



BHARAT HEAVY ELECTRICALS LIMITED
TIRUCHIRAPALLI-620 014
WELDING TECHNOLOGY CENTRE

WCPI – 006
Revision No.: 06
Date: 18.06.16

WELDING CONSUMABLE PURCHASE INSTRUCTION FOR
LOW ALLOY STEEL SAW WIRE AS PER ASME SEC IIC SFA-5.23-EB-2

1.0 GENERAL:

- 1.1 The wire shall comply with requirements specified in the latest edition (applicable on the date of issue of purchase order) of ASME Sec IIC SFA-5.23, EB-2. All tests, acceptance criteria shall be in accordance with this. Additional requirements specified in this document and purchase order shall also be complied.
- 1.2 The wires shall be supplied in quantity as specified in the purchase order.
- 1.3 The wires are intended for use as filler for radiographic quality butt joints in high pressure boiler pipes.
- 1.4 Every batch of wires shall be inspected and test certificates countersigned by Inspecting Authority approved by IBR for the country of origin (latest).

2.0 Chemical Composition:

The chemical composition of the wire shall conform to ASME SEC IIC SFA-5.23, EB-2.

3.0 SIZE:

The wire shall be supplied in diameter 2.0, 2.4, 3.2, 4.0 and 4.8 mm as specified in the purchase order. The tolerance on diameter shall be as per SFA-5.02. The net weight of the coil shall be 25kg or 30Kg.

4.0 FORM :

For diameter 2.0mm, 2.4mm and 3.2mm, the wire shall be appropriately wound in coils with suitable liners and shall meet the clause 4.3.3 of SFA-5.02 with dimensions 450 mm maximum OD, 300 mm ID and 100 mm width. For diameter 4.0mm and 4.8mm Wires shall be appropriately wound in basket rim B450 as per SFA-5.02 tagged with identification label affixed in a prominent location on the outside of at least one flange of the spool.

5.0 FINISH AND UNIFORMITY:

The wire shall meet the requirements of clause 16.2 of SFA-5.23.

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6.0 WINDING REQUIREMENTS:

The wire shall meet the requirements of clause 16.4 of SFA-5.23.

7.0 IDENTIFICATION :

The wire shall meet the requirements of clause 4.5.2, 4.5.4 and 4.5.5 of SFA-5.02.

8.0 MARKING:

The wire shall meet the requirements of clause 4.6 of SFA-5.02.

9.0 PACKAGING:

- 9.1 The wire shall be completely devoid of moisture or any other foreign material and shall be adequately sealed in suitable cartons to ensure no deterioration in the wire quality during transportation by sea and long duration storage.
- 9.2 For 2.0mm, 2.4mm and 3.2mm, the liners shall meet the requirements of clause 4.3.3 of SFA-5.02. For wire diameter 4.0mm and 4.8mm, the basket rim shall meet the requirements of clause 4.3.4 of SFA-5.02 shall be met.
- 9.3 The cartons shall be packed in waterproof boxes with crates to ensure no damage during shipment and normal storage conditions. Weight of each crate shall not exceed 1000kg.
- 9.4 The cartons shall have product information as per clause 4.6 of SFA-5.02.

10.0 TESTING AND CERTIFICATION:

- 10.1 Each consignment of wires supplied shall preferably be from one batch only.
- 10.2 Batch /Lot classification shall be Class S1 as per SFA-5.01 Filler metal procurement guidelines of ASME Sec.II.C (latest edition).
- 10.3 The Level of Testing shall be Schedule J as per SFA-5.01 Filler metal procurement guidelines of ASME Sec.II.C (latest edition).
- 10.4 Three copies of original test certificates in English countersigned by Inspecting Authority (latest) approved by IBR for country of origin giving details of the tests done in compliance with this purchase instruction and ASME Sec IIC, SFA-5.23, EB-2 shall be sent.
- 10.5 The testing authority shall certify that supplies made against the batch conform to the requirements of the latest edition (applicable on the date of issue of purchase order) of ASME Sec IIC SFA-5.23 EB-2.

Record of Revisions

<u>WCPI No.</u>	<u>Description</u>
006/01	Revised in its entirety
006/02	Revised in its entirety
006/03	Revised in its entirety
006/04	Chemical composition of wire is revised as per ASME SEC IIC
006/05	Format of WCPI revised.
<u>Point No.</u>	<u>Description of Revision in WCPI 006/06 from WCPI 006/05</u>
4.0	Form of the spool for respective size is revised.
5.0	Clause revised as per ASME SEC IIC 2015.
9.2	Revised for respective sizes.
10.1	The word "preferably" is included.
10.2, 10.3, 10.5	The word "addenda" is removed.