

Wheel-Type Tractor, Mechanical Front-Wheel Drive with Front End Loader and Extendable Backhoe

Heavy-duty industrial wheel-type tractor, mechanical front-wheel drive equipped with front-end loader and extendable backhoe ("Backhoe"), new and of current model, equipped as advertised by manufacturer, to meet or exceed the following **MINIMUM** specifications:

Proposed Tractor Loader/Backhoe: Make _____ Model _____

Non-Restrictive Clause: Any use of brand name or equal within this specification is to be considered a reference for the purpose of describing the standard of quality, performance, and characteristics desired. It is not intended to limit or restrict competition.

The bidder must respond to each of the following statements. Specifications listed are **minimum** requirements that must be met for a bidder to qualify for an award. A "YES" response means the bidder guarantees that they meet or exceed the requirement. A "NO" response means the bidder cannot meet the requirement and will not be considered. The bidder must supply printed literature that shows compliance with each requirement of the Specifications and, if on inspection, an item is found not to comply, the Backhoe will be rejected.

Descriptive literature shall be furnished to substantiate the details specified throughout this bid.

SPECIFICATION

Powertrain and Chassis:

Weight: 14,500 pounds

Comply Yes/No: _____

Horsepower: 93 horsepower, net

Horsepower: _____

Comply Yes/No: _____

Engine: Water-cooled diesel engine equipped with air cleaner, two-stage fuel filter, oil filters, electric starter, and all standard engine accessories.

Comply Yes/No: _____

Electrical system: 12-volt, 90-amp alternator (minimum), two (2) batteries with a minimum 800 cca each.

Comply Yes/No: _____

Transmission: Power-shift/shuttle type to allow change of direction without manual clutching, with at least 4 forward speeds and reverse

Comply Yes/No: _____

Axles:

Front axle: heavy-duty industrial type fixed tread, mechanical front wheel drive
Rear Axle: full locking differential or limited slip differential.

Comply Yes/No: _____

Steering: Hydraulic steering

Comply Yes/No: _____

Tires: Front and rear tires to be compatible for a mechanical front wheel drive unit, operate properly, and supply as much surface area as needed to give good traction to both axles in all types of terrain

Comply Yes/No: _____

Hydraulic system: Hydraulic pump capacity of 40 gallons per minute (gpm), shall be capable of operating front-end loader and backhoe. The unit shall be plumbed for auxiliary hydraulics for the backhoe and loader. The system shall be complete and designed to operate the front-end loader, backhoe, and attachments.

Hydraulic pump capacity (gpm): _____

Comply Yes/No: _____

Cab: All standard equipment and gauges, including but not limited to:

- ROPS (rollover protection system) / FOPS (falling object protection structure) certified enclosed cab with entry/exit door on each side
- Safety glass
- Adjustable air suspension bucket seat
- High-visibility orange safety belt
- Ride control system
- Engine oil pressure gauge
- Temperature gauge
- Amp meter
- Hour meter
- Torque convertor
- Temperature gauge
- Warning lights for battery charging and parking brake
- Engine Side Shields
- Lockable caps on fuel tanks
- Hydraulic and radiator tanks
- Cold start aid
- Air conditioning
- Heater/defroster
- Working lights, front and rear
- Tail and stop lights
- Turn signals
- Front and rear light guards
- Horn
- Windshield wipers, front and rear
- Backup alarm
- Rearview camera
- Fire extinguisher
- Slow moving vehicle emblem, rear-mounted
- Toolbox
- Counterweight, 400 pounds, factory installed at front
- Front grill and hood protection, to protect during loading operations

Telematics systems with warning lights shall be acceptable in lieu of the listed gauges but one or the other shall be present.

Comply Yes/No: _____

Stabilizers: Individually controlled and hydraulically operated from operator's seat, equipped with street pads

Comply Yes/No: _____

Auxiliary Functions: Auxiliary functions to be hand controlled with joysticks. A constant on function for the auxiliary controls must be available.

Comply Yes/No: _____

Front end loader:

Bucket: 1 cubic yard capacity bucket, general purpose self-leveling with level position indicator

Bucket capacity (cubic yard): _____

Comply Yes/No: _____

Dump Angle: 40-degrees

Dump angle (degrees): _____

Comply Yes/No: _____

Lifting Capacity: 7,000 pounds at full height

Lifting Capacity (pounds): _____

Comply Yes/No: _____

Breakout force: 8,500 pounds (with extendable dipstick)

Breakout force (pounds): _____

Comply Yes/No: _____

Bucket Clearance Dump Height: 102 inches

Dump height (inches): _____

Comply Yes/No: _____

Dump Reach at Full Height: 25 inches

Dump reach (inches): _____

Comply Yes/No: _____

Backhoe:

