

DEKALB COUNTY HIGHWAY DEPARTMENT

BOBCAT ALL-WHEEL STEER LOADER

Sealed proposals for the purchase of one (1) new 2016 Bobcat All-Wheel Steer Loader and Attachments will be received by the Highway Committee of the DeKalb County Board until 10:00AM, Thursday, August 4, 2016 at the office of the DeKalb County Engineer, 1826 Barber Greene Road, DeKalb, Illinois, 60115 and at that time publicly opened and read.

The dealer may submit a bid for one or more models that are equal to or exceed the following specifications. A copy of the specifications or literature for each model should be included with each bid. Only bids from authorized dealers will be considered. Each bidder should state warranty coverage and estimated time of model availability. The dealer shall submit a total bid for furnishing an All-Wheel Steer Loader and Attachments as per specifications.

The DeKalb County Board reserves the right to reject any and all bids and to waive any technicalities.

The bids shall not include taxes for which we are exempt.

One 2008 Bobcat A300 All-Wheel Steer Loader shall be traded in with an 80 inch Low Profile bucket. It will be available for inspection at the Highway Department Garage, call (815) 756-9513.

Total cost one new All-Wheel Steer Loader w/Attachments \_\_\_\_\_

Trade allowance on  
2008 Bobcat A300 \_\_\_\_\_

Net cost one new All-Wheel Steer Loader w/Attachments \_\_\_\_\_

Proposal submitted by:

Name \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

Signature \_\_\_\_\_

# **ALL-WHEEL STEER LOADER & ATTACHMENTS**

Specifications for 3325 lbs. Rated Operating Capacity, Hydrostatic 4-wheel drive

## **GENERAL**

The all-wheel steer loader to be furnished shall be new, current year manufacture. A used or demonstrator model will not be considered. Machine modifications to meet the operational and capacity requirements of this specification shall be limited to the manufacturer's published standard and optional equipment. All operating specifications are based on current SAE standards and shall be the basis for determining compliance with specified requirements. Equipment shall meet all OSHA and EPA requirements in effect on the date of bid opening and shall be finished with lead free paint.

Rated Operating Capacity 3325 lb.

Tipping Load 6650 lb.

Operating Weight 9623 lb.

Inching Travel Speed 4.0 mph / Two-Speed Low 7.1 mph High 12.3 mph

Lift Breakout Force 5365 lb.

Tilt Breakout Force 5500 lb.

Push Force 5700 lb.

Angle of Departure 25°

Carry Position 9.7"

Dump Angle at Maximum Height 42.0°

Dump Height w/Standard Bucket 104.3"

Dump Reach at Maximum Height 31.5"

Ground Clearance 8.1"

Height to Bucket Hinge Pin 132"

Height without Operator Cab 81.3"

Length without Attachment 114.3"

Length with Standard Bucket 141.6"

Operating Height 160.6"

Rollback at Carry Position 31.9°

Rollback Fully Raised at Maximum Height 96.1°

Turning Radius in All-Wheel Steer mode, without Attachment 137.1”

Turning Radius in All-Wheel Steer mode, with Standard Bucket 151.5”

Turning Radius in Skid-Steer mode with Standard Bucket 85.8”

Wheel Tread 62.2”

Strobe Light Kit

Horn

Back up Audible Alarm

### **ENGINE/ELECTRICAL**

4 cylinder, turbo charged liquid-cooled diesel maximum 92 HP at 2525-2575 RPM.

Engine must meet EPA Tier IV Emission Standards

Turbo-Charger is approved as Spark Arrestor, dual element air cleaner and Intake Air Heater cold weather assist must be provided as standard equipment.

Cooling air shall be drawn from above the loader uprights to provide clean, cool air.

Air cleaner, dry replaceable cartridge with safety element.

Battery shall be 12 volt with a minimum of 950 cold-cranking amps.

Alternator shall be a minimum 90 amp.

Starter shall be 12 volt; 4.02 HP, direct drive.

Starting aid should be automatically activated intake air heater.

Engine Block Heater

### **DRIVE SYSTEM**

Fully hydrostatic 4-wheel drive

Transmission shall be infinitely variable tandem hydrostatic piston pumps, driving 2 fully reversing hydrostatic motors.

Final drive chains shall be pre-stressed 100 lb. HSOC endless roller chain, no master link. Two chains per each side of the loader with no idler sprocket.

Sprockets in sealed chain case with oil lubrication. Chains do not require periodic adjustments.

Final drive axles shall be a minimum 2.76" diameter.

Steerable axle ends shall have permanently lubricated U-joints and each axle end will have its own steering cylinder.

Wheels shall be fixed to the axle hubs with (8) eight 9/16" wheel bolts.

Tires 12-16.5, 12 Ply Rating, Severe Duty with poly-fill

### **HYDRAULIC SYSTEM**

Pump Type – gear type capable of providing 23.0 GPM standard for bucket, lift arm and attachment operation

System pressure at the quick couplers shall be 3500 PSI

High Flow Hydraulics – hydraulic system capable of providing 36.6 GPM and 3500 PSI system relief pressure through auxiliary circuit for high flow hydraulic attachment operation

“Variable flow” and “maximum flow” auxiliary hydraulics shall be standard equipment and shall include flush-face style quick couplers.

Control Valve – three spool, open center, series type. Includes lift (with float detent), tilt and front auxiliary hydraulic spools.

Hydraulic oil cooler shall be standard equipment

Engine/Hydraulic Systems Shutdown will provide automatic engine shutdown to prevent loader damage.

Cylinders shall be double-acting type. Tilt cylinders shall have cushioning feature on dump and roll back.

