

Technical Specification of Heavy Equipment

Item: Backhoe Loader

(Quantity: 1 unit)

S.No	CRITERIA	DEPARTMENTAL REQUIREMENT	OFFERED SPECIFICATION	REMARKS
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 of 2000 m and ambient temperature varying between -5°C to 50°C.	Make: Model: Country of origin:	
2.	Capacity	<ol style="list-style-type: none"> 1. Operating weight not less than 8000 kg 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 6500 kgf. <ul style="list-style-type: none"> • Dump Height: \geq 2770 mm • Load over height: \geq 3180 mm • Pin Height : \geq 3420 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 style="list-style-type: none"> • Maximum working height: \geq 5790 mm • Maximum digging depth: \geq 4970 mm • Maximum digging reach: \geq 5750 mm (Ground Level to rear wheel center) • Maximum Lifting capacity : \geq1480 kg Out triggers with controls from cabin shall be provided. 		
3.	Engine	Water-cooled diesel engine, developing SAE rated gross horsepower not less than 90 HP with minimum 400 NM torque (engine fully equipped with accessories) at governed RPM for efficient		

		full load operation. Backhoe 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.	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.		
6.	Tyres	Suitable four tyres with tubes for operating machine in rough road conditions shall be provided.		
7.	Hydraulics	Suitable hydraulic pumps flow not less than 117 LPM and system pressure not less than 228 bar for smooth operation of all the attachments.		
8.	Transmission	Torque converter with at least four speed power shift type of synchro shuttle transmission.		
9.	Steering	Power assisted hydrostatic steering.		
10.	Brakes	Hydraulically actuated, wet multiple disc/caliper disc type service brake and separate parking brake.		
11.	Axles	Four wheel drive with fixed rear axle and at least 15° oscillating front axles.		
12.	Essential Accessories	1. Service hour meter 2. Work lights, road lights and fog lights 3. Cabin lights.		
13.	Instructions	All signs and instructions in the equipment shall be in English.		
14.	Manuals	One copy of the Owner's and Operator's Instructions and Maintenance manual including Spare parts catalogue and Comprehensive workshop manual in English shall be supplied with each equipment.		
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		

17.	Proven performance	<p>1. The machine offered shall be a current model under standard production by the manufacturer for at least one year.</p> <p>2. The bidder should have supplied the equipment to the government sector before.</p> <p>3. The bidder shall provide the manufacturer's data of the performance of the unit to include the fuel consumption, performance curve of the engine and machine's production capacity.</p>		
18.	Warranty	Manufacturer shall provide a minimum of one year warranty after acceptance.		
19.	Delivery	Supplier should deliver 1 Unit of Backhoe Loader at Bishnupur Rural Municipality, Siraha		