HT55KX with VLC™ BID SPECIFICATIONS

VENTURO® TRUCK MOUNTED CRANES

GENERAL DESCRIPTION

The crane shall be a telescopic mounted service crane that operates on hydraulic power. It shall have a single line capacity of 4250 lbs. and a 8500 lbs. capacity with a two part line. The maximum overturning moment rating shall be 55,000 ft*lbs. Crane shall meet OSHA 1910.180 requirements and ANSI/ASME B30.5 safety standards.

PAINT SPECIFICATIONS

The crane shall be painted with Imron© 333M/42P High Solids Polyurethene Enamel (Venturo Grey).

TELESCOPIC HEXAGONAL BOOM

The boom shall telescope to provide a horizontal reach range of 11' 8" to 24' 8" ft. using a hydraulic power extension cylinder with a 13' stroke. The power extension boom shall have bearing pads made from UHMW polyethylene to provide low friction and wear rate without benefit of other lubricants.

POWER EXTENSION

The hydraulic extension cylinder shall be mounted inside of the hexagonal boom and have the capability of extending the boom under maximum rated load at any operating position. The maximum extension speed shall average 35ft/min at 10 GPM. The retract speed shall be controlled by a priority flow control valve (2.25 GPM) to maintain an average speed of 24 ft/min. The extension cylinder shall have an integral pilot operated check valve to hold the load in the event of a hose or hydraulic component failure and to allow the boom to retract only when hydraulic pressure is applied to retract the cylinder rod.

BOOM ELEVATION

The boom elevation angle range shall extend from 8 degrees below horizontal to 75 degrees above horizontal. The boom shall be elevated by a double acting hydraulic cylinder with integral counter balance valve to prevent boom from lowering should a loss of hydraulic pressure occur. The lowering rate shall be controlled by a priority flow control valve (4.00 GPM) to govern the rate of descent (75 to -8 degrees in 37 seconds).

SHEAVES

The boom end load hoisting sheaves shall be made of polymer composite material and have a pitch diameter of at lest 18 times the 3/8" wire rope diameter per ANSI B30.5.
Sheave bearings shall be made of maintenance free composite material.

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CAPACITY CHARTS

Easy-to-read Capacity Charts with indicator arrows showing boom angles and capacities for various reaches shall be located on each side of the boom.

HYDRAULIC WINCH

The winch shall have a high-efficiency planetary gear reduction with an oil-immersed automatic load-holding mult-disk brake and sprag and shall be driven by an orbital hydraulic motor with a counterbalance valve. The winch line capacity shall be 4250 lbs minimum on all layers.

WINCH PERFORMANCE

The nominal winch performance shall be as follows:

Load (lbs.)	Part Line	Lifting Speed at 3.0 gpm (ft/min)	Lifting Speed at 12.0 gpm (ft/min)
0	1	18	60
4250	1	15	52
4250	2	9	28
8500	2	9	26

WINCH DRUM

The winch drum first layer wire rope pitch diameter shall be at least 18 times the 3/8" wire rope diameter per ANSI B30.5. Winch drum shall have flanges and guards that prevent the wire rope from getting off of the drum. The winch drum shall be at least 6 inches wide between flanges. The winch drum shall have sufficient capacity to allow up to 100 ft. of wire rope to be used.

WIRE ROPE

The standard 7x19 3/8" galvanized aircraft wire rope shall be 100 ft. long and fitted with a G414-3/8(or compatible) thimble. The wire rope shall have a minimum breaking strength of 14,875 lbs. or more than 3-1/2 times the 4250 lb rated single line capacity per ANSI B30.5. The wire rope shall be outside of the boom so that the wire rope and winch drum are visible to the operator.

LOAD BLOCK / OVERHAUL WEIGHT

The crane shall be supplied with a load block for two-part line operation. The load block shall allow for quick conversion to an overhaul weight for single part line operation. The load block shall be provided with a 4-/12 ton carbon steel swivel hook with safety latch. The sheave shall be made of polymer composite material and have a pitch diameter of at least 16 times the 3/8" wire rope diameter per ANSI B30.5. Sheave bearings shall be made of maintenance free composite material.

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ROTATION

The hydraulic powered rotation system shall have positive mechanical stops to limit the rotation to a maximum of 400 degrees with a rotation speed of 2 RPM. The rotation drive line shall be self-locking. The crane housing shall rotate on a sealed turntable style bearing.

OVERLOAD SENSING SYSTEM

The crane shall have an overload sensing system that shuts off the winch up, boom down and boom out functions to prevent excessive overloads when the crane capacity is exceeded. The winch down, boom up, boom in and rotation function shall remain in operation to get the crane out of the overload condition.

ANTI-TWO BLOCK SYSTEM

An anti-two block system shall be provided to prevent damage to the wire rope by disabling the winch up, boom down, and boom out functions (three-function shut-down).

HYDRAULIC DIRECTIONAL CONTROL VALVES

The solenoid operated directional control valves are equipped with puch-button manual override to maintain rotation, elevation and extension function in case of electrical malfunction.

CRANE BASE

The crane base shall be 16 inches square and provided with 8 holes for 1 inch diameter bolts to spread the load and make it unnecessary to use special high-strength bolts.

VENTURO LOGIC CONTROLS (VLC™)

Venturo's new Electronic Crane Control Management System provides added safety and benefits for crane operators. VLC™ features include a standard, wireless, pistol-grip controller, overload protection which controls and prevents any type of overload, LCD Display Screen alerts, transmitter handle vibrations, green/yellow/red alert lights under boom, and corresponding lights on the receiver. The LCD display shows percentage of load, boom angle in degrees and percentage of total capacity during crane operation. The VLC™ system also provides vehicle stability and grade control.

WARRANTY

The manufacturer shall warranty the crane for one year from the date of original installation.

Specifications subject to change without notice.