IS: 4455 - 1967 (Reaffirmed 1977)

# Indian Standard SPECIFICATION FOR TROLLEYS, SOILED LINEN

(First Reprint DECEMBER 1983)

UDC 615.478.37



© Copyright 1968

INDIAN STANDARDS INSTITUTION MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG NEW DELHI 110002

## Indian Standard SPECIFICATION FOR TROLLEYS, SOILED LINEN

#### Hospital Equipment Sectional Committee, CPDC 14

Chairman

Representing

SHRI A. S. BHATHENA

National Steel Equipment Co, Bombay

Members

PROF T. R. SARKARI ( Alternate to

Shri A. S. Bhathena) Shri G. Bhattacharya

Adair Dutt & Co (India) Pvt Ltd, Calcutta

SHRI D. LAHIRI (Alternate)

Development Commissioner, Small Scale Industries

SHRI G. B. JAKHETIA SHRI V. S. KALBAG SHRI V. KRISHNAMOORTHY

Tempo Industrial Corporation, Bombay Directorate General of Technical Development

Shri S. S. Motafram Shri P. K. Pradhan ( *Alternate* )

Elpro International Ltd, Chinchwad

Shri M. G. Pandit Dr A. Ramdas Maj V. P. Sethi Maj Sohan Singh Ministry of Health & Family Planning Railway Board (Ministry of Railways) Ministry of Defence (DGAFMS) Ministry of Defence (DGI)

Maj Sohan Singh Shri K. L. Talwar

Chief Inspectorate of General Stores [Ministry of Defence (DGI)], Kanpur

SHRI R. N. VIG SHRI D. N. VIG ( Alternate ) ULTRADENT Private Ltd, Bombay

SHRI A. B. RAO, Director ( Consr Prod ) Director General, ISI (Ex-officio Member)

Secretary
Shri R. I. Midha
Deputy Director ( Consr Prod )

#### Hospital Furniture Subcommittee, CPDC 14:1

Convener

DR A. RAMDAS

Railway Board (Ministry of Railways)

Members Shri B. L. Arora Shri A. S. Bhathena

India Medico Instruments, Delhi National Steel Equipment Co, Bombay

SHRI J. A. BHATHENA ( Alternate )

General Trades Agencies, Delhi

SHRI R. C. JAIN SHRI G. B. JAKHETIA SHRI A. J. MEHTA

Development Commissioner, Small Scale Industries Janak Manufacturing Works, Bombay

SHRI A. J. MEHTA SHRI M. G. PANDIT SHRI P. G. SALGAONKAR

Ministry of Health & Family Planning New Haven Steel Ball Corporation Pvt Ltd, Bombay

MAJ V. P. SETHI

Ministry of Defence (DGAFMS)

SHRI E. A. SHAIKH

Special Equipment Co, Bombay

SHRI A. H. SHAIKH ( Alternate )
SHRI AMRIT LAL VIG

Imperial Surgico Industries, Lucknow

#### INDIAN STANDARDS INSTITUTION MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG NEW DELHI

IS: 4033-

### Indian Standard SPECIFICATION FOR TROLLEYS, SOILED LINEN

#### 0. FOREWORD

- 0.1 This Indian Standard was adopted by the Indian Standards Institution on 11 December 1967, after the draft finalized by the Hospital Equipment Sectional Committee had been approved by the Consumer Products Division Council.
- 0.2 The formulation of Indian Standards on hospital equipment has been taken up at the instance of the Advisory Committee for the Development of Surgical Instruments, Equipment and Appliances (Government of India).
- **0.3** This standard is one of a series of Indian Standards on hospital furniture. Other standards in this series are:

General requirements for hospital furniture (under

| 20.1000       | preparation)   |
|---------------|--|
| IS: 4034-     | Specification for castors for hospital equipment (under preparation) |
| IS: 4035-1967 | Specification for trolleys, stretcher                                |
| IS: 4036-1967 | Specification for trolleys, patient                                  |
| IS: 4037-1967 | Specification for stretcher and stretcher carriers                   |
| IS: 4266-1967 | Specification for lockers, bedside                                   |
|               |  |

IS: 4267-1967 Specification for stands, wash hand basin IS: 4458-1967 Specification for screens, bedside

- **0.4** In preparing this standard assistance has been derived from B.S. 2854: 1957 'Specification for soiled linen trolleys' issued by the British Standards Institution.
- 0.5 In some of the clauses of this standard, reference has been made to IS: 4033\* and IS: 4034† which are under preparation. Until these standards are published, the requirements in such clauses shall be subject to agreement between the concerned parties.

