



## **Request for Tender**

### **Specifications for: Rubber Tire 4WD Backhoe**

Jamie Rand – Public Works Department Mechanic – 250-746-5321 Ext.4

Tenders are requested for the supply and delivery of one rubber-tire loader/backhoe complete with four wheel drive, four-in one bucket and extendahoe. Tenders are to be received no later than **10:00 a.m. on Friday, June 5<sup>th</sup>, 2020** and can be submitted by fax: 250-746-5898, email: to [len@duncan.ca](mailto:len@duncan.ca) or regular mail or drop box, City of Duncan City Hall, 200 Craig Street, Duncan, BC V9L 1W3 (please note that the City of Duncan does not accept responsibility for items lost in the mail or not delivered on time).

Prices quoted are to be F.O.B. City of Duncan Works yard, and are to be valid for 30 days from date of tender closing.

Deviations from the specifications must be detailed by the tenderer. Expected time of delivery from date or purchase order is to be stated.

Quotation is to be signed and submitted in a sealed envelope marked **“Quotation for Backhoe”** and shall be addressed to Mr. Len Thew, Operations Manager of Public Works.

The lowest or any other tender may not be accepted and the awarding of the tender will be based on a full review and analysis of features, deliver, references, warranty, conformity to specifications, operator acceptance, machine performance, parts and service availability, dealer and machine reputation, and overall net price.

Dealers are invited to tender any in-stock or readily available units which closely match the enclosed specifications, either in lieu of the attached tender or as an optional quotation.

Tenders will be opened immediately following the stated closing time: **10:00 a.m. on Friday, June 5<sup>th</sup>, 2020**

**Performance Criteria:**

Based on historical operating data it is anticipated that this machine will be used approximately 500 hours per year. Application for this machine within the City of Duncan can be characterized as moderate in relation to other municipal and utility operations. Backhoes are considered essential within our operation and as such “uptime” and machine reliability have the upmost importance.

Reputation, operator comfort, capacities and performance will factor into decision making. Warranty and warranty location will also be factors.

**Demonstration of Machine:**

The City of Duncan reserves the right to require demonstration of a machine similar to that being bid, either prior to closing, or subsequent to closing and before Council award. Costs associated with transportation of either the machine, or the City of Duncan’s operators, are to be covered by the bidder.

**Parts and Service Guarantees:**

Describe performance guarantees related to the provision of parts and service complete with minimum standards of the following (including costs):

- Years of servicing equipment
- Number of factory trained technicians
- Parts availability within 24 hours
- Warranty repairs within 48 hours (with some exceptions)

**Availability Guarantees:**

Describe what availability guarantees you propose, if any. Include any costs associated with these guarantees.

As an example, if the machine is down due to mechanical failure or delay in receiving parts that result in the machine not being able to be operated, do you provide a back-up unit? (And terms associated with doing so).

<b>EQUIPMENT TENDER - LOADER/BACKHOE</b>	
<p><b>Tenders are requested for the supply and delivery of one (1) new rubber tire loader/backhoe, c/w four wheel drive, Integrated Tool Carrier style front end, four-in one Loader Bucket, adjustable pallet fork attachment, Telescoping hoe, with Hydraulic quick coupler for use with an excavation and cleanup bucket. The machine will be used for general utility digging and loader work.</b></p> <p><b>Any deviations from these specifications which, in the opinion of the City of Duncan, do not affect the overall requirements of the unit may be considered.</b></p> <p><b>Tenderers must complete yes or no, and state all specifications if other than as shown on tender document:</b></p>	
<b>GENERAL:</b>	
<p>Four-wheel drive, extendahoe, all weather cab, approximately 14'4" <b>minimum</b> digging depth, with extension to approximately 18 feet. Integrated Tool Carrier type front end (<i>for additional attachments</i>).</p> <p>Complete with four-in-one Loader Bucket approximately 1.3 cubic yard.</p> <p>Hydraulic quick coupler for use with both 24" digging backhoe bucket, and cleanup bucket, with a hydraulic thumb.</p> <p>Single lever loader control, two lever pilot style backhoe controls to allow operator to change from John Deere to Caterpillar style control setup. Complete, ready for work, including all standard equipment, and meeting all current SAE, WorkSafe BC, and all other applicable Canadian standards.</p>	
<b>MAKE:</b>	
<b>MODEL:</b>	

