

INTERPLANT STANDARD — STEEL INDUSTRY



SPECIFICATION FOR PNEUMATICALLY OPERATED DEMOLITION TOOL

IPSS : 1-07-011-77

BASED ON IS: 3559-1966

AUTHENTICATED COPY

(ASHOK KUMAR)
SR. DY. DIR. & I/C (IPSS)

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 Since the production facilities of the indigenous manufacturers have been oriented to the use of the fps units, it has not been possible to give rationalized metric dimensions in all cases. For guidance, therefore, dimensions in inch units have been given in parenthesis in this standard following the converted metric dimensions in millimetres. The IPSS Technical Committee responsible for the formulation of this standard hopes that the rationalized metric dimensions in those cases would be arrived at through revision of the corresponding national standard at a suitable date.

1. Scope — This Interplant Standard, which covers the requirements of pneumatically operated demolition tool, is generally based on IS: 3559-1966 'Specification for pneumatic concrete breakers'. Hence, the stipulations of this Indian Standard regarding terminology, material, 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 technical requirements of pneumatically operated demolition tool shall be as follows:

- | | |
|--|---|
| a) Length of stroke | — 177.8 mm (7") |
| b) Blows per minute | — 1050 |
| c) Overall length, <i>Max</i> | — 724 mm (28½") |
| d) Mass, <i>Max</i> | — 35.7 kg |
| e) Size of air inlet connection | — R1½ |
| [see IS: 554-1975 'Dimensions for pipe threads where pressure tight joints are required on the threads (second revision)'] | |
| f) Air consumption at 6 kgf/cm ² (± 10 percent), <i>Max</i> | — 2.49 m ³ /min |
| g) Size of shank
(see IS: 7995-1976 'Dimensions for pneumatic concrete breaker shanks') | — Concrete Breaker Shank 31.75 IS: 7995 |
| h) Handle | — 'T' type with the throttle lever on the top of the handle |

2.1 The exhaust port shall be so located as to direct exhaust air downwards to prevent inconvenience to the operator.

2.2 The demolition tool 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.

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

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

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 demolition tool 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 throttles shall work freely allowing smooth operation of the valve. Suitable arrangement may be made on the handle for a better grip and to prevent the tool from sliding out of the hands of the operator due to vibration.

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

- a) A pamphlet stating the type of lubricants to be used for 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.

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

5. **Marking** — The demolition tool 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:

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