<sup>\*</sup>General requirements for hospital furniture ( under preparation ).

<sup>†</sup>Specification for castors for hospital equipment (under preparation).

- 0.6 Suggestions relating to cotton canvas for making bags for trolleys are given in Appendix A.
- 0.7 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 or analysis, shall be rounded off in accordance with IS: 2-1960\*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

#### 1. SCOPE

1.1 This standard specifies the requirements of single-bag soiled linen trolleys used in hospitals and other similar institutions.

#### 2. MATERIAL

- 2.1 Framework shall conform to 2.1 of IS: 4033†.
- 2.2 Castors shall conform to IS: 4034‡.

#### 3. SHAPE AND DIMENSIONS

3.1 The shape of the soiled linen trolley is shown in Fig. 1 and the principal dimensions shall be as indicated in the figure. The dimensions of the bag are also given therein. The tube used shall be 1.22 mm thick; the minimum outside diameter for various portions of the framework being as follows:

| Component        | Minimum Outside Diameter |
|------------------|--------------------------|
| •                | mm                       |
| Ring             | 15.88                    |
| Vertical members | 25*40                    |
| Y-support        | 15.88                    |

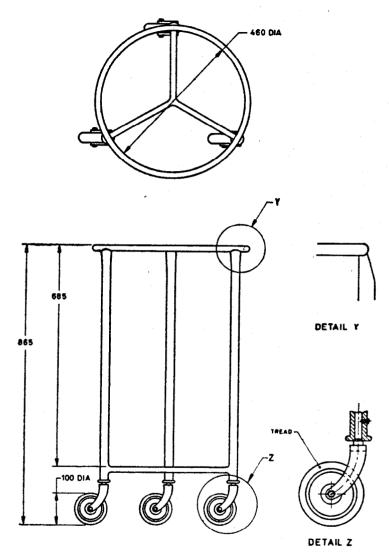
#### 4. MANUFACTURE

4.1 Framework — The framework shall comprise three vertical tubes, flattened at their upper ends and welded to the ring, the flattening being arranged to form a recess external to the framework to retain the draw string of the bag. Near their lower ends the vertical tubes shall be joined to a Y-shaped support.

<sup>\*</sup>Rules for rounding off numerical values ( revised ).

<sup>†</sup>General requirements for hospital furniture ( under preparation ).

<sup>‡</sup>Specification for castors for hospital equipment (under preparation).



SIZE OF BAG  $760 \times 480$  DIA All dimensions in millimetres.

Fig. 1 Soiled-Linen Trolley, Single Bag

- **4.2 Castors** Each trolley shall be provided with three castors 100 mm in diameter. The rest of the details shall conform to **4.2** of IS: 4033\*.
- 4.3 Canvas Bag The bag shall be made with lapped seams along each join, the seams being double sewn with glace cotton thread of 60 tex/3 (or 10s/3) count, having minimum single thread breaking load (50 cm gauge length) of 4·10 kg. The opening of the bag shall have a 40-mm hem and two 75-mm vents, one on vertical seam and other directly opposite; the end of each vent shall be reinforced. The hem shall be threaded with braided draw string not less than 10 mm in circumference.

#### 5. WORKMANSHIP AND FINISH

5.1 Workmanship and finish shall conform to 5 of IS: 4033\*.

#### 6. MARKING

**6.1** The marking shall be as specified in 7 of IS: 4033\*.

#### 7. PACKING

7.1 The packing shall be as specified in 8 of IS: 4033\*.

#### APPENDIX A

(Clause 0.6)

#### CANVAS FOR BAGS

**A-1.** No requirements for canvas have been included in this standard as it is considered that the choice of material for bags should rest with the purchaser. However, it is desirable that the bag shall be made of shrunk cotton canvas (waterproofed) having a minimum weight  $605 \text{ g/m}^2$ .

