INTERPLANT STANDARD - STEEL INDUSTRY		
IPSS	**SPECIFICATION FOR WELDING CABLE CONNECTOR** *(FIRST REVISION)*	**IPSS:1-07-051-03**
	No Corresponding Indian Standard	Formerly: IPSS:1-07-051-91

0. FOREWORD

0.1 This Inter Plant standard has been prepared by the Standards committee on Portable Maintenance Equipment, IPSS 1:7, with the active participation of the representatives of all the steel plants and established manufacturers of welding cable connector and was adopted in September 2003.

0.2 Inter Plant Standardization for steel industry primarily aims at achieving rationalisation and unification of parts and sub-assemblies used in steel plant equipment and accessories, and provides guidance in indenting stores for existing equipment (or while placing orders for additional requirements) by individual steel plants. For exercising effective control on the inventories, it is advisable to select a fewer number of sizes (or types) of products mentioned in this document, in the form of Company Standard of individual steel plants; it is not desirable to make deviation in technical requirements.

0.3 This IPSS Standard was first published in year 1991. During the usage of this standard, it was felt to review this standard. This standard was sent to standards committee on Personnel Safety Appliances and Procedures, IPSS 1:11 for its revision.

Based on the decisions of IPSS 1:11 committee and in order to increase the effectiveness of this standard, this standard has been revised.

0.4 In the preparation of this Standard assistance has been derived from the following:

IS:191 (Part V)-1980	Specification for copper (third revision)
IS:1570(Part-IV)-1988	Schedule for wrought steels
IS:4170-1967	Brass rod for general engineering purposes
IS:9857-1990	Specification for welding cables (first revision)

1. SCOPE

1.1 This Interplant Standard specifies the material and technical details of welding cable connector for use in joining various lengths of welding cables.

2. OBJECTIVE

2.1 Use of the connector will improve the welding efficiency, personnel safety and safety of other equipments in vicinity.

3. GENERAL REQUIREMENTS

3.1 The cable connector shall be of positive bayonet pin type, as shown in Fig.1.

3.2 The design shall ensure automatic wiping of the contact faces, each time a connection or disconnection is made.

3.3 The socket shall be suitable for receiving ferrules accommodating flexible welding cable (IS:9857-1990) of 70 Sq mm.

4. TECHNICAL REQUIREMENTS

4.1 The connector shall have male and female parts with at least Class-E insulation.

4.2 Both parts shall be covered with protective cone sleeves made of neoprene rubber, to protect the contacts from oil, dirt and water.

4.3 The contact shall be made of ETP Copper conforming to IS:191 (Part V)-1980 with spring loaded butt contacts of low resistance.

4.4 Material of the male and female socket and female socket cover shall be brass (Cu Zn40 as per IS:4170-1967).

4.5 The spring shall be made of spring steel 55 Si2Mn90 as per IS:1570-1961.

4.6 Connecting shunt shall be of ETP Copper as per IS:191 (Part V)-1980.

4.7 Rated insulation voltage shall be 600 V.

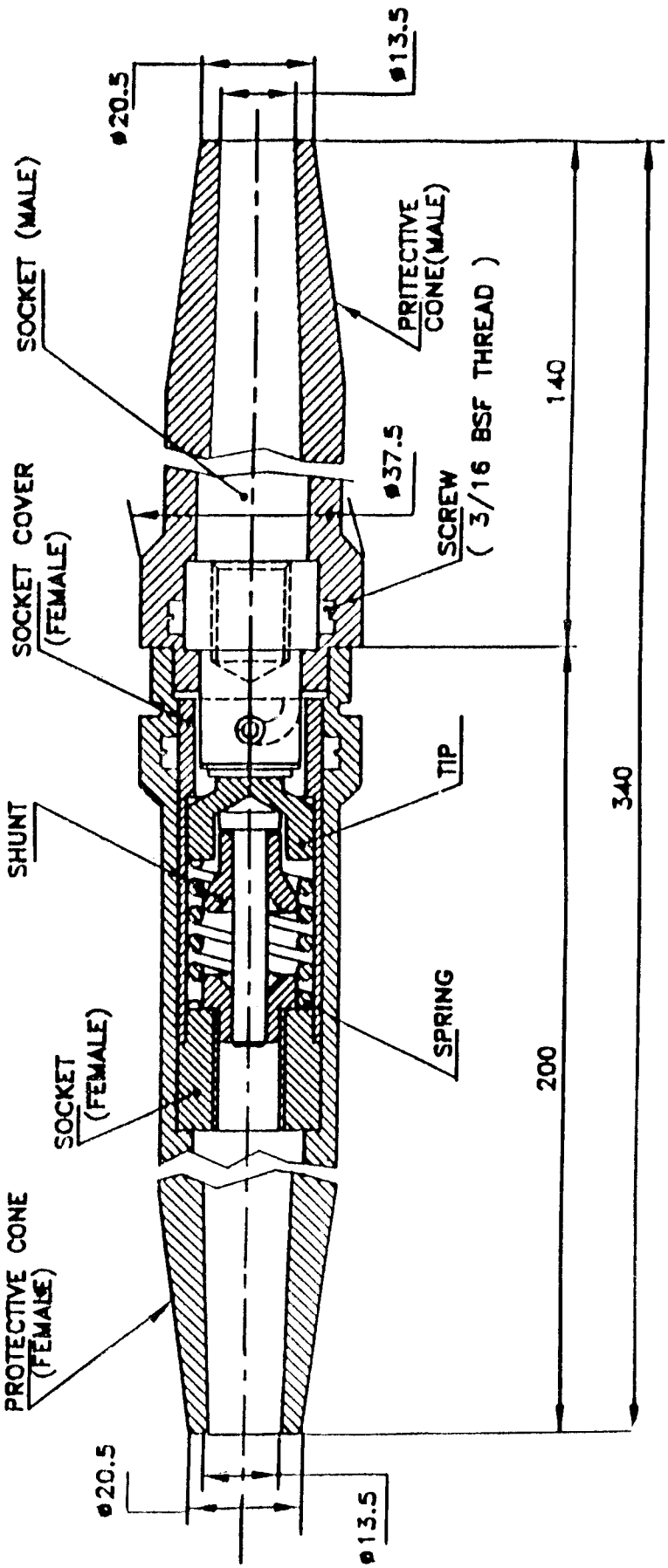
4.8 The minimum and maximum contact pressure of the connector shall be 18.5 kg and 20 kg respectively.

4.9 The temperature rise of the Cable Connector shall not exceed 30°C above ambient temperature at maximum current rating capacity

5. MARKING

5.1 The following marking shall be moulded integrally on both male and female side neoprene sleeves:

a) Manufacturer's name and trade mark, if any, and
b) IPSS reference.



All dimensions in millimetre

FIG.1 WELDING CABLE CONNECTOR