

TRANSNET LIMITED
SPECIFICATION FOR CLOTHING
LABELLING AND MARKING

1. LABELING:

- 1.1 An in-woven or printed cotton or rayon label approved by Transnet Limited, shall be firmly sewn, on the inside of each garment. The dimensions of the label shall be at least 4 X 4 cm.

1.2 CARE LABEL:

The garment are to be provided with “care” labels to Specification SABS1309, and code of Practice SABS 011

1.3 POSITION OF GARMENT LABELS:

The label shall not protrude beyond an edge of the garment. The stitching shall not be visible on the outside of the garment. The position of the label shall be as follows :

(a) JACKET, RAINCOATS AND WINDBREAKERS:

On the lining immediately below the inside breast pocket opening on the right-hand side or, where there is no inside breast pocket, in relatively the same position. On unlined garments the label shall be on the inside breast pocket, or when there is no pocket, near the bottom of the right-hand facing.

(b) JERSEYS, CARDIGANS, T-SHIRTS:

Sewn in the centre back neck. (Loop type label, total length + cm)

(c) SHIRTS AND BLOUSES:

On the yoke, or sewn in the centre back neck.

(d) TROUSERS AND SKIRTS AND SLACKS :

On the inner waist, not less than 7 cm to the right of the seat seam. In the case where trousers have ruched backs the label to be sewn in on the left front inner waist band.

(e) BOILER SUITS AND SIMILAR PROTECTIVE GARMENTS :

At the centre back below the collar.

(f) RAINWEAR SUITS:

Jacket - sewn in the inside front left hand facing Trousers - sewn in the centre back waist

(g) Overalls (Bib and Brace)
Sewn in back waist seam

(h) Smocks (Dust coats)
Sewn in centre back neck.

1.4 ADDITION LABEL:

In the case of garments made to special measure, an additional white detachable label of suitable durable material shall be attached to the outside of the garment.

2. MARKING :

2.1 MARKING ON GARMENT LABELS :

Each garment label shall be legibly and permanently marked with the following particulars;

- a) the word “TRANSNET”.
- b) manufacturer’s name or trade mark or both;
- c) size designation (except when garments are made to special measurements.
- d) the stock item i.e 35/000000 for each size including garments made to special measurements;
- e) garments reference; Specification no i.e Spec G 1.
- f) the words” Made in South Africa”
- g) The year of manufacture.

2.2 CARE INSTRUCTIONS:

Care instructions shall be legibly and indelibly marked on a additional label or on the back of the label mentioned in 2.1, and the composition of the fabric to quoted.

2.3 ADDITIONAL MARKINGS :

Subject to agreement by Transnet Limited, the manufacturer may use labels bearing information additional to that specified in 2.1.



PACKING OF CLOTHING

1. SCOPE:

- 1.1 This specification covers the requirements for the box and the method of packing used to pack the various items of uniform and protective clothing manufactured for personnel Transnet Limited,

2. DEFINITIONS:

- 2.1 For the purpose of this specification, the relevant definitions given in SABS 456 'Corrugated board containers for canned foods' shall apply.

3. REQUIREMENTS FOR PACKING, CLOSING AND MARKING:

- 3.1 The garments shall be delivered in a commercially dry condition, neatly pressed and packed in an individual plastics envelope of suitable size and shape, in new corrugated board boxes that comply with the requirements given in Section 4 and that so sealed as to provide adequate protection of the garments during normal transport and storage. Only garments of one type and of the same size number shall be packed together in one box, except that when the quantities ordered are such that the packing of only the same size of garments in individual boxes is not justified, different sizes of the same type of garments may be packed together.

3.2 CLOSING:

The box shall be closed by stapling or taping.

