



**Technical Specification for
CAP, SERVICE
No. 1 Dress, Household
PEAK, CAP SERVICE
No. 1 Dress, Household Cavalry**

Defence Clothing
Integrated Project Team

PROPERTY OF :-
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PREFACETABLE 1 – PRODUCT LIST

Item Name	Cap, Service & Peak, Cap Service	
Development File No	NN/452/06	
Product Support File No.	NV/37/P587	
Nato Stock Number (NSN)	Regiment	Pattern Number
8405-99-132-2055 to 2065	Trooper	20476A Cap
8405-99-132-2924	WOI	20477A Peak
8405-99-132-2925	Squadron QMC	20478A Peak
8405-99-132-2926	Corporal of Horse	20479A Peak
8405-99-132-2927	Corporal, L/Corporal	20480A Peak
8405-99-132-2928	Trooper	27495A Peak

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TABLE 2 – ISSUE RECORD

Issue No	Comments	Issue Date
6	Reformatted to DE&S template. Specs & Docs updated.	12 November 2008
5	Reformatted. Specs and Docs Updated	04 August 2003

PART 1

1. THE PRODUCT

- a. Use of the Product. A peaked cap embellished with gold braid for wear by the Household Cavalry. The size schedule provides for eleven sizes

FIGURE 1. Cap, Service & Peak, Pattern Number 20476A Trooper shown.



Front and left hand side as worn



Back and right hand side as worn

TABLE 3 - RELATED SPECIFICATIONS AND DOCUMENTS

Specification/Document	Detail
BS EN ISO 105 Part E04 Part X12	Textiles - Tests for colour fastness. Colour Fastness to Perspiration Colour Fastness To Rubbing.
BS EN 12590	Textiles, Industrial sewing threads wholly or partly made from Synthetic fibres.
BS EN ISO 139	Textile standard atmospheres for conditioning and testing
BS 2780	Glossary of leather terms
BS 3870 Parts 1 and 2	Stitches and seams
UK/SC/4776	Cloth, buckram, jute
UK/SC/5146	Braid, cord, lace, metallised, polyester gold, silver
UK/SC/5516	Cloths wool uniform dress
UK/SC/5628	Cloth, velvet cotton and silk WR
UK/SC/5696	Leather, sheep headleathers

2. PATTERNS.

a. Master Patterns. The DC IPT at Caversfield holds a Master Pattern for this product. Potential contractors may view the pattern on site by arrangement with the DC IPT Commercial Department.

b. Standard Patterns. A Standard Pattern may be obtained from the DC IPT Technical Information Office and may be used to provide the criteria for all materials, components and manufacturing features not fully defined in this specification.

PART 2

3. PRODUCT DESIGN A peaked cap embellished with gold braid for wear by the Household Cavalry. The size schedule provides for eleven sizes
- a. Trooper, NSN for Cap 8405-99-132-2055 to 2065 NSN for Peak 8405-99-132-2928
 - b. WOI, NSN for Peak 8405-99-132-2924
 - c. Squadron QMC, NSN for Peak 8405-99-132-2925
 - d. Corporal of Horse, NSN for Peak 8405-99-132-2926
 - e. Corporal, L/Corporal, NSN for Peak 8405-99-132-2927

TABLE 4 – PRODUCT COMPONENTS

4.1 Crown, Bevel and bottom of Band	<ul style="list-style-type: none"> • Cloth, uniform, wool Navy blue, Pattern No.8849U to UK/SC/5516,
4.2 Crown Piping and top of Band	<ul style="list-style-type: none"> • Cloth, uniform Wool, scarlet, Pattern No.8849B to UK/SC/5516, NATO Stock No.8305-99-869-4373
4.3 Crown and Bevel lining	<ul style="list-style-type: none"> • Cloth, twill, viscose, plain weave polyester or plain weave, viscose. • All linings to be grey or black to meet the colour fastness requirements for perspiration, Table 8
4.4 Crown disc	<ul style="list-style-type: none"> • Cellulose acetate sheet, colourless, 0.1mm thick, • Or, Sheeting, 0.1mm to 0.13mm.
4.5 Interlining, crown and bevel	<ul style="list-style-type: none"> • Cloth, twill, cotton, black
4.6 Cord for crown piping	<ul style="list-style-type: none"> • Twine, cotton, white, 2 ktex • Or an alternative approved DC IPT
4.7 Head leather and front pocket support	<ul style="list-style-type: none"> • Leather, sheep, for head leathers, Basil, Natural, at least 1.0mm but not more than 1.3mm thick, to UK/SC/5696, or • An approved by the DC IPT. • The term basil is defined in BS 2780
4.8 Band stiffener (Listed in order of preference)	<ul style="list-style-type: none"> • Cloth buckram, jute, laminated 2 ply, impregnated buckram to comply with the buckling and flexibility tests specified in specification UK/SC/4776.

