IS 2342: 1963

Indian Standard

SPECIFICATION FOR

MANUALLY OPERATED MILK CAN WASHER

(CAN STEAMING BLOCK)

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 23 April 1963, after the draft finalized by the Dairy Industry Sectional Committee had been approved by the Agricultural and Food Products Division Council.

0.2 Small dairy plants or collecting centres are not equipped with mechanical power operated can washer employ manual washing method for, handling can at a time. This standard prescribes the important constructional details of two typical designs of manually operated milk can washer. The milk can washer could handle any of the milk cans covered by IS: 1373.1962 ~~Specification for Tinned Mild Steel Milk Cans (Revised) and IS: 1825-1961 Specification for Aluminium Milk Cans.~~ The washer could handle a maximum of 40 cans per hour. Steam and water at a pressure of 0.5 to ~~1.0~~-3.5 kg/cm^2 are required for operating the can washer.

0.2.1 The can washer consists of a heavy cast iron base / mild steel spray galvanized, a steel tubular support and a cast iron tray or a heavy cast iron base with a manually operated revolving tray on which the cans are inverted during washing. It is equipped with pedal-operated spring-loaded valves for water and steam and with a spray pipe or a suitable spraying device.

0.3 Wherever a reference to any Indian Standard appears in this specification, it shall be taken as a reference to the latest version of the standard.

0.4 Metric system has been adopted in India .and all quantities and dimensions appearing in this standard have been given in this system.

0.5 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS : 2-1960 Rules for Rounding Off Numerical Values (Revised). The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

0.6 This standard is intended chiefly to cover the technical provisions relating to manually operated milk can washer, and it does not include all ~~!he~~the necessary provisions of a contract.

Commented [AG1]: Provision of steam & Hot water generation is not available at small centers.
2. No cleaning agent were used for effective cleaning like washing soda etc.

Commented [AG2]: Only rinsing with hot water is possible with spraying

Commented [AG3]: Water shall be drained off after each cleaning of can.

1. SCOPE

1.1 This standard prescribes the important constructional details for a pedal-operated milk can washer (can steaming block) which could handle one can at a time.

2. MATERIALS

2.1 The component parts of the can washer shall be made from cast iron/ ~~,~~ mild steel ~~sheets, brass or other materials~~spray galvanized as specified in 4. Non-metallic materials may be used for joints sealing, gland and gasketing as necessary.

3. SHAPE AND DIMENSIONS

3.1 The can washer shall generally conform to the shape and design shown in Fig. ~~1 or 2. If agreed to by the purchaser, the tubular support shown in Fig. 1 may be eliminated and the cast iron tray directly fixed to the valve assembly. In this case, the central tube for the steam and water shall either be eliminated or suitably reduced in length.~~ The design of this steam device shall be such as to make it suitable for easy dismantling, cleaning and assembly.

4. FABRICATION

4.1 Base -The cast iron / mild steel spray galvanized base shall be of sturdy construction and of sufficient strength to give a rigid and stable support for the can while cleaning and sterilizing. Provision shall be made in the base for securing it firmly to the floor.

4.2 Valve Assembly - The valve assembly shall be secured to the base by bolts and nuts or other suitable arrangement. The valve assembly has two valves - one for injecting steam and the other for water. These valves shall be operated by pedals and shall be capable of operating separately or jointly. The design of the valve assembly shall be such that it shall be possible for the can to be washed with cold water, hot water and steam. The stream and water connection pipes should end outside with suitable non return valves. The valves should be tested at 6 kg/sq.cm pressure.

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4.3 Mild Steel Tubular Support (spray galvanized) - The tubular support, if provided (see 4.4) shall be a push fit to the valve assembly.

4.4 Tray - In the case of a can washer designed according to Fig. 1, the cast iron /mild steel tray shall be fixed to the tubular support.

4.4.~~1~~ ~~In the case of a can washer designed according to Fig. 2, the cast iron revolving tray shall rest on the cast iron base over the ball bearing. It shall be provided with a dust excluder made of stainless steel, aluminium alloy or brass.~~

