

Backhoe Loader



# Technical Specification of Backhoe loader

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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 Ranging from 80m to 2500 m and ambient temperature varying between -10°C to 50°C.	
2.	Capacity	<ol style="list-style-type: none"> <li>1. Operating weight not less than 8000 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 shovel break out force not less than 5200 kgf. <ul style="list-style-type: none"> <li>• Dump Height: <math>\geq 2800</math> mm</li> <li>• Load over height: <math>\geq 3250</math> mm</li> </ul> </li> <li>3. Back hoe bucket with bolt on teeth of SAE rated capacity approx. 0.27 cu.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 5800</math> mm</li> <li>• Minimum digging depth: <math>\geq 4600</math> mm</li> <li>• Minimum digging reach: <math>\geq 6700</math> mm (Ground Level to rear wheel center)</li> </ul> </li> </ol>	
3.	Engine	Water Cooled diesel Engine, developing SAE rated Gross <b>HP not less than 90 HP with minimum 390NM 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.	
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.	
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 flow not less than 115 lpm and system pressure <b>not less than 220 bar</b> for smooth operation of all attachments smoothly.	

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7/13/22

12.	Essential Accessories	1. Road lights, work lights and fog lights 2. Cabin Lights 3. Service hour meter 4. Fan for operator  Equipped with all accessories offered with standard model but not limited to the above items.	
13.	Instructions	All signs and instructions in the equipment shall be in English	
14.	Manuals	1. One copy of the Operator's and Owner's Instructions and Maintenance manual in English shall be supplied with the each equipment. 2. Two copies of following manuals in English shall be supplied with each equipment : a. Spare parts catalogue b. 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	Standard colour	
17.	Warranty	Manufacturer shall provide a <b>minimum of one year warranty after acceptance.</b>	
<b>18</b>	<b>Proven performance</b>	<b>1. The machine offered shall be 2022 or onwards mandatory under standard production by the manufacturer. 2. 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>	
<b>19</b>	<b>Delivery</b>	<b>1 unit back hoe loader shall be delivered Swargadwari municipality, ,Pyuthan, Lumbini 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.**

7/13/22