ORDER: AUTHORIZE ADVERTISEMENT FOR SEALED BIDS FOR PURCHASE OF ONE MOTOR GRADER FOR ROAD DEPARTMENT

Motion was made by John Morgan, duly seconded by Tim Gordon, to authorize advertisement for sealed bids for purchase of one Motor Grader for Road Department.

The vote on the motion was as follows:

Supervisor Brent Larson, voted yes
Supervisor John Morgan, voted yes
Supervisor Tim Gordon, voted yes
Supervisor Scott Allen, voted yes
Supervisor Greg Bynum, absent

After the vote, President Larson, declared the motion carried, this the 7th day of October, 2024.

Brent Larson, President
Board of Supervisors

Mike Roberts, Chancery Clerk

ADVERTISEMENT FOR BIDS

STATE OF MISSISSIPPI
COUNTY OF LAFAYETTE

Sealed bids will be received by the Board of Supervisors of Lafayette County, Mississippi, until 10:00 A.M. on Friday, November 1st, 2024, in the Chancery Clerk's Office, 300 North Lamar, Oxford, Mississippi, 38655 for purchase of one or more motor grader for the Road Department.

LAFAYETTE COUNTY – BID NUMBER 336
ONE OR MORE MOTOR GRADER

Complete specifications may be obtained from the County Administrator's office located at 300 North Lamar, Oxford, MS 38655 or by email at kvictor@lafayettecoms.com .

Bids must include "Lafayette County-Bid Number 336, "One or more motor grader" on the outside of the sealed bid. Bids will be awarded to the lowest and best acceptable bidder, except that the Board reserves the right to reject any and all bids.

Published by order of the Board of Supervisors of Lafayette County, Mississippi.

Kate Victor
County Administrator
Lafayette County, Mississippi

October 9 and 16, 2024

BASIC SPECIFICATIONS

Y____ N____ Base Machine Weight shall not be less than 37,420 lbs . Weight shall include: standard machine configuration, lubricants, coolants, full fuel tank and operator of 200 lbs .

Y____ N____ A rear hitch shall be included.

Y____ N____ Machine shall be equipped with rear ripper hydraulics

Y____ N____ Shall be equipped with 17.5-R25 tires.

ENGINE

Y____ N____ Engine shall be designed and built by the manufacturer.

Y____ N____ Engine shall be a turbo-charged, direct injection, four stroke, 6-cylinder diesel engine.

Y____ N____ Engine shall be certified EPA Tier 4 Final and European Union Stage IV

Y____ N____ Engine shall be electronically controlled for more efficient fuel injection and fuel burn.

Y____ N____ Engine shall achieve rated power requirement with engine displacement not less than 9.3L (568 in^3).

Y____ N____ Engine shall develop, as standard, a rated net flywheel power of a least 179 HP in 1st gear, 189 HP in 2nd gear, 200 HP in 3rd gear, 210 HP in 4th gear, 215 HP in 5th gear, 220 HP in 6th gear, 225 HP in 7th gear, 231 HP in 8th gear.

Y____ N____ Engine enclosure and daily service points shall be accessible from ground level and grouped.

Y____ N____ Engine fan shall automatically adjust fan speed via a variable hydraulic fan pump to meet engine cooling requirements thus reducing demand on the engine, putting more horsepower to the ground, reducing noise, improving fuel economy, and reducing heat.

Y____ N____ **Engine shall allow for at least 1000 hours of operation between oil changes. (with SOS sampling)**

Y____ N____ Economy mode shall be available directly from factory to increase net efficiency.

Y____ N____ Economy mode shall be able to be enabled and disabled by the operator through the onboard Message Display.

Y____ N____ DEF lines should be heated to prevent freezing during extremely cold ambient conditions.

POWERTRAIN/TRANSMISSION

Y____ N____ Transmission shall be designed and built by the machine manufacturer.

Y____ N____ Transmission shall be a direct drive, power shift, countershaft type.

Y____ N____ Transmission shall be equipped with built-in self-diagnostic capability.

Y____ N____ Transmission shall have no less than 8 forward speeds and 6 reverse speeds.

Y____ N____ Transmission shall have 5 working gears between 0-10.6 mph for dirt applications.

Y____ N____ A controlled throttle shifting system shall be included to smooth directional gear changes without use of the inching pedal.

Y____ N____ Electronic Throttle Control (cruise control) shall be included and shall be controlled by a push button.

Y____ N____ Automatic Differential Lock/Unlock feature shall be include and shall not have speed, shuttle shifting or tandem spinning restrictions for engaging/disengaging. System must be load-sensing for optimal performance. .

Y____ N____ Differential Lock/Unlock shall be electro-hydraulically controlled.

Y____ N____ Final drive shall be a planetary design.

STEERING & IMPLEMENT CONTROLS

Y____ N____ Steering wheel shall not be required to operate machine.

Y____ N____ Joystick controls shall be mounted to adjustable pedestals, hard mounted to the cab floor, independent of the operator seat.

BRAKES

Y____ N____ Machine shall have primary and secondary service brakes.

Y____ N____ Parking brake shall be multi-disc, oil-cooled, spring-applied, hydraulically released, sealed, adjustment-free, and integrated into the transmission. Park brake shall not be externally located.

Y____ N____ Parking brake shall be serviceable without removing the transmission.

Y____ N____ Machine shall have individual brake pods for each rear wheel, located at each rear wheel inside the tandem box, independent of tandem chains.

Y____ N____ Service brakes shall provide a minimum of 620 in^2 of friction material surface area at each of the four tandem wheels to eliminate braking loads on the power train.

HYDRAULIC SYSTEM

Y____ N____ A triple redundant hydraulic relief system shall protect machine hydraulic components.