Unit must be of manufacturer's latest design	
State year of production (must be current or succeeding year of bid)	
State model/series	
State approx. date of last series upgrade (must be within two years of model bid)	
If unit is a demonstrator, state hours:	
<b>ENGINE:</b>	
Tier 4 diesel engine (state # of cylinders)	
List all options available , if any (i.e.: Alternate fuel, hybrid, electric?)	
Horsepower Rating @ max RPM	
Torque Rating	
Dual dry-element type air cleaner	
Pre Cleaner	
Replacement fuel filter	
Fuel/water separator	
Pressurized liquid cooling system with thermostat	
Long Life Antifreeze to -30 F	
Cold weather starting aid	
Block heater (1500 watt) with plug	
Lockable service doors	
Engine shutdown package	
<b>ELECTRICAL SYSTEM:</b>	
All circuits to be fuse protected	
12 volt	
Batteries (min. 2 @ 850 cca)	
Alternator to suit (min 70 amp)	
Night Switch	
NOTE: ALL ELECTRICAL WIRING TO BE SEALED (HEAT SHRINK), PROPER CONNECTORS, NUMBERED AND SINGLE COLOUR PER APPLICATION. POOR WIRING WILL BE REJECTED OUTRIGHT.	
<b>TRANSMISSION &amp; DRIVE TRAIN:</b>	
Four wheel drive, electronically activated, on-the-go capability	

Torque converter drive with fully synchronized transmission	
Power shift transmission (4 forward; 3 Or 4 reverse)	
Electronically activated Rear diff lock	
Transmission Disconnect (No backhoe function unless in <b>Neutral</b> )	
Oil Cooler	
Remote transmission filter	
Maximum Transport Speed (state)	
Forward Speeds (state) (kms/hr) First Second Third Fourth	
Reverse Speeds (state) First Second Third Fourth	
Powershift transmission to have a kickdown function for ease of operation	
Heavy duty axles with brakes that can be serviced without removing the axle from the frame.	
<b>Selector switch for 2 or 4 wheel drive operation.</b>	
<b>BRAKES:</b> (special consideration will be given to brake adequacy)	
Must meet current WorkSafe BC requirements	
Power boosted brakes to be operated individually or together	
Pressure lubricated and cooled	
Self adjusting	
All hydraulic	
Independent emergency hand brake (reachable from backhoe operation position)	

Parking brake to be equipped with a warning buzzer and indicator light	
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<b>WHEELBASE:</b>	
State dimension	
<b>TIRES:</b>	
Front: state size and ply rating of factory recommended tire. Minimum 12 ply.	
Rear: state size and ply rating of factory recommended tire. Minimum 16 ply.	
<b>FRONT AXLE:</b>	
Planetary drive axle with drive shaft guard. State if outboard or inboard.	
Static load rating	
<b>REAR AXLE:</b>	
Outboard planetary final reduction	
Static load rating	
<b>STEERING:</b>	
Must meet current WorkSafe BC requirements	
Full hydrostatic power steering	
Dead engine emergency steering capability	
Steering pump capacity (state)	
Turning radius: State curb to curb, 4WD, with brakes applied: State curb to curb, 4WD, without brakes applied:	
<b>HYDRAULIC DATA:</b>	
Hydraulic oil must be environmentally friendly	
Full hydraulic force available at all engine speeds	
Pump type	
Pump capacity (State GPM @ Full Throttle)	
Oil cooler	
Oil filter – easily accessible for service	
Auxiliary Hydraulic Circuit plumbed for use of our 10” Capsule Type Flood Control	

<p>Pump. This Circuit requires full hydraulic flow (GPM) to facilitate maximum transfer of Flood Water, at the City’s Pumping site. This circuit will have 3 hydraulic lines, with one being plumbed as a direct return line from the capsule pump to the hydraulic tank/reservoir. The other two will complete the hydraulic circuit. These 3 hydraulic connections (for the Capsule Pump) can be utilized in conjunction with a “Hoe-Pack” circuit, <b>providing</b> that there is the required full hydraulic flow (GPM) to operate our Capsule Pump.</p>	
<p>System flow capacity and circuits to provide sufficient flow for adequate cooling of backhoe and operation of other implements. Include flow control valve to allow regulation for various implements. Bidder must confirm that the machine bid will operate additional implements.</p>	
<p><b>INSTRUMENTS:</b></p>	
<p>Side mounted gauges/monitoring system, including:</p>	
<p>Hour meter</p>	
<p>Fuel gauge</p>	
<p>Water/engine coolant temperature gauge (and audible warning system)</p>	
<p>Hydraulic oil temperature light; prefer audible warning system</p>	
<p>“no charge” warning light</p>	
<p>Engine oil pressure warning light (and audible warning system)</p>	
<p>Key switch fuel shut off Air intake EMERGENCY shut down</p>	
<p>Safety starter switch (to WorkSafe BC specifications)</p>	
<p>Fuel shutoff at fuel tank for servicing</p>	
<p>Hour meter</p>	
<p>Speedometer</p>	

