

**Technical Specification for
PLUMES, HOUSEHOLD CAVALRY**



Defence Clothing
Integrated Project Team

PROPERTY OF :-
DEFENCE CLOTHING
INTEGRATED PROJECT TEAM
DLO Caversfield
Skimmingdish Lane
Bicester
Oxon
OX27 8TS

PREFACETABLE 1 – PRODUCT LIST

Item Name	PLUMES, HOUSEHOLD CAVALRY		
Development File No	D/DCIPT/RDG/NR/04/06		
Product Support File No.	D/DC/506/03/QPS		
NATO Stock No.	Regiment	Colour	Pattern No.
8455-99-975-5656	Life Guards, Officers	White, Horsehair	15325A
8455-99-975-5658	Life Guards, Other Ranks (except Farrier & Trumpeter)	White, Horsehair	18167A
8455-99-975-5655	Life Guards, Farrier	Black, Horsehair	9827A
8455-99-975-6901	Royal Horse Guards, Officers	Scarlet, Yak hair	19656A
8455-99-975-5659	Royal Horse Guards, Other Ranks & Life Guards, Trumpeter	Scarlet, Horsehair	18166

Any colour shown in this document is for representation and must not be used for colour matching.

IPR STATEMENT

This specification contains information which is proprietary to the Secretary of State for Defence and shall remain the property of the Secretary of State. It is issued in strict confidence and must not be seen by any unauthorised person. The specification is supplied solely for the purpose of Information/Tender/Contract and shall not be copied or reproduced or used for any other purpose whatsoever without the express prior written permission of the Secretary of State as represented by the Intellectual property rights group.

Technical documents in this specification refer to the edition current at the date of tender or contract unless otherwise stated.

CROWN COPYRIGHT RESERVED

TABLE 2 – ISSUE RECORD

Issue No	Comments	Issue Date
4	Length (Table 6) and weight (para 5.3) of all horse hair plumes amended.	12 April 2006
3	Full Technical review and re-formatted	10 February 2005
2	Technical changes	30 May 1967
1	New	19 April 1962

PART 1

1. THE PRODUCT

a. Use of the Product.

Plumes to be worn with Helmet, Metal, Household Cavalry Officers (NSN: 8455-99-975-4440 to 4444) and Other Ranks (NSN: 8455-99-975-5352 to 5359).



Figure 1

TABLE 3 - RELATED SPECIFICATIONS AND DOCUMENTS

Specification/Document	Detail
BS EN ISO 105	Textiles. Tests for colour fastness.
B02	Colour fastness to light: Xenon arc fading lamp test
C06	Colour fastness to washing
X12	Colour fastness to rubbing
BS EN ISO 2062	Yarns from packages – Determination of single-end breaking force and elongation at break.
BS EN 12540: 2000	Specification for electroplated coatings of nickel and chromium.
BS EN 12590	Industrial sewing threads made wholly or partly from synthetic fibres.
DEF STAN 83-34	Wool, fabrics, baratheia, gabardines, serge's etc.

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. Product Description.

Plumes made from Horsehair bleached for Life Guards Officer and Other Ranks, dyed black for Farriers and dyed scarlet for Royal Horse Guards Other Ranks and Trumpeters. Scarlet dyed Yak hair for Royal Horse Guards Officers.

See pages 6 to 10 for photographic reference.

NSN: 8455-99-975-5655
Pattern No: 9827A
Designation: Plume Household Cavalry. Life Guards, Farrier, Black



Top Ornament



Former

NSN: 8455-99-975-5656
Pattern No.: 15325A
Designation: Plume Household Cavalry. House Guards, Officers,
White



Top Ornament



Former

NSN: 8455-99-975-5658
Pattern No.: 18167A
Designation: Plume Household Cavalry. House Guards, Other
Ranks, White



Top Ornament



Former

NSN: 8455-99-975-5659

Pattern No.: 18166

Designation: Plume Household Cavalry. Royal Horse Guards, Other Ranks and Life Guards, Trumpeters; Scarlet



Top Ornament



Former

NSN: 8455-99-975-6901
Pattern No.: 19656A
Designation: Plume Household Cavalry. Royal Horse Guards,
Officer's, Yak Hair, Scarlet.