3.3 MARKING OF BOXES:

The following information shall appear in legible and permanent marking on one end of each box or on a 'stick on' type label securely attached to one end of each box in a position that is visible when the boxes are stacked:

- (a) The manufacturer's name or trade mark or both;
- (b) The contract/order number.
- (c) The item number
- (d) Quantity of garments
- (e) Designation (as stated in the order or contract)

3.3.1 ADDITIONAL MARKING:

Subject to agreement by Transnet Ltd the manufacturer may apply markings additional to those specified in 3.3

4. REQUIREMENTS FOR BOXES:

4.1 Material Requirements:

4.1.1 TYPE OF BOARD:

The board used in the manufacture of the box shall be double-face a-flute corrugated board.

4.1.2 BASIS WEIGHT OF BOARD LINERS:

The sum of the nominal basis masses of the board liners shall be at least 390g per sq. meter for packs with a gross mass of 18,5 kg or less and at least 460 per sq. meter for packs with a gross mass of more than 18,5 kg.

4.1.3 CALIPER OF BOARD:

The caliper of the unprinted areas of the board shall be least 4,7 mm.

4.2 BOX REQUIREMENTS:

4.2.1 STYLE AND DIMENSIONS:

The box shall be made in the regular-slotted top-opening style with a manufacturer's stapled joint. The internal dimensions of the box shall be 660 x 355 x 355 mm. a tolerance of ± 3 mm shall be allowed on all box dimensions.

4.2.2 WORKMANSHIP:

Boxes shall be manufactured in accordance with high-grade commercial practice and shall be free from imperfections which may affect their serviceability.

GOLF SHIRTS, MEN'S & WOMENS (SHORT SLEEVE)

Reference item No. 35/158259 (Mens) "New Transnet logo": Supply
item No. 35/158385 (Womens) "New Transnet logo": Supply
item No. 35161318 (Unisex – mens size chart) Transnet logo & Hazmat logo

1. Scope

NOTES

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

The size(s) required (see 4.4).

- 2) Special conditions of tender (that cover the conditions of acceptance of the knitted shirts) are given in annex A.

2. Normative References

The following standards contain provisions which, through reference in this text, constitute provisions of this specification. All the standards are subject to revision and, since any reference to a standard is deemed to be a reference to the latest edition of a standard, parties to agreements based on this specification are encouraged to take steps to ensure the use of the most recent editions of the standards indicated below. Information on currently valid national and international standards may be obtained from the South African Bureau of Standards.

CSS 286.21, Clothing - LAB/1: Labeling - PAC/1: Packing and marking.

CKS 129, Colours for textiles.

CKS 627, Fusible interlinings.

SABS 877, Woven cotton tapes.

SABS 1360-1, Size designation of clothes - Part 1 : Men's and boys' outerwear, garments.

SABS 1362, Sewing threads.

SABS 04, Terms and definitions for textiles and textile merchandise.

SABS 0101, Standard nomenclature for stitches, seams and stitchings.

SABS 0188 Standard methods of garment measurement.

SABS method 79, Mass per unit area of conditioned textile fabrics

SABS method 275, Wales and courses per unit length in knitted textile fabrics (counting glass method)).

SABS method 405, Colour fastness of textiles to artificial light : Xenon lamp method.

SABS method 443, Textiles - Colour fastness to washing - Test 2.

SABS method 731, Textiles - Colour fastness to perspiration (histidine method).

SABS method 960, Dimensional changes of textile fabrics during washing.

3. Definitions

Following definitions apply :

3.1 acceptable : Acceptable to Transnet Limited.

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

4. Requirements

4.1 Materials

NOTE No material will be supplied by Transnet Limited.

4.1.1 General

The materials specified in 4.1.2 to 4.1.5 shall be supplied and used by the manufacturer.

4.1.2 Knitted fabric

The knitted fabric shall comply with the requirements given in table 1. The colour shall be an acceptable match to colour No. 616c- Navy blue colour acceptable to Transnet Limited, both of CKS 129.

4.1.3 Interlining

A fusible interlining that complies with the requirements of CKS 627 for interlinings that are suitable for use in garments that will be washed. The mass per area shall be such that the interlining is suitable for use in the placket.

NOTE - The selection of an interlining of appropriate mass per unit area shall be determined by consultation with the supplier(s) of the interlining.

