

SUGGESTED SPECIFICATION FOR 18 TON INDUSTRIAL CARGO DECK CRANE

1.0 INTENT:

It is the purpose of these specifications to describe an 18 TON SELF-PROPELLED INDUSTRIAL CARGO DECK CRANE with two wheel drive or four wheel drive and four wheel steering 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 crane manufactured by the concern which the bidder represents. 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 independently controlled hydraulic outriggers, gas EFI dual fuel engine which is Tier 2 CARB and US EPA Tier 1 emissions certified, torque convertor, powershift four-speed transmission, front drive/steer and rear steer axle, fuel tank(s), oil tank, control station and full power steering.
- 2.2 Rear Axle (Choose One)
 - 2.2.1 Non driving rear steer axle.
 - 2.2.2 Driving rear/steer axle.
- 2.3 Boom Assembly
 - 2.3.1 The boom assembly shall consist of a hydraulic powered, continuous rotation turret, 4-section telescopic boom, two hydraulic boom elevating cylinders, boom extension cylinders and a hydraulic powered hoist. Boom angle indicators on left side of boom.
 - 2.3.2 Four-section hydraulically extended boom with capacity of 36,000 pounds at a six foot load radius. Horizontal reach of 50 feet and vertical reach of 60 feet 7 inches.
 - 2.3.3 Maximum boom elevation shall be 75 degrees.
 - 2.3.4 Four-section boom shall have double-acting cylinder and chain system to telescope boom sections proportionally.
 - 2.3.5 Boom extend time shall be no greater than 53 seconds.
- 2.4 The boom tail swing shall be no greater than 7 feet 3-7/8 inches from the centerline of boom rotation.
- 2.5 The crane shall have a lifting capacity on outriggers and over the front of no less than 36,000 pounds at a 6 foot load radius.
- 2.6 Overall height on rubber shall be no greater than 7 feet 11 inches. Overall width of the chassis shall be no greater than 7 feet 10 inches.
- 2.7 Maximum level road speed shall not exceed 18 MPH.
- 2.8 Split-system, four-wheel hydraulically-boosted multiple-plate wet disc brakes shall be standard. A lever actuated disc-type parking brake on transmission shall also be standard.
- 2.9 The rear axle shall have a minimum of 1-1/2 degrees of oscillation in either direction.
- 2.10 Standard tires shall be 385/65D22.5, 16-ply rating, high-traction on/off road tread.
- 2.11 Cargo deck shall provide no less than 80 square feet of self-loading space. Cargo deck shall have a minimum of 17,000 pounds capacity. Seven deck stakes and stake pockets along the edge of the deck shall be standard equipment.
- 2.12 The four hydraulic outriggers shall be out-and-down of box-beam construction with independent controls for each outrigger. Hydraulic cylinders shall be equipped with direct-connected holding valves.
- 2.13 When the outriggers are extended, the maximum spread for left to right shall be no greater than 14 feet 9 inches.

- 2.14 The hydraulic system shall consist of a direct-driven tandem pump delivering 29 GPM at 3,000 PSI and 34 GPM at 2,500 PSI at 2,500 RPM governed engine speed. The system shall include pressure relief valves, suction line strainer and micron return line filter.
- 2.15 The hydraulic reservoir shall have a minimum capacity of 54 gallons.
- 2.16 The crane and chassis shall be in manufacturer's standard finish paint over a suitable primer.

3.0 MACHINE SHALL BE EQUIPPED WITH THE FOLLOWING:

- 3.1 Full time power steering.
- 3.2 Control handles shall be directly connected to full-feathering hydraulic control valves.
- 3.3 Locking hood for protection of engine compartment.
- 3.4 The load hoist shall have a minimum of 12,000 pounds bare drum line pull at a speed of 100 feet per minute. The hoist shall include 320 feet of 9/16 inch wire rope, downhaul weight and swivel hook with safety latch.
- 3.5 The electrical system shall be 12-volt, negative ground.
- 3.6 The instrument group shall consist of fuel, ammeter, oil pressure, water temperature, transmission oil temperature gauges and running hourmeter. Also included shall be warning lights for low transmission oil pressure, turn signals, high beams, hazard lights, parking lights and four-wheel drive.
- 3.7 The lighting group shall consist of headlights, taillights, brake lights, turn indicators, emergency flashers and back-up lights.
- 3.8 Electrical back-up alarm.
- 3.9 Hydraulic dump, trip arm anti-two block device. The anti-two block system shall activate by a trip arm lever at boom tip. Dimension of the top of boom tip and to bottom of hook shall be no greater than 53-1/2 inches with single part line and 60 inches with 4-part line with boom in a horizontal position.
- 3.10 Rated Capacity Limiter (RCL) shall be standard equipment. The RCL shall warn the operator of impending overload with audible and visual signals. The purpose of the RCL is to prevent overloads by stopping boom functions that cause overloads.
- 3.11 Four-part sheave block for maximum loads.

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:

- 4.1.1 Cummins Turbo – B4.5L Diesel Engine Tier 2 CARB and US EPA Tier 2 emissions certified
- 4.1.2 Spark Arrester Muffler
- 4.1.3 Catalytic Converter
- 4.1.4 Engine Heater
- 4.1.5 Ether Injection System
- 4.1.6 Engine Shut Down Gauges (Diesel Only)

4.2 Four-Wheel Drive:

Planetary drive/steer rear axle with 24.98 to 1.0 ratio. Transmission shall have an additional output shaft to drive rear axle. Transmission shall be equipped with electro-hydraulic control for shifting between 2-wheel drive and 4-wheel drive.

4.3 Tires

- 4.3.1 Non-Marking High Traction Tread
- 4.3.2 Foam Filling of Tires
- 4.3.3 Spare Tire & Wheel
 - 4.3.3.1 High Traction Tread
 - 4.3.3.2 Non-Marking High Traction Tread

4.4 Chassis:

- 4.4.1 Auxiliary Winch (hydraulically powered)
- 4.4.2 Pintle Hook (rear)
- 4.4.3 Pintle Hook (front)
- 4.4.4 Rearview Mirrors
- 4.4.5 Outrigger Shoes

4.5 Operator's Compartment:

- 4.5.1 Operator Guard
- 4.5.2 Operator Guard Cover
- 4.5.3 All Weather Cab with Heater
- 4.5.4 Cab Heater Only
- 4.5.5 Windshield Washer
- 4.5.6 Floor Mat
- 4.5.7 Operator Suspension Seat
- 4.5.8 Noise Reduction Kit
- 4.5.9 Air Conditioning with R134 Coolant

4.6 Electrical:

- 4.6.1 Strobe Lights
- 4.6.2 Amber Rotating Beacons
- 4.6.3 Boom Mounted Work Lights
- 4.6.4 Work Lights - Rear

4.7 Boom Attachments:

- 4.7.1 Boom Extension, 20 foot, Offset
- 4.7.2 Sheave Block, 2-Part
- 4.7.3 Searcher Hook - Nose Mount

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 combination parts and service manuals shall be furnished with the crane.

6.0 MANUFACTURER'S WARRANTY:

The successful bidder will be required to furnish a warranty by the manufacturer that the equipment offered is suitable for the service intended in accordance with the specifications. The successful bidder shall agree to replace and install, without charge, any defective parts within a period of 180 days from the date of delivery to the purchaser.

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 on which the bid is based 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 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.