

The Noxubee County Board of Supervisors intends to accept sealed bids to purchase one (1) or more MHE Hydraulic Excavators-307.5 or Equivalent. The minimum suggested Bid Specifications for one or more 2023 model 307.5 or equivalent MHE Hydraulic Excavator is attached. All bids must be equal in performance and quality pursuant to the bid specifications provided, which are not intended to exclude any manufacturer's standard deviation. Any reference to manufacturer's make or series of equipment stated in the specifications provided is intended only to establish an acceptable standard and is not intended to limit the bidding. Noxubee County is acting under the authority of Section 31-7-13, Miss. Code of 1972 Amended, and reserves the right to reject any and all bids. Sealed bids will be received by the Board of Supervisors of Noxubee County, MS in the Noxubee County Courthouse, Macon, MS until 10:00 A.M. on the 24th day of March, 2023 and shortly thereafter. Bids will be opened on Friday, March 24, 2023 in the Board Room. By order of the Board of Supervisors the 24th day of February, 2023.

## MHE HYDRAULIC EXCAVATORS

### BID SPECIFICATION for - 307.5 or EQUIVALENT

#### BASIC SPECIFICATIONS

- Y\_\_\_ N\_\_\_ Net horsepower at 2400 rpm shall be at least 55.9hp (41.7kW) according to ISO 9249
- Y\_\_\_ N\_\_\_ SAE rated gross horsepower at 2400 rpm shall be at least 57.9 hp (43.2 kW) according to ISO 14396
- Y\_\_\_ N\_\_\_ Operating weight with the cab option shall be at least 18,152 lb (8233 kg)
- Y\_\_\_ N\_\_\_ Lift capacity without bucket fitted, blade down, and std stick shall be no less than 5,193 lb (2355 kg) at 14'8" (4.5 m) over the front and no less than 3,583 lb (1625 kg) at 14'8" (4.5 m) over the side.
- Y\_\_\_ N\_\_\_ Maximum digging depth with a long stick shall be at least 15'3" (4649 mm)
- Y\_\_\_ N\_\_\_ Maximum reach with a long stick shall be at least 22'3" (6805 mm)
- Y\_\_\_ N\_\_\_ Height to top of cab shall be 8'3" (2534 mm)
- Y\_\_\_ N\_\_\_ Ground clearance shall be not less than 14.6" (370 mm).

#### ENGINE

- Y\_\_\_ N\_\_\_ Engine shall be US EPA Tier 4 Final compliant
- Y\_\_\_ N\_\_\_ Machine shall be a Turbo Charged, Water-cooled, 4 stroke, 4 cylinder diesel engine.
- Y\_\_\_ N\_\_\_ Engine shall have automatic engine idle that automatically lowers engine revolutions when machine is not in use to save fuel
- Y\_\_\_ N\_\_\_ Electrical system voltage shall be 12 volt w
- Y\_\_\_ N\_\_\_ **Machine shall have a 900 CCA maintenance free battery**
- Y\_\_\_ N\_\_\_ Machine shall have adjustable automatic engine shutdown
- Y\_\_\_ N\_\_\_ Machine shall have automatic swing break

#### POWERTRAIN/TRANSMISSION

- Y\_\_\_ N\_\_\_ Travel speed shall be at least 1.9 mph (3.1 km/h) in low and 3.1 mph (5.0 km/h) in high
- Y\_\_\_ N\_\_\_ Factory installed, standard auto two speed which provides better fuel efficiency since the machine will automatically go into higher power/torque only when the system senses that it is required while dozing, counter rotating, and uphill travel.

#### HYDRAULIC SYSTEM

- Y\_\_\_ N\_\_\_ **Machine shall have one variable displacement piston pump with an output of 44 gal/m (167 L/m) at 2400 rpm**
- Y\_\_\_ N\_\_\_ Primary circuit shall have an output of at least 35 gal/min (131 LPM)
- Y\_\_\_ N\_\_\_ Secondary circuit shall have an output of at least 9 gal/min (33 LPM)
- Y\_\_\_ N\_\_\_ **An accumulator shall be provided to allow the boom and stick to be lowered to the ground in the case of a dead engine. Also to allow depressurization of hydraulic system in ordered to attach work tools.**
- Y\_\_\_ N\_\_\_ Factory installed combined function (one-way/two-way) auxiliary high pressure hydraulic circuit shall be standard.
- Y\_\_\_ N\_\_\_ Machine shall come standard with a trim feature that can be adjusted. This allows to correct machine travel if there is abnormal wear of tracks or other components.
- Y\_\_\_ N\_\_\_ **The machines travel and throttle functions shall be electro over hydraulic controlled to maintain modulation throughout the machines life.**
- Y\_\_\_ N\_\_\_ Machine shall have a load sensing, flow sharing, variable margin displacement piston pump system

Y\_\_\_ N\_\_\_ Machine is shall be equipped with smart tech electronic pump that monitors Hydraulic flows, pressure, temperature and ambient temperature to keep machine operating at maximum efficiency