<sup>\*</sup>General requirements for hospital furniture ( under preparation ).

### INTERNATIONAL SYSTEM OF UNITS (SI UNITS)

| SECTION 1      |  |  |
|----------------|--|--|
| REAL PROPERTY. |  |  |

| Quantity                  | Unit      | Symbol |                           |
|---------------------------|-----------|--------|---------------------------|
| Length                    | metre     | m      |                           |
| Mass                      | killogram | kg     |                           |
| Time                      | second    |        |                           |
| Electric current          | ampere    | A      |                           |
| Thermodynamic temperature | kelvin    | K      |                           |
| Luminous intensity        | candela   | cd     |                           |
| Amount of substance       | mole      | mol    |                           |
| Supplementary Units       |           |        |                           |
| Quantity                  | Unit      | Symbol |                           |
| Plane angle               | radian    | rad    |                           |
| Solid angle               | steradian | 31     |                           |
| Derived Units             |           |        |                           |
| Quantity                  | Unit      | Symbol | Conversion                |
| Force                     | newton    | N      | 1 N = 1 kg. 1 m/s1        |
| Energy                    | Joule     | J      | 1 J = 1 N.m               |
| Power                     | watt      | W      | 1 W - 1 J/s               |
| Flux                      | weber     | Wb     | 1 Wb - 1 V.s              |
| Flux density              | tesla     | T      | 1 T = 1 Wb/m <sup>3</sup> |
| Frequency                 | hertz     | Hz     | 1 Hz = 1 c/s (s-1)        |
| Electric conductance      | siemens   | S      | 1 S = 1 A/V               |
| Pressure, stress          | pascal    | Pa     | 1 Pa = 1 N/m <sup>3</sup> |

#### INDIAN STANDARDS INSTITUTION

| Manak Bhavan, 9 b | Bahadur Shah Zafar | Marg, NEW D | ELHI 110002 |
|-------------------|--------------------|-------------|-------------|
|-------------------|--------------------|-------------|-------------|

| Telephones : 26 60 21, 27 01 31              | Telegrams : Manaksanstha |          |  |  |
|--|--------------------------|----------|--|--|
| Regional Offices:                            | T                        | elephone |  |  |
| Western : Novelty Chambers, Grant Road       | BOMBAY 400007            | 37 97 29 |  |  |
| Eastern : 5 Chowringhee Approach             | CALCUTTA 700072          | 23-08 02 |  |  |
| Southern : C. I. T. Campus, Adyar            | MADRAS 600020            | 41 24 42 |  |  |
| Branch Offices:                              |                          |          |  |  |
| 'Pushpak', Nurmohamed Shaikh Marg, Khanpur   | AHMADABAD 380001         | 2 03 91  |  |  |
| 'F' Block, Unity Bldg. Narasimharaja Square  | BANGALORE 560002         | 2 76 49  |  |  |
| Gangotri Complex, Bhadbhada Road, T.T. Nagar | BHOPAL 462003            | 6 27 16  |  |  |
| 22E Kalpana Area                             | BHUBANESHWAR 751014      | 5 36 27  |  |  |
| Ahimsa Bldg, SCO 82-83, Sector 17C           | CHANDIGARH 160017        | 2 83 20  |  |  |
| 5-8-56C L. N. Gupta Marg                     | HYDERABAD 500001         | 22 10 83 |  |  |
| D-277 Todarmal Marg, Banipark                | JAIPUR 302006            | 6 98 32  |  |  |
| 117/418 B Sarvodaya Nagar                    | KANPUR 208005            | 8 12 72  |  |  |
| Patliputra Industrial Estate                 | PATNA 800013             | 6 28 08  |  |  |
| Hantex Bldg (2nd Floor), Rly Station Road    | TRIVANDRUM 695001        | 32 27    |  |  |