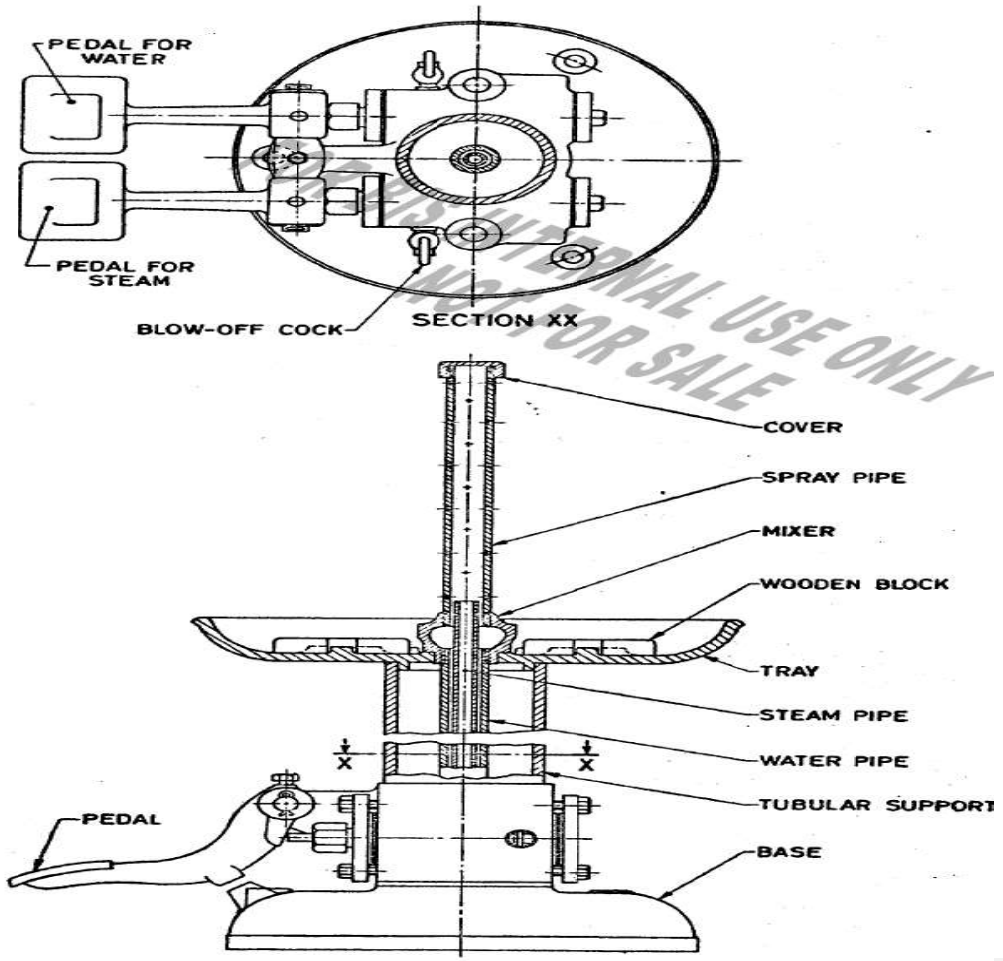

FIG. 1 MANUALLY OPERATED MILK CAN WASHER

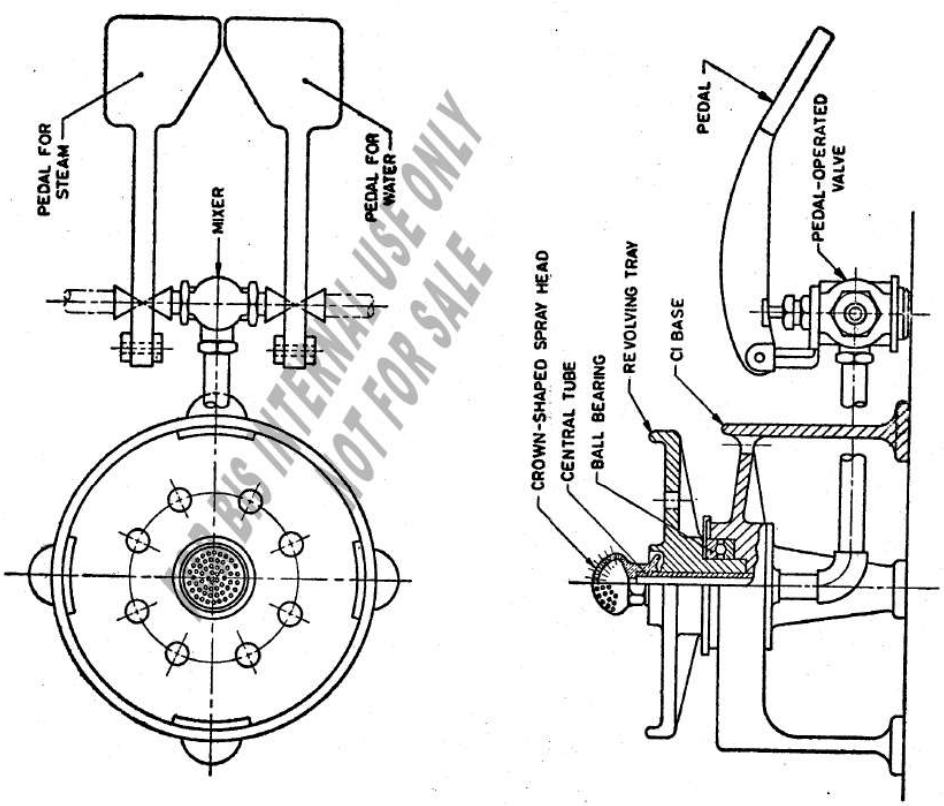

FIG. 2 MANUALLY OPERATED MILK CAN WASHER (ALTERNATE DESIGN)

Figure 2 - can be deleted

4.4.2 Necessary arrangements shall be made in the tray to ensure that the waste water is drained out.

~~**4.5 Mixer** - In the case of a can washer designed according to Fig. 1, the cast iron mixer shall be fixed to the top of the central tube for steam and water. In the case of a can washer designed according to Fig. 2, gunmetal steam and water mixer shall be provided as part of the valve assembly.~~

4.6 Spray Pipe- ~~In the case of a can washer designed according to Fig. 1, a~~The tube / pipe with a number of perforations shall be fitted to the mixer. The spray head pipe shall be covered at the top by a cover~~. In the case of a can washer designed according to Fig. 2, a hemispherical or crown shaped gun metal spray head shall be fitted to the can washer on the central tube.~~ The number

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and size of holes shall be such that the steam or water is sprayed evenly and in adequate pressure to ensure that the inside of the can is satisfactorily sterilized and cleaned.

