



ET6K 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 capacity of 2,000 lbs. maximum with a 2 part line. The maximum overturning moment rating is 6,000 ft. lbs. Crane shall meet OSHA 1910.180 requirements.

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 6 ft. to 10 ft. using a manual 4 ft. extension section to 10 ft.

BOOM ELEVATION

The boom elevation angle range shall extend from 5 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.

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

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. The hydraulic fluid shall be DEXRON Automatic Transmission Fluid.

WINCH POWER UNIT

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



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WINCH PERFORMANCE

The nominal winch performance (DC1200) shall be as follows:

**First layer wire rope*

***Single-Part Line*

Load (lbs.)	Part Line	Lifting Speed (ft./min)
0	1	30
250	1	27
500	1	25
750	1	22
1000	1	20
1200	1	18

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.

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 3 ¾ in. wide between flanges. The winch drum shall have sufficient capacity to allow up to 50 ft. of 3/16 wire rope to be used.

WIRE ROPE

The standard 7 x19 3/16 galvanized aircraft wire rope shall be 50 ft. long and fitted with a 1 Ton carbon steel eye, hook and safety latch.

The wire rope shall have a minimum breaking strength of 5600 lbs. or 3 ½ times the 1600 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 2 Ton carbon steel swivel hook with safety latch.

OVERHAUL WEIGHT

The crane shall be provided with a 6 lb. overhaul weight for use with single line operation, that can be easily removed for two part line operation.

ROTATION

The electric/hydraulic powered rotation system shall have continuous 360 degree rotation.

The rotation drive line shall be self-locking.

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



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REMOTE CONTROL

The crane shall have a remote control pendant with environmentally sealed switches, a switch bat guard, a hole for hanging the pendant, and a 20 ft. cord. The cord shall have a plug so that it can be unplugged from the crane when not in use. 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 major 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

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 overload condition.

ANTI TWO-BLOCKING (OPTION)

An anti two-blocking feature shall be provided as an option to prevent damage to the wire rope by disabling the winch up, boom down and boom out functions (three functions shut down.)

HYDRAULIC DIRECTIONAL CONTROL VALVES

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

ELECTRICAL INSTALLATION

For electrical installation a #2 x 25 ft. battery cable shall be provided. A #2 x 4 ft. battery cable fixed to the crane that can be routed either through the side or bottom of the crane base shall also be provided.

A master disconnect switch shall also be provided.

CRANE BASE

The crane base shall be 10.5 in. square and provided with (4) - 9" c/c holes for 5/8" diameter grade 8 bolts.

WARRANTY

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

Specifications Subject to Change Without Notice.