Cylinders shall meet the following minimum specifications:

Lift - #2 cylinders with bore diameter 3", rod diameter 1.62", stroke 25.50"

Tilt - #2 cylinders with bore diameter 3", rod diameter 1.50", stroke 15.20"

Steering - #4 cylinders with bore diameter 2", rod diameter 1", stroke 4.86"

Hydraulic Bucket Positioning

Hydraulic Quick Attach for attachments

Second set of front Auxiliary Hydraulic Couplers

Attachment Control Kit, 7 and 14 pins

## **OPERATOR CONTROLS**

Vehicle Steering – forward, reverse, travel speed and steering controlled by left-hand joystick

Hydraulic Functions – lift and tilt functions controlled by right-hand joystick. Standard front auxiliary hydraulics controlled by electrical switches located on the right-hand joystick.

Rear auxiliary hydraulics controlled by electrical switch located on the left-hand joystick

Engine Speed- controlled by hand lever and foot accelerator pedal

Engine starting and shutdown functions shall be controlled electrically with the key switch

A feature for draining pressure from the auxiliary hydraulics circuit shall be provided in the instrument panel

Keyless start system as part of the deluxe instrument panel

Cab with heater and air conditioning shall be available without changing the loader profile

Parking Brake – mechanical disk, finger-operated rocker switch on center control panel and Spring Applied Pressure Release multi-disk brake for optional Two-speed

Sound Reduction Kit

Air Ride Seat and Radio to be included with Cab Accessories Package

## **CAPACITIES**

23.9 gallon Fuel Tank

4.3 gallon Engine Coolant

14 quart Engine Oil with Filter

4.7 gallons Hydraulic Reservoir

13 gallons Hydraulic/Hydrostatic System

11 gallons Chain case Reservoir

## **LOADER INSTRUMENTATION**

The loader conditions shall be monitored by a combination of gauges, warning lights, and indicator lights in the operator's line of sight that monitor the following functions. The system should alert the operator of monitored loader malfunctions by way of an audible alarm and visual warning lights.

All-Wheel Steer or Skid-Steer Mode, light on mode switch  
Attachment Control Device, light  
BICS Functions, light  
Engine Air Filter, light & alarm  
Engine Coolant Temp - gauge, light & alarm  
Engine Oil Pressure, light & alarm  
Fuel Level – gauge, light & alarm  
General Warning/Shutdown, light  
Glow Plugs, light  
Hour meter, gauge  
Hydraulic Filter Condition, light & alarm  
Hydraulic Oil Temp, light & alarm  
Hydrostatic Charge Pressure, light & alarm  
Seat Belt, light  
System Voltage, light & alarm  
Two-Speed High Range, light  
Air filter restriction indicator  
Engine & Hydraulics Systems Shutdown feature, this system stops the engine when any of the following are in shutdown condition: engine oil pressure, engine coolant temperature, engine speed too high, hydraulic oil temperature, and hydrostatic charge pressure.

### **LOADER CONDITION MONITOR/INSTRUMENTATION**

The Deluxe Instrument Panel monitors the following loader conditions and functions:

**Gauges** – Engine Coolant Temperature, Fuel, Hour meter

**Indicators** – All-Wheel Steer or Skid-Steer Mode, Attachment Control Device, BICS Functions, Glow Plugs, Seat Belt, Two-speed High Range

**Warning Lights** – Engine Air Filter, Engine Coolant Temperature, Engine Oil Pressure, Fuel Level, General Warning/Shutdown, Hydrostatic Charge Pressure, Hydraulic Filter, Hydraulic Oil Temperature, Glow Plugs, System Voltage

A liquid-crystal display in the operator's line of sight will provide the visual warnings as well as constantly displaying battery condition, engine oil pressure, Engine RPM, hydrostatic charge pressure and hydraulic oil temperature.

The system will also be capable of storing service history of malfunctions of the loader for later retrieval by use of a diagnostic instrument. Basic items such as loader serial number and hours as well as instantaneous readouts on current loader conditions will be other functions of the diagnostic instrument.

Ability to monitor real time readouts of these six items: engine oil pressure, engine coolant temperature, hydrostatic charge pressure, hydraulic oil temperature, system voltage, engine speed in English or Metric units.

The Deluxe Instrument Panel shall have password protection and keyless start. The loader is started with a password entered on the keypad. The loader shall have an assigned password that can be changed by the owner as well as up to eight user passwords.

The Deluxe Instrument Panel shall have a High Flow and Tow-speed (High Range) Lockout Feature that only the holder of the owner password can activate or deactivate.

The Deluxe Instrument Panel shall have an on-line library of attachment instructions. The library indicates which buttons on the control handles perform the various functions for the attachments.

**ATTACHMENTS**

All attachments must be mounted on a quick-change mechanism. No attachments will be considered unless it can be removed or mounted by an experienced operator in two minutes or less.

The quick-change mechanism will incorporate two handles that drive spring-loaded, wear compensating wedges into the attachment ensuring a tight attachment fit-up.

Backhoe operation must be possible with the lift arms in the down position.

A remote attachment control device shall be available for specified attachments to start the loader and operate the attachment from outside the operator control area.

A single control unit must be provided which will control all available attachments.

DeKalb County Highways current attachments must all fit and be operational. Contact DeKalb County Highway Department at 815-756-9513 for a list of current attachments.

Parts and service manuals for machine and all new purchased attachments shall be provided at time of delivery. CD-ROM manuals shall be provided if available as well.

One (1) complete set of replacement filters for specific bid model to be included at time of delivery.

- (1) **80 inch Low Profile Bucket w/ Optional Bolt-on Cutting Edge**

List any exceptions to specifications below:

---

---

---

---

---

---

---

DELIVERY DATE: 90 days