TABLE 4 – PRODUCT COMPONENTS CONTINUED

4.8 Band stiffener, (continued)	<ul style="list-style-type: none"> • Or Glued hessian plain weave, 1000 g/m². • Or High density polyethylene sheet 1.0mm thickness \pm 0.1mm, solid. • Or; High density polypropylene sheet 1.0mm thickness \pm 0.1mm, solid.
4.9 Peak	<ul style="list-style-type: none"> • Flexible PVC, Black / beige laminate, with black side polished and beige side flock sprayed, Approximately 1.0mm thick Laminated to flexible vulcanised fibre or flexible fibreboard, or • Two part laminate, fabric, impregnated with polyurethane with black patent finish, approximately 1.0mm thick, laminated to polypropylene / polyethylene, surface finish leather grain, colour to be bottle green approximately 1.5mm thick • Total thickness of peaks to be no less than 2.5mm and no more than 2.8mm, to comply with the requirements of Table 10
4.10 Lining for Peak (Except two part Laminate)	<ul style="list-style-type: none"> • Skiver green or imitation skiver green, embossed backed plastic. The term skiver is defined in BS 2780. • The peak lining fabric is to have a colour fastness rating to comply with Table 8
4.11 Binding for Peak	<ul style="list-style-type: none"> • PVC, black, 0.6mm thick
4.12 Peak Embellishment	<ul style="list-style-type: none"> • Braid, Gold No 3, See Table 7 for design details. Pattern No. 9515A to comply with the requirements of Specification UK/SC/5146, NATO Stock Number 8315-99-130-8321
4.13 Binding Stiffener at peak	<ul style="list-style-type: none"> • Cloth, velveteen, fawn or black. To comply with the colour fastness requirements of perspiration Table 2, of UK/SC/5628
4.14 Wire for Crown	<ul style="list-style-type: none"> • Wire, steel galvanised, 15 SWG with steel or brass connecting tube. All metal to be rustproof • Or an alternative approved by the DC IPT
4.15 Front Support	<ul style="list-style-type: none"> • Sprung steel support with leather tab or brass tip
4.16 Thread for all Purposes	<ul style="list-style-type: none"> • Thread, corespun polyester/cotton, to BS EN 12590 <ul style="list-style-type: none"> a) Metric Ticket No.25(26) for peak to stiffener b) Metric Ticket No.36(35) for bevel, band, sewing in crown, back and front finishing, lining. c) Metric Ticket No.75 All other sewing • Or an alternative approved by the DC IPT

TABLE 5 – PRODUCT CONSTRUCTION

5.1 Crown	<ul style="list-style-type: none"> • The crown tip, oval in shape, is to comply with the measurements set out in Table 6 • The measurements are to be taken from the crown tip piping seam. • The crown is to be securely combined to black twill with a suitable adhesive to form a waterproof barrier and the laminate produced is to comply with the requirements set out in Table 9. The bond is to be continuous to ensure that the outer material is free from blisters. • The perimeter of the crown tip is to have a corded piped edge joined in line with the back seam of the bevel quarters.
5.2 Bevel	<ul style="list-style-type: none"> • The bevel, combined to black twill as specified above, is to be quartered with the seams opened and pressed flat.
5.3 Band	<ul style="list-style-type: none"> • The band is to be constructed in two parts. <ul style="list-style-type: none"> a) The lower band is to be finished 0.6cm wide b) and the upper band 4.9cm wide. • The band is to be joined at the centre back of the cap in line with the seam of the bevel.
5.4 Band Stiffener	<ul style="list-style-type: none"> • The stiffener is to be cut sufficiently long to allow a 2cm overlap where it is joined at the back of the cap slightly offset to reduce the thickness. • The stiffener is to be stitched through the outer material of the band 0.6cm from the bottom edge and at the top through the band/bevel seam.
5.5 Lining	<ul style="list-style-type: none"> • The crown lining is to be sewn in with the crown tip piping seam and be securely attached at the bottom edge of the stiffener by hand or machine stitching or securely glued with a suitable adhesive • The lining is to be cut deep enough to allow the side and back bevel to roll without distortion. • A detachable transparent disc, sufficient to cover the crown tip, is to be inserted on top of the crown lining

