## **Technical Specification**

S.N.	CRITERIA	DEPARTMENTAL REQUIREMENT	OFFERED SPECIFICATION
	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 2000 m and ambient temperature varying between -5°C to 50°C.	
2	Capacity	1. Operating weight not less than 8000 kg	
		2. Loader: General purpose bucket with (6 in 1) bolt on teeth of SAE rated capacity nominally heaped approx. 1 cu.m with shovel break out force not less than 6600 kgf.	
		• Dump Height: > 2900 mm	
		• Load over height: 3350 mm	
		• Pin Height: ≥ 3600 mm	
		3. 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:	
		<ul> <li>Minimum working height: 6000 mm</li> </ul>	/
	l l	<ul> <li>Minimum digging depth: ≥5000 mm</li> </ul>	1 1
		<ul> <li>Minimum digging reach: &gt;6900 mm (Ground Level to rear wheel center)</li> </ul>	
		<ul> <li>Minimum Lifting capacity: ≥1480 kgs</li> </ul>	
		Minimum Bucket tear out force: ≥ 5680kgf Out triggers with controls from cabin shall be provided.	
3	Engine	Water Cooled diesel Engine, developing SAE rated Gross HP not less than 92 HP with minimum 405 NM Torque with displacement of 4.4 liters (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	transmission and hydraulic gauges as necessary for efficient operation and maintenance.	
5	Transmission	synchroshuttle transmission.	
6	Axles	Four wheel drive with fixed rear axle and at least 15° oscillating front axles.	

	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.
11	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.
	Hydraulics	Suitable hydraulic pumps flow not less than 117 LPM and system pressure PSI (bar) not less than 3300(228) 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	2. One copy of the Operator's and Owner's Instructions and Maintenance manual in English shall be supplied with the each equipment.
		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	Orange/Construction equipment and
17	Warranty	Manufacturer shall provide a minimum of two year warranty
18	Delivery	Supplier should deliver one unit of Backhoe Loader to

prepared by 22
Kashindra Prasad Yaday Mechanical Engineer

Tropical Horticulture Center Nawalpur Sarlahi Date:- 2079/**85//**9

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