Y____ N____ Hydraulic implement pump shall produce between 0 and 55.7 gal/min of oil flow at 2,150 RPM.

Y____ N____ Hydraulic system shall be a closed center, load sensing type, with a variable displacement, axial piston-type pump.

Y____ N____ The maximum hydraulic system pressure shall be no more than 3,500 psi.

Y____ N____ Implement valves shall be proportional priority pressure compensating for consistent response, when multi-functioning any combination of implement controls and independent of engine speed.

Y____ N____ Implement pump shall be solely dedicated to implement controls and not shared with any other components.

Y____ N____ Left and right blade lift cylinders shall have independent float capability.

Y____ N____ A sight gauge will be provided for checking hydraulic reservoir fluid.

Y____ N____ Hydraulic oil change service interval shall be no less than 6000 hours with oil sampling

Y____ N____ Hydraulic system shall have a separate oil tank solely dedicated to the implement pump.

Y____ N____ Hydraulic filter will have 1000 hour change filter interval.

FRONT AXLE AND TANDEMS

Y____ N____ Front axle oscillation shall be no less than 32 degrees total, per side 16 degrees up, 16 degrees down.

Y____ N____ Front wheel steering angle shall be no less than 50.0 degrees left or right.

Y____ N____ Maximum front wheel lean shall be no less than 18 degrees left or right.

Y____ N____ Machine turning radius shall not exceed 25 ft. 7 in. using front steering, full articulation and unlocked differential.

Y____ N____ Tandems shall be capable of oscillating 15 degrees front tandem up and 25 degrees front tandem down, with full

Y____ N____ Machine shall provide 2 steering cylinders for maximum steering force.

OPERATORS STATION

Y____ N____ Seat shall be a heated, cloth-covered, air suspended seat with, 3-inch retractable seat belts, with adjustments for fore-aft position, seat height, seat back angle, thigh support, and lumbar support.

Y____ N____ An enclosed cab with ROPS (Rollover Protective Structure) according to ISO 3471shall be provided.
Y____ N____ Cab door shall have a hold-open clasp with a ground-level release in addition to a release in the cab.
Y____ N____ FOPS (Falling Object Protective Structure) shall be provided according to ISO 3499.
Y____ N____ Radio will include 24V to 12V converter, two speakers, antenna and wiring.
Y____ N____ An instrument cluster shall be provided that includes a speedometer, tachometer, coolant temperature, fuel and articulation angle gauge.
Y____ N____ A real-time information system shall monitor all system data and alert the operator of any faults through a digital text display. This information system shall be programmable for multiple languages.
Y____ N____ Left and right side cab doors shall be provided.
Y____ N____ An electronic message system shall provide real-time machine performance and diagnostic data.
Y____N____ Machine shall have a rear view camera.
Y____ N____ The forward visibility shall be continuous and unobstructed glass from roofline to floor providing visibility of the blade, heel and toe, back of the cutting edge, and front tires.
Y____ N____ DEF guage must be visible to the operator at all times.

OPERATORS STATION-OPTIONAL ATTACHMENTS

Y____ N____ Grade Attachment Ready Option (ARO) will be available from the factory. This shall Include additional mounting brackets and electrical harnesses for easy installation of the electronics kit.

CIRCLE & MOLDBOARD

Y____ N____ Drawbar wear strips shall be replaceable drop-in inserts made from nylon composite material, replaceable and adjustable from the top of the drawbar plate via removable cover plates.
Y____ N____ **Pinion Gear shall be separate from the Pinion Shaft to allow for a quick and easy serviceable design.**
Y____ N____ A 14 ft long, 24 in high and no less than 7/8 in thick moldboard shall be included

ELECTRICAL

Y____ N____ Machine shall have a 145 amp-hour, 1125 CCA heavy-duty battery.
Y____ N____ Machine shall have a minimum 150-amp alternator at 24 volts provided which is brushless for increased life and durability.
Y____N____ Machine shall have LED lights
Y____ N____ Power must remain available upon key off to purge DEF system lines and protect components.

SERVICEABILITY

Y____ N____ **Machine shall have a lockable swing-out cooling fan housing featuring a latch-style mechanism (shall not be of a bolted design), allowing easy access to cores. Ability to open/close shall be ground level accessible, eliminating need to climb on machine.**
Y____ N____ Sampling ports shall be accessible from the tandem level and provide access to the engine, hydraulic, coolant, and fuel ports.
Y____ N____ **Engine primary and final fuel filters shall have 1000 hour service replacement interval with fluid sampling.**

Y____ N____ Engine shall have primary fuel filter with fuel water separator and electronic sensor, quick release dual stage filter and primer pump.

SERVICEABILITY-OPTIONAL ATTACHMENTS

Y____ N____ **Option Circle Saver shall be provided for easy daily maintenance of the circle pinion.**

SAFETY AND ENVIRONMENTAL

Y____ N____ **A standard circle drive slip clutch shall be provided to reduce horizontal moldboard impact damage.**
Y____ N____ **An external emergency kill switch shall be provided for ground level engine shut down.**
Y____ N____ **Secondary, electric steering pump shall be provided as a backup to the primary implement hydraulic pump.**

Y____ N____ Operator not present monitoring system will lockout implements, shall not allow gear shift out of neutral, and lock parking brake if system detects operator not present for increased safety.
Y____ N____ Hydraulic implement lockout shall be achieved by actuating a single electrical switch within the operator station.

Y____ N____ Machine shall provide dual exits allowing for emergency egress should one side become obstructed.
Y____ N____ Electrical system shall have a master disconnect switch with a removable key and lock for added safety.(in addition to the ignition switch).
Y____ N____ Machine shall have back-up lights and sounding alarm when reverse gears are selected.

Y____N____ A 5 year/3000 hour premier warranty shall be included