මෙය රාජ්‍ය භාෂාවෙන් වෙනම මුද්‍රණය කර ඇත.

ශ්‍රී ලංකා ප්‍රමිති 226 : 1973
SRI LANKA STANDARD 226 : 1973
විශ්ව දශම වර්ග කිරීම UDC 683 : 356

කොන්ඩි පට්ටම් පිළිබඳ පිරිවිතර

SPECIFICATION FOR HASPS AND STAPLES

ලංකා ප්‍රමිති කාර්යාංශය
BUREAU OF CEYLON STANDARDS

SPECIFICATION FOR HASPS AND STAPLES

S.L.S. 226 : 1973

Gr. 4

Price Re. [redacted]

BUREAU OF CEYLON STANDARDS
53, DHARMAPALA MAWATHA,
COLOMBO-3.

Sri Lanka Standards are subject to periodical revision in order to accommodate the progress made by industry. Suggestions for improvement will be recorded and brought to the notice of the Committees to which the revisions are entrusted.

This Standard does not purport to include all the necessary provisions of a contract.

BUREAU OF CEYLON STANDARDS
53, DHARMAPALA MAWATHA,
COLOMBO-3.

Telephone : 26055
26054
26051

Telegrams : "PRAMIKA"

SRI LANKA STANDARD SPECIFICATION FOR HASPS AND STAPLES

FOREWORD

This Sri Lanka Standard Specification has been prepared by the Drafting Committee on Hasps and Staples, and was approved by the Mechanical Engineering Divisional Committee of the Bureau of Ceylon Standards. It was authorised for adoption and publication by the Council of the Bureau on 12th November 1973.

The values given in this standard are in SI units and the equivalent metric units are indicated in brackets.

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 observation shall be rounded off in accordance with C.S. 102 : Ceylon Standard on Presentation of Numerical Values. The number of figures to be retained in the rounded off values shall be the same as that of the specified value in this standard.

In the preparation of this standard reference has been made to the publications of the Indian Standards Institution.

1. SCOPE

1.1 This Standard for mild steel and cast brass hasps and staples covers the requirements for materials, dimensions, manufacture and finish.

2. TYPES

2.1 Hasps and Staples shall be of the following types:

(1) *Safety Type*

- (*a*) Mild Steel
- (*b*) Brass – (*i*) Flat
  (*ii*) Box

(2) *Wire Type*

3. MATERIAL

3.1 The safety type shall be of mild steel or brass and the wire type shall be of mild steel.

3.2 Mild steel sheet or wire used in the manufacture of mild steel hasps and staples shall comply with the following requirements.

3.2.1 **Chemical Composition**

Constituent	per cent
Carbon Max	0.12
Manganese Max	0.50
Sulphur Max	0.050
Phosphorus Max	0.050

3.2.2 **Tensile Strength**—Ultimate tensile strength shall be not less than 245 MPa (25.0 kgf/mm^2).

3.2.3 **Bend Test**– Suitable test pieces when doubled over either by pressure or by blows from a hammer, until the internal radius is equal to one and a half times the thickness of the test piece and the sides become parallel, it shall not show any cracks.

3.3 Cast brass shall have the following properties.

3.3.1 **Chemical Composition**

Constituent	per cent
Copper plus incidental Nickel	64.0 — 71.0
Lead	1.0 — 3.0
Tin	1.5 — Max
Iron	0.75 — Max
Aluminium	0.01 — Max
Zinc	Remainder

3.3.2 **Tensile Properties**—The ultimate tensile strength shall be not less than 185MPa (18.9 kgf/mm^2) and the elongation shall be 12 percent.

3.4 **Phosphor Bronze Wire**—Phosphor bronze wire used for the hinge pin in case of brass hasps and staples if so required by the purchaser, shall have the following properties.

