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

INTER PLANT STANDARD - STEEL INDUSTRY



IPSS

SPECIFICATION FOR DOUBLE WHEEL BARROW (First Revision)

BASED ON IS 4184:1967

IPSS:1-07-021-92

Formerly
IPSS:1-07-021-83

0. FOREWORD

0.1 This Interplant Standard, prepared by the Standards Committee on Paints and Portable Maintenance Equipment, IPSS 1:7 with the active participation of representatives of all the steel plants and established manufacturers of Wheel Barrows, was adopted by the Approval Committee on Consumable Stores and General Equipment, IPSS 1 on 12 February 1992.

0.2 Interplant Standards for steel industry primarily aim at achieving rationalization and unification of parts and assemblies used in steel plant equipment and accessories, and provide guidance in Indenting stores or equipment (or while placing orders for additional requirements) by individual steel plants. For exercising effective control on inventories, it is advisable to select a fewer number of sizes (or types) from among those mentioned in this standard, for the purpose of company standards of individual steel plants. It is not desirable to make deviations in technical requirements.

0.3 This Standard was first published in the year 1983. The revision of the Standard has been carried as the need was felt to change the specification of the wheel requirement as per clause 3.5. This takes care of steel plant requirement of Max. load per tyre upto 430 Kg.

1. SCOPE

The standard specifies double wheel-barrows of 110, 140 and 160 liters capacity and is generally based on IS:4184-1967 'Specification for steel wheel-barrows (with two wheels) (Amendment 1)'. For convenience of reference, the clause numbers of the Indian Standard for each requirement are given in Appendix A along with the numbers of the matching clauses of this standard.

2. MATERIAL

2.1 Body - The body shall be made of sheets conforming to IS:1079-1988 'Specification for hot rolled carbon steel sheet and strip (fourth revision) (Amendment 1) '.

2.2 Tubular Structures - Tubular Structure shall be made of medium type steel tube conforming to IS:1239 (Part 1)-1979 'Specification for mild steel tubes, tubulars and other wrought steel fittings: Part 1 Mild steel tubes (fourth revision) (Amendments 5)', shall be used for tubes.

Amendment issued (to be filled by the user department)

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

UDC 629.111.313

2.3 Axle - For axle, steel conforming to IS:226-1975 'Specification for structural steel (standard quality) (fifth revision) (Amendments 7)' shall be used.

3. DESIGN and DIMENSIONS

3.1 The design and dimensions of double wheel-barrow shall be as shown in Fig.1.

3.2 The body shall be welded to the chassis.

3.3 The top edge of the body shall be rolled over a steel rod of 8 mm diameter in order to form a bead and retain the rod.

3.4 The end of the tubes at the handles shall be plugged, welded and ground smooth to remove sharp edges.

3.5 The wheels shall be either wheel barrow type 16 x 4 (4.00 x 8) size, extra heavy type pneumatic wheel (Max. Load per tyre 430 Kg) with the rim size 2.125 x 8 WB and Max. tyre dia. 422 mm as per ITTAC Manual 1977, or solid cured on type rubber tyred wheel 300 x 75 mm size having 25 mm dia. spindle

The wheel shall be fitted with single row deep grooved ball bearing of 25 x 52 x 15 wide provided with dust seal and arrangement for lubrication.

NOTE: The type of wheel shall be selected by the purchaser to suit the service requirements.

3.6 Each wheel shall withstand a maximum load of 430 Kg without showing any permanent deformation.

4. BODY

Body shall be according to clause 5 of IS:4184-1967.

