from -3° to 75°			
Load Sensing	Lift cylinder:			
	• Double acting for smooth boom operation • Counterbalance valve incorporated preventing unintentional boom dropping in the event of a hose failure			
	• Pressure transducer sensing coupled with 3-axis true boom angle measurement relative to crane mounting surface and 3-axis true crane base attitude monitoring (truck level).			
	• Automatic 50% reduction of rotation speed while under load (slow rotate)			
	• In Overload condition, disable <u>only</u> hoist up, boom extend and boom down functions. Other functions shall remain operable			
	• In Low Boom Pressure condition, disable <u>only</u> boom down, swing CW and CCW, boom retract and extend, hoist up. Other functions remain operable (Anti-Bridging)			
Extension	PR – manually actuated from 7 to 11 to 15 ft.			

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	PRX – hydraulically actuated by means of extension cylinder (see information below) from 7 to 11 ft. and manually actuated from 11 to 15 ft.			
	Extension cylinder:			
	• Trunnion mounted inside boom to protect from external damage			
	• Double acting for smooth operation			
	• Incorporates counterbalance valve to prevent unintentional boom retraction in the event of a hose failure			
	PRFX – hydraulically actuated by means of extension cylinder (see information below) from 7 to 15 ft.			
	Extension cylinder:			
Hoist	Hydraulically motor-driven planetary gear reduction with a load holding brake			
	Rated @ 1,600 lb. last layer capacity			
	Line speed of 20 ft./min. (single line) with no load			
	62-ft. of .219 in. diameter aircraft cable with 5,600 lb. breaking strength compliance to ANSI Standards			
Sheave	Anti-friction, high strength polymer with maintenance free, sealed needle bearings			
Anti-two-block Preventer	A bail type to reduce crown to hook distance. (Hanging block two-block sensor is not acceptable.)			
	When activated, shall disable hoist up, boom down and extend out functions			
	Located on the left side of the boom to protect it from tree limbs, etc. while traveling			
	Cable shall be contained in a high impact plastic case with a spring loaded cable reel			

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Rotation	370° rotation range			
	40:1 worm gear set			
	- Provision for adjusting backlash between worm & gear (Non-adjustable gear set is NOT acceptable.)			
	Turntable style slew bearings			
	Cycle speed – 38 sec. no load			

Hydraulic System	Main valve – Mono-block type with individual cartridge valves for the crane functions for easy accessibility and serviceability			
	• Proportional Boom Up/Down			
	• Proportional Hoist Up/Down			
	• Proportional Rotation			
	• Non-Proportional Boom Ext/Ret. (PRX/PRFX)			
	• Manual Override on all functions			

Control System	Remote Control – FM Radio with Tether Cable			
	Handheld remote control designed for one hand operation of crane functions.			
	2 joystick / 1 trigger configuration			
	IP67 and CE certified remote			
	100% fully independent proportional function joystick or trigger control			
	Integrated E-Stop button on remote			
	Four distinct transmitter signal output settings to maximize control resolution for creep operation			
	Transmitter shall have a color LCD readout providing the operator with feedback to allow explanation of current operating status			
	Dock for remote charging and storage included			
	Alkaline battery (AA x 3) backup included			
	Remote Control – FM Radio:			
	Operates on a rechargeable, internal, lithium-ion battery			
	Has an estimated 300 foot operating range			

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	Remote Control – Tethered:			
	32 ft. communication cable included - When tethered, remote is directly connected to crane and no FM signals are sent/received			
	Receiver – FM Radio and tethered Remote			
	- Crane mounted and features - IP65 rated			

Warranty	Manufacturer shall provide a two-year limited warranty against defects in materials and workmanship from the date of delivery			
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Options (Must be available as required)	Paint – provide code and desired color if other than standard			
	Boom Support shall be installed for the boom in a stowed position while in transit			
	Outriggers: Shall be installed to increase stability and reduce the load on the truck springs while lifting			
	Oil Temperature Sensor to monitor crane hydraulic oil temperatures			

Notes:	