Tachometer	
Hand throttle	
Fuse panel and signal flasher (dome) to be operator accessible	
<b>SEAT (STATE OPTIONS):</b>	
Durable cloth covered adjustable deluxe swivel seat (single lever turn around)	
Air suspension/weight adjustable heavy duty model	
Adjustable lumbar support	
Armrests (will they pivot?)	
Industrial seatbelt	
Highback style	
<b>CONTROLS:</b>	
Seat to rotate to serve either backhoe or loader position	
Backhoe and thumb controls together; OEM supplied and installed	
Single handle loader and 4-in-1 controls	
Backhoe controls to be separately mounted and not part of the seat	
Forward/reverse power shuttle lever on the steering column	
Operator must be able to Operate Tool Carrier control/attachment function from within the cab. When connecting/disconnecting a hydraulic type attachment. (Hydraulic connections must be durable and simple to use)	
Ride Control – OEM supplied and installed	
<b>CAB AND GENERAL:</b>	
Positive pressure cab with outside filtered air intake	
All weather steel cab, sound insulated. State dB rating for operator when: Cab closed (max approx. 72dBa) Cab open	
Air conditioned cab	
Cab shall be isolation mounted	



Roll Over Protective Structure to meet current WorkSafeBC specifications (SAE ROPS/FOPS certified)	
Safety hand holds for entry	
Mounting steps to have safety surface	
Rear fenders	
Excellent visibility for both travel and work	
Left hand door, and window hinged and lockable door	
Right hand door, and window hinged and lockable door	
Rear window slide-up type	
Front windshield wiper c/w washer	
Rear windshield wiper c/w washer	
Interior dome lights	
Front work lights	
Rear work lights	
Travel lights to meet M.O.T. specifications	
Slow moving vehicle triangle	
External backup lights	
Warning light visible in all directions (must be on when key is on, must be 24" L.E.D. type) sealed and waterproofed at mounting location on top center of cab	
Tinted safety glass	
Internal mounted rearview mirror (min. 10 inches wide)	
Two (2) "Roading" exterior mirrors (7" x 10"); right and left sides	
AM/FM radio	
Audible backup alarm. <b>State Db rating</b>	
Heater	
Defroster (front, rear & side windows)	
Horn (and rear horn control)	
<b>OTHER:</b>	
Tool box approx. 6"x20" (state where mounted). Water proof lid, lockable	
State ground clearance –min. 15"	
State fuel tank capacity	

Muffler, and vertical exhaust c/w 90 degree turnout spout, discharge not to be under machine	
Counterweight to balance backhoe and attachments (state weight)	
Stabilizers with replaceable rubber street pads, fully retractable within the width of the tires	
State stabilizer spread dimension – approx. 10’6’	
<b>VANDALISM PROTECTION:</b>	
Lockable hydraulic and radiator fillers	
Lockable fuel tank	
Lockable battery box	
Lockable tool box	
Lockable cab	
Lockable engine compartment access	
<b>BACKHOE SPECIFICATIONS:</b>	
Center mount	
Control system to provide precise control and eliminate over-swing	
Backhoe boom travel (over center transport position) transport locks to be operable from cab in an easily accessible position	
<b>BACKHOE CAPACITIES (extendahoe):</b>	
Dig depth	Extendahoe retracted: Extendahoe extended:
Bucket dig force	Extendahoe retracted: Extendahoe extended:
State maximum truck loading height with extendahoe extended	
Loading reach retracted	Retracted:
Reach from swing post, extended	Extended:
State Loader Bucket Maximum Lifting Height	
Loader Bucket Maximum Dump Height	
Loader Digging depth	
Loader Lift Capacity	

