

UK/SC/4426 Issue 3

Specification for
CAP, SERVICE
Royal Hospital Chelsea In-Pensioners, Sergeants



Defence Clothing
Integrated Project Team

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Special Measure only

21051

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This Specification has 12 Pages

SPECIFICATION UK/SC/4426 – ISSUE TABLE

Issue Number	Comments	Date Published
3	Issue B reformatted without technical change and re-issued as Issue 3. Amendment 1 is on page 11. (April 2002)	03 January 1989

1. SCOPE

A peaked pill box styled cap for wear by RHC In-Pensioners Sergeants.

2. RELATED SPECIFICATIONS AND DOCUMENTS

2.1 Reference is made in this specification to:

BS 1006	Method of test for the colour fastness of textiles and leather
BS 1051	Glossary of terms relating to the conditioning, testing and mass determination of textiles
BS 3870 Parts 1 and 2	Stitches and seams
BS 4021	Flexible polyurethane foam sheeting for use in laminates
BS 4443	Methods of testing flexible cellular materials
BS 6157	Industrial sewing threads made wholly or partly from synthetic fibres
DEF STAN 83-35	Cloths, wool, woollen and cloths wool, woollen/cotton
DEF STAN 83-39	Cloths, 3 x 1 twill, cotton
DEF STAN 83-56	Cloths viscose and cloths viscose/cotton mixtures
DEF STAN 83-68	Cloths, velvet, cotton and viscose and cloths, velveteen, cotton
UK/SC/3933	Braid, cord, lace and embroidery, metal gold and silver
UK/SC/4528	Requirements for the labelling of garments
UK/SC/4687	Embroidery and distinguishing items and the components used therein
UK/SC/4776	Cloth, buckram, jute

2.2 Reference in this specification to a British Standard publication or any other specification or document means, in any tender or contract, the edition current at the date of such tender or contract unless otherwise stated.

3. STANDARD PATTERNS

A Standard Pattern, which is to be obtained from the Technical Information Office, is to provide the criteria for all materials, components and manufacturing features not fully defined in this specification.

4. MATERIALS

4.1 The cap is to be made of the following materials:

Body of cap and badge backing	Cloth, uniform, wool, blue, No.2 Pattern No.8239A DEF STAN 83-35 NATO Stock No.8305-99-942-7036
Crown tip interlining	Cloth, twill, cotton, black, Pattern No.8494A, DEF STAN 83-39 NATO Stock No.8305-99-942-7427
Body lining	Cloth twill, viscose, slate Pattern No.8650A, DEF STAN 83-56 NATO Stock No.8305-99-977-8434
Binding stiffener at peak	Cloth, velveteen, cotton, fawn Pattern No.8603C, DEF STAN 83-68 NATO Stock No.8305-99-942-7448
Band	Lace, cotton polyester, oakleaf 45mm Pattern No.9387A in accordance with the requirements of Specification UK/SC/4687 NATO Stock No.8315-99-136-0961
Side crown and front stiffener interlining	Expanded polyurethane, 6mm thick, having cells of uniform size and conforming to the requirements of Appendix A
Front stiffener	Cloth, buckram, jute, laminated, 2 ply impregnated, Pattern No.8713A to Specification UK/SC/4776 or an approved alternative either: polypropylene co- polymer, 0.75mm thickness \pm 0.04mm or: high density polyethylene sheet 1.0mm thickness \pm 0.1mm. The colour of the material is to be natural or black. 'Doeflex' polypropylene and polyethylene sheeting has been found to be suitable
Peak	Flexible PVC, black/beige laminate with black side polished and beige side flock sprayed, approximately 1mm thick, laminated to flexible vulcanised fibre: total thickness approximately 2.5mm or an approved alternative
Binding for peak	PVC, black, 0.6mm thick

Lining for peak	Skiver green (or an approved alternative) to comply with the requirements set out in Appendix C
Ornamental button	Button, 2 ply embroidery cord, dark blue
Chinstrap	Black PVC, 1cm wide, at least 0.9mm but not more than 1.1mm thick, with brass slides stamped, jappaned
Buttons for chinstrap	Buttons, flexible, cap
Lettering for badge	Embroidery, gold wire, to comply with the requirements of UK/SC/3933

4.2 The following sewing threads or approved alternatives are to be used. The shades are to match those used on the Standard Pattern.

