

**Bharat Heavy Electricals Limited**  
**Ramachandrapuram : : Hyderabad – 502032**  
**M&S – DIVISION**  
**SCOPE OF WORK (ANNEXURE-I)**

**Tender No.:** M&S/P&S/2020/93, Dt.: 22.02.2021

**Name of Work:** Operation and Basic Maintenance of Loco and Heavy Vehicles.

***DESCRIPTION OF WORK:***

Engaging manpower for carrying out '**Operation and Basic Maintenance Contract (OBMC)**' of Loco and Heavy Vehicles (Dept. Owned)

| S.No. | Equipment                 | Requirement                           | Description of Work   | Remarks   |
|-------|---------------------------|---------------------------------------|---|---|
| 1     | Loco-2Nos. Putina, Jhansi | Drivers, Pointsmen, Basic Maintenance | 1) Operating Locos in two shift basis<br>2) Shifting of Points as and where necessary (1 driver +1 pointsmen = 1 set)<br>3) Maintenance – Basic upkeep of vehicle, oiling, greasing, top up of gearbox oil etc. | Used for inter shop movement of material, goods etc.  |
| 2     | Heavy Vehicles (Lorry)    | Driving, Basic Maintenance            | Driving of these vehicles as per requirement assigned by Engineer / In charge in Transport section and carrying out basic maintenance.  | Lorry in allocated shift; Ceremonial Jeeps (2nos.) – Safe custody and basic maintenance only. Driving by CISF personnel, as it is security related. |

**I. Operation and Basic Maintenance Contract (OBMC) mainly consists of**

- a) **Operational Support** – Engaging drivers (for Loco and H Vehicles) in such a way that operational availability of equipment is  $\geq 95\%$  on all BHEL working days (Fuel supply is in the scope of BHEL)
- b) **Maintenance Support** – Carrying out basic maintenance (on Loco and Heavy Vehicles) in such a way that equipment is available  $> 95\%$  on all BHEL working days. (Breakdown time due to non-availability of spares which is in BHEL's scope is not counted. Supply of spares is in the scope of BHEL)

**A. LOCO OPERATIONS**

**1. Engaging Drivers for carrying out**

- Drivers need to have valid driving license issued as per MV act 1988.
- Driving Loco (Two) in two shift basis for inter shop material movement
- Controlling speed within limits (max 20 km/ hour)
- Observe and Ensure no obstruction at level crossings while driving of Loco
- Co-ordinate with Pointsmen in moving to Loco as per requirement of line changing - for inter shop movement.
- Driver and Pointsmen – Need to maintain upkeep of Loco in their shift.
- Check and ensure horn is working
- Check and ensure diesel is there. If required need to fill up.

- Carrying out minor electrical repairs
- After completion of work assigned, need to get signature of production personnel on Loading / Allocation sheet tracker.

## **2. Engaging Pointsmen for carrying out**

- Shifting of track by using points for moving loco in correct direction
- Hooking of trolley with wagon in production blocks including sand blasting area
- Carrying out greasing of points on Loco where ever required
- Radiator cleaning and topping up water / coolant
- Checking and helping in pouring diesel.

## **3. Maintenance activity ( driver + Pointsmen team)**

- Basic maintenance of Loco (Putina and Jhansi) – 2nos.
- Check and ensure no loose parts or screws. If required tighten and ensure no loose covers.
- Clean the engine, cabin and outside of engine etc.
- Clean any oil spills
- Assist points men in carrying out greasing
- Carrying out minor repairs – Brake adjustment, covers loose etc.

## **B. HEAVY VEHICLE OPERATIONS**

### **1. Engaging manpower to carry out**

- Driving of Heavy Vehicles (Dept. owned - Lorry)
- Drivers being engaged should have valid license to drive heavy vehicles as per Motor vehicles act 1988.
- Check air, diesel, horn etc. which are required for safe driving of vehicles
- Check and ensure brakes are working
- Check and ensure all vehicles are in good running condition. If any spares are required, co-ordinate with Transport section incharge/ engineer in getting required spares.
- Brake down data need to be filled in check sheet given by Engineer / IN charge
- After completion of work assigned, need to get signature of production personnel on Loading / Allocation sheet tracker.

## **C. MAINTENANCE OF LOCO AND HEAVY VEHICLES:**

### **C.1 MECHANICAL:**

1. General checking of the Loco and heavy vehicles (Gypsy etc.). Checking vehicles for any loose fasteners/ bolts etc., vibration, oil leakage and missing parts/ guards during preventive maintenance and rectifying the same.
2. Topping oil in the gear boxes.
3. Checking lubrication of vehicles. Ensuring good lubrication using grease gun at points specified in manual / PM check sheet.
4. During Preventive Maintenance, a report of defects / condition requiring repairing/maintenance should be generated. Based on this, suitable action plan should be made for rectification in consultation with Engineer In-charge .
5. The contractor shall inform well in advance in writing the requirement of various items which are to be supplied by BHEL.