Loader Breakout Force	
Loader Bucket Capacity	
Full hydraulic pressure available to thumb	
Button operated extendahoe	
Backhoe bucket rotation, truck loading, 180 degrees min.	
90 degrees right or left swivel from centre line of tractor	
<b>BUCKETS:</b>	
Front counterweight included to balance backhoe extendahoe	
Backhoe hydraulic quick coupler. Tenderer to confirm dimensions and model of system.	
24" heavy duty backhoe digging bucket with 5 changeable teeth with quick coupler to match the tendered quick coupler system. Heavy duty lifting eye.	
Heavy duty 24" cleanup bucket with quick coupler to match the tendered quick coupler system. Heavy duty lifting eye.	
Load rated craning lift eye on both backhoe buckets or at end of boom. State load capacity from manufacturer.	
<b>LOADER:</b>	
Four-in-one multi-purpose bucket --state capacity --state bucket weight	
Heavy duty load rated craning loop in 4-in-1 bucket centre. State load capacity from manufacturer.	
Self level action with indicator	
Automatic return to dig feature	
Single lever loader controls	
88" (223 cm) minimum cutting width (to equal or exceed tire to tire width)	
Replaceable cutting edges; bolt on style on all replaceable edges ( <b>ONE PIECE TYPE</b> )	
Bottom skid straps	
<b>LOAD CAPACITIES:</b>	

Full rollover capability for dozing and stability in backhoe operation	
4-in-1 loader bucket	
Automatic bucket self-leveling	
Lift capacity at full height:	
Heavy duty lifting eyes on Loader Bucket at or near both ends	
Digging depth: 4" (10 cm) minimum (below grade with bucket bottom flat)	
<b>ACCESSORIES:</b>	
Factory installed (OEM) hydraulic plumbing for the Hydraulic Quick Coupler, capable of being run from within the cab for the backhoe. Valve and plumbing installed to supply sufficient hydraulic pressure to run other backhoe attachments. Flow control valve to allow for use of various attachments. <i><b>(Capsule Pump Hydraulics are separate)</b></i>	
Loader Bucket Hydraulics are to have Factory installed Hydraulic plumbing.	
OEM Hydraulic only thumb, cab operated, installed and fully operable.	
Bucket hydraulics to be set up to be able to overpower thumb pressure	
<b>HOSES:</b>	
Hydraulic hoses to be protected	
Hydraulic hoses to be secured	
Hydraulic hose to meet SAE 100 R12 standards	
British Standard, JIS, or DIN hydraulic fittings not accepted	
<b>WARRANTY:</b>	
Repairs will be done within 48 hours	
(A) Power train (24 mos/2000 hrs)	
(B) Entire machine (min. 12 mos unlimited; state # of hours if based on hours of use)	
(C) Engine (24 mos/2000 hrs)	
(D) Other components (describe)	

Include optional warranty and repair packages available, and associated costs	
State parts availability guarantee	
Parts are available within 24 hours	
State warranty repair location – must be no further from COD yard than Nanaimo or Victoria	
State any extra cost if warranty repairs are carried out at our door (1091 Marchmont Road, Duncan)	
State parts inventory location	
Note any guaranteed parts supply programs available, and associated cost	
<b>TOTAL WEIGHT:</b>	
operating weight	
<b>MANUALS:</b>	
Operator manual Parts manual Service manual (all at time of delivery)	
Safety and operator training video	
Manuals/parts inventory for installed extras including: <ul style="list-style-type: none"> <li>- Thumb components incl.</li> <li>- Electrical</li> <li>- Pins</li> <li>- Bushings</li> <li>- Hydraulic cylinders</li> </ul>	
<b>TRAINING</b>	
Successful bidder shall provide up to 8 hours of on-site operator and preventive maintenance training.	
<b>DEMONSTRATION:</b>	
The City of Duncan may require the tenderer to allow employees of the city to operate on our site a backhoe/loader similar to the one bid, prior to final decision.	
<b>DELIVERY:</b>	

State expected delivery from date of purchase order. Date of delivery may be used as criteria in determining successful tender. Supply prior to end the of August 2020 is desired.	
<b>PRICE:</b>	
Base price as specified	
Environmental levies:	
GST	
PST	
<b>TOTAL F.O.B. City of Duncan Works Yard (1091 Marchmont Road, Duncan)</b>	
<b>Options:</b> Note any price any options as recommended by manufacturer or dealer. <i>For example</i> , Optional attachments such as a snow plow	
<b>(A)</b>	
<b>(B)</b>	
<b>(C)</b>	
<b>(D)</b>	
Sub Total Options:	
Options' Additional PST:	
Options' Additional GST:	
Total of Options incl. taxes	

<b>DEALER NAME:</b>	
<b>ADDRESS:</b>	
<b>PHONE NUMBER:</b>	
<b>FAX NUMBER:</b>	
<b>EMAIL:</b>	
<b>REP. NAME AND SIGNATURE</b>	
<b>DATE:</b>	
<b>EXPIRY DATE OF QUOTE:</b>	

Note any specific features which the manufacturer identifies as being specific advantages of the above machine:	
Please include manufacturer's brochures and full specifications:	