

SUGGESTED SPECIFICATION FOR 15 TON ROUGH TERRAIN CRANE FOLD DOWN OUTRIGGERS

1.0 INTENT:

It is the purpose of these specifications to describe a **15 TON SELF-PROPELLED ROUGH TERRAIN 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 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 and the crane shall be new and unused.

2.0 DESCRIPTION OF THE CHASSIS AND CRANE:

- 2.1** The chassis shall consist of a frame, four hydraulic outriggers, engine, six-speed transmission, front driving and steering axle, rear driving and steering axle, fuel tank, oil tank, control station and three position full power steering.
- 2.2** The boom assembly shall include a hydraulic powered rotating turret, hydraulic telescopic boom, hydraulic boom elevating cylinders, hydraulic powered planetary gear hoist and hydraulic anti-two-block system.
- 2.3** Four-section hydraulic telescopic boom shall be standard. The crane shall have 30,000 pounds capacity on outriggers at a 10 foot load radius. Horizontal boom reach shall be no less than 60 feet and vertical boom reach shall be a minimum of 70 feet.
- 2.4** The overall length of the chassis shall not exceed 16 feet 7 inches.
- 2.5** The overall width of the chassis shall not exceed 8 feet 2 inches.
- 2.6** The overall height of the crane shall not exceed 11 feet 2 inches.
- 2.7** The outside turning radius shall not be greater than 15 feet 3 inches. The crane chassis shall not have maximum road speeds greater than 24 miles per hour.
- 2.8** The overall width of the unit shall not exceed 14 feet 5 inches when the outriggers are fully extended.
- 2.9** The unit shall have a drawbar pull of no less than 30,000 pounds.
- 2.10** A diesel engine with 155 HP at governed speed shall be standard. The fuel tank shall have a minimum of 50 gallons capacity. The engine shall be Tier II C.A.R.B and US EPA Tier II Emissions Certified.
- 2.11** A powershift transmission with 6 forward speeds and 3 reverse shall be standard. The transmission shall provide full powershifts at maximum engine speed in all gears. All shifting shall be done with a single-lever electric control in the operator compartment. The transmission shall include an automatic rear axle disconnect for two-wheel drive in speeds 4, 5, and 6 in forward and speed 3 in reverse. The transmission shall have a torque convertor with a stall torque ratio of no less than 2.640:1 attached directly to the engine flywheel as standard equipment. A transmission oil cooler with filter shall be standard equipment.

- 2.12** The front axle shall be a drive/steer type with a gear ratio of 20.06:1. The axle shall be equipped with a limited-slip differential. The front axle shall be mounted rigidly to the chassis.
- 2.13** The rear axle shall be a drive/steer type with a gear ratio of 20.06:1. The rear axle shall be mounted to the chassis with rubber elements to allow oscillation.
- 2.14** Four-wheel hydraulic brakes with hydraulic booster shall be standard. The parking brake shall be spring applied and hydraulically released disc type mounted on the transmission.
- 2.15** The crane chassis shall have a hydraulic steering unit with two 3.5 inch cylinders attached to each axle. The steering system shall include steering wheel and electronically controlled selector valve control for 3-position steering. Steering modes shall include crab, round and 2-wheel front axle steering.
- 2.16** The tire size shall be no greater than 17.5 x 25, 20-ply rating. The tire tread shall be mud lug.
- 2.17** Access to the operator's compartment shall be aided by grip-strut steps and grab bars.
- 2.18** Four independently controlled hydraulic outriggers of swingdown design shall be standard. The hydraulic cylinders shall be equipped with direct connected holding valves.
- 2.19** The operator control station shall provide one position access to all chassis and crane functions. An adjustable operator's seat and seat belt shall be standard.
- 2.20** The electrical system shall be 12 volt D.C.
- 2.21** The instrument group shall include fuel gauge, transmission oil temperature gauge, voltmeter, oil pressure, water temperature and hydraulic oil temperature gauges. Also included shall be a key ignition switch, starter and horn button mounted on the instrument panel. A rear axle steering indicator shall be provided in the operator's compartment. An hourmeter, indicator for two-wheel drive, four-wheel drive and parking brake shall also be standard.
- 2.22** A 97 dB back-up alarm shall be included as standard equipment.
- 2.23** The hydraulic system shall consist of a triple vane pump, driven by the main transmission delivering 9, 26 and 44 GPM at 3,000 PSI at 2,500 RPM governed engine speed. The system shall be protected by relief valves, suction line strainer and 10 micron return line filter. The hydraulic reservoir shall have a minimum of 70 gallons capacity.
- 2.24** A four-section boom made of high strength steel with bearing pads shall be standard. The second and third stage boom sections shall telescope by double-acting hydraulic cylinders. The fourth section boom shall extend and retract by double runs of high strength leaf chains. The third and fourth boom sections shall extend and retract together proportionally. The telescope cylinders and double-acting boom elevation cylinders shall be equipped with direct-connected holding valves. Boom length markings and boom angle indicator shall be provided on each side of boom assembly.
- 2.25** The boom hoist shall be mounted on the turret and have a bare drum line pull of 10,000 pounds and line speed of 320 feet per minute. The hoist shall include a minimum 375 feet of 1/2 inch wire rope.
- 2.26** A heavy-duty ball bearing rotation gear shall be standard. Rotation shall be powered by a hydraulic motor and compound planetary gear drive. A spring applied hydraulically released brake and an overrunning load valve shall be provided.

2.27 A hydraulic dump anti-two-block device shall be standard equipment.

2.28 A rated capacity limiter shall be standard equipment. The rated capacity limiter shall warn the operator of impending overload with audible and visual signals.

2.29 A four-part sheave block shall be standard equipment.

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

3.1 Engine:

- 3.1.1 Engine Heater
- 3.1.2 Ether Injection System
- 3.1.3 Engine Covers

3.2 Spare Tire and Wheel

3.3 Chassis:

- 3.3.1 Lifting Eyes
- 3.3.2 Towing Eyes
- 3.3.3 Spreader Bar and Sling Assembly
- 3.3.4 Pintle Hook, Front
- 3.3.5 Pintle Hook, Rear

3.4 Operator's Compartment:

- 3.4.1 All Weather Cab with Defroster & Heater
- 3.4.2 Window Wiper - Top Window
- 3.4.3 Operator Guard
- 3.4.4 Operator's Suspension Seat:
 - 3.4.4.1 Seats Inc. - Cloth
 - 3.4.4.2 Seats Inc. - Vinyl
- 3.4.5 Noise Reduction Kit
- 3.4.6 Air Conditioning with R-134 Coolant

3.5 Electrical:

- 3.5.1 Strobe Light
- 3.5.2 Lighting Kit
- 3.5.3 Amber Rotating Beacon
- 3.5.4 Work Lights

3.6 Boom Attachments:

- 3.6.1 Boom Extension, 20 foot, Offset
- 3.6.2 Downhaul Weight and Hook

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 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.

5.0 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.

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 they bid 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 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.