

Corrigendum-IV

Tender No. N1M&P-07/2017. (NCB)

Date:14.12.2017

Name of work: DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING, COMMISSIONING OF 4 WHEELER CATENARY MAINTENANCE FOR 02 NAGPUR METRO RAIL PROJECT AND TRAINING OF PERSONNEL.

SN.	section No.	Clause no.	Bid Condition	Revised Clause
1	VII	Work requirement Vehicle equipment (d)	The vehicle will have a measuring pantograph, and measuring equipment for the overhead equipment . The two axles of the vehicle will be powered with hydrostatic transmission and a main diesel engine.	The vehicle will have a Caliberated pantograph for the overhead equipment for ensuring correct limit of stagger (Max. Stagger Straight alignment: +/- 200 mm, Curved track: +/- 300 mm) and height of OHE . The one axle of the vehicle will be powered with hydrodynamic transmission and a main diesel engine.
2	VII	Work requirement Vehicle equipment (i)	The Diesel engine will comply at least with the Euro 4 exhaust emissions standard or equivalent.	The exhaust emission shall be below the limit laid down in latest UIC code or equivalent for industrial engines.
3	VII	Work requirement Vehicle equipment (j)	The vehicle will have the diesel engine power relayed to the two axles, by means of a hydrostatic transmission.	The vehicle will have the diesel engine power relayed to the one axle, by means of a hydrodynamic transmission.
4	VII	Work requirement Vehicle equipment (j)	The final mechanical connection between the axle set and the hydraulic motor will be made by mean of an axle gear – box with dual speed. The dual speed selection will allow the vehicle to shift between low speed, high traction force gear for work and shunting duties and a high speed, low fuel consumption gear for transfer duties and faster arrival at the working place	The final mechanical connection between the axle set and the hydrodynamic transmission will be made by mean of an axle drive gear – box with three forward and three reversed speed.
5	VII	Work requirement Vehicle equipment (k)	The cabin will be made of steel profiles, with an interior furnishing of phenolic boards.	The cabin will be made of steel profiles, with proper interior finishing .
6	VII	Work requirement Vehicle equipment (k)	The vehicle will have a double cabin with enough space for carrying driver plus 4 persons. The cabin will comply with UIC 617 – 6, 625 – 6 y 651 OR leaflets. The cabin will be made of steel profiles, with an interior furnishing of phenolic boards. Enough windscreens and windows will be provided in order to give the best visibility all around from the cabin, in both directions of driving. Two separate driving desks can be installed, one on each running direction in order to provide good view in both travelling directions. The passenger seats will be ergonomic and will be able to fold to save space when not in movement. The visibility from the driving desk will be according to UIC 625-6 leaflet, and the windshields will have windshield wipers. It will also have rear mirrors in order to control the position of the vehicle. The cabin will have full acclimatization in order to keep the cabin temperature in working levels thought the whole year. It will include both A/C and heater.	Driving Cabs specification: i) Two driving cabs, one at each end, with complete operating and driving control and dash boards so that the car may be worked from either cab. Driver's seat shall be on the left side. Adequate leg space shall be provided for the driver when he is seated. ii) Sitting space in each of the driving cabs for 4 persons in addition to the driver. For this purpose a foldable cushion sheet shall be provided. iii) All controls, speedometer brake handle, hand brake, Deadman's device, footswitch for horn and indication Tamps/meters shall be within easy access and view of the driver. iv) Inter-communication equipment between each of the cab and working platform through handfree sets with its own battery. v) 2 nos. , 24V sockets for hand signals in each cab. vi) Flasher lights, search lights and marker lights at both ends of the cab. vii) The cab shall be equipped with two ceiling light and a fan. Full width, splinter proof glass wind shield protected with expanded metal or BRC (having least obstruction to visibility). The wind shield shall extend upto the ceiling level so as to give clear view of overhead equipment.

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SN.	section No.	Clause no.	Bid Condition	Revised Clause
7	VII	Work requirement Vehicle equipment (n)	The vehicle will feature a double system for the safety of the driver which will accomplishing UIC 641 - O standard. When activated it will produce an emergency braking (traction cut and maximum service brake).	The car shall be provided with the following additional brake requirements : i) Stand alone VCD of approved make ii) An emergency brake valve in each driving cab on extreme right hand side. iii) Stand-by brakes, in case of failure of distributor valve or any component in the main brake system.
8	VII	Work requirement Vehicle equipment ,Working platform, (17)	The vehicle will have a working platform for inspection and maintenance works in the overhead equipment. The working platform will be constructed by mean of an insulated platform with insulating elements according to DIN standards for the voltage and intensity required. The platform will have handrails of 1100 mm height, and dimensions of 2500 x 2500 mm. The design and location of the platform, will allow the work with the handrail erected in small gauge tunnels.	The vehicle will have a working platform for inspection and maintenance works in the overhead equipment. The working platform will be constructed by mean of an insulated platform with insulating elements according to DIN standards for the voltage and intensity required. The platform will have collapsible handrails of 800 mm height, and dimensions of 4000(L) x 1450(W) mm. The design and location of the platform, will allow the work with the handrail erected in small gauge tunnels.
9	VII	Work requirement Vehicle equipment ,Working platform, (17)	The platform will have two movements, elevation and translation. The elevation mechanisms will be hydraulic with a scissors or telescopic like mechanism powered by cylinders of double effect and piston pump to activate them. The translation system will be powered by a hydraulic motor with negative brake that assures the position of the working platform and a mechanical system with coupler that limits its speed. The platform floor should be capable of elevating to a maximum height of 5500 mm The platform floor when retracted should be at 3000 mm from the rail head .The platform will be able to laterally traverse 1500 mm to each side of the track axle.	The platform will have two movements, elevation and translation or Rotation. The elevation mechanisms will be hydraulic with a scissors or telescopic like mechanism powered by cylinders of double effect and piston pump to activate them. Translation or rotation movement will be achieved by hydraulic or electrically. Rotation and translation movement of the platform will be in both direction of the platform. The platform floor should be capable of elevating to a maximum height of 6150 mm from top of rail . Ladders shall be provided on both the sides for climbing on the platform provided on the roof of the car.
10	VII	Additional		Vehicle should be equipped with "adopter coupler " on either ends of cars of suitable make/ type compatible with that used in Rolling stocks of NMRP.

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