

## Technical Specifications of Backhoe Loader

Unit: 1

SN	Criteria	Departmental Requirement	Offered Specification
1	General	All wheel drive, rigid frame backhoe loader with Steel cab, suitable for operation under rough working conditions and adverse climatic condition at operating altitude of 2000 m and ambient temperature varying between -5°C to 50°C.	Make: Model:  Country of Origin:
2.	Engine	Water cooled diesel Engine, developing SAE rated <b>horsepower 90± 5%hp</b> (engine fully equipped with accessories) at governed RPM and <b>Torque not less than 400N-m</b> for efficient full load operation. Backhoe shall be equipped with radiator, direct electric starting system, battery, air cleaner, fuel filter, with water trap and drainage in fuel line and drain tap in fuel tank.	Make: Model:
3.	Capacity	<ol style="list-style-type: none"> <li>1. Loader: General purpose bottom dump (6-in-1 bucket with bolt on teeth of SAE rated capacity nominally heaped at least <b>1 cu.m</b> with minimum break out force of <b>6500kgf</b>.</li> <li>2. Minimum Dump height: <b>2.70m</b></li> <li>3. Backhoe Bucket with bolt on teeth of SAE rated capacity at least 0.30 cu.m. with minimum tear out force <b>5800±5 % kgf</b>. And following working ranges: <ul style="list-style-type: none"> <li>• Minimum working height: <b>5700 mm</b>.</li> <li>• Minimum digging depth: <b>4700 mm</b>.</li> <li>• Minimum digging reach: <b>5800 mm</b> (Ground Level) from rear Axle centre</li> </ul>                     Out triggers with controls from cabin shall be provided.                 </li> </ol>	
4.	Gauges	To include ammeter, water temperature, fuel, oil pressure, transmission and hydraulic gauges as necessary for efficient operation and maintenance.	
5	Transmission	<b>Torque converter with four speed power shift/shuttle type</b> of transmission.	
6	Axles	<b>Four wheel drive</b> with fixed rear axle and at least 15° oscillating front axles.	
7.	Tires	Suitable <b>tires with tubes</b> for operating machine in rough road conditions shall be provided.	
8.	Steering	Power assisted.	
9.	Brakes	Hydraulically actuated, wet multiple disc/ caliper disc type service brake and separate parking brake.	

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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 for smooth operation of all attachment. <ul style="list-style-type: none"> <li>• Hydraulic flow <b>not less than 116 LPM</b></li> <li>• <b>Pressure not less than 220 bar</b></li> </ul>
12.	Essential Accessories	1. Road lights, work lights and fog lights 2. Cabin Lights 3. Service hour meter  Equipped with all accessories offered in standard model but not limited to above items.
13.	Instructions	All signs and instructions in the equipment shall be in English.
14.	Manuals	1. Copy of the Operator's and Owner's Instructions and Maintenance manual in English shall be supplied with equipment. 2. Copy of following manuals in English shall be supplied with equipment. <ol style="list-style-type: none"> <li>Spare Parts Catalogue</li> <li>Comprehensive workshop manual</li> </ol>
15.	Tools	A set of tools as required for general maintenance shall be supplied with a lockable tool box.
16.	Color	Orange/Construction equipment yellow.
17.	Warranty	Manufacturer shall provide a <b>minimum of one year warranty after acceptance.</b>
18.	Delivery	Should be delivered to Kalika Municipality, Chitwan, Nepal.

**Note:**

1. Bidder is required to submit documentary evidence showing that the manufacturer's representative in Nepal has been providing after sales services for at least past 5 years.
2. The major items are indicated by bold and highlighted letters/ alphabets/figures in the technical specifications. Non-Compliance of these major items will result in non-responsiveness of the bid offer as per ITB 31.3.

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