

## **SUGGESTED SPECIFICATIONS FOR 2-TON INDUSTRIAL CARRY DECK CRANE**

### **1.0 INTENT:**

It is the purpose of these specifications to describe a 2-TON SELF-PROPELLED INDUSTRIAL CARGO DECK CRANE with features that include low overall height, narrow width, short length and cargo deck to be purchased by :

All parts not specifically mentioned, which are necessary, or which are regularly furnished in order to provide a complete functional unit, shall be furnished by the successful bidder at the bid price and shall conform in strength, quality of material, workmanship and sound engineering standards. The bidder shall bid the latest and most current model of this type of crane manufactured by the concern which the bidder represents and the crane shall be new and unused.

### **2.0 GENERAL DESCRIPTION OF THE CRANE AND CHASSIS:**

- 2.1 The chassis shall consist of a frame, hydraulic oil tank, control station, a dual fuel engine, variable speed hydrostatic transmission & front wheel drive.
- 2.2 The boom assembly shall consist of a hydraulic powered three section telescopic boom, hydraulic boom elevating cylinder, boom extension cylinders and a hydraulic powered winch.
- 2.3 The overall length of the chassis shall be no greater than 9 feet 2 inches and the width of the chassis shall not exceed 48 inches.
- 2.4 The overall height, without operator's guard installed, shall be no greater than 5 feet 9 inches.
- 2.5 Maximum travel speed shall be no greater than 4 miles per hour.
- 2.6 Total hydraulic boom extension shall be no less than 9 feet.
- 2.7 The maximum sheave height, without boom extension, shall be no less than 20 feet 9 inches. Horizontal reach, without boom extension, shall be no less than 10 feet in front of bumper.
- 2.8 A gasoline engine shall be standard. LP, Dual Fuel (both gasoline and LPG systems) and diesel engine shall be available as options and selected at time of bid.
- 2.9 The hydrostatic pump shall be a piston type and direct driven from the engine crankshaft and be capable of delivering 34 GPM at 4,000 PSI.
- 2.10 The front axle shall be a planetary drive axle with overall ratio of 24:1. Differential is limited slip. The front axle shall oscillate a total of .75 inches to minimize wheel spin on uneven surfaces.
- 2.11 The rear axle shall be mounted rigidly to frame.
- 2.12 Full hydraulic rear wheel steering shall be standard.
- 2.13 Primary braking shall be provided by the hydrostatic transmission. A foot-actuated hydraulic disc brake shall be provided for additional braking.

- 2.14 The crane shall be equipped with the manufacturer's standard tires.
- 2.15 The cargo deck shall have 23 square feet of area and have a minimum of 5,000 pound carry capacity.
- 2.16 A pulling eye mounted on the front bumper shall be installed.
- 2.17 Lifting sling brackets shall be included as standard.
- 2.18 The chassis shall be equipped with an operator control station. The operator control station shall provide one-position access to all chassis and crane functions. Included in the operator station shall be a 2-1/2 pound fire extinguisher. A tubular steel weldment with heavy expanded steel mesh top section that covers operator's compartment shall also be standard.
- 2.19 A lighting group shall consist of two 12-volt headlights and two taillights.
- 2.20 The instrument group (gauges) shall include lighted fuel gauge, voltmeter, oil pressure, water temperature and hydrostatic oil temperature gauges. An hourmeter that records hours only during actual engine operation shall also be included.
- 2.21 A 97 decibel solid-state back-up alarm shall be standard equipment.
- 2.22 The hydraulic system shall consist of a tandem pump mounted to the hydrostatic piston pump and delivers 6 GPM at 1,800 PSI for crane circuit and 10 GPM at 2,500 PSI for the winch circuit. The hydraulic system shall be protected by relief valves and two 10 micron filters.
- 2.23 The boom assembly shall consist of a three section, high strength steel construction. Double-acting hydraulic cylinders shall extend boom sections. The extension cylinders and the double-acting boom elevation cylinders are equipped with direct-connected holding valves.
- 2.24 The boom winch shall be a turret-mounted, worm gear winch hydraulically powered. The bare-drum line pull shall be 5,300 pounds and have a line speed of 66 feet per minute. The winch shall include 85 feet of 3/8 inch wire rope, downhaul weight and swivel hook.
- 2.25 An anti-two-block device shall be standard. The purpose of the anti-two-block is to prevent damage to hoist rope and/or machine components from accidentally pulling the load hook against boom tip. The anti-two block shall dump the "boom extend", "boom lower" and "hoist raise" circuits when activated.

### **3.0 OPTIONAL ACCESSORIES SHALL BE QUOTED SEPARATELY AND SELECTION IS TO BE MADE AT TIME OF CONTRACT AWARD:**

- 3.1 **Engine:**
  - 3.1.1 Diesel Engine – Kubota 1.1L 3-cylinder, water cooled
  - 3.1.2 Spark Arrester Muffler
  - 3.1.3 Engine Shutdown Gauges
- 3.2 **Tire Options:**
  - 3.2.1 Foam Filling of Tires
  - 3.2.2 Spare Tire and Wheel
- 3.3 **Chassis:**
  - 3.3.1 Pintle Hook
  - 3.3.2 Lifting Sling
  - 3.3.3 Headlight & Taillight Grilles

**3.4 Operator's Compartment:**

3.4.1 Operator Guard

**3.5 Electrical:**

3.5.1 Strobe Light

3.5.2 Boom Work Lights

**3.6 Boom Attachments:**

3.6.1 7 Ft. Boom Extension

3.6.2 Rated Capacity Limiter

**4.0 SERVICE AND PARTS FACILITIES:**

The purchaser must be assured that spare parts necessary for immediate repair are in the dealer's stock and that repair service will be available within the greater metropolitan area. A complete set of parts and service manuals shall be furnished with the crane.

**5.0 MANUFACTURER'S WARRANTY:**

The successful bidder will be required to furnish a copy of the manufacturer's warranty. The successful bidder shall agree to replace and install, without charge, any defective parts within a period of 180 days from the date the product is placed in service.

**6.0 BID ACCEPTANCE:**

Bids will only be accepted through authorized dealers representing a manufacturer regularly engaged in the design and production of self-propelled hydraulic cranes. Upon request, the bidder shall submit equipment on which the bid is based for demonstration before the award of contract.

**7.0 AWARD:**

The contract will be awarded to the lowest responsible bidder complying with the specifications and the conditions of the invitation for bids, provided the bid is reasonable and it is in the best interest of the purchaser to accept the bid. The purchaser reserves the right to reject the apparent low bidder who is not considered responsive or in a position to perform the intended contract, in the judgement of the purchaser. The purchaser will be the sole judge of the quality, construction and suitability of the machine offered for the intended use.