

NOTICE FOR SEALED BIDS
NEW DIESEL POWERED, ARTICULATED, SIX WHEEL DRIVE MOTORGRADERS

The Board of County Commissioners of McKenzie County, North Dakota, will receive bids at the County Auditor's Office at 201 5th ST NW Suite 543, Watford City, North Dakota, until the hour of 10:00 AM CT, February 21, 2019, for one (1) or more new diesel powered, articulated, six wheel drive motorgraders for the Road Department.

Bids will be submitted on the specification form furnished by the Auditor's Office, and will be available on the County's website: <http://county.mckenziecounty.net>, under Quick Links/Current Bid Notices. A Bid Bond in the amount of 5% (five) percent of the amount bid must accompany each bid in a separate envelope. Please specify "Motograder" on the envelope.

The Board reserves the right to reject any or all bids as allowed by law, or to accept such bids as may be determined to be in the best interests of the county.

McKenzie County does not discriminate on the basis of race, color, national origin, sex, religion, age or disability in its solicitation of bids.

Dated at Watford City, North Dakota, this 29th day of January 2019.



A handwritten signature in blue ink, appearing to read "Erica Johnsrud".

Erica Johnsrud
McKenzie County Auditor/Treasurer

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**MCKENZIE COUNTY
ROAD DEPARTMENT
WATFORD CITY, NORTH DAKOTA**

**SPECIFICATIONS FOR ONE OR MORE NEW
DIESEL POWERED, ARTICULATED, SIX WHEEL DRIVE MOTORGRADERS**

This attachment shall be considered a continuation of the call for bids, and by reference made a part thereof.

The Board of County Commissioners reserves the right to reject any or all bids as allowed by law, or to accept such bids as determined to be in the best interests of the County.

BASIS OF THE AWARD shall be dependent on the most responsible bid submitted. Consideration will be given to purchase price, repurchase price, delivery date, equipment service guarantees, parts and service availability, parts and service facilities location, analysis and comparison of equipment specification details, and past experience of McKenzie County with similar or related equipment.

No bid will be accepted without a five (5) year or five thousand (5000) hour full machine warranty.

Machine(s) bid must be new factory order machines.

Pursuant to the call for bids, the following minimum requirement shall be met:

- A. Motor Grader shall meet OSHA requirements and specifications on the date of the bid opening.
- B. No bid will be considered unless accompanied by a bid bond, in the amount of not less than five percent (5%) of the total amount of the bid.
- C. Delivery shall be F.O.B. to the McKenzie County Shop, Watford City, North Dakota.
- D. The bid shall include all operating, service, parts, and technical repair manuals.
- E. Bidders must specify delivery date.
- F. Motor Grader shall be a 2019 advertised model, with all the latest changes and features offered as standard whether or not called for in the specifications; except where this specification requires a substitution in lieu of the manufacturer's standard equipment.
- G. Bids will not be considered that do not include a copy of the manufacturer's literature/specification material and an incomplete specification portion of the bid sheets.

- H. Motor Grader shall come with all hydraulics, electronics, controls, etc. to fully operate all functions stated or asked for in bid.
- I. Bids will not be considered that do not include a **GUARANTEED REPURCHASE PRICE-PER MACHINE AGREEMENT** for the years 2 through 5.

Please indicate in the following if the machine offered can meet the desired configuration. Any “no” should be clarified on a separate sheet if the bidder desires support for an alternate specification. Failure not to do so may result in non-acceptance of the bid.

YES NO

- Typical operating weight no less than 46,700 lbs.
- Automatic dual path hydrostatic six wheel drive. Separate left and right systems
- Engine and Transmission must be designed and built by machine’s manufacturer.
- Blade pull at maximum operating weight must be a minimum of 49,500 lbs.

ENGINE

- a. Minimum displacement of 9.0 L (548 cu.inch)
Engine Manufacturer _____.
- b. Four stroke, six cylinder, direct injection, water cooled, turbo charged diesel engine.
- c. Low temperature starting system.
- d. Ether starting aid.
- e. Block heater, 120 volt.
- f. 110 gallon fuel capacity, minimum
- g. Pre-screener.
- h. Dry-type air cleaner with pre-cleaner, automatic dust ejector and air cleaner, cyclone pre-cleaner
- i. Cooling on demand, hydraulic-driven, variable speed fan with auto reversing, and swing out rear fan door and fold out coolers.
- j. Anti-freeze -35 degrees (Fahrenheit), extended life.

(engine cont.)

YES NO

- k. Oil filter, cartridge.
- l. EPA final tier 4 compliant
- m. Engine shall have variable horsepower starting in 1st with a net HP of 235, and ending in 8th gear with a HP of 290 or greater.
- n. Engine will automatically increase idle speed to compensate for any voltage drop resulting from an extended idle time.
- o. Fuel filter, cartridge.
- p. Full engine side cover panels with lockable compartment doors.
- q. Fueling shall be easily accessed from ground level.
- r. All cartridge filters shall be easily accessed from engine compartment.
- s. Left and right engine compartments must have factory installed lights for servicing and daily checks. Lights must automatically go off if voltage drops.
- t. Net peak engine torque must be 1,075 lb.-ft or greater.
- u. Net peak engine torque rise must be 50% or greater.
- v. Unit must have a diesel fired coolant heater installed at time of delivery. Must have timer to start on its own. Brand name_____

TRANSMISSION

- a. Power shift with electronic automatic shift, direct drive.
- b. Transmission to provide eight speeds forward and eight speeds reverse.
- c. Single lever for both direction and speed changes.
- d. Differential lock/unlock shall be electro-hydraulically controlled
- e. Transmission will be such that machine won't move even if engine is started with transmission engaged.
- f. Electronically controlled over speed protection.
- g. Minimum top speed 28 mph or greater.

(Transmission Cont.)

YES NO

- ___ ___ h. Transmission filter, cartridge
- ___ ___ i. Precision mode must be standard in gears 1-3.

FINAL DRIVE

- ___ ___ a. Inboard-mounted planetary sealing in cooled, filtered oil.
- ___ ___ b. Minimum distance between center of tandem wheels shall be 60 inches.

BRAKES, WHEELS & TIRES

- ___ ___ a. Service – brakes shall be multi-disc, oil cooled and completely sealed, tandem mounted.
- ___ ___ b. Parking brake - multiple oil disc, spring applied, hydraulically released, adjustment free, sealed, and integrated into the transmission
- ___ ___ c. Tires - Michelin X - Sno Plus radial tires, 17.5 x R25
- ___ ___ d. Rims –three piece steel, interchangeable between all six wheels
If rims are not interchangeable, include price of spare rim and tire.

Front 3 piece rim and Michelin tire \$_____
- ___ ___ e. Engagement of parking brake control lever shall neutralize transmission

STEERING, FRONT AXLE & WHEELS

- ___ ___ a. Front wheels shall have 47.5 degrees left or right minimum steering range.
- ___ ___ b. Steering shall be hydraulic.
- ___ ___ c. 24 ft. maximum turning radius outside front tires.
- ___ ___ d. Front axle, height to center not less than 22.5 inches ground clearance.
- ___ ___ e. Hydraulic leaning front axle minimum 17.1 degrees right or left.

(Steering, front axle & wheels cont.)

YES NO

- f. Front axle shall have not less than 32 degrees total oscillation, 16 degrees up, 16 degrees down.
- g. Main frame shall be articulated.
- h. Due to safety reasons in snow plowing applications, unit must have a steering wheel.

ARTICULATION JOINT

- a. Articulation joint with mechanical lock.
- b. Frame angle to be minimum of 22 degrees.
- c. Articulation indicator in operator's compartment.
- d. Bottom joint must have double taper roller bearings.

HYDRUALICS

- a. Full hydraulic controls.
- b. Hydraulic system shall be closed center, load sensing design, with variable displacement, axial piston type pump.
- c. Separate hydraulic lock valves shall be provided in each hydraulic circuit in in all control valves
- d. Hydraulic tank shall be non-vented, separate of power train oil.
- e. Industry standard lever style hydraulic controls. Must have additional valves And levers to operate ripper, front hitch, and snow wing. Plus an additional valve & lever for an auxillary function (6 aux. valves).
- f. Implement valves shall be proportional priority pressure compensating for consistent response when multi-functioning any combination of implement controls.
- g. All blade controls obtainable from operator's seat.
- h. Hydraulic plumbing, etc. which is compatible with front lift groups, rear rippers, snow wing, etc.

(hydraulics cont.)

YES NO

- i. Hydraulic filter, cartridge.
- k. Float position on blade lift, rear ripper, front lift group, and snow wing hydraulics.

CIRCLE AND DRAWBAR

- a. Circle shall be supported by the drawbar with at least six support shoes.
- b. Circle construction shall be heat treated, welded and machined steel.
- c. Circle must be capable of 360 degrees rotation and be adjustable for wear.
- d. Circle and drawbar shall have quick change replaceable wear inserts.
- e. Circle drive shall be adjustable slip clutch.
- f. Circle and drawbar vertical adjustment points shall be accessible from the top of the drawbar.

BLADE

- a. High carbon moldboard with hydraulic sideshift.
- b. Size 16' x 27" x 1" with standard highway bolting, and hydraulic tilt, ¾ inch cutting edge bolting.
- c. Depth of cut maximum 29 inches.
- d. Lift above grade minimum 17.8 inches.
- e. Blade lift accumulator.
- f. Moldboard shall have a high bank angle of at least 90 degrees to both sides
- g. Moldboard side-shift cylinder shall be left-hand side.
- h. Blade lift and center shift cylinders shall have replaceable wear inserts in the ball sockets with removable shims.
- i. Moldboard end bits reversible overlay.

(blade cont.)

YES NO

___ ___ k. Moldboard slide shall have quick change replaceable wear inserts and quick-adjust jack screw adjustment.

OPERATOR COMPARTMENT

___ ___ a. ROPS cab with heater, defroster, and air conditioning. Heater 40,000 BTU.

___ ___ b. Glass laminated safety tinted –front, rear and doors

___ ___ c. Inside mounted rear view mirror.

___ ___ d. Exterior glare proof convex mirrors. heated (approx. 66 sq.inches).

___ ___ e. Doors lock shut and latch open.

___ ___ f. Air-ride adjustable contour series suspension (cloth) seat fore and aft with seat belt and arm rest.

___ ___ g. Electric wiper/washer front, rear, bottom and side with intermittent control.

___ ___ h. AM-FM-weather band radio with Bluetooth, speakers, antenna, and installed noise suppression filter to eliminate strobe or beacon interference. Must be XM Satellite Radio ready.

___ ___ i. Cab shall be sound suppressed and pressurized with a filter. 75 DB (A) maximum.

___ ___ j. Front and rear auxillary defroster fans.

___ ___ k. Low profile cab

___ ___ l. Lunch box storage, mug holder, and coat hook.

___ ___ m. Toolbox

___ ___ n. Front and rear sun shades

___ ___ o. High-resolution rearview camera with dedicated monitor must be included.

___ ___ p. LED dual beacons mounted on flip down brackets, each side.

ELECTRIC SYSTEM

YES NO

- a. Heavy Duty 200 amp hour, 1400 CCA batteries.
- b. High and low bar headlights with front turn signals
- c. Halogen mid-frame toe lights shall be installed to illuminate moldboard and surrounding area.
- d. Halogen heel work lamps mounted underneath the cab.
- e. Halogen ripper work lamps.
- f. Halogen front mounted cab lights.
- g. Halogen roof mounted on the right-hand side of car roof bar to illuminate a snow wing. Dealer must supply machines with all the lights that are factory available.
- h. An instrument cluster shall be provided that includes a speedometer, tachometer, coolant temperature, fuel and articulation angle gauge.
- i. Incandescent white reversing lamps and LED stop lamps
- j. LED Back-up light and sounding alarm standard when reverse gears are selected
- k. Interior cab lights and engine compartment service lights.
- l. 200 amp alternator.
- m. 24 volt direct electric start.
- n. A 24V to 12V convertor with 30 amp capacity with circuit to turn on and off with ignition switch.
- o. A yellow strobe light installed.
- p. Electronic throttle control –cruise control
- q. Electronic inching control

