

Buckles and tips, metal, for 25 mm sidestraps

0 Applicable standards

0.1 Reference is made to the latest issues of the following standards:

BS 1224, *Electroplated coatings of nickel and chromium.*

BS 6001, *Sampling procedures and tables for inspection by attributes.*

1 Scope

1.1 This specification covers metal buckles and tips for trouser sidestraps of nominal width 25 mm, for use by personnel of the Department of Correctional Services.

NOTES

1 The following requirements will be specified in tender invitations and in each order or contract:

- a) the finish, if other than is specified (see 3.4);
- b) the packing, if other than as specified (see 4.1); and
- c) additional marking, if required (see 4.3).

2 Special conditions of tender (which cover the conditions of acceptance of the buckles and tips) are given in annex A.

2 Definitions

2.1 For the purposes of this specification, the following definitions shall apply:

acceptable: Acceptable to the Commissioner, Department of Correctional Services.

defective: A buckle or a tip that fails in one or more respects to comply with the relevant requirements of the specification.

lot: Not less than 25 and not more than 3 200 buckles and tips from one manufacturer and submitted at any one time for inspection and testing.

nominal: Subject to the tolerances normal to good manufacturing practice.

standard samples: Three buckles and tips, complete in every detail, mounted on cards, sealed, signed, numbered and approved (see A.2).

3 Requirements

3.1 General

The design, construction and finish of a buckle and a tip shall comply with the relevant requirements of 3.3 and 3.4 and shall conform to those of the standard sample held by the Commissioner of Correctional Services.

3.2 Materials

3.2.1 Buckle

The buckle shall be manufactured from steel having a nominal thickness of 1,2 mm. The buckle shall be such that it does not distort during normal handling or service.

3.2.2 Tip

The tip shall be manufactured from steel having a nominal thickness of 0,5 mm. The construction of a finished tip shall be such that it is not possible to remove the tip from the belt during normal handling.

3.3 Design and dimensions

3.3.1 Buckle

The design and nominal dimensions of a buckle shall conform to those given in figure 1. The buckle shall be curved and the nominal vertical height between the line AB and the outer surface of the centre of the buckle shall be 5 mm.

3.3.2 Tip

The design and nominal dimensions of a tip shall conform to those given in figure 2. The nominal included angle of the tip shall be 20°. The teeth shall be evenly spaced.

3.4 Finish

Unless otherwise specified, a buckle and a tip shall have an electroplated coating of nickel that complies with the requirements for classification No. Cu/Ni 5b of table 9 of BS 1224. When tested in accordance with 6.2, the coating shall have a thickness of at least 5 µm.

3.5 Workmanship

A buckle and a tip shall be free from cracks, burrs, rough or sharp edges and surface blemishes.

4 Packing and marking

4.1 Packing

Unless otherwise specified in the order or contract, each buckle and each tip shall be supplied in an individual acceptable plastics envelope or bag. The envelopes or bags shall then be packed in cartons of suitable size.

4.2 Marking

Each carton shall bear the following information in legible and indelible marking on the carton or on a label that is securely attached to the outside of one end of the carton:

- a) The manufacturer's name or trade name or trade mark, or any combination of these;
- b) the designation, i.e. "Buckles and tips, metal, for 25 mm sidestraps";
- c) the quantity of buckles and tips;
- d) the date of manufacture; and
- e) the order or contract number.

4.3 Additional marking

When so required by the Commissioner, Department of Correctional Services, cartons shall bear information additional to that specified in 4.2.

5 Sampling and compliance with the specification

5.1 Sampling

The sampling procedure given below shall be used in determining whether a lot complies with the relevant requirements of the specification, and the sample so taken shall be deemed to represent the lot for the respective properties.

- a) **Sample for inspection.** After checking the lot for compliance with the requirements of section 4, from it take at random the number of buckles and tips given in column 2 of table 1, relative to the appropriate lot size given in column 1.
- b) **Sample for testing.** After inspection, from the sample taken in accordance with (a) above, take at random the appropriate number of buckles and tips given in column 4 of table 1.

Table 1 – Sample sizes

| 1 | 2 | 3 | 4 |
|-------------------------------|------------------------|-------------------------------|--|
| Lot size, buckles and tips | Sample for inspection* | | Sample for testing+, buckles and tips |
| | Sample size | Acceptance No. (AQL = 1,5) | |
| 25 – 90 | 8 | 0 | 3 |
| 91 – 280 | 32 | 1 | 3 |
| 281 – 500 | 50 | 2 | 3 |
| 501 – 1 200 | 80 | 3 | 3 |
| 1 201 – 3 200 | 125 | 5 | 3 |

* Based on table II-A of BS 6001 for General Inspection Level II.

+ Based on table II-A of BS 6001 for Special Inspection Level S-2 and on an AQL of 4,0.

5.2 Compliance with the specification

The lot shall be deemed to comply with the requirements of the specification if,

- a) on inspection of the sample taken in accordance with 5.1(a), the number of defectives found does not exceed the appropriate acceptance number given in column 3 of table 1; and
- b) on testing the sample taken in accordance with 5.1(b), no defective is found.

