

## Technical specifications of Backhoe loader

S.N	CRITERIA	DEPARTMENTAL REQUIREMENT	Offered specifications
1.	General	All wheel /four wheel drive, rigid frame back hoe loader with Steel cab, suitable for operation under rough working conditions, and adverse climate condition at operating altitude Ranging from 50m to 2500 m and ambient temperature varying between -10°C to 50°C. Wheelbase should not be less than 2170mm and Overall Height should not be less than 3710mm.	
2.	Capacity	<ol style="list-style-type: none"> <li>1. Operating weight not less than 7800 kg</li> <li>2. Loader: General purpose bucket with (6 in1) bolt on teeth of SAE rated capacity nominally heaped approx. 1 cu.m with Loader break out force not less than 5250 kgf.                             <ul style="list-style-type: none"> <li>• Dump Height: <math>\geq 2730</math> mm</li> <li>• Pin height: <math>\geq 3400</math> mm</li> </ul> </li> <li>3. Back hoe bucket with bolt on teeth of SAE rated capacity not less than 0.26cu.m with tear out force not less than 5550 kgf and following working ranges:                             <ul style="list-style-type: none"> <li>• Minimum working height: <math>\geq 5700</math> mm</li> <li>• Minimum digging depth: <math>\geq 4600</math> mm</li> </ul> </li> </ol>	
3.	Engine	Water Cooled diesel Engine, developing SAE rated Gross <b>HP not less than 85HP with minimum 380NM Torque</b> , (engine fully equipped with accessories) at governed RPM for efficient full load operation. 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.	
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 type</b> of synchroshuttle transmission or equivalent.	
6.	Axles	<b>Four wheel drive</b> with fixed rear axle and at oscillating front axles.	
7.	Tires	Suitable <b>four tires with tubes</b> for operating machine in rough road conditions shall be provided.	
8.	Steering	Power assisted Hydrostatic steering or equivalent	
9.	Brakes	Hydraulically actuated, wet multiple disc/caliper disc type service brake and separate parking brake or equivalent	
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 flow not less than 118 lpm@2200rpm and system pressure <b>not less than 225 bar</b> for smooth operation of all	



		attachments smoothly.	
12.	Essential Accessories	<ol style="list-style-type: none"> <li>1. Road lights, work lights and fog lights</li> <li>2. Cabin Lights</li> <li>3. Service hour meter</li> <li>4. Fan for operator</li> <li>5. A heavy duty grease Gun</li> </ol> <p>Equipped with all accessories offered with standard model but not limited to the above items.</p>	
13.	Instructions	All signs and instructions in the equipment shall be in English	
14.	Manuals	<ol style="list-style-type: none"> <li>1. One copy of the Operator's and Owner's Instructions and Maintenance manual in English shall be supplied with the each equipment.</li> <li>2. Two copies of following manuals in English shall be supplied with each equipment : <ol style="list-style-type: none"> <li>a. Spare parts catalogue</li> <li>b. Comprehensive workshop manual.</li> </ol> </li> </ol>	
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	Standard colour	
17.	Warranty	Manufacturer shall provide a <b>minimum of one year warranty after acceptance.</b>	
18	<b>Proven performance</b>	<ol style="list-style-type: none"> <li>1. <b>The machine offered shall be current model (make - 2024 ),under standard production by the manufacturer.</b></li> <li>2. <b>The bidder shall provide the manufacturer's data of the performance of the unit to include the fuel consumption. Performance curve of the engine etc.</b></li> </ol>	
19	<b>Delivery</b>	<b>1 unit back hoe loader shall be delivered to Bagmati Rural Municipality, Jhurjhure, Makwanpur, Bagmati province, Nepal</b>	

**Note:- The major items are indicated by bold and highlighted letters/alphabet/figures in the technical specifications. Non-compliance of these major items will result in non-responsiveness of the bid.**

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 Category:- A



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