

## **Terms and Conditions for Corrosion Repair for ART coaches as described in Schedule B (1) and B (2):**

1. The firm/contractor shall provide all the requisite machineries, tools, consumables, manpower etc. to carry out the subject work as described in the scope of work in schedule B (1) & B (2) and will not have any claims for same on railways.
2. All related material for execution of work as mentioned in schedule B (1) from Sn.1 to 16 will be supplied by the Railways (Consignee – SSE/IC/CRS/DBWS) duly signed by the indenter, nominated supervisor or SSE/IC/CBS/DBWS. No material will be issued without any endorsement by the said supervisor of the Railways.
3. T&P and M&P items like Grinding machine, Extension board, Hammer, welding Machines, Cables, Crocodile Clamp, Holders, Oxygen Regulator, Dissolved Acetylene Regulator, LPG Regulator, Plants, Nozzles, Cutting Torches, Hose pipes and consumables like grinding wheel and Gas has to be arranged by the contractor/Supplier.
4. **Welding Standards:**
  - (a) Welders must be qualified according to ISO 9606-1:2017 (or latest) or IS 7310 (Part 1): 2019 (or latest) for fusion welding of steel as per the approved Welding Procedure Specification (WPS), which includes material type, thickness, joint type, welding position, welding process, and consumables. Matriculation/HSLC along with ITI certification from a recognized institution (NCVT/SCVT) in the Welder trade or Act Apprentices trained and certified in the Welder trade by any Railway Unit, Government, Semi-Government, or PSU unit are also eligible.
  - (b) MIG/MAG/ Arc welding shall be used in welding work.
  - (c) Welding with MIG/MAG flux cored, solid wires under Class- IV, VI & VII to IRSM- 46 (latest Rev.) to be followed. And welding with MMAW Electrode under IRSM- 28 (latest Rev.) for IRSM- 41/97 with IRSM- 41/97 shall be of Class D electrode.
  - (d) Welding Consumables shall be of RDSO approved sources. Suitable welding parameters as recommended by manufacturers must be followed.
  - (e) Welding electrode and MIG/ MAG welding wire for welding should be as —
    - (i). X2CrNi12 (Ferritic Stainless Steel) with X2CrNi12 (Ferritic Stainless Steel) - MMAW Electrode as per IRSM- 28 shall be of Class M2 and MIG/ MAG Welding wire of Class VI.
    - (ii). AISI 304 with AISI 304- MMAW Electrode as per IRSM- 28 shall be of Class M1 and MIG/MAG Welding wire of Class VI.
  - (f) Welding electrode should be used precisely and care should be taken in preheating and handling during their usage. Any deviation from above will considered as poor performance and the welder will not be allowed to continue further in work.
5. It will be the responsibility of the contractor to provide adequate safety gears like, gloves, shoes, welding glasses etc. to its employees working at the site for proper safety of the workers. The contractor will also ensure that the workers employed by him use the safety gears given to them. The machines deployed should be of reputed make and should have earthing protection, surge protection etc. Proper electrical extension board should be used to operate the electrical equipment. Do not use the loose electric wires as an extension board.
6. No ferrous scrap shall be scattered on the shop floor. All Ferrous scrap released during stripping and cutting of coaches shall be deposited directly to store depot/ DBRT by the firm/ contractor and the weight of scrap deposited shall have to submit to the Consignee (SSE/IC/CRS/DBWS) for accountal.