

# **ET36K(X) BID SPECIFICATIONS**



## **GENERAL DESCRIPTION**

The crane shall be a pedestal mounted service crane that operates on 12 volt D.C. battery power. It shall have a single line capacity of 3000 lbs. and a 6000 lb. capacity with a 2-part line. The maximum overturning moment rating is 36,000 ft. lbs.

## **PAINT SPECIFICATIONS**

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

## **TELESCOPIC BOOM**

The boom shall telescope to provide a horizontal reach range of 10 ft. to 20 ft (full hydraulic extension).

## **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.

## **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 an integral counter balance valve to prevent boom from lowering should a loss of hydraulic pressure occur.

Counter balance valve integrated into body of cylinder - plumbed externally is not acceptable.

## **SHEAVES**

The boom end load hoisting sheave shall be made of polymer composite material have a pitch diameter of at least 18 times the  $\frac{5}{16}$  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 the capacities for various reaches shall be located on each side of the boom.



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## HYDRAULIC POWER UNIT

An electric / hydraulic power unit shall include a pressure relief valve and supply fluid to a valve manifold controlling boom elevation, rotation and extension functions. The hydraulic fluid shall be AW 46 or equivalent.

## WINCH POWER UNIT

The winch power unit shall be electric powered with a cam actuated disc brake that releases in either direction.

## WINCH PERFORMANCE

The nominal winch performance shall be as follows:

Load (lbs.)	Part Line	Lifting Speed (ft/min)
0	1	28
1000	1	17
2000	1	13
2455	2	14
3000	2	11

## WINCH DRUM

Winch drum first layer wire rope pitch diameter shall be at least 18 times the  $\frac{5}{16}$  wire rope diameter per ANSI B30.5.

The 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 5-15/16 in. wide between flanges. The winch drum shall have sufficient capacity to allow up to 119 ft. of  $\frac{5}{16}$  wire rope to be used.

## WIRE ROPE

The standard 7 x 19 x 5/16 in. diameter extra high strength galvanized aircraft wire rope shall be 80 ft. long.

The wire rope shall have a minimum breaking strength of 10,500 lbs. or more than 3-1/2 times the 3000 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

The crane shall be supplied with a Load Block that will allow quick conversion from single to two part line operation. The Load Block shall be provided with a 3 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  $\frac{5}{16}$  wire rope diameter per ANSI B30.5. Sheave bearings shall be made of maintenance free composite material.

## ROTATION

- ▲ The electric / hydraulic powered rotation system shall rotate continuously in either direction.

The rotation drive line shall be self-locking when not actuated.

The crane housing shall rotate on a sealed turntable style bearing.

## REMOTE CONTROL

The crane shall have a remote control pendant with environmentally sealed switches, a switch bat guard, a hook for hanging the pendant and a 25 ft. cord. The cord shall have a plug so that it can be unplugged from the crane when not in use. The socket that receives the plug shall be mounted in the service body compartment or mounting pedestal below the crane. The pendant shall be convenient to hold and operate with one hand.

## ELECTRICAL CONTROL SYSTEM

The crane controls shall have a priority system so that the operator can perform only one major function at a time to limit current draw on the battery during heavy lifting.

The priority of crane functions shall be as follows: 1. Winch shall take priority over all other functions. 2. Winch Down shall be able to be operated with any other single function. 3. Hydraulic functions (Rotation Right, Rotation Left, Boom Up, Boom Down, Boom Out and Boom In) shall be designed to function one at a time.

## OVERLOAD SENSING SYSTEM

It shall have an overload sensing system that disables Winch Up, Boom Down, & Boom Out when an overload situation is encountered.

## ANTI-TWO-BLOCKING

An anti-two-blocking system shall use a 'bail-type' actuating device to prevent damage to the wire rope by disabling the Winch Up, Boom Down and Boom Out functions (three functions shut down).

## ELECTRICAL INSTALLATION

For electrical installation a #2 gauge x 25ft. long battery cable shall be provided. In addition, a #2 gauge x 8ft. long ground cable fixed to the crane base shall also be provided.

A Master Disconnect switch shall be provided.

## WARRANTY

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

**Specifications Subject to Change Without Notice.**