Submitted by: _____

Date: _____

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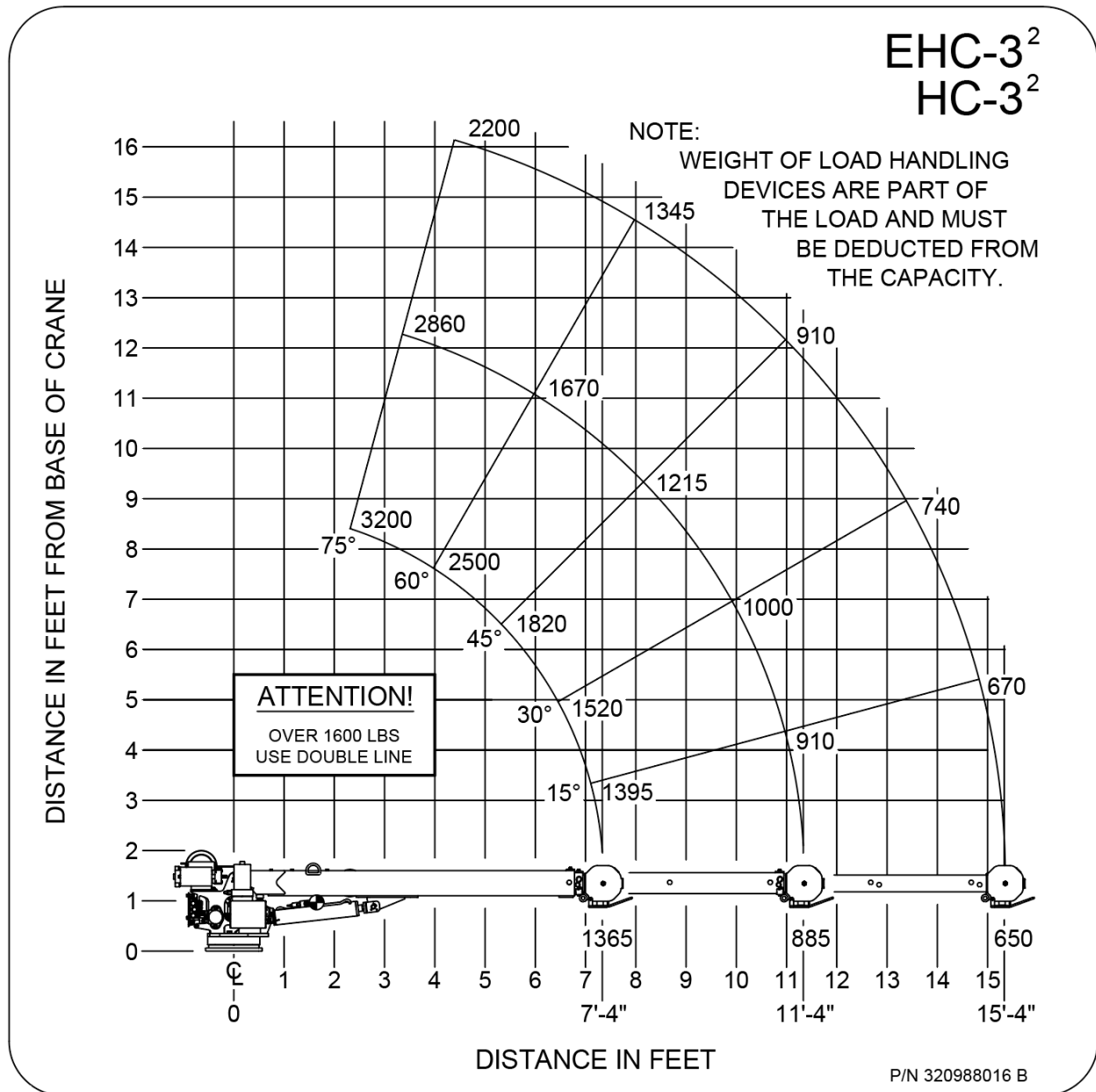


Figure 1: EHC-3.2 Load Chart