HT40KX-25 BID SPECIFICATIONS

GENERAL DESCRIPTION
The crane shall be a telescopic service crane with a moment rating of 40,000 FT-LBS. Maximum capacity shall be 6,000 LBS with a two part winch line at 6'3" reach.

DESIGN & TESTING
The crane shall comply with ANSI B30.5 safety standards and OSHA regulations concerning crawler locomotives and truck cranes (OSHA 29, Part 1910.180).

HYDRAULIC REQUIREMENTS
The crane shall operate from a hydraulic P.T.O. and pump. The crane shall have an open center system that operates on 12 GPM at 3000 psi. The hydraulic reservoir shall have a 25 or 40 (recommended) gallon capacity with a 100 mesh suction filter. They hydraulic system shall include a 10 micron return filter.

The valve block shall include valve coils with manual overrides for each function.

PAINT SPECIFICATIONS
The crane shall be painted with Imron® 333M/42P High Solids Polyurethane Enamel (Venturo Gray).

TELESCOPIC HEXAGONAL BOOM
The boom shall be fabricated of ¼" plate steel in a hexagonal shape to minimize boom flex and side to side movement. The boom shall telescope to provide a horizontal reach range of 11'8" to 24'8" using a hydraulic power extension cylinder with 13 FT stroke.

POWER EXTENSION
The boom shall be extended by a double-acting hydraulic cylinder with an integral counterbalance valve to prevent the boom from retracting should a loss of hydraulic pressure occur.

The cylinder shall be mounted inside of the boom.

The power extension boom shall have bearing pads on 4 sides made from UHMW polyethylene to provide low friction and wear rate without the use of lubricants.

The maximum extension speed shall average 35 FT/min at 10 GPM (proportional)

The retract speed shall be controlled by a priority flow control valve (2.25 GPM) to maintain an average speed of 24 FT/min.

BOOM ELEVATION
The boom elevation angle range shall extend from 8 degrees below horizontal to 75 degree 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 (2.25 GPM) to govern the rate of decent (75 to -8 degrees in 37 seconds).

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SHEAVES
The boom end load hoisting sheaves shall be made of polymer composite material and have a pitch diameter of at least 18 times the 3/16 wire rope diameter per ANSI B30.5. Sheave bearings shall be made of maintenance free composite material.

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 POWER UNIT
An electric-hydraulic power unit shall include a pressure relief valve and supply fluid to a valve manifold controlling boom elevation and rotation functions. They hydraulic fluid shall be DEXRON Automatic Transmission Fluid.

HYDRAULIC WINCH
The winch shall have a high-efficiency planetary gear reduction with an oil-immersed automatic load holding multi-disk brake and a sprag and shall be driven by an orbital hydraulic motor with a counterbalance valve.

The winch line capacity shall be 4000 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
1500	1	18	60
3000	1	18	60
3000	2	9	30
6000	2	9	30

WINCH DRUM
Winch drum first layer wire rope pitch diameter shall be at least 18 times the 3/16 wire rope diameter per ANSI B30.5.

The winch drum shall be at least 6 in. wide between flanges. The winch drum shall have sufficient capacity to allow 100 ft. of wire rope to be used.

WIRE ROPE
The standard 3/8 in. diameter 7x19 galvanized aircraft wire rope shall be 100 ft. long and fitted with a G414-3/8 (or comparable) thimble.

The wire rope shall have a minimum breaking strength of 14,400 lbs. or 3 ½ times the 4000 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.