

Bid Specifications – Telescopic Service Crane

12,000 lb. Maximum Lifting Capacity

85,000 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		Comply to Specification		Deviation from Specification
		Yes	No	
Capacity (Measured from Center of Rotation) (See full load and stability charts attached for reference)	12,000 lb. @ 3 ft.			
	12,000 lb. @ 6 ft.			
	9,248 lb. @ 9 ft.			
	7,553 lb. @ 11 ft.			
	6,770 lb. @ 12 ft. 6 in.			
	4,850 lb. @ 15 ft. 4 in.			
	3,998 lb. @ 19 ft.			
	3,454 lb. @ 21 ft.			
	2,748 lb. @ 25 ft.			
	2,454 lb. @ 30 ft.			
Specifications & Standards	Overall dimensions (L x W x H) 190.87 in. x 25.125 in. x 37.5 in.			
	Weight of crane shall not exceed 3,055 lb.			
	Minimum truck chassis of:			
	29,000 lb. GVWR 1,000,000 in.-lb. RBM			
	Paint – Auto Crane White			
Boom – Lift	Hydraulically actuated power extend and power retract			
	Lift angle from -12° to 75°			
	Lift cylinder: Single stage, Double acting for smooth boom operation			

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Load Sensing	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	Hydraulically actuated by means of extension cylinder from 13 ft. 6 in. to 30 ft. 6 in.			
	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			
Hoist	Hydraulic motor driven, planetary gear reduction with a load holding brake			
	6,000 lb. last layer capacity			
	55 ft./min. (single line) with no load			
	120-ft. of .4375 in. diameter aircraft cable with 21,000 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			

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	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			
Swivel Block	• Heavy-duty type with hook with latch			
	• Provision for double line string up			

Rotation	Hydraulically actuated			
	450° non-continuous rotation self-locking worm gear drive to hold crane position			
	Two speeds (automatically switched under load)			
	Sealed planetary drive			

Hydraulic System	Main valve – Mono-block type with individual cartridge valves for the crane functions for easy accessibility and serviceability			
	• 10 GPM @ 2,750 PSI			
	• Proportional Boom Up/Down			
	• Proportional Rotation			
	• Proportional Boom Ext/Ret.			
	• Proportional Hoist Up/Down			
	• 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			

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	Remote Control – FM Radio: - Operates on a rechargeable, internal, lithium-ion battery - Has an estimated 300 foot operating range			
	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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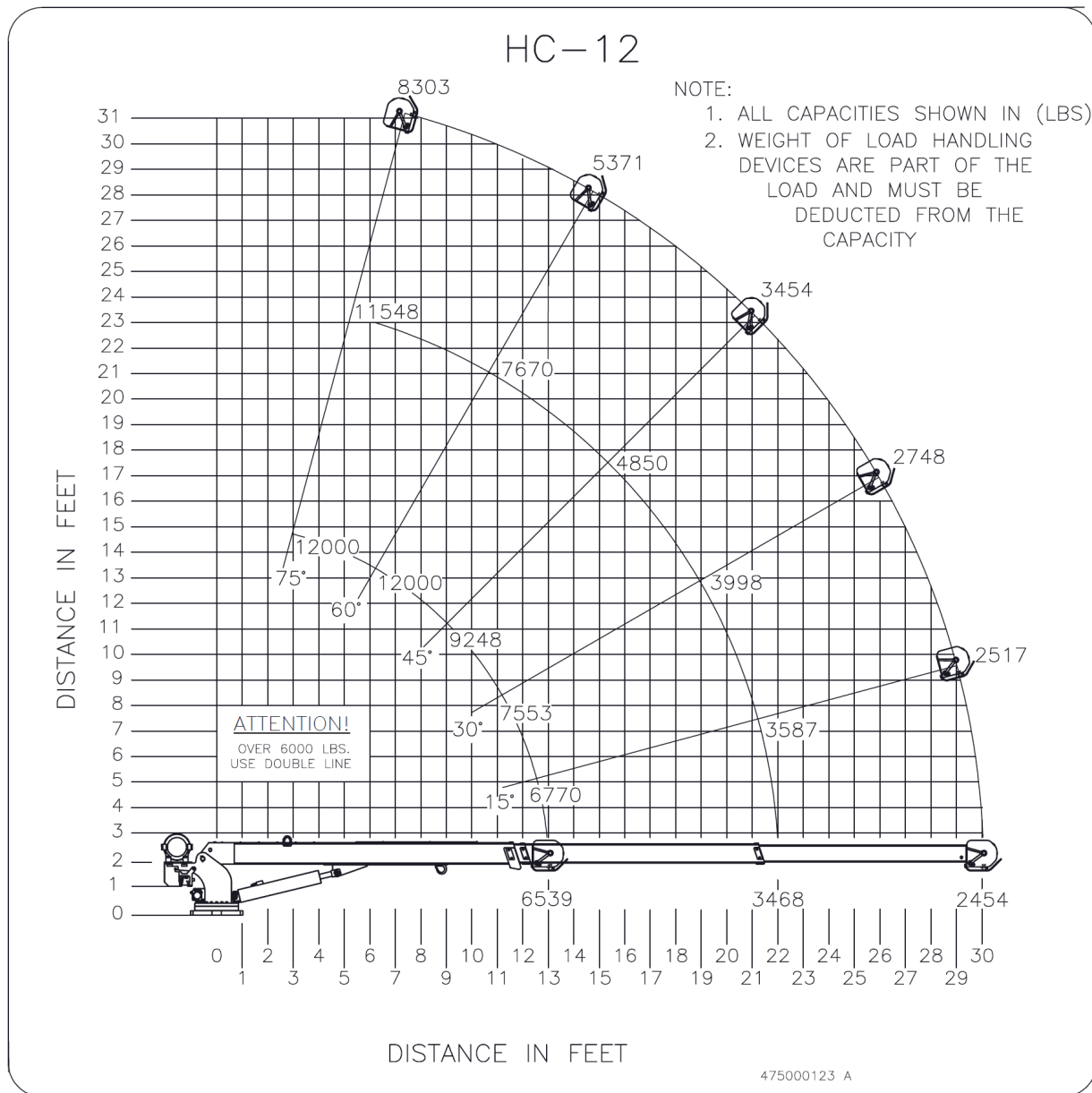


Figure 1: HC-12 Load Chart