



TOWN OF LISBON

Lisbon and Lisbon Falls

Settled in 1628 -- Incorporated June 22, 1799

Town Offices – 300 Lisbon Street, Lisbon, Maine 04250

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Town Council

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Town Manager

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November 18, 2016

The Town of Lisbon is currently accepting bids for one (1) new 2017 four wheel drive wheeled loader with plow and wing for use by the Public Works Department. Prior year left over models meeting the minimum specifications and warranty requirements will be considered. All items appearing in the bidder's regular published specifications are assumed to be included in the bidder's proposal.

Acceptable manufacturers shall be Case, John Deere, Volvo, and Caterpillar and acceptable machines are believed to be:

- Case 621F, John Deere 544K, Volvo L60H, Caterpillar 926M

The winning bidder must supply a similarly sized machine with a general purpose bucket to be used by the Public Works Department until delivery of the new machine. The winning bidder will have Sixty (60) calendar days following the award to deliver the new machine to the Town of Lisbon Public Works Garage at 14 Capital Avenue, Lisbon Falls, Maine.

The Town of Lisbon reserves the right to reject any and all bids when deemed to be in the best interest of the Town, and to waive any minor discrepancy or technicality in the bid specifications.

Sealed bids to be submitted to the Town Office Attn: Ryan Leighton by December 6, 2016 at 10:00 AM. I can be reached at 353-3000 ext. 116 or by e-mail at rleighton@lisbonme.org if you have any questions.

Sincerely,

E. Ryan Leighton
Public Works Director

**TOWN OF LISBON
DEPARTMENT OF PUBLIC WORKS**

FOUR WHEEL DRIVE WHEELED LOADER W/PLOW & WING

Bid Date: November 18, 2016

Bid Due Date: Tuesday, December 6, 2016 @ 10:00 AM

Detailed specifications for a **Four Wheel Drive Wheeled Loader w/plow & wing** for the Public Works Department.

The following specification shall be minimum requirements and the bid shall be of the manufacture's latest model and design. The bid item must also comply with applicable federal and Maine laws. All items appearing in the bidder's regular published specifications are assumed to be included in the bidder's proposal.

Furnishing and Mounting of all additional equipment shall be the responsibility of the equipment bidder. All additional equipment added to the unit will be appropriately matched to the machine. All hydraulics and electrical components will be appropriately installed and secured, subject to approval by a representative from the Town of Lisbon.

The Town of Lisbon reserves the right to reject any and all bids when deemed to be in the best interests of the Town, and waive any minor discrepancy or technicality in the bid specifications.

Acceptable manufacturers shall be Case, John Deere, Volvo, and Caterpillar. Acceptable machines are believed to be:

- Case 621F, John Deere 544K, Volvo L60H, Caterpillar 926M

The successful bidder shall provide a machine for testing prior to bid being awarded. Any differences in the demo unit must be identified at time of demonstration or machine shall be assumed to be equal to the final unit delivered to the town.

The successful bidder shall furnish a complete, job ready machine and it shall conform in strength, quality and workmanship to what is provided in general by the loader manufacturing industry.

The machine shall not use optional counter weight, or rear tire ballast.

Specifications and ratings must conform to all S.A.E. Standards.

SPECIFICATIONS FOR THE FOUR WHEEL DRIVE WHEELED LOADER W/PLOW & WING FOLLOW

If it is necessary to bid alternate equipment or to take exceptions to the specifications as set forth, this must be so stated in your bid. For each item, please place an X in the appropriate space (Yes__ No__) to signify whether or not you are in complete compliance with the specification. Failure to follow the format or answer the specification may cause your bid to be disqualified. If you need extra space to describe your product, please attach extra sheets. When doing this, be sure your description references the appropriate question number.

Town of Lisbon
Public Works Department
Four Wheel Drive Wheeled Loader w/Plow & Wing
Specifications/Questionnaire

Bid Date: November 18, 2016

Bid Due Date: Tuesday December 6, 2016 at 10:00 AM

Specifications: Four Wheel Drive Wheeled Loader w/Plow & Wing			
ENGINE:		YES	NO
1	Six Cylinder, turbocharged, liquid cooled diesel engine and shall be designed and built by the manufacturer		
2	Engine shall be certified to Min. EPA Interim Tier 4/EU Stage IIIB		
3	Engine shall have a wet-sleeve cylinder liner design for improved cylinder cooling over dry sleeve and cast-in-bore design.		
4	Engine net peak power shall be no less than 150 HP		
5	Fuel system shall be high-pressure, common rail		
6	Daily check points shall be accessible from one side of the engine and shall be done from ground level		
7	Under-hood engine air cleaner shall be dry type, dual element with a restriction sensor and in-cab restriction warning light		
8	The loader will have pre-screened under hood air intake to minimize plugging		
9	Access to engine will be open from both sides with side opening full access to coolers, radiator		
10	Engine shall have no less than 30-micron rated primary fuel filter with water separator		
11	Loader shall be equipped with a heavy-duty steel fuel tank guard		