For all purposes	Thread, polyester and cotton, continuous filament, polyester core, cotton sheath to BS 6157 Metric Ticket No.12 for peak to stiffener Metric Ticket No.36 for lining and hand sewing Metric Ticket No.75 for all other sewing
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5. MANUFACTURE

5.1 Design

Pill box style with a peak. A badge at the front with the letters RH embroidered with gold wire. Fitted chinstrap.

5.2 Crown tip and ornamental button

5.2.1 The crown tip, circular in shape, is to be combined to black twill with rubber solution and the laminate produced is to comply with the requirements of Appendix B. The bond is to be continuous to ensure that the outer material is free from blisters.

5.2.2 An ornamental button is to be securely sewn to the outer material and be positioned centrally on the crown tip.

5.3 Side crown

5.3.1 The one-piece side crown, shaped and seamed at the back, is to be combined to polyurethane foam with rubber solution, and the laminate produced is to comply with the requirements of Appendix B.

5.3.2 The seams are to be opened, pressed flat and stitched 0.3cm from each side of the seams.

5.3.3 The side crown is to have a 3cm upturn securely tacked.

5.4 Front stiffener

5.4.1 The stiffener 2cm deep is to have the lower edge bound with velveteen.

5.4.2 The ends of the stiffener are to extend 1.5cm beyond the junction of the peak.

5.4.3 The inner edge of the stiffener is to be combined to polyurethane foam and the laminate produced is to comply with the requirements of Appendix B.

5.5 Peak

5.5.1 The completed peak is to comply with the requirements of Appendix E.

5.5.2 The peak, black side uppermost, lined on the underside, is to be identical in shape to that of the Standard Pattern.

5.5.3 The outer edge is to be bound with black pvc, 0.6cm deep when finished.

5.5.4 The inner edge is to be securely sewn to the front stiffener with approximately four stitches per two centimetres.

5.5.5 When fitted, the peak is to be correctly balanced and be central to the front of the cap.

5.5.6 The black surface of the peak is to be free from cracks and all other defects.

5.6 Lining

The crown lining is to be cut and seamed and securely affixed to the tip and side crown seam. The side crown lining is to be turned in and securely sewn to the bottom of the cap. The lining and stitching is not to show on the outside of the cap.

5.7 Band

The lace oakleaf band joined at the centre back of the cap, is to be sewn at both edges to the side crown with the lower edge 0.6cm from the bottom.

5.8 Buttons and chinstrap

The chinstrap is to be retained by a button, securely sewn on each side of the cap, 2.5cm behind the junction of the peak, and 0.6cm from the bottom edge of the side crown.

5.9 Badge

5.9.1 A badge with the back cloth shaped as in the Standard Pattern is to be neatly sewn to the centre front of the cap with the bottom edge adjacent to the top of the lace oakleaf band.

5.9.2 The lettering RH embroidered in gold wire is to be approximately 2.2cm high.

5.10 Seams and stitching to BS 3870

5.10.1 Machine stitching is to be stitch type 301, with at least eight but not more than ten stitches per 2cm.

5.10.2 Felling is to have at least six stitches per 2cm.

5.10.3 The peak binding is to be seam type 3.01.01.

5.11 General

5.11.1 Sewing threads may be treated with stain free lubricant.

5.11.2 All seams are to be free from pucker.

5.11.3 The cap is to be free from all ends of sewing thread, be blocked and pressed and delivered in a clean condition.

6. MEASUREMENTS

The cap is to conform to the appropriate measurements shown in the Schedule.

7. MARKING

7.1 The size number, NATO Stock number and the contract number is to be clearly marked on a label attached at the centre of the crown tip lining, fabric, marking and attachment is to comply with the requirements of specification UK/SC/4528.

7.1.1 The information is to be arranged as follows:

56
8405-99-132-4031
Contract Number

7.1.2 The size number is to be 1.2cm high and the remainder of the characters 0.6cm high.

SCHEDULE

CAP, SERVICE,

Royal Hospital Chelsea In-Pensioners, Sergeants

All Measurements are in centimetres

Crown tip	Depth of side crown	Peak
All sizes: Circular (see Table below)	9.5 at front and sides 10.5 at centre back	5 at centre front 25 from point to point

Size according to scale below

Size and internal circumference	51	52	53	54	55	56	57	58	59	60	61	62
Crown Tip Diameter	16.9	17.2	17.5	17.8	18.1	18.4	18.7	19	19.3	19.6	19.9	20.2

