

# INTERPLANT STANDARD — STEEL INDUSTRY



## SPECIFICATION FOR PNEUMATICALLY OPERATED RIVETING HAMMER

IPSS : 1-07-010-77

AUTHENTICATED COPY

BASED ON IS : 7979-1976

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### 0. Foreword

0.1 Interplant standardization activity in steel industry is being pursued under the aegis of the Indian Standards Institution (ISI) and the Steel Authority of India Limited (SAIL). This Interplant Standard prepared by the Subcommittee on Portable Maintenance Equipment, IPSS 1:7, with the active participation of the representatives of all the steel plants and established manufacturers of pneumatic tools, was adopted by the Approval Committee on Consumable Stores and General Equipment, IPSS 1, on 25 June 1977.

0.2 Interplant 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. For exercising effective control on the inventories, it is advisable to select a fewer number of sizes (or types) from among the products mentioned in this standard for the purpose of company standards of individual steel plants. It is not desirable to make deviations in technical requirements.

**1. Scope** — This Interplant Standard, which covers the requirements of portable pneumatically operated riveting hammer, is generally based on IS : 7979-1976 'Specification for pneumatic riveting hammers'. Hence, the stipulations of this Indian Standard regarding terminology, general requirements and tests are applicable as such.

**1.1** Other technical requirements for meeting the specific needs of the steel industry are covered by this Interplant Standard.

**2. Requirements** — The requirements of handle, hot riveting range, diameter of bore, length of stroke, blows per minute, mass, maximum overall length, air pressure, air inlet connection and air consumption shall be as given in Table 1.

**2.1** The exhauster shall be so provided that it can be adjusted to any direction as required.

**2.2** The riveting hammer shall be fitted with an air strainer or screen which shall be effective against ingress of solid particles and which shall be easy to clean.

**2.3** The air inlet nipple shall be properly protected by a plastic cap or any other means to avoid damage to the thread and to prevent entry of dirt into the machine. Further, the lubricating parts shall be properly enclosed so as to prevent entrance of foreign particles and leakage of lubricants.

**2.4** The oil line shall be properly plugged by an oil plug to prevent entry of dirt into the machine.

**3. Workmanship and Finish** — The riveting hammer shall be of rugged construction so as to withstand the rough usage likely to be encountered in steel plants and shall be free from all imperfections which may affect the serviceability of the machine.

**3.1** The handle shall be smooth, free from burrs, sharp edges or any other manufacturing defect. It shall be so designed that the operator gets a firm grip. The throttle shall work freely allowing smooth operation of the valve.

**4. Manufacturer's Responsibility** — The manufacturer shall supply the following with each riveting hammer:

- a) A pamphlet stating the type of lubricants to be used for the various parts, and
- b) A guarantee for a minimum period of six months from the date of receipt of the machine at the steel plant.

Amendments Issued (to be filled up by the user department):

No.	Date of Issue	No.	Date of Issue
1		3	
2		4	

UDC 621.976-85

**TABLE 1 REQUIREMENTS FOR PNEUMATICALLY OPERATED RIVETING HAMMER**

(Clause 2)

Hot Riveting Range, Up to and including	Bore	Length of Stroke, Max	Blows per Minute, Min	Mass, Max (kg)	Overall Length, Max (mm)	Air Pressure (kgf/cm <sup>2</sup> )	Air Connection Size*	Air Consumption at 6 kgf/cm <sup>2</sup> (+10 percent), Max (m <sup>3</sup> /min)	Type of Handle
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
22.2 mm (1")	26.9 mm (1.06")	152.4 mm (6")	1 450	10	470	5 to 7	R <sub>1</sub>	1.22	Open handle with thumb lever throttle control
28.6 mm (1 1/8")		203.2 mm (8")	1 160	11.5	520	5 to 7	R <sub>1</sub>	1.245	
31.7 mm (1 1/4")		228.6 mm (9")	1 000	11.8	545	5 to 7	R <sub>1</sub>	1.275	

\*Conforming to IS : 554-1975 'Dimensions for pipe threads where pressure tight joints are required on the threads (second revision)'.

**4.1** The manufacturer shall rectify/replace the defective parts or components, if necessary, within the guarantee period, free of cost.

**5. Marking** — The riveting hammer shall be fitted with a name-plate at a suitable place so that in the course of normal usage it does not get damaged. The name-plate shall be legibly and indelibly marked with the following:

- Manufacturer's name or trade-mark, and
- Serial number of the machine.