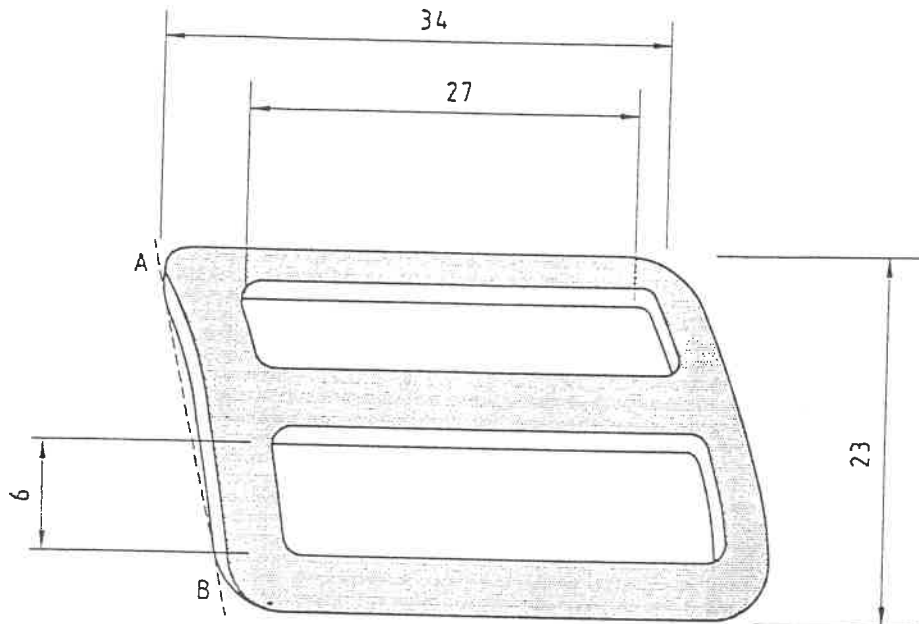
6 Inspection and methods of test

6.1 Inspection

Visually examine and measure (using a suitable measuring device) each buckle and tip in the sample taken in accordance with 5.1(a) for compliance with all the relevant requirements of the specification for which a test to assess compliance is not given in 6.2.

6.2 Thickness of nickel coating

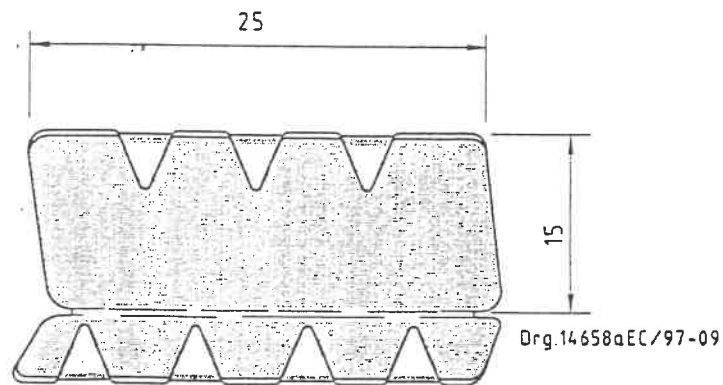
Use an acceptable method (e.g. the coulometric method) to determine the thickness of the nickel coating.



Dimensions in millimetres

Org 14658-EC/97-09

Figure 1 – Buckle



Dimensions in millimetres

Org.14658aEC/97-09

Figure 2 – Tip

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Annex A
(normative)

Special conditions of tender

A.1 Inspecting authority

Unless otherwise stated, the Commissioner, Department of Correctional Services, shall appoint an officer or organization as the inspecting authority.

A.2 Standard samples

When so required by the Commissioner, Department of Correctional Services, three samples of the buckles and the tips to be supplied in the execution of an order or of a contract shall be made and submitted by the manufacturer to the inspecting authority prior to production being commenced. These samples shall be examined by the inspecting authority in order to determine whether the samples conform exactly in construction, design, colour, dimensions, polish and general finish to the buckles and the tips that are to be manufactured during production.

NOTE – Approval of these samples shall not involve any property that requires assessment by a destructive test.

If the samples are approved by the inspecting authority, each sample shall be mounted on a card, of nominal size 127 mm x 75 mm and the cards shall be submitted to the Commissioner, Department of Correctional Services, for final acceptance of the samples. The samples shall be sealed and signed, and the cards numbered 1, 2 and 3 by the Commissioner, Department of Correctional Services. The 3 samples shall then become standard samples.

A.3 Distribution of standard samples

The standard samples shall be distributed as follows:

- a) Sample 1 shall be permanently retained by the Commissioner, Department of Correctional Services as a master sample.
- b) Sample 2 shall be sent by the Commissioner, Department of Correctional Services to the inspecting authority for use as his comparison standard when undertaking inspection of lots.
- c) Sample 3 shall be sent by the Commissioner, Department of Correctional Services to the successful tenderer, who shall use the sample as his comparison standard during production of the buckles and tips ordered. A manufacturer shall not commence production until Standard Sample 3 has been received from the Commissioner, Department of Correctional Services. On completion of the order or contract, the manufacturer shall return this standard sample to the Commissioner, Department of Correctional Services.

A.4 Inspection and testing

A.4.1 The buckles and tips shall be subject to inspection during the course of manufacture. The inspector shall, during normal working hours, be given all reasonable facilities for carrying out his duties and shall have the right of entry into the contractor's factory and the factory or works of any subcontractor where work on buckles and tips supplied to this specification may be in progress.

A.4.2 The contractor shall inspect the finished buckles and tips for compliance with the specification before submitting them to the inspecting authority for final inspection.

A.4.3 Before acceptance, the buckles and tips shall have been inspected and tested by the inspecting authority and found to comply with the requirements of the specification.

A.5 Documentation

One carton of each consignment shall be marked "Documents" and, in addition to the buckles and tips, shall contain the following:

- a) The packing slip/delivery note;
- b) where applicable, the inspection certificate(s);
- c) a copy of the invoice containing the following:
 - 1) The order number;
 - 2) the financial authority number; and
 - 3) a full description of the consignment; i.e. items, quantity, type, etc.