



Royal Canadian Mounted Police  
Gendarmerie royale du Canada

Doc. no: G.S. 1045-189

Date: 2015-06-01

## Specification

# Trousers, Combat, Blue, Poly/Cotton

This document has 20 pages including the drawings.

This document was created in English.

The document is available in English and French.

English/Anglais  
Français/French

The photograph on this page is for reference only.



	<b>Para. No's</b>	<b>Modifications</b>
2002-10-28		Original Specification
2003-06-17	Entire Specification  Page 5, Para. 4.1.1 Page 5, Para. 4.1.7  Page 12, Scale of Measurements	-Nomenclature for sealed sample changed to viewing sample. -17mm, 4-hole button added for inside fly curtain. -Hook & loop tape description changed and certification added. -Waist & Seat measurements amended and Size 46 S, R, T added.
2004-01-30	Pg. 5, Para. 4.1.9 Pg. 6, Para 4.3.4  Pg. 7, Para. 4.3.8 Dwg. 1, Front View A and Section A-A Dwg. 2, Fly Detail	-Add metal eyelets. -Large belt loop clarification. Front fly military strap button changes to vertical position. -Change eyelet description to include metal eyelets. -Clarification for large belt loop application. 4.1.6Front fly military strap button reflects vertical positioning.
2012-07-24		The spec has been reformatted from WordPerfect to Word due to translation and industry practice as well as updated to be consistent with the other combat style trousers (re-issued).
2013-06-12	Para. 4.1.2.1 Para. 4.3.15  Appendix A	Added Certificate of compliance or test report. Specify date in numeric form and detailed Care Instructions added. Certificate of Compliance definition revised.
2015-06-01		Specification reformatted.

## **RCMP VIEWING SAMPLE**

A viewing sample, when available, will be supplied to the successful bidder.

This will be used for the guidance of the manufacturer in all factors not covered by this specification or referred to therein. Variation from the specification may appear in the sample in which case the specification shall govern.

It may be obtained from:

Royal Canadian Mounted Police  
ATTN: Uniform and Equipment Program  
(440 Coventry Road, Warehouse Building)  
1200 Vanier Parkway  
Ottawa, Ontario  
K1A 0R2

It will be sent “prepaid” and is to be returned “prepaid”.

The viewing sample shall be returned to the RCMP in the same condition as received by the manufacturer. Lost or damaged viewing samples shall be replaced by an identical item or the RCMP shall be reimbursed for the cost of an acceptable replacement.

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## **SPECIFICATION**

### **TROUSERS, COMBAT, BLUE, POLY/COTTON**

#### **1. Definitions**

- 1.1 This specification shall govern the manufacture and inspection of Trousers, Combat, Blue, Poly/Cotton. The specific items covered under this specification with stock numbers are as follows:
  - i. 6940 – Trousers, Combat, Blue / Pantalon de combat bleu
- 1.2 This specification, drawing, viewing sample, or other information issued in connection therewith, may only be used for specific enquiries, tenders, or orders placed on behalf of the Royal Canadian Mounted Police.
- 1.3 This specification supersedes all previous specifications for R.C.M.P. Trousers, Combat, Blue, Poly/Cotton.
- 1.4 This specification has been translated into French from this original English language document.

#### **2. Applicable Specifications**

- 2.1 The following publications are applicable to this specification and to the issues in effect on the date of the invitation to tender, unless otherwise specified.
- 2.2 CAN/CGSB 4.2, Textile Test Methods.
- 2.3 ISO 4915:1991 Textiles – Stitch Types.
- 2.4 ISO 4916:1991, Textiles – Seam Types.
- 2.5 CAN/CGSB 4.131-93, Thread, Polyester, Polyester-Covered.
- 2.6 RCMP Specification, G.S.1045-284 Cloth, Twill Poly/Cotton.
- 2.7 CAN/CGSB-86.1-2003 Care Labelling of Textiles.

2.8 ASTM D5169-98 (2004) and ASTM D5170-98 (2015)

### 3. **General Requirements**

3.1 The article or material covered by this specification shall be free from imperfections or blemishes such as may affect its appearance or serviceability. In all particulars not covered by this specification or contract documents, production shall be equivalent in all respects to the viewing sample.

3.2 **Design** - The overall design shall be a military style combat trouser navy blue in colour, constructed from a poly/cotton material. It shall come complete with front hip-pockets, back hip pockets, thigh bellow pockets, storm cuffs and a fly front with slide fastener. All pockets shall have flaps and military strap buttons for closure. The trousers shall be constructed from material purchased from the RCMP where specified and shall conform to the attached drawings which form part of this specification and to the viewing sample.

### 4. **Detail Requirements**

#### 4.1 **Components**

4.1.1 **Shell Material** - Shall be made of Cloth, Twill, Poly/Cotton, navy blue in colour, meeting the requirements of RCMP specification G.S.1045-284, and shall be purchased from the R.C.M.P.

4.1.2 **Pocket Lining** - The lining shall be 65% Polyester/ 35%  $\pm$  3% Cotton, black in colour or to match the shell material, and shall meet the requirements outlined in Table I forming part of this specification.

4.1.3 **Fusing** - The interlining shall be woven, fusible interlining, 85 g/m<sup>2</sup>  $\pm$  10 g/m<sup>2</sup> in accordance with the viewing sample.