4.1.4 Stay tape

A tape that complies with the requirements for type TA13 of SABS 877.

4.1.5 Buttons

Two-hole fully impregnated dope-dyed polyester buttons of an acceptable match to the body cloth and nominal diameter of 11 cm.

4.1.6 Threads

4.1.6.1 Sewing thread

The sewing thread shall comply with the relevant requirements of SABS 1362 and shall be polyester-and-cotton core-spun thread, ticket No. 75, or a staple polyester thread, ticket No. 60.

4.1.6.2 Cover thread

The same yarn as that used in the knitted fabric.

Table 1 - Knitted fabric requirements

1	2	3
Property	Requirement	Method of test
Composition	67% polyester %33% Cotton	Microscopical examination and chemical analysis
Construction	Pique knit	Visual examination
Courses per 1 cm, min.	10.5	SABS SM 275
Wales per 1 cm, min.	9.5	SABS SM 275
Stitch length, mm, max.	3.10	SABS SM 1104
Mass per unit area, g/m ² min.	200	SABS SM 79
Dimensional changes on washing, %, max.		SABS SM 960
Length	10	Procedure A1 ¹⁾
Width	10	
Colour fastness to light, rating, min.	5	SABS ISO 105 BO2
Colour fastness to washing, rating, min.		SABS ISO 105 CO3
Change in colour	4	
Staining of transfer cloths	4	
Colour fastness to perspiration, rating, min.		SABS ISO 105 EO4
Change in colour	4	
Staining of transfer cloths	4	
1) Test in tubular form and tumble dry for 20 min at 70EC.		

4.2 Workmanship

The shirts shall be made with first-class workmanship throughout and shall be free from defects that affect their appearance or may affect their serviceability (or both), and from marks, spots and stains incurred in the making-up. All seams shall be smooth and all stitching uniform and free from twists, pleats and puckers. All ends of sewing shall have been trimmed and loose threads removed. The shirts shall be of uniform and acceptable make, colour and finish.

4.3 Style

The shirts (see figure 1) shall have short sleeves, a turn down collar, and a four-button opening at the front.

4.4 Sizes

The shirts shall be supplied in one or more of the size designations given in column 1 of table 2 &3 as specified in the order or contract, and their measurements shall conform to the appropriate values given in columns 2 to 9(inclusive). The pattern shall conform to the specification and the “sealed sample” and shall be drafted by the manufacturer. Sealed sample is held by, and may be viewed at, the Clothing Division.

Mens Size chart (Table 2)

Issued :
Revised: September 2013

1	2	4	5	6	7	8	9
Size designation 1)	Nominal finished garment measurements, cm						
	Chest	$\frac{1}{2}$ Hem	Back length	Back Width	Neck Circum.	Sleeve Under-arm	Cuff
72-77 (XS)	90	45	70	36	36	18	38
82-87 (S)	100	50	74	40	38	18	40
92-97 (M)	110	55	77	44	40	19	42
102-107 (L)	120	60	80	48	42	19	44
112-117 (XL)	130	65	82	52	44	20	46
122-127 (2XL)	140	70	84	56	46	20	48
132-137 (3XL)	150	75	86	60	48	21	50
142-147 (4XL)	160	80	88	64	50	21	52
152-157 (5XL)	170	85	88	68	52	22	54
162-157 (6XL)	180	90	88	72	54	22	56

1) Based, on the chest girth, in centimeters, of the intended wearer.

Womens Size chart (Table 3)

1	2	4	5	6	7	8	9
Size designation 1)							
	Bust	Hem	Back length	Back Width	Sleeve Under arm	Neck Circu m.	Cuff
72-77 (XS)	80	86	65	30	7	37	32
82-87 (S)	90	96	66	34	7	39	34
92-97 (M)	100	106	67	38	8	41	36
102-107 (L)	110	116	68	42	8	43	38
112-117 (XL)	120	126	69	46	9	45	40
122-127 (2XL)	130	136	70	50	9	47	42
132-137 (3XL)	140	146	71	54	10	49	44
142-147 (4XL)	150	156	72	58	10	51	46
152-157 (5XL)	160	166	73	62	11	53	48
162-157 (6XL)	170	176	74	66	11	55	50

1) Based, on the bust girth, in centimeters, of the intended wearer.