3.4.1 Chemical Composition

Grade	Sn	P	Per cent		
			Pb Max	Zn Max	Cu + Sn + P Min
PCuSn 4 ..	3.0—5.0	0.02—0.40	0.05	00.20	99.5
PCuSn 6 ..	5.0—7.0	0.02—0.40	0.20	00.20	99.5

3.4.2 Tensile Strength

Diameter of Wire		Ultimate Tensile stress	
Over mm	Upto and including mm	MPa	Kgf/ mm²
2.50	6.50	848	86.5

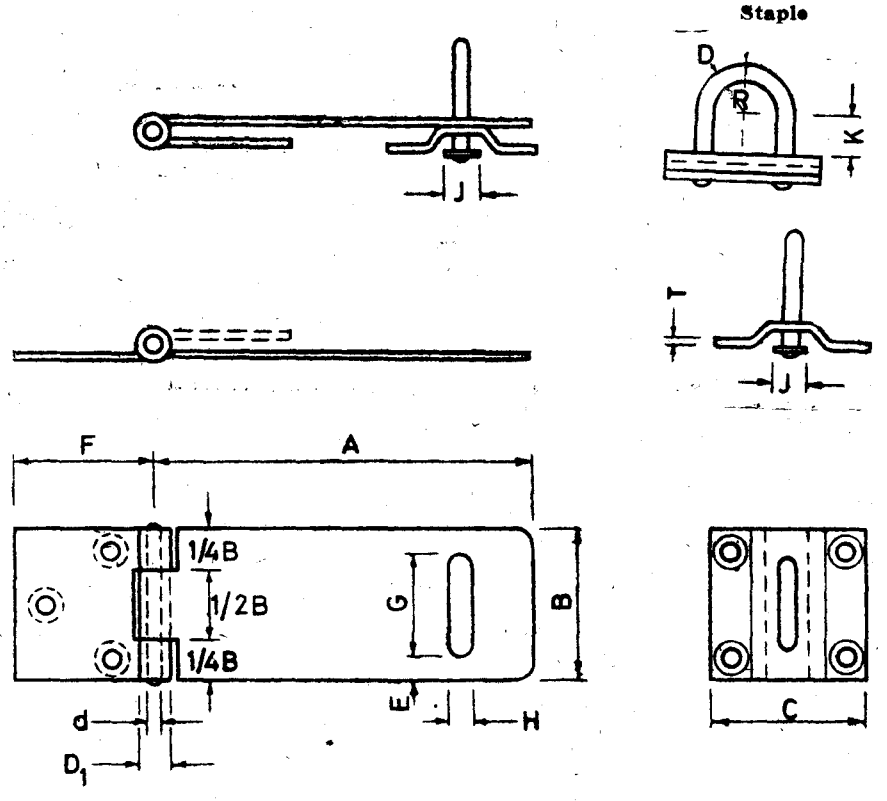

Fig. 1—Safety type Mild Steel

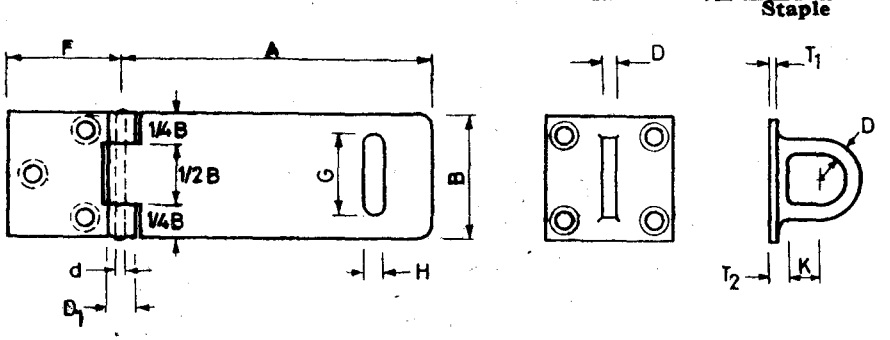

Fig. 2—Safety type (Flat) Brass

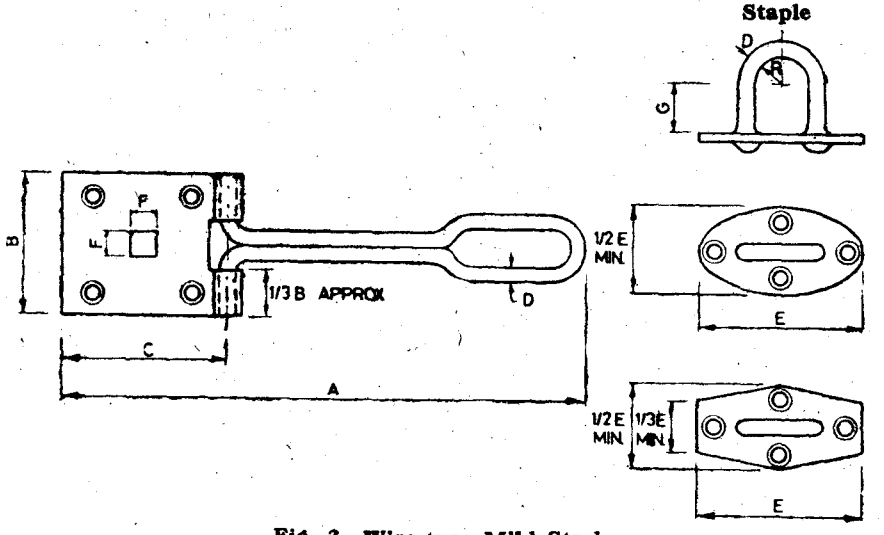

Fig. 3—Wire type Mild Steel

3.4.3 Bend Test—Wire shall withstand the bend test without fractures or cracks on the bent portion when tested as follows:

Diameter of wire	Radius of Bend	Number of Bends
mm	mm	
2.50 – 3.55	5.0	7
3.55 – 4.50	5.0	5
4.50 – 6.30	6.0	5

One bend shall be taken to imply the bending of the wire to a right angle around a rod of given radius and its return to the original straight position. The bending shall always be at the same place in the wire and in the same direction.

4. MANUFACTURE

4.1 Mild steel hasps and staples shall have a hinge pin of mild steel. In the case of brass hasps and staples it shall be of either mild steel or phosphor bronze. The movement of the hasps shall be free, easy and square. The hasps shall fit the staple correctly.

Except in the case of cast hasp and staple, the staple shall be riveted properly to its plate. The ends of the hinge pin for the safety type hasp shall be riveted and properly finished. The screw holes shall be countersunk to suit countersunk wood screws conforming to C.S.6* All sharp edges and corners shall be removed.

5. FINISH

5.1 Hasps and Staples shall have a finish as given below:

