**Annexure – ‘A’**

Technical specification for Galvanized 33 Kv stay set (complete) (1900x20mm ) with Stay wire 7/12 SWG)

01. Manufacturing, testing, dispatch, supply and delivery of Stay Rod for 33 kV. One set of stay set consists of following items.

a) Stay Rod - 1 No.

b) Anchor Plate – 1 No.

c) M.S. Bow – 1 No.

d) Thimbles – 2 Nos.

e) Suitable hexagonal M.S. Check nut (Ordinary) – 1 No.

f) Suitable hexagonal M.S. Ratchet hut – 1 No.

g) M.S. Spring washer – 1 No.

h) Stay wire 7/12 SWG –8 kg per set

i) 33 kv Gay Insulator -02 nos.

j) Stay side clamp - 01 pair for Rail pole

| 02. | **33 kV Stay Set** |
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| Stay Rod | This shall be made of M.S. Steel rod of 20 mm diameter. It shall be 1900 mm long with forged squire head at one end. The other end shall be threaded to a length of 305 mm. The forged squired head shall be 40x40x20 mm size. |
| Anchor Plate | It shall be made of mild steel plate of 6 mm thickness. The size shall be 150x150x6 mm with a 22 mm square hole in the centre. The hole shall be such that the squire neck of the stay rod just passed through it conveniently but the plate should not rotate when fitted in the squire neck. |
| Thimbles & Nuts | There shall be two nos. of the galvanized iron thimbles. One no. 20 mm (min) – 22 mm (max.) thick M.S. hexagonal ratchet nut & one no. 13 mm (min.) – 16 mm (max.) thick hexagonal check nut shall be provided. There shall be one no. 20 mm dia. Spring washer of suitable thickness. The nuts & thread shall conform to the relevant IS. |
|  | ***03. Ratchet Section***  The ratchet nut & ratchet face of the cross head of the body shall be formed to sure proper & good ratchet action.  ***04. Galvanisation***  Tolerance in Gross Weight + 4%.  All the component of the stay set shall have smooth and continuous hot-dip galvanization in such a way that the zinc coating shall not crack or flake nor it should be removed by rubbing with bare fingers. The galvanization must be done as per relevant IS. The threading should be done before galvanization. Nuts should smoothly be lighted over the galvanization.  ***05. Breaking Load***  The breaking load of the stay set shall as per standards.  ***06. Gross Weight***  The gross weight of each stay set should be 5.5 Kgs for LT & 8.75 Kg for 33 kV.  ***07. Submission of Test Certificate***  The tenderer shall have to submit a test certificate issued any govt. recognized institute/ testing laboratory in respect of galvanization test carried out as per IS:2633-1972 and leads test of the stay set.  ***08. Tolerance***  The permissible tolerance as per IS:1852-73 for different component of the stay set are given below :  **Name of Component:**   |  |  | | --- | --- | | **Items** | **Tolerance** | | Rounds & Squire bars |  | | For the dimension up to and including 25 mm | +0.5mm | | Tolerance in weight for the size over 10 mm to 16 mm | +5% (for Bow Rod) | | Plates |  | | For the thickness | +12.05% to -5% | | Tolerance in weight | +5% to -3% | | Nuts |  | | Fabrication tolerance will be allowed as under: |  | | Rod (in Length) | +0.5% | | Bow Rod | +1% | | Stay Plate | +1% | | Forged Components | +1% in length and +0.5 mm in thickness | | Threading | +1% | | Tolerance in Gross Weight | +4% |   **6.11.8 Hot Dip Galvanized MS Solid Wire**  The hot dip galvanized MS solid wire of sizes 5 mm, 4 mm and 3.15 mm diameters shall conform to the relevant IS specification given below :  01. **Material**   1. The Mild Steel wire shall have the chemical composition maximum Sulphur – 0.055%. Phosphorus - 0.055%, Carbon - 0.25%. 2. Zinc shall conform to grade Zn 98 specified IS: 209 – 1966 and IS 4926 – 1979 with up to date amendments.   02. **Zinc Coating:** Shall be in accordance with IS: 4826 –1979 (clause 4.2.1) for heavily coated hard quality.  03. **Galvanizing:** Shall be as per IS: 2629 – 1966, IS: 4826 – 1979.  04. **Uniformity of Zinc Coating:** Shall be as per IS: 2633 – 1972 (Clause 4.2.1 to 4.2.30).  05. **Packing :** Shall be as per IS : 280 – 1972 (Col.13.1) and each coil between 50 – 100 Kgs.  06. **Marking :** As per IS : 280 – 1972 (Col.14.1 and 14.1.1). |