

SUGGESTED SPECIFICATION FOR 4-1/2 TON 4 x 4 INDUSTRIAL CRANE

1.0 INTENT:

It is the intent of these specifications to describe a 4-1/2 TON 4 x 4 SELF-PROPELLED INDUSTRIAL CRANE 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 with 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 DESCRIPTION OF THE CRANE AND CHASSIS:

- 2.1** The chassis shall consist of a one-piece welded frame, four hydraulic outriggers, engine, variable speed hydrostatic transmission, four-wheel drive, and four-wheel steer with power steering, fuel tank, oil tank, operator control station.
- 2.2** The boom assembly shall consist of a hydraulic powered, continuous rotating turret, three section telescopic boom, hydraulic boom elevating cylinder, boom extension cylinders and a hydraulic powered hoist. Boom angle indicators shall be provided on both sides of the boom. The boom shall have a vertical reach of not less than 26 feet. A Rated Capacity Limiter shall be standard.
- 2.3** The boom tail swing shall be no greater than 3 feet 7 inches from the centerline of rotation.
- 2.4** The crane shall have a lifting capacity, on-outriggers of not less than 9,000 pounds.
- 2.5** The overall height on rubber shall be no greater than 6 feet 9 inches. Overall width of the chassis shall be no greater than 5 feet 4 inches. The overall length of the chassis shall be no greater than 10 feet 9 inches.
- 2.6** The outside steering radius shall not exceed 9 feet 10 inches.
- 2.7** Maximum road speed shall not exceed 10 miles per hour.
- 2.8** A piston type hydrostatic pump shall be standard. The pump shall be direct driven off engine crankshaft. The maximum flow shall be 34 GPM with a maximum pressure of 4,000 PSI. An electrohydraulic servo and electronic, automotive type controller shall be standard.
- 2.9** The front axle shall be a planetary drive/steer axle with an overall 16.15/1 ratio. Differential is limited slip. Axle is rigidly mounted to frame.
- 2.10** The rear axle shall be a planetary drive/steer axle with an overall 16.15/1 ratio. Differential is limited slip. Axle oscillates 1-1/2 degrees in either direction.
- 2.11** The crane chassis shall have a hydraulic steering unit with one 2-1/2 inch steering cylinder attached to each axle.
- 2.12** Primary braking shall be from the hydrostatic pump. A foot-actuated wet-disc brake in each axle for additional braking in some conditions. Lever actuated parking brake to hold crane when not being driven shall also be standard.
- 2.13** Standard tires shall be 28 x 9-15, 14-ply rating pneumatic.

- 2.14 Cargo deck shall provide no less than 29 square feet of self-loading space. The cargo deck shall have a minimum of 6,000 pounds capacity. Nine deck stakes and stake pockets along the edge of the deck shall be standard equipment.
- 2.15 Four hydraulic outriggers shall be of box-beam construction with independent controls for each outrigger. Hydraulic cylinders shall be equipped with direct-connected holding valves.
- 2.16 The operator's control station shall provide one-position access to all operating functions and shall include an adjustable operator's seat, seat belt, 2-1/2 pound fire extinguisher and bubble level.
- 2.17 The electrical system shall be 12 volt D.C.
- 2.18 The crane chassis shall be equipped with two headlights and two taillights.
- 2.19 The instrument group located in the operator's compartment shall include fuel, ammeter, oil pressure, water temperature and hydrostatic oil temperature gauges. All gauges shall be lighted. An hourmeter shall be included which records hours only during actual engine operation.
- 2.20 The hydraulic system shall consist of a tandem pump mounted to the rear of the hydrostatic piston pump that is driven by the engine crankshaft. The hydraulic pump shall deliver 6 GPM at 2,600 PSI for the crane functions and 18 GPM at 2,350 PSI for the hoist circuit. The hydraulic system shall include relief valves and two 10 micron filters.
- 2.21 The hydraulic reservoir shall have a maximum capacity of 14 gallons.
- 2.22 The crane and chassis shall be in the manufacturer's standard finish paint over a suitable primer.

3.0 MACHINE SHALL BE EQUIPPED WITH THE FOLLOWING:

- 3.1 Full power steering.
- 3.2 Control handles shall be directly connected to full-feathering hydraulic control valves.
- 3.3 The boom hoist shall have a maximum of 5,000 pounds of bare drum line pull at a speed of 86 feet per minute. The hoist shall include 85 feet of 3/8 inch wire rope, downhaul weight, swivel hook with safety latch and two-part line sheave block.
- 3.4 Hydraulic Dump Anti-Two Block Device.
- 3.5 Rated Capacity Limiter (RCL).
- 3.6 Solid-state Back-Up Alarm.

4.0 THE FOLLOWING OPTIONAL ACCESSORIES SHALL BE QUOTED SEPARATELY AND SELECTIONS WILL BE MADE AT THE TIME THE CONTRACT IS AWARDED:

4.1 Engine Options:

- 4.1.1 Diesel Engine – Cummins A2300
- 4.1.2 Spark Arrester Muffler
- 4.1.3 Engine Shut Down Gauges for diesel engine only

4.2 Tire Options:

- 4.2.1 Foam Filling of Tires
- 4.2.2 Spare Tire & Wheel

4.3 Chassis Options:

- 4.3.1 Auxiliary Winch
- 4.3.2 Pintle Hook - Rear
- 4.3.3 Lifting Sling
- 4.3.4 Headlight & Taillight Grilles

4.4 Operator Compartment Options:

- 4.4.1 All Weather Cab
- 4.4.2 Cab Heater
- 4.4.3 Operator Guard

4.5 Electrical Options:

- 4.5.1 Strobe Lights
- 4.5.2 Boom Work Lights

4.6 Boom Options:

- 4.6.1 Boom Extension - 8 ft.
- 4.6.2 Boom Extension - 8 ft. Offset
- 4.6.3 Searcher Hook

5.0 SERVICE AND PARTS FACILITIES:

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

6.0 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.

7.0 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, which this bid describes, for demonstration before the award of contract.

8.0 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 judgment of the purchaser. The purchaser will be the sole judge of the quality, construction and suitability of the machine offered for the intended use.