(*a*) *Mild steel hasps and staples*—Bright finished with or without protective coating, stove enamelled or plated.

(*b*) *Brass hasps and staples*— Polished or Oxidised.

6. DIMENSIONS

6.1 The dimensions of hasps and staples shall be as specified in Tables 1, 2, 3 and 4.

7. PACKING

7.1 Hasps and staples shall be packed in appropriate sizes as agreed between the purchaser and the manufacturer.

8. MARKING AND LABELLING

8.1 Each hasp and staple shall be stamped with the manufacturer's name or trade mark.

8.2 Each package, shall be labelled with the name or trade mark of the manufacturer, particulars of the quantity, description of contents and sizes of the hasps and staples, type of finish and country of manufacture.

9. SCALE OF SAMPLING

9.1 **Lot**— In any consignment, all the hasps and staples of the same type and size and manufactured at the same time shall be grouped together to constitute a lot.

9.2 The number of samples to be selected from a lot and the permissible number of defective hasps and staples shall be as given in Table 5.

---

*CS. 6: Specification for wood screws.

TABLE 1—DIMENSIONS OF MILD STEEL HASPS AND STAPLES—SAFETY TYPE

(See Fig. 1)

Size mm	A mm	B mm	C mm	D mm	E mm	F mm
50	50 ± 2	27.0 ± 1.5	30 ± 2	3.15 ± 0.10	4.0 ± 0.5	20.0 ± 1.5
65	65 ± 2	32.0 ± 1.5	35 ± 2	4.00 ± 0.10	5.0 ± 0.5	30.0 ± 1.5
75	75 ± 2	32.0 ± 1.5	35 ± 2	4.00 ± 0.10	5.0 ± 0.5	30.0 ± 1.5
90	90 ± 2	38.0 ± 1.5	46 ± 2	5.00 ± 0.10	5.0 ± 0.5	35.0 ± 1.5
115	115 ± 2	38.0 ± 1.5	46 ± 2	5.00 ± 0.10	5.0 ± 0.5	55.0 ± 1.5
150	15 ± 2	45.0 ± 1.5	60 ± 2	6.30 ± 0.10	6.0 ± 0.5	65.0 ± 1.5
175	175 ± 2	62.0 ± 1.5	65 ± 2	6.30 ± 0.10	10.0 ± 0.5	70.0 ± 1.5