12	Service interval for the engine oil and filter shall be 500 hours		
13	The unit shall have an auto-idle, auto-shutdown feature for the engine as standard equipment		
14	The electrical system shall be two 12 volt batteries with Min.100 amp alternator		
COOLING:			
15	Unit shall have a proportionally controlled, hydraulically driven, 90 degree-swing-out fan, standard equipment		
16	The unit will have minimum two-side access to all coolers		
17	Air intake shall be pre-screened for each cooling component		
18	Cooling system shall be isolated from the engine compartment		
19	Unit shall have a coolant recovery tank provided		
20	Unit shall have a fan-guard		
21	Fluid levels should be easily checked by sight gauges or overflow tank		
POWER TRAIN:			
22	Unit shall have a Countershaft-Type Power Shift transmission minimum - 4 forward, 3 reverse gears		
23	The transmission shall be electronically modulated, adaptive, load and speed dependent		
24	Shift modes shall be manual, auto to 1st or 2nd, kick down or kick up/down.		
25	Service interval for the transmission oil filter shall be 2000 hours		
26	The transmission clutch calibration shall be performed from the cab monitor and shall have three clutch cutoff settings adjustable on the switch pad		

27	Unit shall have steering column or joystick mounted F-N-R and gear-select lever, kick-down button on hydraulic lever. Will also have quick shift feature that allows pushbutton gear changes, one gear at a time		
28	Sight gauge showing transmission fluid shall be at ground-level		
29	Transmission filter restriction shall be displayed in the cab		
30	The transmission shall be able to reach a minimum of 22 mph in top gear with 20.5R25 Bridgestone V-Steel Snow Wedge tires. (or approved equal tire)		
AXLES/BRAKES:			
31	The final drives shall be heavy-duty inboard planetary gears		
32	The loader shall have two brake pedals with an activation switch to allow left brake pedal to switch between a brake neutralizer or brake only function.		
33	The service brake shall be hydraulically actuated, inboard final drive carrier mounted, oil cooled, self-adjusting retractors, and multi-disk		
34	The parking brake shall be automatic spring applied, hydraulically released, oil cooled, driveline mounted, and multi-disk		
35	Rear axle shall not have less than 24 degree total oscillation, stop to stop, when equipped with 20.5R25 Bridgestone V-Steel Snow Wedge tires		
36	The dipstick port and housing fill shall be at the top of the axle		
37	The front axle shall be hydraulically actuated, disc clutch style, locking differential		
38	The loader shall have front and rear axles with hydraulic locking differentials		
TIRES & RIMS:			
39	20.5R 25 Bridgestone V-Steel Snow Wedge		
40	One Spare matching rim - the Town will supply a spare tire to be mounted		
HYDRAULIC SYSTEM:			

41	Hydraulic filter shall be in the hydraulic tank with service interval of 4000 hours		
42	The hydraulic fluid shall have a rated life of 4000 hours		
43	The hydraulic system shall be pressure-compensating		
44	Hydraulic tank capacity should be no less than 24 gallons for extended hydraulic fluid intervals and cooler system temperature		
45	Unit will be provided with an automatic return to dig level attachment		
46	In cab adjustable automatic boom height kick out control		
47	Unit will be provided with in-cab adjustable automatic boom return-to-carry control		
48	Unit shall be equipped with three function single-lever joystick and third function auxiliary		
49	A sight gauge will be provided for checking hydraulic reservoir fluid		
50	Hydraulic pump shall be variable-displacement, axial-piston pump: closed-center, pressure-compensating system		
51	Loader steering articulation angle shall be no less than 80 degrees, 40 degrees in each direction		
52	Third valve to control left to right swivel for front plow. Piped to midpoint of loader arms exact location to be determined		
53	Steering designed to allow unit to track straight for prolonged driving over the road during snow plowing operations.		
ELECTRICAL:			
54	Two batteries shall be included, 24 volt, 950 CCA, with a rated reserve of no less than 25 amps for 190-min at 80F.		
55	The unit shall have a solid-state electrical power distribution system using circuit board technology and solid-state switches		
56	3 sets of full function keys for all locks.		
57	The unit shall be provided with a master electrical disconnect switch		
58	Cab will be pre-wired and switched for strobe lights		
59	Cab to have a 12 volt 20 amp ignition controlled electrical feed with both positive and negative battery feeds for a two way radio to be installed at a later date		
60	The in-cab switch module shall be sealed to keep out dirt, dust and airborne debris		