4.1.4 **Thread** - Shall be polyester wrap, polyester core, Tex 40, of matching colour, meeting CAN/CGSB 4.131-93.

4.1.5 **Military Strap Button** - The Military Strap Buttons shall be 19 mm, made of nylon composition, black or navy colour, matching the shell material. Each button shall be equipped with two 8 mm wide slot openings.

4.1.5.1 **Button** - Buttons shall have 4 holes, 19 mm in diameter and made of a nylon composition. The buttons shall be of matching shade to the shell material or black in colour and positioned in accordance to para. 4.3.6 and drawing # 2.

4.1.6 **Slide Fastener** - Shall be a closed ended, brass slide fastener with Y type teeth and 4.5 mm chain width. The slide fastener shall come complete with one bottom stop and a minimum of one top stop. The top stop shall be visible, positioned below the waistband. There shall be a semi-locking slider with stainless steel locking pin, and brass pull tab. The tape shall be comprised of a polyester yarn and shall be black in colour. YKK YGC-459½ is known to meet this requirement.

Rise:	Slide Fastener Length (inches):
Short	6½"
Regular	7"
Tall	7½"

4.1.7 **Hook and Loop Tape** - Shall be black in colour, 1.5 cm and 2 cm wide, hook & loop tape. The combined hook and loop shall have no less than 8 P.S.I length-wise shear strength with initial peel strength of not less than 1 P.I.W when tested to ASTM D5169-98 (2004), standard test method for shear strength [dynamic method] of hook and loop touch fasteners and ASTM D5170-98 (2015), standard test method for peel strength ["T" method] of hook and loop touch fasteners.

4.1.8 **Elastic (Storm Cuff)** - The elastic used for the storm cuff shall be 1.27 cm wide non-roll, pre-shrunk, with a knitted or woven construction and have elongation of 125%. The elastic used shall be equal in respect to the viewing sample.

4.1.9 **Eyelet** – The eyelets shall be black in colour with an inside diameter of 4 mm, metal or thread eyelets are acceptable.

4.1.10 **Drawcord** - Shall be 3.5 mm wide, black in colour, equal in respect to the viewing sample.

4.2 **Size and Dimensions** - Trousers, Combat, Blue, Poly/Cotton to this specification shall be supplied in the sizes specified by the R.C.M.P. and to the dimensions given in the scale of measurements and drawings, forming part of this specification.

### 4.3 **Construction**

- 4.3.1 **Cutting and Assembly** - All components of the trousers shall be cut in the direction of the grain line. All garment pieces cut from the specified material shall be cut from the same dye-lot.
- 4.3.2 **Stitching & Seams** - Using the specified thread, there shall be not less than 3 and no more than 4 stitches per cm. All stitching shall be lock or lockchain stitch except the seat seam which shall be lockchain stitch. The beginning and ending of all stitching shall be securely backstitched and tacked unless secured by other stitching. Where seaming, turning and stitching are required the edges shall be properly worked out before stitching. Inseams and outseams shall be felled seam stitched and double topstitched using 2.04.06 of ISO 4916:1991. Other raw edges are to be serged in accordance with serging type #6.01.01.
- 4.3.3 **Military Strap Button with strap** – The straps shall be made from shell material as per para. 4.1.1, inserted through a military strap button, as specified in para. 4.1.5 and bar-tacked in place. Buttons and straps shall conform to drawing #3 and the viewing sample.
- 4.3.4 **Buttonhole** - Buttonholes shall be eyelet type, gimp reinforced, with a bar tacked or fish-tailed end and having a minimum of 28 stitches per inch or 11.2 stitches per centimetre. The buttonholes may be “cut first” or “cut after”, and shall fit buttons as specified in para. 4.1.5 and 4.1.5.1. When “cut after” buttonholes are used, the cut shall be clean, close to the stitches so they are equal in appearance to the “cut first” buttonholes.
- 4.3.5 **Bar Tack** - Bar tacks made from thread specified in para 4.1.4 shall be 13mm in length and be made with no less than 18 cover stitches per tack.
- 4.3.6 **Waistband** - The cut-on waistband shall be equipped with six small belt loops, 1 cm wide, tacked and securely caught by stitching used to join together the trousers and waist facing. The bottom end shall be bar-tacked in position over the second row of topstitching used in the construction of the waist and facing as per paragraph 4.3.6.1 and drawing #2. The bar-tack should penetrate all layers of material including the waist facing. There shall be five large belt loops dimensioned as per drawings with hook tape, 6 cm by 2 cm, and loop tape, 8 cm by 2 cm as per para. 4.1.7. The large belt loops are placed on top of the waistband in an open position, top-stitched and bar tacked at the top and bottom as per the drawing and viewing sample. When the belt loop is applied, it shall have a raised

center loop so the opening distance from the top to the bottom stitching and bar tacking is 6 - 6.5 cm. The loop shall be raised and measure 7.5 cm as per drawing #1.

4.3.6.1 **Waist Facing** - The waist facing shall measure 5.5 cm in width (+1cm tolerance), constructed from material specified in para. 4.1.1, complete with fusing as specified in para. 4.1.3. Once joined, the waist facing shall be top-stitched, using a 3 mm gauge from the top edge. A second row of top-stitching shall run 5 cm parallel to the first, as per drawing #2 and the viewing sample.

