INTER PLANT STANDARD - STEEL INDUSTRY		
IPSS	SPECIFICATION FOR DIELESS HYDRAULICALLY OPERATED CRIMPING TOOL	IPSS:1-07-063-97
	CORRESPONDING IS DOES NOT EXIST	AUTHENTICATED COPY (ASHOK KUMAR) SR DY. DIR & I/C (IPSS)

0. FOREWORD

0.1 This Inter Plant Standard, prepared by the Standards Committee on Paints and Portable Maintenance Equipment, IPSS 1:7, with the active participation of the representatives of all the steel plants and established manufacturers and was adopted in March 1997.

0.2 Inter Plant Standards for steel industry primarily aim at achieving rationalization and unification of parts and sub-assemblies used in steel plant equipment and accessories, and provide guidance in indenting stores or equipment for existing or new installations by individual steel plants.

1. SCOPE

1.1 This Standard covers the requirement of Dieless Crimping Tool for the purpose of jointing of power cables and preparation of cable end terminals in the size range of 6 mm^2 to 500 mm^2 cable.

2. SIZES

2.1 For the convenience of lugging and jointing, the Crimping Machine shall be in three sizes:

Type	*Size Range*
A	6 mm^2 to 300 mm^2
B	6 mm^2 to 400 mm^2
C	6 mm^2 to 500 mm^2

NOTE: All the sizes of the machine are suitable for aluminium sockets and annealed copper sockets on flexible copper conductors.

The capacity of tool shall be limited to cable size upto and included 185 mm^2 for annealed copper lugs on stranded copper conductor."

3. GENERAL REQUIREMENTS

3.1 The Crimping head shall be universally rotatable by 360° and a hydraulic pump fitted with an automatic "Blow Off Valve" preset at 600 kg/cm^2 (60 MPa) pressure. The handle shall have arrangement of setting jaws for required strokes to avoid idle strokes during repetitive crimpings.

3.2 The release pin shall be provided at convenient position which shall on operation bring back Crimping jaws at preset position. The release pin shall be operative by handle.

3.3 The handle and body portion of Crimping Tool shall be provided with insulating sleeve for sufficient insulation against electrical shock to the operator if the crimping is done on low voltage supply

4. TECHNICAL REQUIREMENTS

4.1 The pump shall be incorporated with a 150 mesh filter to avoid any dirt particle entering in the hydraulic system.

4.2 For additional Safety of pump system a magnet shall be provided in the reservoir to arrest any Steel particle.

4.3 The number of strokes for pump in three sizes of Crimping machine shall be as under:

Type	*Size Range*	*No. of Stroke (max)*
A	6 mm^2 to 300 mm^2	35
B	6 mm^2 to 400 mm^2	40
C	6 mm^2 to 500 mm^2	45

4.4 The machine shall have provision for easy removal of air locking.

5. MATERIAL

5.1 The material used in Crimping Tool shall be such as to with-stand normal wear. Crimping Jaws, Plunger, Cylinder, Piston shall be properly heat-treated. The total mass of machine shall not exceed 6.0 kg.

6. TESTING

6.1 The joint made with the crimping tool shall conform to the test laid down in IS 8337:1976 'Performance requirements of compression joints of aluminium conuctors in insulated cables (Amendment 1)' for both initial resistance test and heating cycle test. The supplier shall provide the necessary test certificate mentioning the compliance of the above tests applicable for the tool.

7. PACKING

7.1 The Crimping Tool shall be supplied in a carry bag along with operating instructions.

8. MARKING

8.1 The Crimping Tool shall be marked with size and trade mark of manufacturer. The serial number of M/c and Year of manufacture, model shall also be marked so that the spares can be procured for particular machines.

9. GUARANTEE

9.1 The manufacturer shall replace/repair the machine free of cost within a period of 18 months from date of supply or 12 months from date of commissioning whichever is earlier.