4.5 Make

NOTE - Unless inconsistent with the text, all measurements are nominal.

4.5.1 Body

The body shall consist of two parts, i.e. a front and a back, that are overlapped together at the sides and shoulders. The lower edge of the body shall be overlapped, turned under and hemmed 30mm. Each shoulder shall be stayed on the inside with stay tape (see 4.1.4), or with body fabric of width (in the direction of the courses) 10mm, that is sewn in with the shoulder seam.

4.5.2 Sleeves

The sleeves shall be short set-in sleeve, overlapped under the arms.

4.5.3 Collar

- a) The knitted collar shall have a 4 mm white in woven stripe 7 mm from edge

4.5.4 Plackets

The placket to have a length of 17 cm for size medium and graded proportionally, and a width of 40 mm.

Two buttonholes shall be positioned centrally in the left side placket and one in the collar stand with button (4.1.6) sewn to the right side of placket, to correspond with buttonholes.

The top buttonhole shall be horizontal and the lower two, vertical.

4.5.5 Pocket

The pocket on the left hand side shall be a patch pocket of body fabric, interlined with fusible interlining (see 4.1.4).

The pocket shall have 25 mm blunted corners. The finished pocket width and depth shall be 13 cm and 14 cm respectively. The pocket mouth shall have a hem of finished width 30 mm and the free edge shall be overlocked and shall be topstitched. The edges of the pocket shall be turned in and stitched down 2 mm from the edge.

Each end of the pocket mouth to be vertically box tacked with a finished width and length of 5 mm and 15 mm respectively. The pocket shall be positioned vertically, 70 mm from the centre of the placket for size m (92-97) and 21 cm from the collar/shoulder seam.

4.5.6 Logo

The **Transnet** logo shall be embroidered on the pocket, positioned centrally below the hem .

The colour shall be an acceptable match to colour No 1C –95 “White of CKS 129 (See fig. I



For reference no. 35/161190, Hazmat logo to be on the right hand side chest when worn.



4.6 Stitches, seams and stitchings

4.6.1 General

All sewing shall be in accordance with SABS 0101.

4.6.2 Stitches

The stitches shall be as follows:

- a) attaching of pocket : stitch type 301; and
- b) all other sewing : stitch type 504 or other acceptable type of overlocking stitch.

4.6.3 Seams

The seams shall be as follows:

- a) attaching of pocket : seam type LSd; and
- b) all other seams: seam type SSa and finished with cover thread (See 4.1.6.2).

4.6.4 Stitchings

Stitching type EFa.

4.6.5 Number of stitches

The number of stitches per 10 cm (for both seams and cover thread) shall be 40 ± 4 throughout.

5 Labeling, packing and marking**5.1 Labeling**

As specified in CSS 286.21 LAB/1.

5.2 Packing and marking

As specified in CSS 286.21 PAC/1.

NOTE:

For all materials supplied by the manufacturer, the manufacturer must supply Transnet with the certificate of compliance for the respective material, for every consignment received at the manufacturers factory.

Where SABS mark bearing cloth will be used a certificate to this extend must be supplied by the manufacturer of the garments.

Special conditions of tender

A-1 Unless otherwise stated, the Executive Manager, (Transnet) (or an officer or organization deputed by him), shall be the inspecting authority.

A-2 Three pre-production samples of Golf shirts, shall have been inspected, tested and approved by the inspecting authority before bulk production is commenced, and these samples shall each be accompanied by a trim chart containing a sample of each component material (as given in 4.1.2 to 4.1.7.2). It shall be the duty of the manufacturer to give adequate notice to the inspecting authority of the availability of these samples.