#### 4.3.7 **Pockets & Flaps**

4.3.7.1 **Flaps** - All components of the pocket flaps shall be constructed from shell material as specified in para. 4.1.1. A buttonhole tab shall be constructed from a single layer of shell material folded, turned, stitched. A buttonhole, sized to fit a 19 mm military strap button shall be applied to the centre of the tab. The completed buttonhole tab shall be attached to the inside ply of the pocket flap and shall have two bar-tacks to secure the opening. The completed flaps shall conform in all respects to the drawings and viewing sample.

4.3.7.2 **Front Hip Pockets** - There shall be two front-hip pockets constructed from shell material as specified in para. 4.1.1 with flaps as stated in para. 4.3.7.1. The pocket bag shall be constructed from shell material as specified in para. 4.1.2, stitched and turned on all raw edges. The pockets shall have slanted openings, military strap buttons for closure and shall be reinforced in the seam, with an additional material such as twill tape or a woven material used on the straight of grain to stabilize the pocket opening. Both ends of the pocket opening shall be bar tacked as shown in the drawings and the pocket opening that extends into the waistband shall be sewn closed. The completed front hip pockets shall be shaped and dimensioned as per drawings and viewing sample.

4.3.7.3 **Back Hip Pockets** - The back hip pockets shall have a 15.5 cm long single welt opening constructed from shell material, as specified in para. 4.1.1, fused with material as specified in para. 4.1.3, with pocket flaps as stated in para. 4.3.7.1 inserted at the top of the welt and military strap buttons for closure. The pocket bag shall be constructed from shell material as specified in para. 4.1.2 and shall be stitched and turned on all raw edges. Both ends of the pocket opening and flaps shall be bar tacked as shown in the drawings. The completed back hip pockets shall be shaped and dimensioned as per drawings and viewing sample.



- 4.3.7.4 **Thigh Pockets** - The thigh pockets shall be constructed from shell material as specified in para. 4.1.1. Flaps as specified in para 4.3.7.1 with military strap buttons and corresponding buttonholes shall be applied above the pockets as per the drawings. Both pockets shall be positioned so that they are centred on the side seam and bar tacked as shown in the drawings. All raw edges of the pockets shall be serged. The pockets shall be applied so the bellow is facing towards the back of the trouser in accordance with the drawings.
- 4.3.8 **Seat Patch** - The trouser shall have a seat patch made from material as specified in para. 4.1.1. The raw edges of the seat patch shall be serged. The patches shall be applied to the inside of the seat area and stitched securely in place conforming in respect to the drawings and viewing sample.
- 4.3.9 **Storm Cuffs** - The storm cuffs shall be constructed from shell material as specified in para. 4.1.1. They shall be applied to the trouser leg 20 cm above the finished hem and sewn with two rows of stitching. The bottom hem of the storm cuff shall be turned up 3 cm with the raw edges folded under 1 cm to create a 2 cm wide channel. The elastic specified in para. 4.1.8, shall be inserted through the channel. The bottom of the storm cuff when finished shall extend 12.5 cm below the finished hem with a relaxed bottom circumference opening of 30 cm for all sizes. The bottom of the legs shall conform to the drawings and viewing sample.
- 4.3.10 **Drawcord Hem (Leg Bottom)** - The leg bottom shall be equipped with eyelets as specified in para. 4.1.9, made of metal or machine stitched from thread specified in para. 4.1.4. The eyelets shall be applied on each leg bottom 4 cm from the bottom raw edge, and 1.5 cm from the outside seams. The plain leg bottoms shall be turned in 3 cm and the raw edge folded under 1 cm and stitched down on the folded edges using a 2 mm gauge. A drawcord, as specified in paragraph 4.1.10, shall be passed through the eyelet casing formed by the hem to provide a drawcord closure. The bottom of the legs shall conform to the drawings and viewing sample.
- 4.3.11 **Fly Opening** - The fly front shall be made with shell material as specified in para. 4.1.1 and fused with material as specified in para. 4.1.3. It shall be equipped with a slide fastener in accordance with para. 4.1.6, which shall be supported by two buttons, as specified in para. 4.1.5.1. The four-hole buttons shall be positioned on the fly front with corresponding buttonholes on the fly curtain. The top waist/fly opening shall be equipped with a Military style strap button, as specified in para. 4.1.5 and drawing #2 with corresponding buttonhole for closure.

At the end of the fly curtain extending below the bottom of the fly opening, the fly curtain shall be tacked to the fly front. Care shall be taken to ensure that the shell material is not caught during this operation. The fly shall conform in all respects to the drawings and viewing sample.