#### UNDERCARRIAGE

Y\_\_\_ N\_\_\_ Track length shall be 9' 1" (2760 mm)  
Y\_\_\_ N\_\_\_ Machine shall have 17'.7" (450 mm) triple grouser shoes with additional holes that allow mounting of rubber street pads.  
Y\_\_\_ N\_\_\_ Machine shall come standard with hydraulic track adjusters

#### OPERATORS STATION

Y\_\_\_ N\_\_\_ A color LCD monitor system which includes...As standard - Fuel level and coolant temperature gauges, maintenance and machine monitoring, performance and machine adjustments, numeric security code, multiple languages, camera ready, hour meter with wake up switch, and jog dial control with interface.  
Y\_\_\_ N\_\_\_ The cab shall be sealed and pressurized to maximize operator comfort.  
Y\_\_\_ N\_\_\_ Next Generation Stick Steer shall be standard.  
Y\_\_\_ N\_\_\_ Travel cruise control when in Stick Steer mode shall be standard.  
Y\_\_\_ N\_\_\_ Continuous flow must be able to be activated with flow in either direction and at any flow rate  
Y\_\_\_ N\_\_\_ Machine must have adjustable auxiliary flow control for better controllability of attachments  
Y\_\_\_ N\_\_\_ A pattern control changer between ISO and SAE shall be standard within LCD monitor.  
Y\_\_\_ N\_\_\_ Joystick mounted controls give fine control at the operators finger tips and eliminate foot pedals from the floor which gives greater operator legroom.  
Y\_\_\_ N\_\_\_ The rear window shall be able to be removed for escape in case of emergency.  
Y\_\_\_ N\_\_\_ Lower front window shall be able to be stored and secured overhead.  
Y\_\_\_ N\_\_\_ The cab door will be a hinged door design. The door has a mechanism that will lock the door in the open position.  
Y\_\_\_ N\_\_\_ The cab shall have a polycarbonate skylight for visibility when loading at height.  
Y\_\_\_ N\_\_\_ Travel pedals shall be available and removable for ease of operation.  
Y\_\_\_ N\_\_\_ Travel alarm shall be standard.  
Y\_\_\_ N\_\_\_ Heat and Air conditioning shall be standard with adjustable temperature control with sealed and pressurized cab  
Y\_\_\_ N\_\_\_ HVAC shall be standard with automatic temperature control with sealed and pressurized cab  
Y\_\_\_ N\_\_\_ Factory installed AM/FM stereo radio shall be standard includes use of Bluetooth®, USB, auxiliary, and microphone devices.  
Y\_\_\_ N\_\_\_ Machine shall have a 3" (75 mm) wide fluorescent retractable seat belt as standard.  
Y\_\_\_ N\_\_\_ Customizable operator settings including speed and response of boom, bucket and stick to adjust per operator preference.

#### BOOM AND STICK

Y\_\_\_ N\_\_\_ This stick will be fitted with a dedicated 8818lb (4000kg), rated lifting eye for safe craning.  
Y\_\_\_ N\_\_\_ A dual lock coupler shall be standard on mechanical or hydraulic quick couplers for added safety.  
Y\_\_\_ N\_\_\_ Machine shall come thumb ready from factory  
Y\_\_\_ N\_\_\_ Machine shall have one piece boom 145.7" (3700 mm)

#### BLADE

Y\_\_\_ N\_\_\_ Blade width shall be a minimum of 90" (2280 mm) for std track machines. Wide track machines shall have optional bolt on extensions  
Y\_\_\_ N\_\_\_ Standard dozer float shall be standard to give easy and fast site clear up and leveling.  
Y\_\_\_ N\_\_\_ Blade shall come standard with bolt-on reversible wear edge

#### SWING SYSTEM

Y\_\_\_ N\_\_\_ Machine shall have a spring applied, hydraulic release automatic swing break

#### WORK TOOL OPTIONS

Y\_\_\_ N\_\_\_ A quick coupler system shall be available (mechanical and hydraulic), which will pick up the 'direct mounted' work tools.

Y\_\_\_ N\_\_\_ Coupler must offer the option to turn the bucket around in front shovel positioning providing the advantage of digging under obstacles.

#### SERVICEABILITY

Y\_\_\_ N\_\_\_ All daily maintenance areas shall be situated where they can be easily reached from ground level

Y\_\_\_ N\_\_\_ Track rollers and carrier rollers shall be lifetime lubricated for increased service life.

Y\_\_\_ N\_\_\_ Machine shall come standard with an onboard remote monitoring and management system (Product Link) that supplies data including but not limited to hours of use, idle time, fuel consumption, load factors, GPS coordinates of location, and allow remote diagnostics and maintenance reviews to be performed.

#### OWNING AND OPERATING COSTS

Y\_\_\_ N\_\_\_ Engine oil and filter shall have a recommended change interval of 500 hours

Y\_\_\_ N\_\_\_ Hydraulic system oil shall have a recommended change interval of 6000 hours