

Backhoe Loader – 1 unit



## Technical Specification

S. NO.	CRITERIA	DEPARTMENTAL REQUIREMENTS	OFFERED SPECIFICATION
1.	General	<b>All wheel drive</b> , rigid frame back hoe loader with <b>Steel cab</b> , suitable for operation under rough working conditions, and adverse climate condition at operating altitude of 2000 m and ambient temperature varying between -5°C to 50°C.	
2.	Capacity	<ol style="list-style-type: none"><li>1. <b>Operating weight not less than 8000 kg</b></li><li>2. <b>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 6600 Kg-f.</b><ol style="list-style-type: none"><li>A. <b>Dump Height: <math>\geq 2900</math> mm</b></li><li>B. <b>Load over height: <math>\geq 3350</math> mm</b></li><li>C. <b>Pin Height : <math>\geq 3600</math> mm</b></li></ol></li><li>3. <b>Back hoe bucket with bolt on teeth of SAE rated capacity approx. 0.3 cu.m with tear out force 5650 Kg-f and following working ranges:</b><ol style="list-style-type: none"><li>A. <b>Minimum working height: <math>\geq 6000</math> mm</b></li><li>B. <b>Minimum digging depth: <math>\geq 5000</math> mm</b></li><li>C. <b>Minimum digging reach: <math>\geq 6900</math> mm (Ground Level to rear wheel center)</b></li><li>D. <b>Minimum Lifting capacity : <math>\geq 1480</math> Kg\</b></li><li>E. <b>Minimum Bucket tear out force: <math>\geq 5680</math>kgf Out triggers with controls from cabin shall be provided.</b></li></ol></li></ol>	
3.	Engine	<p>Water Cooled diesel Engine, developing SAE rated Gross <b>HP not less than 92 HP with minimum 405 NM Torque with displacement of 4.4 liters</b> (engine fully equipped with accessories) at governed RPM for efficient full load operation.</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.	
5	Transmission	<b>Torque converter with four speed power shift type of synchro shuttle transmission.</b>	
6	Axles	<b>Four wheel drive</b> with fixed rear axle and at least <b>15°</b> 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 <b>117 LPM</b> and system pressure <b>PSI (bar) not less than 3300(228)</b> for smooth operation of all attachments smoothly.	
12.	Essential Accessories	A. Road lights, work lights and fog lights B. Cabin Lights C. Service hour eter	
13.	Instructions	All signs and instructions in the equipment shall be in English	
14.	Manuals	A. One copy of the Operator's and Owner's Instructions and Maintenance manual in English shall be supplied with the each equipment. B. 2. Two copies of following manuals in English shall be supplied with each equipment : Spare parts catalogue and 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.	
17.	Warranty	Manufacturer shall provide a <b>minimum of one year warranty after acceptance.</b>	
18.	Delivery	Supplier should deliver one unit of <b>Backhoe Loader</b> to	

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**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.

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