G mm	H mm	J mm	K mm	R mm	Thickness of sheet T mm	Dia. of hinge Pin d mm	No. of screw holes		
							on Hasp	on Staple	for wood screw no.
19.0 ± 0.5	5.0 ± 0.5	7 ± 1	7 ± 1	5.0 ± 0.5	1.40 ± 0.10	3.00 ± 0.10	2	4	5
22.0 ± 0.5	6.0 ± 0.5	9 ± 1	8 ± 1	6.0 ± 0.5	1.40 ± 0.10	3.55 ± 0.10	3	4	8
22.0 ± 0.5	6.0 ± 0.5	9 ± 1	8 ± 1	6.0 ± 0.5	1.40 ± 0.10	3.55 ± 0.10	3	4	8
28.0 ± 0.5	8.0 ± 0.5	12 ± 1	8 ± 1	8.0 ± 0.5	2.00 ± 0.10	4.00 ± 0.10	3	4	8
28.0 ± 0.5	8.0 ± 0.5	12 ± 1	8 ± 1	8.0 ± 0.5	2.00 ± 0.10	4.00 ± 0.10	3	4	8
33.0 ± 0.5	10.0 ± 0.5	15 ± 1	14 ± 1	9.0 ± 0.5	2.24 ± 0.10	5.00 ± 0.10	4	4	10
33.0 ± 0.5	12.0 ± 0.5	18 ± 1	16 ± 1	9.0 ± 0.5	3.15 ± 0.10	6.30 ± 0.10	5	4	10

TABLE 2—DIMENSIONS OF BRASS HASPS AND STAPLES (CAST OR EXTRUDED SECTION) SAFETY TYPE FLAT. (See Fig. 2)

Size mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm
50	50 ± 2	27.0 ± 1.5	27.0 ± 1.25	3.00 ± 0.25	4.5 ± 0.5	20 ± 1	18.0 ± 0.5
65	65 ± 2	32.0 ± 1.5	32.0 ± 1.5	4.00 ± 0.25	5.0 + 0.5	30 ± 1	22.0 ± 0.5
75	75 ± 2	32.0 ± 1.5	32.0 ± 1.5	4.00 ± 0.25	5.0 ± 0.5	30 ± 1	22.0 ± 0.5
90	90 ± 2	40.0 ± 1.5	42.0 ± 1.5	6.00 ± 0.25	6.0 ± 0.5	35 ± 1	28.0 ± 0.5
115	115 ± 2	40.0 ± 1.5	42.0 ± 1.5	6.00 ± 0.25	6.0 ± 0.5	45 ± 1	28.0 ± 0.5
150	150 ± 2	46.0 ± 1.5	48.0 ± 1.5	7.00 ± 0.25	7.0 ± 0.5	65 ± 1	32.0 ± 0.5
175	175 ± 2	46.0 ± 1.5	48.0 ± 1.5	7.00 ± 0.25	7.0 ± 0.5	65 ± 1	32.0 ± 0.5

H mm	K mm	R mm	Thickness T_1 mm	Thickness T_2 mm	Dia. of hinge pin d mm	Dia. of butt D mm	Screw Holes: No. on hasp	Screw Holes: No. on staple	Screw Holes: For wood screw no.
7.0 ± 0.5	7 ± 1	4.0 ± 0.5	2.00 ± 0.25	3.00 ± 0.25	3.00 ± 0.10	5.0 ± 0.2	2	4	5
8.0 ± 0.5	7 ± 1	5.0 ± 0.5	2.00 ± 0.25	3.00 ± 0.25	3.15 + 0.10	6.0 ± 0.2	3	4	5
8.0 ± 0.5	8 ± 1	5.0 ± 0.5	2.00 ± 0.25	3.00 ± 0.25	3.15 ± 0.10	6.0 ± 0.2	3	4	5
10.0 ± 0.5	8 ± 1	6.5 ± 0.5	2.00 ± 0.25	3.00 ± 0.25	3.15 ± 0.10	6.0 ± 0.2	3	4	5
10.0 ± 0.5	11 ± 1	6.5 ± 0.5	2.00 ± 0.25	3.00 ± 0.25	3.15 ± 0.10	6.0 ± 0.2	3	4	5
11.0 ± 0.5	14 ± 1	7.5 ± 0.5	3.00 ± 0.25	4.00 ± 0.25	4.00 ± 0.10	8.0 ± 0.2	4	4	8
11.0 ± 0.5	14 ± 1	7.5 ± 0.5	3.00 ± 0.25	4.00 ± 0.25	4.00 ± 0.10	8.0 ± 0.2	4	4	8

