



Corporate Identity Number (CIN)
L74899DL1964GOI004281

भारत हेवी इलेक्ट्रिकल्स लिमिटेड

(भारत सरकार का उपक्रम)

सी.एस. एवं एफ. पी., औ. क्षेत्र जगदीशपुर, जिला- अमेठी-227817

BHARAT HEAVY ELECTRICALS LIMITED

(A Govt of India Undertaking)

CS &FP,

Industrial Area Jagdishpur, District : Amethi, UP-227817, India

Ref: CS & FP/TS/ Weighbridge

Dt 15.12.2017

Rev: 00

Technical specifications for Procurement, erection and commissioning of 80 MT weigh Bridge at BHEL- CS & FP, Jagdishpur

Scope : The scope mainly comprises of as follows :

(a) Design, fabrication, supply, installation, testing & commissioning of surface mounted Electronic Weighbridge of 80 MT capacity with Kit, Indicator, Load cells, Platform, LED display, PC, Printer, UPS, suitable software .

(b) The job shall be undertaken on turnkey basis covering mechanical, civil, electrical & electronic works including supply of all required material for civil construction, electrical works including earthing.

(c) Making of approach ramps to weighbridge shall also be included in the scope.

(d) Verification & Stamping of Weighbridge by Legal Metrology dept. (Weights & Measures dept) shall be under vendor's scope, by paying necessary fees.

2. Guarantee: The equipment shall be guaranteed for a period of 24 months from the date of commissioning (or) 30 months from the date of supply whichever is later.

3. Drawings & Manuals: 3 sets of operation & maintenance manuals and approved drawings pertaining to structural, mechanical, electrical & electronic shall be submitted along with the equipment. List of all required spares shall be incorporated in manuals.

4. Detailed Specifications:

4.1 Principal particulars:

(a) Capacity : 80 MT

Handwritten signature



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- (b) Platform length : 18 m
- (c) Platform width : 04 m
- (d) Dual/ triple axel rating : Min. 50T DTA/ Min. 65T TTA
- (e) Mounting : Surface mountable
- (f) Load cells : as per para 4.2 (a)
- (g) Weigh bridge : Sand witch chequered steel deck design.
- (h) Corrosion protection : External steel surfaces must be blast cleaned before application of primer and Epoxy coatings

4.2 Accessories:

- (a) Load cells : 8 Nos.
 - i. Load cell construction : Stainless Steel
 - ii. Safe load in the Load cell : 125% of rated capacity.
 - iii. Max. load in the Load cell : 150% of rated capacity
 - iv. Destructive load in the Load cell: 220% of rated capacity.
 - v. Repeatability and creep : Better than +/- 0.010 % FS in Load cell.
- (b) Mounting / Assembly: 1 set
- (c) Cable indicator : 1 set
- (d) Cable: power panel to load cells to Junction Box and to Indicator.
- (e) Computer: 1 no. PC: Intel core i3, 2 GB RAM, 320 GB HDD, DVD COMBO / WRITER, 22" Colour LED Monitor with Windows 7 operating system, Key board, Optical Mouse. Make: Hp / Lenovo / Dell / Acer or Equivalent reputed make UPS : 1000 VA online UPS with 2.00 hrs. battery backup.
Printer: Laser Jet Printer(Black).
- (f) Software : Complete weighbridge management user friendly Software for processing data date wise, truck wise, challan wise, shift wise, customer wise product wise etc. for generation of daily, weekly & monthly reports. Preparing Transport Permit, Invoice etc. as per our requirement. Provision for connecting with other weighbridges / server computer by LAN & sharing the common data base. The software should be compatible for integrating with Terminal Automation System software and migration of data. Software must be password protected for operation and editing.
- (g) Digital indicator : 1No Digitizer



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i Display : Blue backlit, graphics up to 64 x 240 pixels up to 8 digits characters of size 17 mm x 10 mm

ii Mounting : wall / Desk

iii Options : 1. Graphic display

2. Serial test

3. Network interface

4. Ethernet port

5. Analogue out iv Repeatability : 0.01% of rated output

(h) Red LED Jumbo Display having Characters of size 120 mm X 100mm

4.3 Specifications & Standards:

The following Standards shall be complied:

- (a) Electronic Weigh Bridge specification confirming to IS 9281
- (b) Platform Material for steel construction confirming to IS 2062.
- (c) Fabrication & Construction conforming to IS 800
- (d) Road bridges Standards conforming to Indian Standard IRC 5
- (e) Dimensions & weights of road design vehicles conforming to IRC 3
- (f) Road weigh bridges standards confirming to IRC 24
- (g) Epoxy coating standards confirming to is 2074.
- (i) Longitudinal joints : specify British/Indian standards like BS-4
- (j) Load cell performance: Digital load cells conforming to OIML C5 accuracy
- (k) Junction Box : S.S. with IP 65 protected
- (l) Earthing conforming to IS 3043
- (m) Digital indicator

i Serial interface : RS 232/485/422 or RS 232/20mA

ii Housing : Stainless Steel

iii Internal Resolution : 16777216



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5. General Conditions:

- 5.1 The design, fabrication & manufacturing and the material, components, software & hardware etc for the above work shall be conforming to relevant IS/IRC/BS/ISO standards as amended from time to time.
- 5.2 The tenderer shall arrange all the materials, manpower, tools & tackles and consumables required for carrying out the work as a turnkey job
- 5.3 The factories act and other statutory regulations which are in force in this area are applicable (as amended from time to time) to this work.
- 5.4 The tenderer shall follow all necessary precautions during execution of work for safety of equipment & men pertinent to them as well as of BHEL's.
- 5.5 The entire work shall be carried out during working time (7.00 AM to 10.00 PM) of BHEL. For working beyond normal working hours and on Holidays /Sundays, prior permission shall be obtained.
- 5.6. The Weighbridge shall work on 415 V, 3 Ph, 50 Hz, A.C supply.
- 5.7. Copy of design standard approvals for Electronic Weigh Bridge, Platform, Load cells, foundations etc. shall be submitted to BHEL prior to fabrication of Weigh Bridge.

6. Inspection and acceptance:

- 6.1 The inspection and calibration to be done and certified by the authorized inspection agency.

- 6.2 Testing & commissioning of the Weigh Bridge shall be witnessed and certified by BHEL.

7. Previous experience: The Bidders shall have proven experience in design, manufacture, erection, testing & commissioning of Electronic Weigh Bridges of 80-ton capacity or more.

Bidders to submit atleast one Purchase Order Copy and its work completion certificate for erection, installation & Commissioning of the supplied item within 5 years. failing which the offer is liable for rejection.

8. Completion period: The entire work shall be completed within 60 days from the date of release of Work Order.

9. Before quoting bidder may visit the site to see equipment installation and quantum of work if required.