

GENERAL DESCRIPTION

The crane shall be a pedestal mounted service crane that operates on 12 volts Direct Current (DC) battery power. It shall have a single line capacity of 2250 lbs. and a 2-part line capacity of 4500 lbs. The maximum overturning moment rating is 16,000 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 Polyurethane Enamel (Venturo gray).

TELESCOPIC BOOM

The boom shall telescope to provide a horizontal reach range of 8 ft. to 16 ft. using 4 ft. hydraulic power extension section and a 4 ft. manual extension section.

POWER EXTENSION

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

The cylinder shall be mounted inside 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 vane 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 having a pitch diameter of at least 18 times the / 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, rotation, and extension (KX models only) functions. The hydraulic fluid used shall be DEXRON Automatic Transmission fluid.

WINCH POWER UNIT

The nominal winch performance shall be as follows:

LOAD (lbs.)	PART LINE	LIFTING SPEED (ft. / min.)
0	1	25.0
1200	1	10.0
2250	1	8.0
2400	2	5.0
4000	2	4.0
4500	2	4.0

WINCH DRUM

Winch drum first layer wire rope pitch diameter shall be at least 18 times the 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 the drum. The winch drum shall be at least 4-15/16" inches wide between flanges. The winch drum shall have sufficient capacity to allow up to 100 feet of 5/16 wire rope to be used.

WIRE ROPE

The standard 7 x 19-5/16 inch galvanized aircraft wire rope shall be 75 ft. long and fitted with a 1-1/2 ton carbon steel eye hook with safety latch.

The wire rope shall have a minimum breakage strength of 9800 lbs. or more than 3-1/2 times the 2250lb. 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 2-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 5/16 wire rope diameter per ANSI B30.5 - 5-1.7.5. Sheave bearings shall be made of maintenance free composite material.

ROTATION

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

The rotation drive line shall be self-locking.

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 it can be unplugged when not in use. The socket receiving the plug shall be mounted on the crane housing. 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 (Rotate Right, Rotate 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 disables Winch Up, Boom Down, and Boom Out when an overload situation is encountered.

ANTI-TWO-BLOCKING

An anti-two-blocking feature shall be provided to prevent damage to the wire rope by disabling the Winch Up, Boom Down, and Boom Out functions (three [3] function shut-down).

ELECTRICAL INSTALLATION

For electrical installation, a #2 - 25 ft. battery cable shall be provided. A #2 x 8 ft. ground cable fixed to the crane shall also be provided.

A master disconnect switch shall also be provided.

CRANE BASE

The crane base shall be 16 in. square and provided with [8] holes for 3/4" diameter bolts to spread the load and make it unnecessary to use special high strength bolts.

WARRANTY

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

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE