

City of Waterloo

General Specifications

Winter Rental Program

*** Rental Program is for the delivery of one (1) and/or two (2) rental Motor Graders for a four-month period from November 15, 2020 through March 15, 2021.**

General Information: The bid should be for one (1) and/or two (2) Motor Graders, completely serviceable with NEW or LIKE NEW tires, meeting or exceeding the following specifications and equipment requirements. Should be comparable to Deere 770 Series. Bids submitted should include mounted wings.

The City of Waterloo, Iowa reserves the right to accept or reject any and all bids.

Motor Graders: Specifications to be a minimum 150-180HP variable horsepower, articulated machine in the 30,000 lb + class. Each bid shall be accompanied by submittals of product literature, catalog cuts, etc. that fully picture and describe the unit(s) being bid. The information must be complete enough to allow the City to determine specifications compliance. Successful bidder MUST be able to supply equipment bid for the entire rental period.

1. Engine:
 - a. Net Horsepower Rated: 150 – 180
 - b. Minimum Torque: 450 – 550
 - c. Diesel
 - d. 6-Cylinder
 - e. Minimum 460 Cubic Inch Displacement
 - f. Automatic Dust Ejector Air Cleaner w/ service indicator
 - g. Ether Starting aid
2. Fuel:
 - a. #2 Diesel / B-2 Bio-diesel
 - b. Fuel Priming Pump
 - c. Fuel Filter
 - d. Water Separator
3. Transmission:
 - a. Powershift with direct drive
 - b. 6 Forward Gears Minimum
 - c. 4 Reverse Gears Minimum
 - d. Tow Disconnect
 - e. Inching Pedal
 - f. Single lever control
 - g. Neutral Start / Lock-out
4. GVWR:
 - a. 30,000 – 35,000 lbs
5. Steering:

- a. Hydraulic
 - b. Front Steer Plus Articulated
- 6. Front Axle:
 - a. 30 Degree Oscillation Minimum
 - b. 18 Degree Wheel Lean (Minimum)
- 7. Rear Axle:
 - a. Tandem Axles
 - b. Chain Drive
 - c. Lock/Unlock
- 8. Frame:
 - a. Welded Box
 - b. Articulated to allow for:
 - i. Straight frame steer
 - ii. Articulated steer
 - iii. Crab steer
 - c. 102 Lb/Ft Liner Weight (Minimum)
 - d. 115 Cu.in. vertical section modulus (Minimum)
- 9. Brakes:
 - a. Differential housing wet, multiple disk brake system
- 10. Electrical System:
 - a. 50 Amp Alternator
 - b. Two (2) 12 Volt 950 CCA Batteries (Minimum)
 - c. Work Lights
 - i. Center
 - 1. Blade
 - 2. Wing
 - ii. Rear
 - d. Directional Lights
 - e. Stop and Tail Lights
 - f. Head Lights
 - g. Rotating Beacon Light
 - i. Break Away Mount
 - ii. Brush Guard
 - h. 24-12 Volt Converter
 - i. Master Battery Disconnect
 - j. Horn
 - k. Back-up Alarm
- 11. Hydraulics:
 - a. Cab Mounted Controls
 - i. All Main functions console mounted
 - b. Closed Center, Load Sensing
 - c. Variable Displacement Pump

- i. 400 – 3500 psi
 - ii. 52 GPM Minimum
- d. Hydraulic Control Lockout System
 - i. To control cylinder drift
- e. System / Controls / Valving to provide:
 - i. Right / Left Blade Lift including Float
 - ii. Circle Drive
 - iii. Center Shift
 - iv. Front Wheel Lean
 - v. Articulation
 - vi. Blade side Shift
 - vii. Ripper Function
 - viii. Wing Plow Function

12. Tires / Rims / Bearings / Fenders:

- a. 14.00 – 24
 - i. 10 PR (G2)
 - ii. Traction Tread
- b. 10” Rims
 - i. Interchangeable F-R
 - ii. One (1) Spare Rim w/Rings
- c. Front Fenders

13. Cab / Body:

- a. Rops Cab
 - i. Full Height
 - ii. Sound Suppressed
 - iii. Wipers / Washers
 - 1. Front & Rear
 - 2. Front Lower
 - iv. Left / Right Rearview Mirrors
 - v. Engine Compartment Covers

14. Interior:

- a. Air Suspension Seat
 - i. 3” Seat Belt
- b. Heater / Defroster
 - i. Dual Fan
 - ii. Heavy Duty
- c. Adjustable Control Console
- d. Open-able Front Lower Doors
- e. Hand Throttle
- f. Inside Rearview Mirror
- g. Joy Stick Control
- h. Rubber Floor Mat

15. Instruments / Gauges / Monitoring System:

- a. Hour Meter
- b. Voltmeter
- c. Water Temp Gauge
- d. Brake Pressure Gauge
- e. Oil Pressure Gauge
- f. Hydraulic Oil Filter Restriction Warning
- g. Locking Pin Disengaged Warning
- h. Transmission Oil filter Restriction Warning
- i. Transmission Oil Temperature Gauge
- j. Differential Lock Engaged
- k. Fuel Gauge
- l. Articulation Indicator
- m. Air Cleaner Restriction Warning

16. Mounted Systems:

- a. 14 foot Mold Board
 - i. No Extensions
 - ii. Hydraulic Side Shift
- b. Rear Ripper
 - i. 3 Tooth Minimum
- c. Wing Plow
 - i. 12 foot Mold Board
 - ii. Hydraulic Raise / Lower
 - iii. Main Mounting Post Must Be Removable
 - iv. Cab Mounted Valving
 - v. Quick Coupler Hydraulic Fittings
 - vi. Rear Pin Hitch

17. Miscellaneous:

- a. Parts Manual
 - i. Machine
 - ii. Mounted Systems
- b. Service Manual
 - i. Machine
 - ii. Mounted Systems
- c. Operators Manual
 - i. Machine
 - ii. Mounted Systems

18. Options:

- a. Front Function Hydraulics
 - i. Necessary Cylinders
 - ii. Cab Mounted Valving

19. Warranty:

20. Delivery:

a. State estimated Date of Delivery

21. Number of units:

a. One and/or two

22. Bid Price:

a. Price Each Unit: _____ **(with wing)**

b. Price for (2) Units: _____ **(with wings)**

(Road Grader General Specifications)