Bucket:

Option 1: 36-inch standard bucket with removable teeth

Option 2: 36-inch clam bucket, hydraulic

Comply Yes/No: _____

Digging Depth: 14 feet IEMC rating minimum

Digging depth (feet): _____

Comply Yes/No: _____

Extendable Dipperstick: Factory installed, hydraulically extendable dipperstick, controlled from operator's platform, constructed to extend at least 3 feet and 3 inches

Comply Yes/No: _____

Hydraulic Thumb: Auxiliary functions must be hand controlled from the joystick

Comply Yes/No: _____

Swing Arc: 180 degrees

Swing arc (degrees): _____

Comply Yes/No: _____

Reach from Center of Swing Mast, Retracted: 17 feet

Reach from center of swing mast, retracted (feet): _____

Comply Yes/No: _____

Reach from Center of Swing Mast, Extended: 21 feet

Reach from center of swing mast, extended (feet): _____

Comply Yes/No: _____

Loading Height, Extended: 12 feet

Loading height (feet): _____

Comply Yes/No: _____

Transport Height: 13 feet, maximum

Transport height (feet): _____

Comply Yes/No: _____

ADDITIONAL REQUIREMENTS

Service: The Backhoe shall be delivered fully assembled and ready to operate. Factory-trained dealer representative is to inspect the Backhoe upon delivery and provide receiving MDOT equipment manager with information on operational, service, and maintenance requirements.

Bidder shall maintain a representative inventory of replacement parts and service facilities as well as all necessary diagnostic tools/equipment/software and software licenses needed for diagnosis, repair, service, and maintenance.

Acknowledge Yes/No: _____

Warranty: Clearly stated terms and conditions of all manufacturer warranties shall be included with the bid package. All materials, specialty equipment, or accessories that prove defective in normal operation within the warranty period shall be replaced or repaired by the manufacturer free of all cost to MDOT, including all material, labor, and transportation costs. Warranty replacement and/or repairs shall be furnished promptly by the successful bidder within a time not to exceed thirty (30) calendar days. **The bidder shall provide written assurance with the bid package regarding warranty repairs.**

The delivering dealer will have sole warranty responsibility (**all components**) for the first ninety (90) calendar days after acceptance of vehicle.

The manufacturer shall provide, with the bid package, a list of warranty service locations within the State of Mississippi for all components of the Backhoe (body, chassis, electrical, etc.) which may need warranty repair beyond the first ninety (90) calendar days.

Acknowledge Yes/No: _____

Workmanship: Workmanship throughout shall conform to the highest standard of commercially accepted practice for the class of work and shall result in a neat and finished appearance. The design which the manufacturer proposes must be of substantial and durable construction in all respects.

All parts shall be new. Used, reconditioned, or obsolete parts will not be accepted.

Acknowledge Yes/No: _____

Parts Availability: Dealer name and contact information located closest to the point of delivery:

Dealer Name: _____

Telephone: _____

Street Address: _____

City, State, ZIP: _____

Acknowledge Yes/No: _____

Tests and Testing: The complete Backhoe and all working and moving parts and operating devices shall be thoroughly tested and put in operating condition by the manufacturer.

Prior to acceptance by MDOT, the manufacturer shall service and adjust the Backhoe for operation.

Acknowledge Yes/No: _____

Literature:

Technical manuals: Operator's manual, service/maintenance manual, and parts book are to be made available in both hard copy and electronic (PDF file format on USB flash drive) versions. One set of technical manuals shall be provided with each Backhoe upon delivery. Additional manuals may be ordered later.

Technical service bulletins: Successful bidder shall provide TSBs (technical service bulletins) for all Backhoe(s) delivered to MDOT as they are published, regardless of the date of delivery. TSBs may be furnished in paper or electronic format and shall be updated regularly.

The following additional information shall be provided by the vendor at time of delivery (electronically if possible):

- Manufacturer's recommended service/preventive maintenance intervals
- Recommended fluids, lubricants, and their SAE equivalents

Two (2) copies of descriptive literature shall be furnished to substantiate the details specified in the bid.

Acknowledge Yes/No: _____

Certification: The manufacturer(s) shall furnish certification that the Backhoe meets or surpasses current U.S. Department of Labor Occupational Safety and Health Administration (OSHA) Regulations, U.S. Department of Transportation Federal Motor Vehicle Safety Standards (FMVSS), and any other applicable Federal regulations.

Certificate of Origin (if applicable):

Mississippi Department of Transportation, 9301
P.O. Box 1850
Jackson, MS 39215

Acknowledge Yes/No: _____