TABLE 3—DIMENSIONS OF MILD STEEL HASPS AND STAPLES—WIRE TYPE

(See Fig. 3)

Size mm	A mm	B mm	C mm	D mm	E mm	F mm
65	65 ± 2	25.0 ± 1.5	22.0 ± 1.5	3.15 ± 0.10	38.0 ± 1.5	—
75	75 ± 2	25.0 ± 1.5	25.0 ± 1.5	3.15 ± 0.10	38.0 ± 1.5	—
90	90 ± 2	25.0 ± 1.5	28.0 ± 1.5	3.15 ± 0.10	38.0 ± 1.5	—
100	100 ± 2	32.0 ± 1.5	38.0 ± 1.5	4.00 ± 0.10	42.0 ± 1.5	8.0 ± 0.5
125	125 ± 2	38.0 ± 1.5	48.0 ± 1.5	5.00 ± 0.10	55.0 ± 1.5	8.0 ± 0.5
150	150 ± 2	45.0 ± 1.5	55.0 ± 1.5	6.30 ± 0.10	55.0 ± 1.5	8.0 ± 0.5
175	175 ± 2	50.0 ± 1.5	55.0 ± 1.5	6.30 ± 0.10	55.0 ± 1.5	12.0 ± 0.5

G mm	R mm	Thickness of Sheet T mm	Screw Holes		For wood screw No.
			No. on hasp	No. on staple	
8.0 ± 0.5	5.0 ± 0.5	1.25 ± 0.10	2	2	6
8.0 ± 0.5	5.0 ± 0.5	1.25 ± 0.10	2	2	6
8.0 ± 0.5	5.0 ± 0.5	1.25 ± 0.10	2	2	6
11.0 ± 0.5	6.0 ± 0.5	1.60 ± 0.10	4	4	8
14.0 ± 0.5	7.0 ± 0.5	1.60 ± 0.10	4	4	8
14.0 ± 0.5	7.0 ± 0.5	2.00 ± 0.10	4	4	10
14.0 ± 0.5	8.0 ± 0.5	2.00 ± 0.10	4	4	10

TABLE 4—DIMENSIONS OF BRASS HASPS AND STAPLES—SAFETY TYPE BOX (See Fig. 4)

Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	J mm	K mm	L mm	M mm	N mm
112	112 ± 2	33 ± 1	82 ± 2	11 ± 0.5	42 ± 1.5	30 ± 1	16 ± 0.5	8 ± 0.5	31 ± 1	26 ± 1	26 ± 1	42 ± 1	6.5 ± 0.5
125	125 ± 2	33 ± 1	95 ± 2	11 ± 0.5	42 ± 1.5	30 ± 1	16 ± 0.5	8 ± 0.5	31 ± 1	26 ± 1	26 ± 1	42 ± 1	6.5 ± 0.5
140	140 ± 2	33 ± 1	110 ± 2	11 ± 0.5	42 ± 1.5	30 ± 1	16 ± 0.5	8 ± 0.5	31 ± 1	26 ± 1	26 ± 1	42 ± 1	6.5 ± 0.5

P mm	Q mm	R mm	S mm	T mm	U mm	V mm	d mm	r (max) mm	ds (max) mm
3.5 ± 0.5	10 ± 1	2.5 ± 0.5	2.0	3.5 ± 0.1	15 ± 1.0	27 ± 1	3 ± 0.10	6.0	1.5
3.5 ± 0.5	10 ± 1	2.5 ± 0.5	2.0	3.5 ± 0.1	15 ± 1.0	27 ± 1	3 ± 0.10	6.6	1.5
3.5 ± 0.5	10 ± 1	2.5 ± 0.5	2.0	3.5 ± 0.1	15 ± 1.0	27 ± 1	3 ± 0.10	6.0	1.5

Note: ds — this clearance to be measured simultaneously on both shoulders.