### **C.2 ELECTRICAL:**

1. Attending breakdown of electrical nature.
2. Replacement / minor repair of motors (Rewinding is in BHEL's scope)
3. Replacement of fuses / fuse holders in electrical panels.
4. Replacement of contactors or contact points, if necessary.
5. Replacement of cables.
6. Replacement / checking of brake units.
7. Tightening loose connection on terminal boards.

### **C.3 SKILL SET REQUIRED:**

The job requires the following skills

1. Drivers: should have valid license to operate heavy vehicles as per MV act.
  2. Unskilled Workers/Helpers: Able male person of 18 years and above who can read & write.
- Note:** Supporting documents need to be submitted as part of Technical verification in tendering process.

## **II. OTHERS:**

1. A daily breakdown and monthly breakdown report (including downtime data of each vehicle) and report of major work shall be submitted to the In-charge of Transport section. For every complaint received daily log-book need to be maintained
2. The contractor shall adhere to the priority fixed by the Engineer/ In charge for taking urgent repair work.
3. As BHEL has been accorded with ISO-9001, ISO-14000, OHSAS 18001 and EnMS ISO-50001 certification, the Contractor shall carry out qualitative work to meet these standards. Necessary documentation / paper work shall also be maintained. Future standards acquired by BHEL need to be adhered.
4. Contractor shall arrange his own tools for removal, dismantling, assembling and re installation of motors/gearboxes, etc. However, all spares including consumables like gear oil, electrodes, grease, cotton waste, etc., and facilities like gas cutting, welding, machining facility, repair, rewinding of motors, coils etc., shall be provided by BHEL free of cost.
5. Contractor shall maintain all records like breakdown forms, spares list, all other records pertaining to his work, and should be shown to section in charge.
6. For working at heights, Work Permit System as prescribed by BHEL-Safety dept. shall be followed and records maintained, to meet HSE audits / guidelines.
7. All used/worn out/scrapped/ replaced spares/ parts shall remain the property of BHEL.
8. The contractor and their employees will observe all the laws/enactments, rules and regulations of BHEL and also the statutory and legal requirements of Central and State government.
9. Utmost care should be taken by the contractor to repair the vehicles in a proper way and with quality workmanship so as to adhere to the safety requirements as per the latest revision of Factories Act and Telangana state rules.
10. All the contractor's personnel shall use PPEs (Personnel Protection Equipment).
11. Collection of spares/ material from various stores and blocks to work place/ site shall be carried out by contractor.
12. Contractor shall carry out the work at his own risk, finance, human resources and supervision.
13. Payment of work shall be made to the contractor on the basis of work carried out on measurement basis.
14. Contractor shall have supervision on the conduct of his employees. Any violation of safety norms and misconduct by any of his employees/contractor may result in cancellation of Gate pass of that employee/contractor.

15. Any other work assigned by Tpt. section in-charge related to department (other than mentioned above) need to be carried out without any extra cost.
16. Parties may visit the site for actual site conditions, and all other relevant details related to vehicles.
17. Contractor should take feedback from supervisor on work performed, taking corrective/preventive measures and reporting status to Engineer/ In-charge of section.
18. BHEL reserves the right to cancel the tender at any stage of tendering till signing of agreement without assigning any reason(s) thereof. The tender cost in that event shall not be refunded.
19. Contract is extendable for one more year on mutually agreeable terms and conditions and performance of first year.

### III. DEFINITION OF ONE OPERATION:

Carrying out Operation and Basic maintenance (OBMC) of Locos and Heavy Vehicles specified as above on pg.1, in such a way that availability is  $\geq 95\%$  is maintained in a month. There will be 12 such operations in a year.

- Cause of Breakdown which is not assignable to contractor or his workmen in carrying out maintenance. (Eg. Time taken in procuring spare) is not counted in breakdown time.

### IV. PENALTY CLAUSE:

1. As this contract is Works Contract, Supplier's Performance is measured based on availability of Vehicles (Operational support in providing drivers and Maintenance support in upkeep of vehicles)

| Parameter  | Criteria  | Penalty   |
|--|---|---|
| <b>OBMC of Loco and Heavy Vehicles</b> – Availability of all vehicles is calculated on monthly basis | Should be more than or equal to 95%. If availability is less than 95%, Penalty will be imposed. | If Availability is less than 95% - 5% of contract value as penalty will be applied.<br>After 94% - for every decrease of 'Availability' percentage by 1%, Penalty of 1% will be increased up to max of 10% of overall contract value. |

2. Breakdown time for the reason not attributable to contractor (Eg. non availability of spare) will not be included while calculating break down time, break down percentage or Penalty.

#### Example of Penalty Calculations:

Contract Value : 15.0 L  
 No. of months in a year : 12  
 Monthly cost of OMC of Cranes : Rs 125,000/-

Penalty in case Availability is 94%

Value of Penalty : 5% of monthly value = 5% of Rs125,000/- = Rs6250/-

Penalty in case uptime is 93%

Value of Penalty : 6% of monthly value = 6% of Rs125,000/- = Rs7500/-

**Note:** BHEL reserves the right to cancel or close the contract if contractor's performance is not up to the mark (Eg. Consecutively penalty applied for two months, ..etc)