TABLE 5 – PRODUCT CONSTRUCTION CONTINUED

5.6 Peak	<ul style="list-style-type: none"> • The peak, black side uppermost, Chamfer edged on the brow line and lined on the underside is to be identical in shape to that of the Standard Pattern. • The outer edge is to be bound with black PVC, 0.6cm deep when finished. • When fitted the peak is to be correctly balanced and central to the front seam of the bevel quarters. • The peak is to be may be fitted to the band stiffener by sewing the inner edge of the peak to either the inner or outer edge of the stiffener. • The seam allowance from seam to inner peak edge is not to be less than 0.3cm and not more than 0.5cm. • When fitting the peak to the outer edge of the stiffener, the bottom edge of the stiffener is to be bound with velveteen. • When fitting the peak to the inner edge of the stiffener, a strip of velveteen, depth 2.5cm is to be sewn to the head leather prior to attaching the head leather to the cap, extending the length of the peak.
5.7 Head Leather	<ul style="list-style-type: none"> • Each cap is to have a brachered head leather, the ends of which are to be overlapped 1cm at the centre back of the cap and tacked together at the top edge through a white braid bow. • The taping on the head leather may be sewn to the band by hand or machine, but in neither case is the leather to show below the bottom edge of the band.
5.8 Button Position	<ul style="list-style-type: none"> • The button position is to be indicated on each side of the cap, by sewing a small piece of knotted sewing thread, 0.6cm from the bottom edge of the band and in line with the side seam of the bevel.
5.9 Crown Wire	<ul style="list-style-type: none"> • A cap wire with a connecting tube is to be fitted on the inside of the cap above the piping of the crown.
5.10 Front Support	<ul style="list-style-type: none"> • The front support is to be fitted with a good quality leather tab or brass tip. • The leather tab is to be rivetted and turned over at the top of the support. • The leather tab is to be securely sewn on the inside of the piping of the crown to lie immediately behind the front bevel seam. • The bottom of the support is to be housed in a 2.5cm square pocket of good quality leather sewn to the centre front of the band stiffener.

TABLE 5 – PRODUCT CONSTRUCTION CONTINUED

5.11 Seams and stitching to BS 3870	<ul style="list-style-type: none">• Machine stitching is to be stitch type 301, with at least eight but not more than ten stitches per 2cm.• The piping is to be formed seam type 1.12.01 (with cord).• The brachering on the head leather is to be stitch type 304 with at least six stitches per 2cm.• The felling on the head leather is to have at least six stitches per 2cm.
5.12 General	<ul style="list-style-type: none">• All seams are to be free from pucker.• The cap is to be free from all ends of sewing thread, be blocked and pressed and delivered in a clean condition.

TABLE 6 – SCHEDULE OF NATO STOCK NUMBERS AND CAP MEASUREMENTS

All measurements are in cm unless otherwise stated.

NATO Stock Number 8405-99-132-	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	Tols mm		
Size and internal circumference	52	53	54	55	56	57	58	59	60	61	62	+	-	
Crown	Length	26.1	26.4	26.7	27	27.3	27.6	27.9	28.2	28.5	28.8	29.1	2	2
	Width	24.9	25.2	25.5	25.8	26.1	26.4	26.7	27	27.3	27.6	27.9	2	2
Crown	All sizes 1.2 oval											2	2	
Bevel	5.7 deep											2	2	
Band	5.5 wide											2	2	
Peak	depth	4 deep											1	1
	length	19.5 from point to point when fitted to the cap											3	3
Hand Leather	4 deep											2	2	
Stiffener	6 deep											2	2	
Front Support	7.6 long 1.2 wide											2	2	

TABLE 7 - SCHEDULE OF NATO STOCK NUMBERS AND EMBELLISHMENTS

NATO Stock Number	Pattern Number	Rank	Embellishment*
8405-99-132-2924	20477A	WO1 Trumpet Major Band Corporal of Horse	5 rows of gold braid Without intervening space
8405-99-132-2925	20478A	Squadron QMC Staff Corporal of Horse	4 rows of gold braid Without intervening space
8405-99-132-2926	20479A	Corporal of Horse	3 rows of gold braid With 3mm intervening space
8405-99-132-2927	20480A	Corporal, L/Corporal Musician and Trumpeter	2 rows of gold braid With 3mm intervening space
8405-99-132-2928	27495A	Trooper	1 row of gold braid

- * The first row is to be adjacent to the PVC edge binding.

TABLE 8 – TEST REQUIREMENTS.