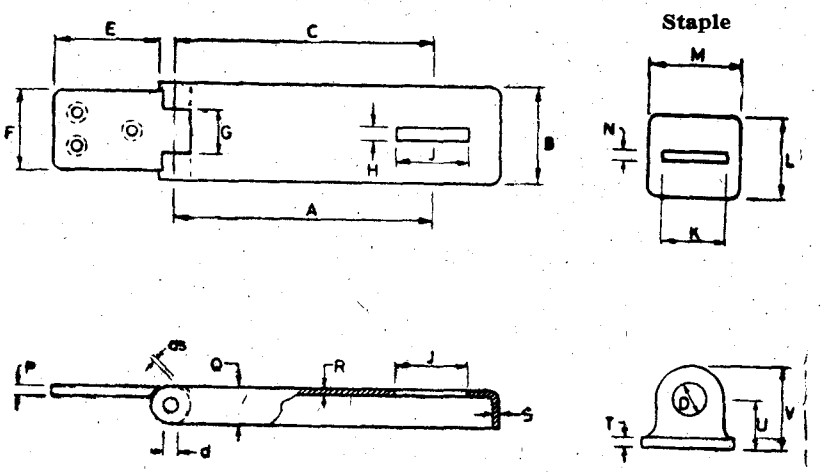

Fig. 4—Safety type (Box) Brass

Table 5.— Scale of Sampling

Lot Size	Sample Size	Permissible number of defective hasps and staples
(1)	(2)	(3)
Up to 200	15	0
201 to 300	20	1
301 to 500	30	2
501 to 800	40	2
801 and above	55	3

9.3 Samples shall be selected at random, equal number being selected from each package.

9.4 **Tests**—All the hasps and staples selected as in Clause 9.3 shall be examined for dimensional requirements, manufacturing defects and finish. Any hasp and staple which fails to satisfy these requirements shall be considered as defective.

10. CRITERION FOR CONFORMITY

The lot shall be considered as conforming to the requirements of this standard if the number of defective hasps and staples in the sample tested does not exceed the corresponding number given in Column 3 of Table 5.

SLS CERTIFICATION MARK

The Sri Lanka Standards Institution is the owner of the registered certification mark shown below. Beneath the mark, the number of the Sri Lanka Standard relevant to the product is indicated. This mark may be used only by those who have obtained permits under the SLS certification marks scheme. The presence of this mark on or in relation to a product conveys the assurance that they have been produced to comply with the requirements of the relevant Sri Lanka Standard under a well designed system of quality control inspection and testing operated by the manufacturer and supervised by the SLSI *which includes surveillance inspection of the factory, testing of both factory and market samples.*

Further particulars of the terms and conditions of the permit may be obtained from the Sri *Lanka Standards Institution, 17, Victoria Place, Elvitigala Mawatha, Colombo 08.*

Printed at SLSI (Printing Unit)

SRI LANKA STANDARDS INSTITUTION

The Sri Lanka Standards Institution (SLSI) is the National Standards Organization of Sri Lanka established under the Sri Lanka Standards Institution Act No. 6 of 1984 which repealed and replaced the Bureau of Ceylon Standards Act No. 38 of 1964. The Institution functions under the Ministry of Science & Technology.

The principal objects of the Institution as set out in the Act are to prepare standards and promote their adoption, to provide facilities for examination and testing of products, to operate a Certification Marks Scheme, to certify the quality of products meant for local consumption or exports and to promote standardization and quality control by educational, consultancy and research activity.

The Institution is financed by Government grants, and by the income from the sale of its publications and other services offered for Industry and Business Sector. Financial and administrative control is vested in a Council appointed in accordance with the provisions of the Act.

The development and formulation of National Standards is carried out by Technical Experts and representatives of other interest groups, assisted by the permanent officers of the Institution. These Technical Committees are appointed under the purview of the Sectoral Committees which in turn are appointed by the Council. The Sectoral Committees give the final Technical approval for the Draft National Standards prior to the approval by the Council of the SLSI.

All members of the Technical and Sectoral Committees render their services in an honorary capacity. In this process the Institution endeavours to ensure adequate representation of all view points.

In the International field the Institution represents Sri Lanka in the International Organization for Standardization (ISO), and participates in such fields of standardization as are of special interest to Sri Lanka.

Printed at the Sri Lanka Standards Institution, 17, Victoria Place, Elvitigala Mawatha, Colombo 08.