APPENDIX A

Expanded polyurethane, conforming to BS 4021 with the following additional requirements:

Property	Requirement	Method of Test
Cell Count	50	Method 4 of BS 4443
Apparent density Kg/m ³	27	Method 2 of BS 4443

APPENDIX BFabric/foam laminate

1. The bond strength of the laminated fabric as received is to be not less than 200g when determined by the following test.
2. Two test specimens measuring 15cm x 5cm are cut from both the warp and weft directions and the specimens are delaminated by hand for a distance of 5cm. The tails are clamped in the jaws of a suitable CRE tensile testing machine and the load necessary to separate the two plies is observed. The rate of traverse of the pulling jaw is to be 100mm per minute. The results are expressed in grammes per 2.5cm width of the strips and the mean value recorded. If the foam breaks before separation occurs, this should be recorded and the load at break should be recorded.

APPENDIX C

The colour fastness of the dyed peak lining is not to be lower than the rating given in the following table which specifies the method of test to be employed:

Agency	Rating for colour change	Method of Test
Rubbing wet	4	BS 1006 (X12)

APPENDIX D

Two cap peaks are to be conditioned for 24 hours in the standard testing atmosphere as defined in BS 1051.

One peak is then to be placed in a cabinet with a temperature of 70°C and a relative humidity of 100% for six hours. The peak is then to be removed and closely examined to ensure that there has been no delamination of the black PVC or the green skiver. Any degree of distortion is to be such as will not affect the fitting of the peak to a cap.

The other peak is to be placed into a freezer for 2½ hours at -20°C. The peak is then to be removed and flexed once in each direction. The peak must not fracture or crack.

APPENDIX ETest for Delamination of Cap Peaks

Two peaks are to be conditioned for 24 hours in the standard testing atmosphere as defined in BS 1051.

One peak is then to be placed in a cabinet with a temperature of 70°C and a relative humidity of 100% for six hours. The peak is then to be removed and closely examined to ensure that there has been no delamination of the black PVC or the green skiver. Any degree of distortion is to be such as will not affect the fitting of the peak to a cap.

The other peak is to be placed into a freezer for 2½ hours at – 20 °C. The peak is then to be removed and tested in accordance with the following method :

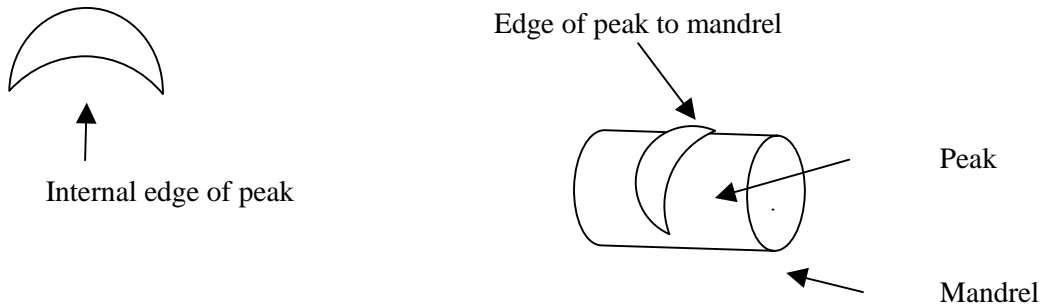
The peak must not fracture or crack.

Freezer temperature – 20 °C

Time in freezer – 2 hours 30 mins

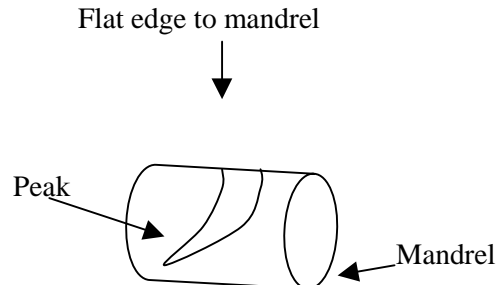
Mandrel 150mm diameter as used for Specification UK/SC/4776

Edge



Bend the internal edge of the sample around until full contact with the Mandrel's circumference is achieved, using the minimum of force required. Repeat for both black and green side up.

Flat



Bend the face of the sample flat around the Mandrel until full contact with its circumference is achieved, using the minimum of force required. Repeat for both black and green side up.

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AMENDMENT NO 1

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7. Marking

Delete: 8405-99-132-4031

Insert: 8405-99-132-3949

05 November 1992

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