- 4.3.12 **Seat Seam** - The seat seam shall be stitched using 401 lockchain stitch finished so that alterations of the waistband can be performed without opening the waistband. The seam allowance shall be a minimum of 2 cm at the crotch, widening gradually to 4 cm each side at the waistband after seaming and turning. All raw seams shall be serged. When finished, the seat shall conform in all respects to the drawings and viewing sample.
- 4.3.13 **Knee Patch** - Each leg shall be equipped with an outside knee patch constructed from shell material as specified in para. 4.1.1 extending from inseam to outseam. There shall be a knee pad pocket constructed from pocketing material as per para. 4.1.2, sewn on the inside leg under the knee patch to allow the insertion of padding. A 5 cm by 1.5 cm wide piece of hook tape and its corresponding piece of loop tape shall be attached to the top of the knee pad pocket for closure. The completed knee area shall be constructed, dimensioned and attached in accordance with the drawings and viewing sample.
- 4.3.14 **Pressing and Shaping** - The trousers shall be pressed and shaped in accordance with good commercial practice to conform with the shaping and style of the viewing sample.
- 4.3.15 **Marking & Cleaning Instructions and Identification Labels** - Each pair of trouser shall have two labels sewn separately to the right back pocket bag. The label information shall be as outlined below in a text no less than a size 8 font. The text shall be of permanent inks of a contrasting colour and shall withstand at least 50 washes showing no apparent change in appearance. The label shall be completed in accordance with the following information in English and French.
1. Item name in English as written in para. 1.1.
  2. Item name in French as written in para. 1.1.
  3. RCMP stock number - reference contract documents. (Ex. 6940 000)
  4. Size of the article, combining the size designation referenced in the English and French contract documents. (Ex.: 34 T/L)
  5. Date of manufacture, in numeric format year/month (Ex.: 2001/11)
  6. Your manufacturer identification (Company name or number).
  7. Enter the care information as written below.

1  
2  
3  
4  
5  
6  
7

Machine wash - cool (30°C) / Laver à la machine - à l'eau froide (30°C).  
**Do Not** use fabric softener or chlorine bleach / **Ne pas** utiliser d'agent adoucissant ni d'agent de blanchiment.  
Tumble dry- low (**Do Not** use dryer sheets) / Séchage par culbutage – à basse température (**Ne pas** utiliser d'assouplissant en feuilles).  
Steam iron – medium / Repassage à vapeur - à température moyenne.  
Do not dry clean / Ne pas nettoyer à sec

Identification label (sewn on only): As illustrated below.

Name/Nom:

**Note: The manufacturers identification shall not appear anywhere on the garment except on the garment label as indicated.**

## 5. **Quality Assurance Provisions**

- 5.1 **Responsibility for Inspection** - Unless otherwise stipulated in the contract, it is the prime contractor's responsibility to satisfy the R.C.M.P., Uniform and Equipment Program that the material and services being supplied conform to this specification. This may be accomplished by performing the tests specified in this specification or by demonstrating to the satisfaction of the R.C.M.P., Uniform and Equipment Program that conformity to this specification of manufacturing processes is assured. The contractor must use a commercial testing establishment acceptable to the R.C.M.P., Uniform and Equipment Program.
- 5.2 The R.C.M.P., Uniform and Equipment Program reserves the right to perform any inspection considered necessary to ensure the material and services conform to the specified requirements. For the purpose of inspection, a portion of each delivery not exceeding two percent or two out of any number delivered under 100 may be put to tests that could destroy the articles. If found to be inferior or not in accordance with this specification, all articles so destroyed shall be replaced by others of proper quality and pattern at the expense of the contractor. The entire delivery may also be rejected if it is found that articles previously rejected due to non-repairable defects are redelivered for inspection.
- 5.3 The contractor will be promptly notified when any articles are not accepted and such articles will be returned at the contractor's risk and expense.

6. **Scale of Measurement Definitions and Location References**

(Refer to the Scale of Measurements and Drawing #5)

- 6.1 **Waist Circumference** – When the waist is closed, it shall be measured along the top edge of the waist opening. The result shall be doubled to measure the total circumference. (A)
- 6.2 **Seat Circumference** - When placed flat, fly facing up, the seat shall be measured across the width of the trouser from side to side, level with the base of the front hip pocket flap. The result shall be doubled to measure the total circumference. (B).
- 6.3 **Inseam Length** - The length shall be the distance measured from the crotch to the drawcord hem. (C).
- 6.4 **Outseam Length** - The length shall be the distance measured from the top, at waist, to the drawcord hem. (D).
- 6.5 **Front Rise** - The measurement from the top edge of the front waist/fly opening, along the crotch seam, to the intersection with the inseam. (E).
- 6.6 **Back Rise** - The measurement from the top back waist at seat seam, along the crotch seam, to the intersection with the inseam. (F).
- 6.7 **Hem Circumference** - When placed flat, the hem circumference shall be measured across the width of the drawcord hem. The result shall be doubled to measure the total circumference. (G).

**TABLE I (LINING MATERIAL)**

		SPECIFICATION	TESTED BY CAN/CGSB-4.2
1	Weave	Plain	Visual
2	Mass	150 to 170 g/m <sup>2</sup>	Method 5.1-M90
3	Yarns per cm	Warp 39 (min.) Weft 21 (min.)	Method 6-M89
4	Breaking Strength	Warp 537 Newtons (min.) Weft 220 Newtons (min.)	Method 9.2-M90 (2004)
5	Dimensional Change to Domestic Washing	Warp 2% (max.) Weft 2% (max.)	Method 58-2004
6	Colourfastness to Washing	Grey Scale 4 (min.)	Method 19.1 (Test 2)
7	Colourfastness to Light	L-4 (min.)	Method 18.3-97
8	Colourfastness to Perspiration	Grey scale 4 (min.)	Method 23-M90
9	Colourfastness to Crocking	Dry 4 (min.) Wet 4 (min.)	Method 22-2004
10	Pilling	3 (min.) after 90 min	Method 51.2-M87
11	Crease Recovery	70%	Method 45
12	Non-Fibrous Material	3.1% (max.)	Method 15