Top Ornament



Former

TABLE 4 – PRODUCT COMPONENTS

4.1 Metal stem	Steel, nickel plated, 0.4cm thick, 4 sided. (Plating to comply with BS EN 12540)
4.2 Covering of stem: Life Guard Officers and Other Ranks (except Farriers and Trumpeters). Royal Horse Guards, Officers. Royal Horse Guards, Other Ranks and Trumpeter Life Guards. Life Guards Farrier.	Horsehair bleached white. Yak Hair dyed scarlet. Horsehair dyed scarlet. Horsehair natural or dyed black.
4.3 Core of plaited hair	Linen thread or suitable alternative
4.4 Mould	Wood, Beech (composition and shape identical to that of the standard pattern)
4.5 Covering of mould: Life Guard Officers and Other Ranks (except Farriers and Trumpeters). Royal Horse Guards, Officers and Other Ranks and Trumpeter Life Guards. Life Guards Farrier.	Serge worsted, lining or suitable white fabric. Serge worsted, lining or suitable scarlet fabric. Serge worsted, lining or suitable black fabric.
4.6 For sewing the mould cover and attaching horsehair and yak hair.	Thread cotton or suitable alternative (which shall match the shade of the relevant coloured fabric)

TABLE 5 – PRODUCT CONSTRUCTION

5.1 Design	<ul style="list-style-type: none"> • The design and shape of the plume shall be strictly in accordance with that of the Standard Pattern.
5.2 Core of plume	<ul style="list-style-type: none"> • A circular wooden mould, with an aperture in the centre for the metal stem, shall be covered with a serge worsted, lining or suitable fabric. • The fabric shall be securely handsewn around the mould with thread to match the colour of the fabric.
5.3 Horsehair/ Yak hair	<ul style="list-style-type: none"> • The horse or yak hair shall be plaited around the thread and securely handsewn to the fabric covering the mould. It shall be arranged at the top to allow the hair to fall evenly over the circular mould, as in the Standard Pattern. • A "fringe" of horsehair or yak hair, 5cm long, shall be fitted between the ball screw and the base of the mould. • The weight of horsehair used for each plume shall be 220g. • The weight of the yak hair used for each plume shall be 142g.
5.4 Metal stem	<ul style="list-style-type: none"> • The top of the stem shall be fitted with a brass washer covered with: <ul style="list-style-type: none"> • A white metal domed screw-on top, for Other Ranks, Farriers and Trumpeters. • A gold plated domed screw-on top, for the Life Guards Officers. • A gold plated rose design screw-on top, for the Royal Horse Guards Officers • A ball screw shall be fitted on the stem, 6cm below the washer, for the purpose of retaining the "fringe" in position at the base of the mould. • The bottom of the stem shall have a thread, extending 2cm to engage a brass nut for the purpose of retaining the plume in position when fitted into the spike of the helmet.

TABLE 6 – MEASUREMENTS AND TOLERANCES

Length of horsehair	Metal Stem	Brass washer	Ball screw	Brass nut	Domed screw
Must not measure less than 54cm when measured from metal dome.	23cm long, 0.4cm wide, 4 sided.	2cm diameter	2cm deep	2cm diameter	2.2cm diameter
Length of Yak hair	Metal Stem	Brass washer	Ball screw	Brass nut	Domed screw
48cm when measured from metal dome.	23cm long, 0.4cm wide, 4 sided.	2cm diameter	2cm deep	2cm diameter	2.2cm diameter

TABLE 7 – TESTING

The colour fastness of the dyed horsehair and Yak hair and the linen thread shall be not lower than the following ratings:

Test Requirements for: Horse/ Yak hair

Method of Test BS EN ISO 105					
B02		C06		X12	
Light (xenon)		Washing		Rubbing	
Colour change	Staining	Colour change	Staining	Colour change	Staining
5-6	-	4	4	5	5

Test Requirements for: linen thread or suitable alternative

Method of Test BS EN ISO 105	
X12	
Rubbing	
Colour change	Staining
5	5

TABLE 7 – TESTING continued.

The linen thread or suitable alternative shall comply with the properties specified in the following table:

	Requirement	Method of test
Count	536 tex	-
Ply	8 fold	-
Tensile strength – lb (minimum)	35	BS EN ISO 2062 Yarns from packages - Determination of single-end breaking force and elongation at break