



**Technical Specification**  
**Single Drum Vibratory Soil Compacter (Road Roller)**

| S.N. | CRITERIA              | REQUIRED SPECIFICATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | OFFERED SPECIFICATION                                                                           | Remarks |
|------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|---------|
| 1    | General               | Self propelled, single drum vibratory roller with smooth vibratory steel drum in the front with scraper for both direction and tires in the Rear, suitable for operation in road construction works (compaction of soil) under rough working conditions at altitude of 80msl to 2000msl and in ambient temperature varying between -5°C to 50°C.                                                                                                                                                                                                                                                         | Make<br>Model<br>Year of Mfg:<br>Country of origin                                              |         |
| 2    | Cabin                 | All steel enclosed cab with laminated glass windscreen insulated roof, suitably located controls for roller operation, rear view mirror, cabin lights and adjustable cushioned seat for operator shall be provided.                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                 |         |
| 3    | Engine                | Water/liquid - cooled, Four stroke, Diesel engine, developing maximum Net Power not less than with a gross power of 100 hp @ 2200 rpm. Fully equipped with advance technologies and all accessories as necessary to deliver power with superior performance, fuel efficiency, lower emission and smooth operation/controls to optimize performance of the machine applications. The engine system shall also be equipped with heavy duty radiator/cooling system, cold starting system, heavy-duty air cleaner, heavy duty fuel filter system, heavy duty battery and direct electrical starting system. | Make<br>Model<br>Year of Mfg:<br>Country of origin<br>..... Hp @ .....RPM<br>.....Nm @ .....RPM |         |
| 4    | Displacement          | Not Less Than 4000±200 cc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                 |         |
| 5    | Ground Clearance      | Not Less Than 400mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                 |         |
| 6    | Dimensions and Weight | Overall operating Weight                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Not less than 11,000kg                                                                          |         |
|      |                       | Overall Length (Transportation Purpose)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | At most 6400mm                                                                                  |         |
|      |                       | Overall Width (Transportation Purpose)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | At most 2900mm                                                                                  |         |
|      |                       | Overall Height (Transportation Purpose)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | At most 4000 mm                                                                                 |         |
| 7    | Steering              | Articulated Hydrostatic with automatic oscillation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                 |         |
| 8    | Transmission          | Hydrostatic Drive with Variable speed in forward and reverse direction. Drive on both front drum and rear wheels.<br>Gradeability not less than 50%                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                 |         |





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|----|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 9  | Rollers and Tyres     | Front: Smooth single steel drum having drum width not less than 2100mm that vibrates and drives.<br>Drum thickness not less than 25 mm<br>Wheel base not less than 2800 mm<br>Operating axle load front and rear not less than 6100kgs /4800 kgs respectively<br>Linear Statis Load Front not less than 30 kgs/cm<br>Rear: 2 tires of size 23.1-26/8 PR |  |
| 10 | Vibratory System      | Vibrating drum developing adequate Centrifugal force and frequency for powerful compaction with 2 stages vibrations<br>Exciter Frequency not less than 30Hz<br>Minimum Centrifugal force not less than 250 KN                                                                                                                                           |  |
| 11 | Brakes                | Hydraulically Actuated Disc/Caliper Type Service Brake, Parking Brake and Emergency Brake.                                                                                                                                                                                                                                                              |  |
| 12 | Gauges & Indicators   | To include necessary gauges meters and indicators for efficient operation & Maintenance                                                                                                                                                                                                                                                                 |  |
| 13 | Fuel Tank             | Minimum 200 liters Capacity                                                                                                                                                                                                                                                                                                                             |  |
| 14 | Essential Accessories | 1.Road lights,side Indicators, Fog Lights and reverse alarm<br>2. Cabin lights<br>3. Fan for Operator,<br>4. Service hour meter<br>5. MP3/DVD/FM Player<br>6. A Heavy duty grease gun<br>7.Tyre pressure Indicator gauge<br><b>Equipped with all accessories offered in Standard Model but not limited to the above items.</b>                          |  |
| 15 | Instruction           | All Sigh & Instruction in Equipment shall be in English Language.<br>One Hard Copy in English of date                                                                                                                                                                                                                                                   |  |
| 16 | Manual                | a. Operator's /Owner's instruction and maintenance manual.<br>b. Spare parts catalogue shall be supplied with the equipment.                                                                                                                                                                                                                            |  |
| 17 | Tool                  | A set of tools required for general maintenance shall be supplied with in a lockable tool box with equipment.                                                                                                                                                                                                                                           |  |
| 18 | Color                 | Standard /construction Yellow/Orange.                                                                                                                                                                                                                                                                                                                   |  |

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|----|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| 19 | Initial Service and spare parts | Supplier shall provide necessary filters, Spare parts & Lubricant for first servicing of the soil compacter (road roller) at the municipal office premises as per instructed in operation manual.                                                                                                        |  |  |
| 20 | Proven performance              | a. The Machine offered shall be of current model under standard production by the manufacturer for at least one year<br>b. The bidder shall provide the manufacturer's data of performance of the unit to include the fuel consumption, performance curve of the engine and production capacity of unit. |  |  |
| 21 | Warranty                        | Manufacturer shall provide Minimum 1 year warranty from date of acceptance.                                                                                                                                                                                                                              |  |  |
| 22 | Delivery                        | The Soil compacter 1 (one) unit shall be delivered with all necessary accessories to :Krishnapur Municipality-Office of Municipal Executive, Krishnapur-05, Kanchanpur.                                                                                                                                  |  |  |

Note:

- These major items are indicated by bold highlighted letter/words, figures in the technical specifications .Non -Compliance of these major items will result in non-responsiveness of the bid offer.
- Bidder is required to submit Soil Compacter (Road Roller) catalogue and Published MRP list.
- Bidder is required to submit Documentary evidence showing that manufacture's representative in nepal has been providing same products sales service at least past 5 years and has atleast one spareparts and service center in Farwest Province.

Er. Bhuwesh Pant  
Mechanical Engineer  
NEC No.: 3172

Prepared by:

Signature

Checked by:

Bidder Signature

Approved by:

Er. Bhuwesh Pant  
(Mechanical Engineer)  
(NEC Reg No.: 3172)

(Municipal Engineer)

प्रमुख प्रशासकिय अधिकृत  
(Chief Administrative Officer)