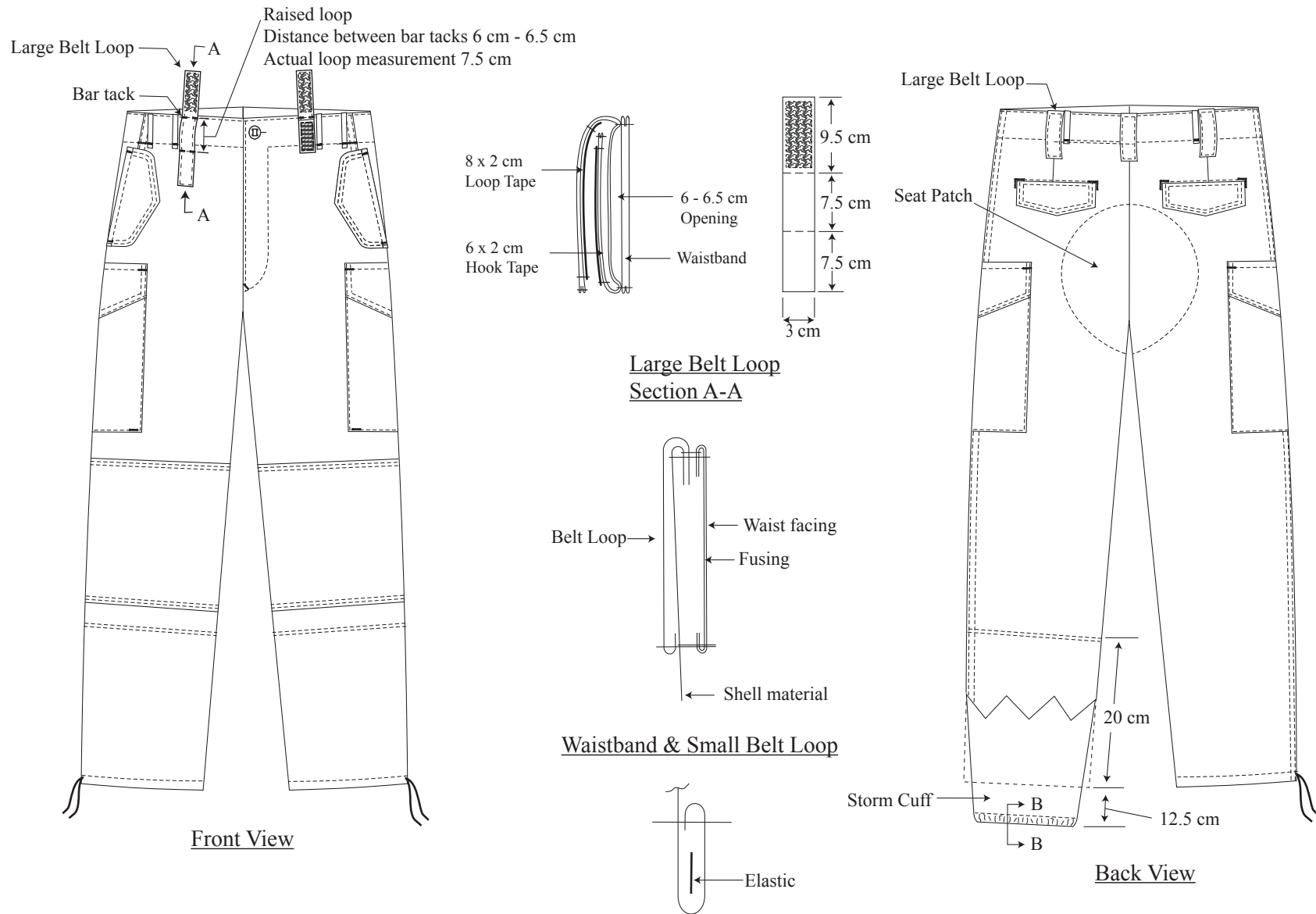
**Note:** Doubletex “Calypso” and “Bounty Set US” is known to meet the requirements.

**SCALE OF MEASUREMENTS** - Trousers, Combat, Blue, Poly/Cotton

SIZE DESIGNATION		GARMENT MEASUREMENTS						
Height	Size(inches)	Waist Circ.	Seat Circ.	Inseam	Outseam ( <u>Top</u> of Waistband to hem)	Front Rise	Back Rise	Bottom Circ.
<b><u>SHORT RISE</u></b>	30 S	77.5	99	77.25	103.5	30	41	52
	32 S	82.5	104	77.25	104	30	41	52
	34 S	87.5	109	77.5	104.5	30	41	52
	36 S	92.5	114	77.5	105	30.25	41.25	52
	38 S	97.5	119	77.5	105.5	30.25	41.5	52
	40 S	102.5	124	77.75	106	30.5	41.5	52
	42 S	107.5	129	77.75	106.5	30.5	41.75	52
	44 S	112.5	134	77.75	107	30.5	41.75	52
	46 S	117.5	139	78	107.5	30.75	42	52
<b><u>REGULAR RISE</u></b>	30 R	77.5	99	82.25	110.5	32	42.25	52
	32 R	82.5	104	82.25	111	32	42.25	52
	34 R	87.5	109	82.5	111.5	32	42.5	52
	36 R	92.5	114	82.5	112	32.25	42.5	52
	38 R	97.5	119	82.5	112.5	32.25	42.75	52
	40 R	102.5	124	82.75	113	32.5	43	52
	42 R	107.5	129	82.75	113.5	32.5	43	52
	44R	112.5	134	82.75	114	32.5	43.25	52
	46R	117.5	139	83	114.5	32.75	43.5	52
<b><u>TALL RISE</u></b>	30 T	77.5	99	87.25	117.5	34	43.5	52
	32 T	82.5	104	87.25	118	34	43.5	52
	34 T	87.5	109	87.5	118.5	34	43.75	52
	36 T	92.5	114	87.5	119	34.25	44	52
	38 T	97.5	119	87.5	119.5	34.25	44	52
	40 T	102.5	124	87.75	120	34.25	44.25	52
	42 T	107.5	129	87.75	120.5	34.5	44.5	52
	44T	112.5	134	87.75	121	34.5	44.75	52
	46T	117.5	139	88	121.5	34.75	45	52
TOLERANCES ±		1.5cm	1.5cm	1.5cm	1.5cm	1cm	1cm	1.5cm
MEASUREMENT LOCATION		A	B	C	D	E	F	G