OTHER FEATURES

YES NO

- | | | |
|-----|-----|---|
| ___ | ___ | a. Rear ripper shall have five ripper shank holders and 3 included shanks, 9 scarifier shank holders, and rear tow hitch. |
| ___ | ___ | b. Balderson style lift group included. |
| ___ | ___ | c. A snow wing frame ready option shall be included |
| ___ | ___ | d. New Little Falls Machine 12' postless snow wing must be included and installed by the successful dealer. Must be 3 function w/ hyd extension. |
| ___ | ___ | e. Front and rear fenders shall meet ISO-3457 requirements and shall not interfere with the ability to fully open any cab or engine enclosure, or service access doors. |

ALL WHEEL DRIVE

- | | | |
|-----|-----|---|
| ___ | ___ | a. All-wheel drive system – Each front wheel shall be powered utilizing a dedicated variable axial piston pump and variable axial piston motor. Both pumps and motors shall be infinitely variable to provide maximum torque in every gear. |
| ___ | ___ | b. All-wheel drive system shall automatically vary individual front wheel speeds by up to 50% during a turn, improving front wheel traction and reducing turning radius. |
| ___ | ___ | c. All-wheel drive system shall provide a hydrostatic mode neutralizing the transmission for precise low-speed performance. The ground speed shall be infinitely variable between 0 and 5 mph. |

Please list explanations to any “no” answers to specifications below.

BIDDERS CERTIFICATION

It is hereby understood that McKenzie County (owner) has the right to evaluate this bid upon many bases of criteria, and the trade-in machines are available for appraisal at their present work site.

The County Commissioners reserve the right to hold the bids for a period of not to exceed 30 days.

Upon acceptance of any bid, the McKenzie County Road Department shall withhold five percent (5%) of the bidder's net bid for at least thirty days after the delivery of said bid item to ensure compliance with all agreed upon specifications.

Machine will be available for delivery on the _____ day of _____, 2019.

We hereby certify that the foregoing is a responsible bid. Any variations from the specifications are noted or attached. Copies of machine warranty guarantees are attached along with the required bid bond for the machine bid.

Dated this _____ day of _____, 2019.

Dealer Name

Telephone

Representative Signature

Fax

Address

City, State, Zip Code

MACHINE WARRANTY & AVAILABILITY GUARANTEE

The intent of this clause is to guarantee the cost of repairs and downtime to McKenzie County. Therefore, all bidders shall include with their bid:

Machine bid must have a full machine warranty for seven (7) years or seventy five hundred hours (7500) of operation, whichever occurs first from date of delivery. This warranty is to include travel time and mileage. The only exclusions are to be wear items such as tires, cutting edges, wear slides, glass, etc.

Annual machine inspection and adjustments as prescribed in the maintenance guides shall be performed in the field, unless convenient prior arrangements are made, and all costs covered by the **dealer**.

Warranty related machine transport costs to the repair facility or travel time and mileage will be provided by the dealer for five (5) years or five thousand (5,000) hours.

Ninety-five percent (95%) guaranteed machine availability (computed on a 2000 hour work year). After any continuous downtime greater than 40 work week hours, a replacement comparable machine shall be provided or an hourly assessment of \$60 per hour shall be charged to the dealer to cover a replacement rental machine. \$200 per day shall be charged the dealer at the anniversary date for downtime in excess of 5%.

McKenzie County will make the machine available for repairs and inspections as requested by the successful dealer.

BID PROPOSAL

Manufacturer _____

Model _____

PURCHASE ONLY

Net purchase Price per Unit, No Trade \$ _____

TRADE VALUES	S/N 674897	\$ _____
	S/N 677132	\$ _____
	S/N 674899	\$ _____
	S/N 674889	\$ _____
	S/N 677134	\$ _____

**GUARANTEED RE-PURCHASE PRICE - PER MACHINE
BASED ON 1000 HOURS / YEAR**

Year #2 _____
Year #3 _____
Year #4 _____
Year #5 _____