5. CHASSIS

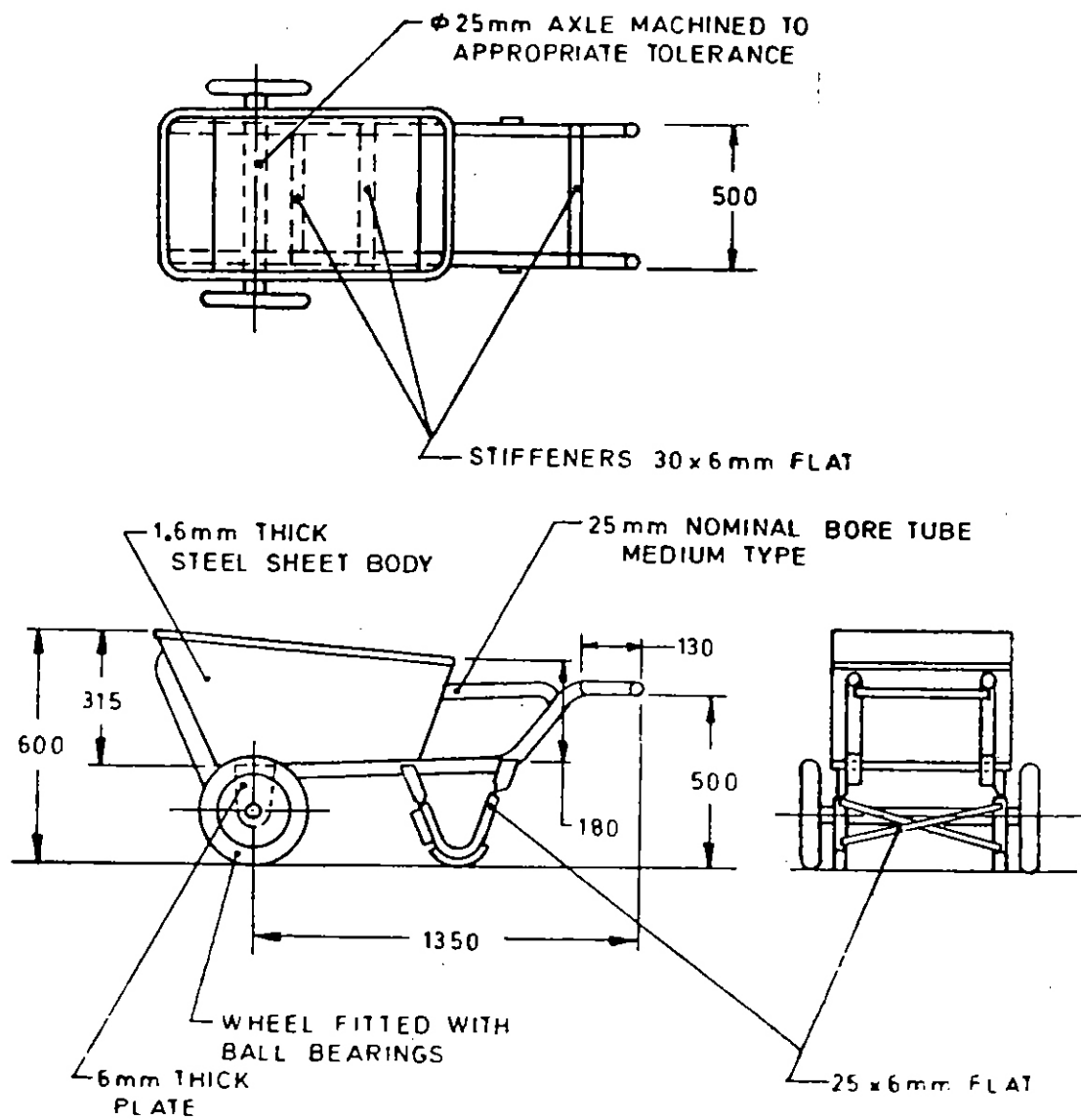
Chassis shall be according to clause 6 of IS:4184-1967.

6. FINISH

Immediately after fabrication, the wheel-barrow shall be thoroughly cleaned and painted with two coats of black bituminous paint, conforming to IS:158-1981 'Specification for ready mixed paint, brushing, bituminous, black, lead-free, acid, alkali, water and heat resisting (third revision) (Amendment 1)'.

7. MARKING

Each wheel-barrow shall be marked with the name of the manufacturer or his trade-mark, capacity, unloaded weight of the wheel-barrow, the year of manufacture and the IPSS No.



All dimensions are in mm

FIG. 1 DOUBLE WHEEL-BARROW

APPENDIX A

(Clause I)

COMPARATIVE STUDY OF

IPSS:1-07-021-92 'SPECIFICATION FOR DOUBLE WHEEL BARROW'

AND

IS:4184-1967 'SPECIFICATION FOR STEEL WHEEL-BARROW'(With two wheels)

		Clause Reference in IPSS	Clause Reference in ISS
Requirements which are identical between IPSS and ISS	Body	4	5
	Chassis	5	6
	Finish	6	10.1
	Marketing	7	11.1
Requirements selected for steel plant use out of several choices	NIL	—	—
Supplementary require- ments not connecting ISS	Capacity	1	4.1
	Material	2	3
	Design and Dimension	3	
Deviation from ISS		3.5	