**Note:** All dimensions are in centimetres unless otherwise indicated.

Dwg. 1



All Measurements in Centimetres  
 Unless otherwise stated all measurements are subject to  $\pm 0.5$  cm tolerance  
 NOT TO SCALE

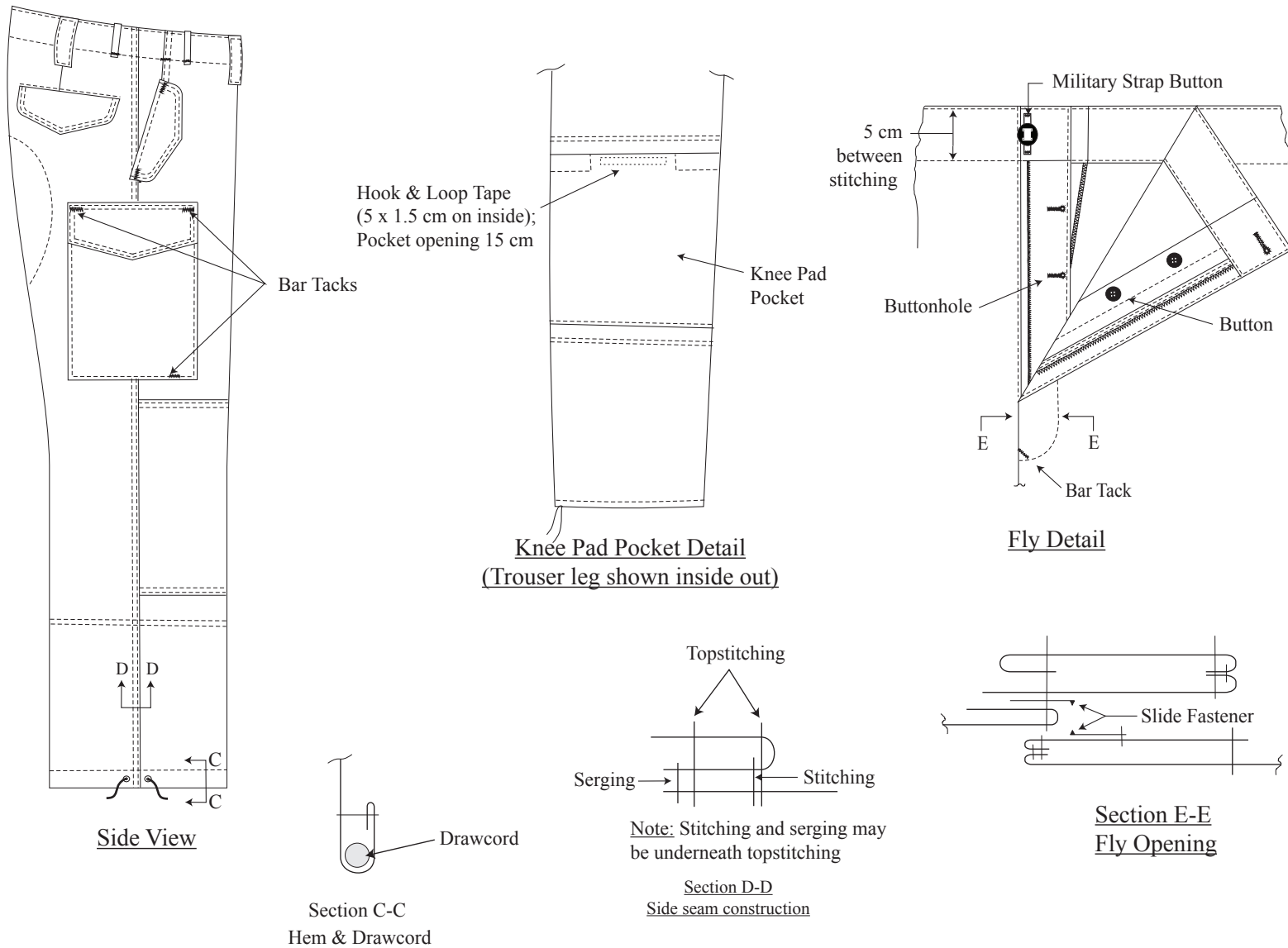
Section B-B  
 Storm cuff Hem



TROUSERS, COMBAT, BLUE, POLY/COTTON

G.S.1045-189

Dwg. 2

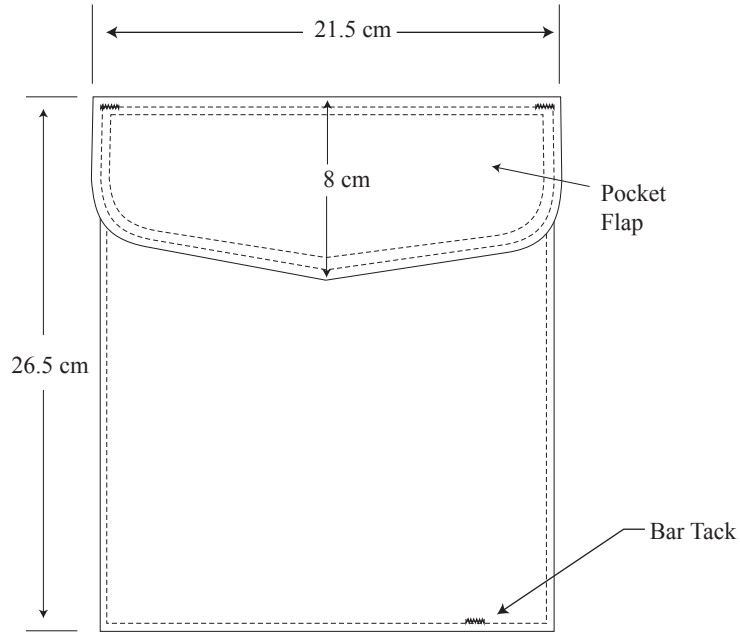


All Measurements in Centimetres  
 Unless otherwise stated all measurements are subject to  $\pm 0.5$  cm tolerance  
 NOT TO SCALE

