

Technical Specification

Back-hoe Loader

1 unit

S.N	CRITERIA	DEPARTMENTAL REQUIREMENT	OFFERED SPECIFICATION
1.	General	All wheel drive, rigid frame back hoe loader with Steel cab, suitable for operation under rough working conditions, and adverse climate condition at operating altitude of 4000 m and ambient temperature varying between -15°C to 50°C.	
2.	Capacity	<p>A. Loader: General purpose bucket with (6 in1) bolt on teeth of SAE rated capacity nominally heaped approx. 1 cu.m with shovel break out force 6600±10% kgf.</p> <ul style="list-style-type: none"> • Dump Height: ≥ 2900 mm • Load over height: ≥ 3350 mm <p>B .Back hoe bucket with bolt on teeth of SAE rated capacity approx. 0.3 cu.m with tear out force 5650 kgf and following working ranges:</p> <ul style="list-style-type: none"> • Minimum working height: ≥ 6000 mm • Minimum digging depth: ≥5000 mm • Minimum digging reach: ≥5500 mm (Ground Level to rear wheel center) • Minimum Bucket tear out force: ≥ 5650kgf • Out triggers with controls from cabin shall be provided. 	
3.	Engine	<p>4-stroke Water Cooled diesel Engine, developing rated power output 95±5HP with minimum 400 NM Torque at governed RPM engine shall be fully equipped with all accessories for efficient full load operation at operating condition.</p> <p>Back hoe shall be equipped with heavy duty radiator, cold starting device, direct electric starting system, heavy duty battery, heavy duty air cleaner, heavy duty fuel filter, with water trap and drainage in fuel line and drain tap in fuel tank.</p>	
4.	Gauges	To include ammeter, water temperature, fuel, oil pressure, transmission and hydraulic gauges as necessary for efficient operation and maintenance.	

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5	Transmission	Torque converter with four speed power shift type of synchro shuttle transmission.	
6	Axles	Four wheel drive with fixed rear axle and at least 15° oscillating front axles.	
7.	Tires	Suitable four tires with tubes for operating machine in rough road conditions shall be provided.	
8.	Steering	Power assisted Hydrostatic steering.	
9.	Brakes	Hydraulically actuated, wet multiple disc/caliper disc type service brake and separate parking brake.	
10.	Cab	All steel enclosed cab with laminated glass windscreen insulated roof, suitably located controls for back hoe and loader operation, rear view mirror, cabin light, wiper and adjustable cushioned seat for operator shall be provided.	
11.	Hydraulics	Suitable hydraulic pumps and system pressure for smooth operation of all attachments smoothly.	
12.	Essential Accessories	1. Road lights, work lights and fog lights 2. Cabin Lights 3. Service hour meter	
13.	Instructions	All signs and instructions in the equipment shall be in English	
14.	Manuals	3. One copy of the Operator's and Owner's Instructions and Maintenance manual in English shall be supplied with the equipment. 4. Two copies of following manuals in English shall be supplied with each equipment : Spare parts catalogue Comprehensive workshop manual.	
15.	Tools	A set of tools as required for general maintenance shall be supplied with in a lockable tool box for each unit	
16.	Color	Orange / Construction equipment yellow.	


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17.	Warranty	Manufacturer shall provide a minimum of one year warranty after acceptance.	
18	Delivery	The unit of backhoe Loader shall be delivered to : <i>Bidur Municipality, Bidur, Nuwakot.</i>	

Note: The major items are indicated by Bold and highlighted letters/alphabets/figures in the technical specifications. Non-compliances of these major items will result in no responsiveness of the bid.

Bidders Signature.....

Date.....

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Pradeep Kumar Shrestha
Mechanical Engineer
Mechanical office, Nuwakot

Cost Estimate for the equipments purchase :

The major technical specification of Back-hoe Loader that is included to be purchased by Bidur Municipality, Nuwakot, Nepal is as follows:

Type: Back-hoe Loader

Operating Weight : not less than 8000 kgs

Max. power output: not less than 92 HP

Essential accessories: charge indicator, oil pressure indicators, transmission gauge, rpm meter, hour meter, cabin lights , etc.

Warranty: a minimum of one year warranty acceptance or as per manufacturer's standard whichever is greater

s. no	Discription	Qty.	Unit cost in Nrs (including customs duties, VAT, and other taxes.)	Total cost in Nrs (including customs duties, VAT, and other taxes.)	Remarks
1	Back-hoe Loader	1(one)	43,25,000.00	NRS. 43,25,000.00	Estimated co

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