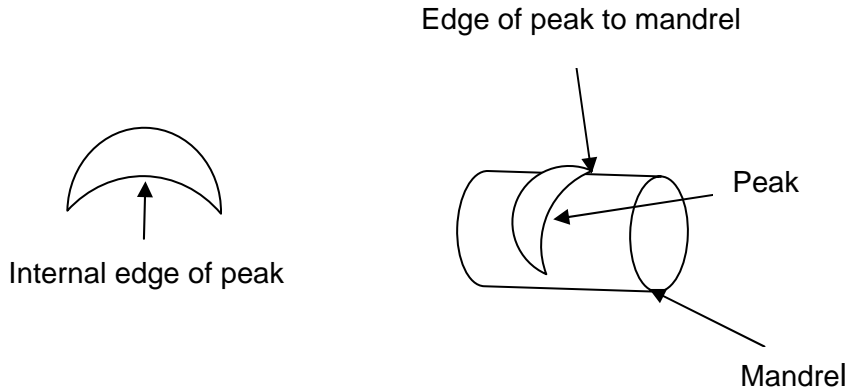
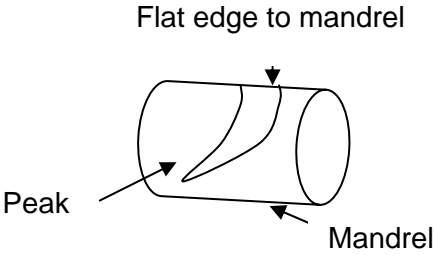
The peak lining and bevel linings are to conform to the requirements of the following Table:

BS EN ISO 105		
Part E04		Part X12
Perspiration		Rubbing wet
Staining	Colour change	Colour change
4-5	5	4

TABLE 9 - METHOD OF TEST. To Determine Fabric/foam Laminate Bond Strength. The minimum bond strength of the laminated fabric is to be 1.25N/25mm when determined by the following method:

9.1 Sample preparation	<ul style="list-style-type: none"> Specimens which have been conditioned for 24 hours in the standard testing atmosphere defined in BS EN ISO 139 are to be cut 200mm x 25mm with at least two samples being cut with the 200mm dimension in the warp and weft direction respectively.
9.2 Procedure	<ul style="list-style-type: none"> The conditioned samples are to be delaminated by hand for 100mm. The tails are to be clamped in the jaws of a CRE tensile testing machine. The sample is then to be peeled apart with a jaw separation of 100mm/min for a 50mm length of sample.
9.3 Calculation and expression of results	<ul style="list-style-type: none"> The maximum value of peel bond strength is to be recorded for each sample that peels for 50mm without the foam breaking. If the foam does break during delamination this fact is to be noted and the value at break recorded. The mean value of two results for samples, which delaminate for 50mm without the foam breaking, is to be calculated in the warp and weft direction respectively.

TABLE 10 –TEST FOR THE DELAMINATION OF PEAKS

10.1 Test procedure	<ul style="list-style-type: none"> • Four cap peaks (detached from caps) are to be taken from batches of up to 500 and conditioned for 24 hours in the standard atmosphere defined in BS EN ISO 139. • Two peaks are to be placed in an environmental chamber at $70 \pm 2^\circ\text{C}$ and 95 - 100% relative humidity for 6 hours \pm 15 minutes. After removal, the peaks are to be examined for delamination of the black PVC and the (green) skiver, delamination of either peak is to render the batch rejected. Any degree of distortion is to be such that it will not affect the subsequent fitting of the peak to a cap; severe distortion of either peak is to render the batch rejected. • Two peaks are to be placed in a freezer at $-20 \pm 2^\circ\text{C}$ for $2\frac{1}{2}$ hours \pm 5 minutes. Immediately after removal, each peak is to be subjected to the following two tests using a mandrel of diameter $150 \pm 1\text{mm}$
10.2 Edge test	<p style="text-align: center;">Edge of peak to mandrel</p>  <ul style="list-style-type: none"> • Use the minimum of force required to bend the internal edge of the peak around the mandrel, ensuring free contact with the circumference of the mandrel. Repeat with the other side up. Examine both sides of the peak for fractures or cracks; any such damage on either peak is to render the batch rejected.
10.3 Flat test	<p style="text-align: center;">Flat edge to mandrel</p>  <ul style="list-style-type: none"> • Use the minimum force required to bend the face of the peak around the mandrel, ensuring free contact with the circumference of the mandrel. Repeat with the other side up. Examine both sides of the peak for fractures and cracks: any such damage on either peak is to render the batch rejected.

4. LABELLING REQUIREMENTS. Information and format is to be as follows:

- The identification label is to be covered by the crown disc, including pressure sensitive self adhesive labels.
- The size number is to be 1.2cm high and the remainder of the characters 0.6cm high.

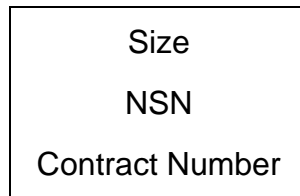


Figure 2 Example Identification and marking label