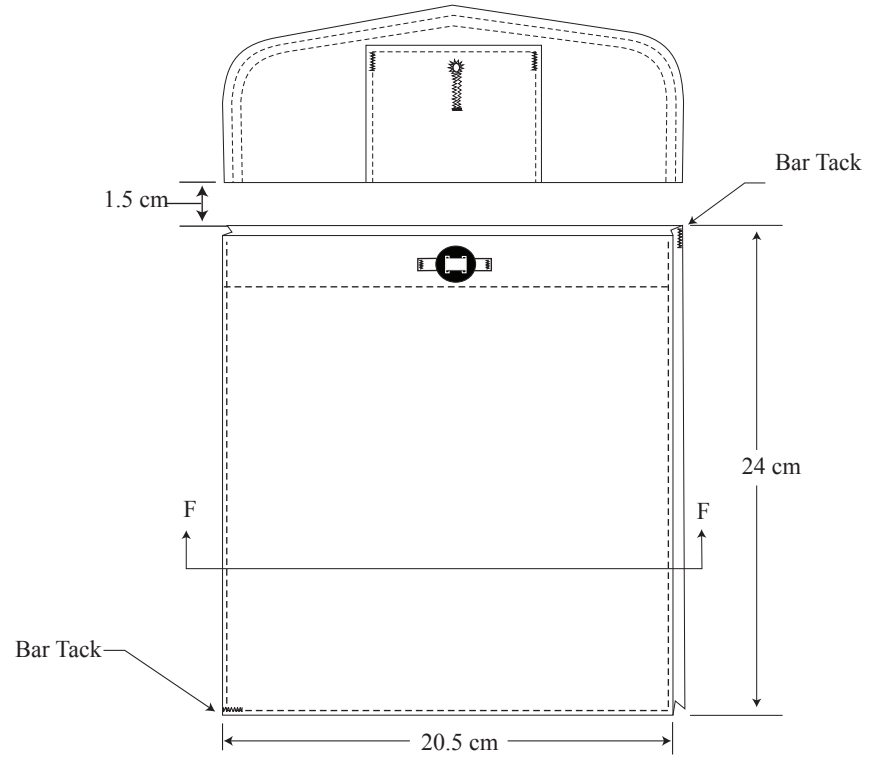
TROUSERS, COMBAT, BLUE, POLY/COTTON

G.S.1045-189

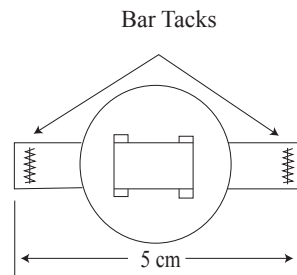
Dwg. 3



Left Thigh Pocket Detail



Left Thigh Pocket shown with Flap open



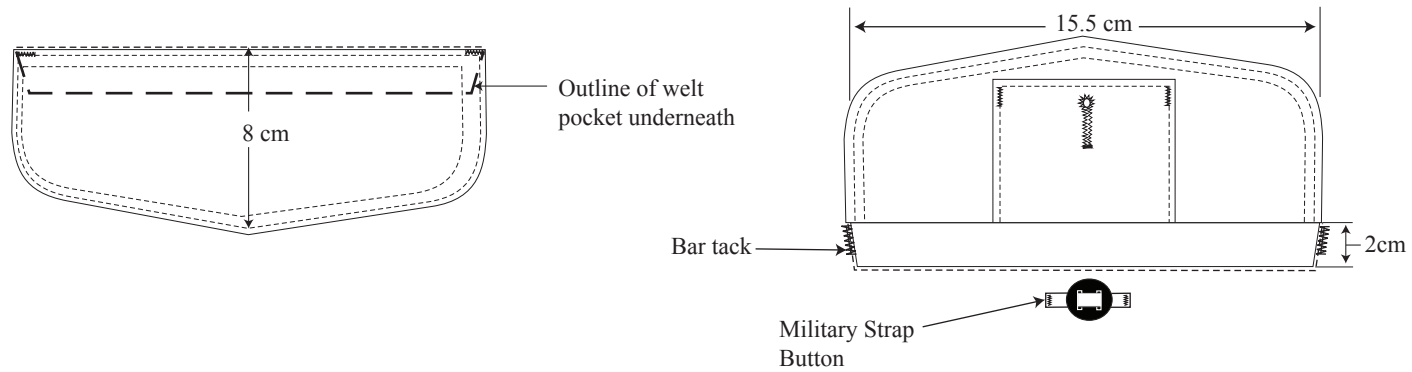
Military Strap Button with Strap



Section F-F  
Thigh Pocket & Trouser leg

All Measurements in Centimetres  
 Unless otherwise stated all measurements are subject to  $\pm 0.5$  cm tolerance  