61	Unit shall be equipped with all LED lights with guards.		
62	Unit shall be equipped with gauges for: engine coolant temperature, transmission oil temperature, hydraulic oil temperature, and engine oil pressure		
63	Unit shall have digital readout for: engine rpm, odometer, transmission gear direction indicator, speedometer, hour meter, and outside temperature		
64	Unit shall have operator warning lights for: check engine, engine oil pressure, engine air restriction, battery voltage, transmission filter restriction, brake pressure, hydraulic oil filter, transmission fault, hydraulic oil temperature		
OPERATOR STATION:			
65	Unit shall be equipped with canopy with ROPS/FOPS protection, and be multiplane isolation mounted for noise/vibration reduction		
66	3" retractable seat belt shall be provided		
67	Steering wheel shall be tiltable		
68	3-point contact at all times at the front & rear of the loader and around the roof-line		
69	Heated operators seat		
70	A seat backrest extension will be standard		
71	Cab shall have a minimum of 2 cup holders, personal cooler holder, storage compartment for operator's manual, and rubber floor mat.		
GENERAL SPECIFICATIONS:			
72	All tires shall have full fenders		
73	The counterweight shall be built-in		
74	Unit will be provided with a hitch with locking pin		
75	Unit shall have an articulation locking bar		
76	Unit shall have vandal protection with lockable operator station doors, engine enclosures, external storage compartments, battery box, and filler access for radiator/fuel/hydraulic/transmission.		
77	All service openings in the chassis are to have bolted on removable covers where available to include transmission side frame covers		
78	The unit shall be provided with a loader boom service locking bar		
79	Loader shall have reinforced articulation joints with double tapered roller bearings		
80	Fuel tank capacity shall be no less than 60 gallons		

81	Operating weight with standard equipment shall be no less than 26,500 lb.		
82	Bucket breakout force shall be no less than 22,000 lbs. with manufacturer's standard linkage with GP Bucket with Bolt-on Edge, 2.5 cu yd.		
FRAMES & STRUCTURES:			
83	Machine front frame shall be of a 4-plate design of 4 vertical plates extending from boom pivot pins reaching to the front axle to distribute boom loads on the axle.		
84	Machine shall be equipped with an exterior mounted, ground level storage compartment		
WARRANTIES AND MANUALS:			
85	Three (3) copies each of the Operators, Service, and Parts Manuals shall be supplied.		
86	The manufacturer's warranty, and extended warranty coverage of 5 years or 6000 hours: Items covered, and length of coverage shall be supplied in writing and shall accompany the bid.		
87	The warranty shall include all materials, labor, expenses, delivery charges and other incidental charges necessary to the proper repair of any defects, at no cost to the Town, during the warranty period.		
88	Warranty work, if any, shall be conducted by vendor personnel at the Town of Lisbon Public Works Garage. Should it become necessary to return the unit to the vendors shop for warranty work, there shall be no transportation charges accrued to the warrantee or the Town of Lisbon.		
PLOW EQUIPMENT: Viking - Cives Plow Gear only			
89	Plow gear to be mounted on a matching quick couple plate.		
90	Wing tower & hydraulic lines to be mounted for quick removal hydraulic line to have quick couplers		
91	All hydraulic couplers to have caps on both sides for storage when not in use.		
92	Front and Rear Wing raise and lower to be hydraulically controlled		
93	It is the Bidders responsibility to confirm adequate hydraulic valve sections and operator controls are included		
94	Hydraulic control valve to be shielded from weather by means of a cover or position in the chassis to be determined by representative of the Town of Lisbon		

95	Full trip wing. (11' wing with 10' edge) W/ spring loaded Heavy Duty full trip arms, Heavy duty lower arm to with shock absorption spring.		
96	11' Trip edge reversible polymer plow W/ heavy duty double ram push frame with cushion valve		
COUPLING:			
97	Bidder to supply adapters to allow quick connection of the Town of Lisbon's equipment currently using a JRB coupler to the standard coupler on the machine being bid. (Three adapters required)		

The undersigned hereby declares that he/she has carefully examined the specifications and that he/she proposes and agrees, if this proposal is accepted, to provide the items identified in his/her proposal in accordance with the specifications listed; and that he/she will accept full payment there from the following sums:

(1) Four Wheel Drive Wheeled Loader (unit only)	\$
Trade-In Allowance: 1999 Case 621C Loader with GP bucket	\$
Extended Warranty:	\$
Plow Equipment (only):	\$

State Delivery	
State Terms	
Company Name	
Signature	
Title	
Typed/Printed Name	
Address	
Phone #	
Fax #	
Date	