4.7 **Pedals** - Steam and water supply valves should be operated by pedals. The pedals should be operatable independently and jointly. These should be named suitably.

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5. MARKING

5.1 The can washer (can steaming block) shall be marked legibly and permanently with the following particulars:

a) Manufacturer's name or trade-mark or initials, and

b) Manufacturer's identification.

5.1.1 The can washer may also be marked with the ISI Certification Mark.

NOTE -The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the USC of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution

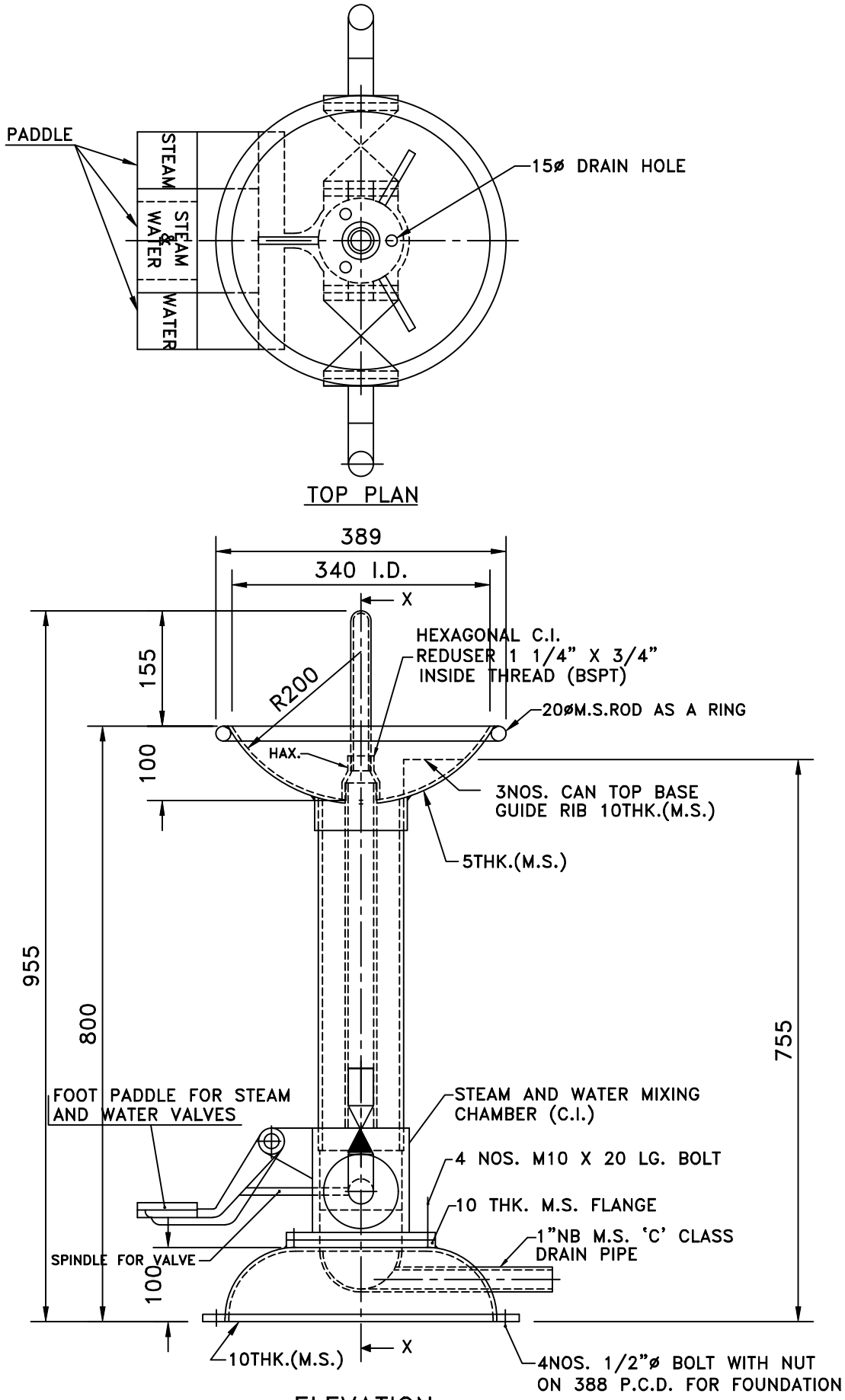

Fig. 1 MANUALLY OPERATED MILK CAN WASHER