 NOT TO SCALE

Dwg. 4



Back Pocket Flap

Back Pocket with Flap Open

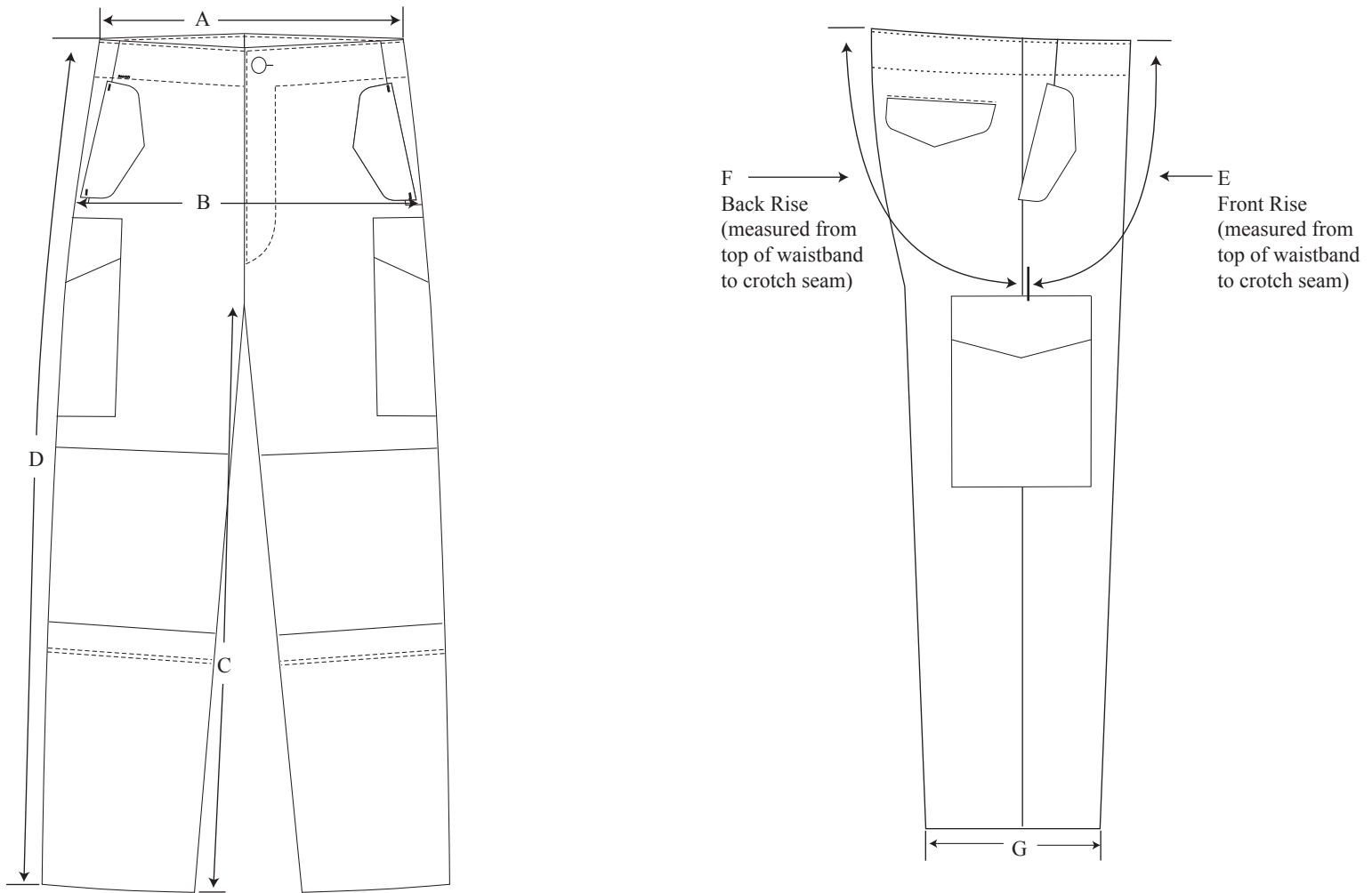
All Measurements in Centimetres  
Unless otherwise stated all measurements are subject to  $\pm 0.5$  cm tolerance  
NOT TO SCALE

TROUSERS, COMBAT, BLUE, POLY/COTTON

G.S.1045-189

Measurement Location Chart

Dwg. 5



All Measurements in Centimetres  
Unless otherwise stated all measurements are subject to  $\pm 0.5$  cm tolerance  
NOT TO SCALE