A-3 The Golf shirts 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 suits or individual garments supplied to this specification may be in progress.

A-4 The contractor shall inspect the finished Golf shirts for compliance with the specification before submitting them to the inspecting authority for final inspection.

A-5 Before acceptance, the Golf shirts shall have been inspected and tested by the inspecting authority and found to comply with the requirements of the specification.

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Document Quality Assurance		Document No.
Subject ADMINISTRATION, PREPARATION, MAINTENANCE AND DISTRIBUTION OF PRIVATE SPECIFICATIONS		Effective date
Controlling Officer: R. Steynberg		
Approving Officer: C.J.V. du Plooy		
Rev/No	Date approved	Nature of revision
1	June	1) Add Hazmat ref. 35/161318
2	June 2013	1) Add construction requirements – courses & wales
3	September 2016	1) Incorporated the different option Logo Format (4.5.6) 2) specified that the Hazmat logo has to be on the right hand chest when worn. (4.5.6)
4	June 2019	1) Incorporate the Hazmat and Transnet Logo

Sweaters, Unisex (Jerseys) V-Neck

1 Scope

This specification covers the material and make of jerseys for personnel of Transnet Limited.

Ref. item No. 35/159164 “Navy” with Transnet logo (**without** shoulder straps)
35/161190 “Navy” with Transnet logo and Hazmat logo (**with** shoulder straps)
35/163455 “Black” with Transnet logo and TRAIN CREW(**with** shoulder straps)

NOTES

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

- a) the size(s) required (see 4.4); and
- b) the appropriate reference item number(s) (see 4.5.4).

2) Special conditions of tender (that cover the conditions of acceptance of the jerseys) are given in annex A.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this specification. All standards are subject to revision and, since any reference to a standard is deemed to be a reference to the latest edition of that standard, parties to agreements based on this specification are encouraged to take steps to ensure the use of the most recent editions of the standards listed below. Information on currently valid national and international standards may be obtained from the South African Bureau of Standards.

BS 5811, *Determination of the resistance to pilling and change of appearance of fabrics.*

CSS 286.21, *Clothing — LAB/1: Labelling — PAC/1: Packing and marking.*

CKS 129, *Colours for textiles.*

SABS 877, *Woven cotton tapes.*

SANS 1362, *Sewing threads.*

SANS 1004, *Terms and definitions for textiles and textile merchandise.*

SANS 10101, *Standard nomenclature for stitches, seams and stitchings.*

SANS 10188, *Standard methods of garment measurement.*

SANS method 275, *Wales and courses per unit length in knitted textile fabrics (counting glass method).*

SANS method 405, *Colour fastness of textiles to artificial light: Xenon lamp method*

SANS method 442, *Textiles — Colour fastness to washing — Test 1.*

SANS method 731, *Textiles — Colour fastness to perspiration (histidine method).*

SANS method 960, *Dimensional changes of textile fabrics during washing.*

SANS method 1104, *Stitch length of weft-knitted fabrics.*

3 Definitions

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

3.1 acceptable: Acceptable to the Executive Manager Transnet Limited.

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

4 Requirements

4.1 Materials

NOTE — No material will be supplied by Transnet Limited

4.1.1 General

The materials specified in 4.1.2 and 4.1.3 shall be supplied and used by the manufacturer. For reference item No. 35/98340 the colour shall be an acceptable match to colour No. 616c "Purple navy" of CKS 129.

4.1.2 Knitted fabric

The knitted fabric shall comply with the requirements given in table 1.

Table 1 - Knitted requirements

1	2	3
Property	Requirement	Method of test
Composition	65% Acrylic 35% Wool ¹⁾	Microscopical examination and chemical analysis
Construction		Visual examination
Body and sleeves	1 x 1 rib	
Neck	1 x 1 rib	
Cuffs	2 x 2 rib	
Waistband	2 x 2 rib	SANS
Wales per 10 cm, min.		
Body and sleeves	64 ± 2	
Rib & cuffs	56 ± 2	SABS method 1104
Courses per 10 cm, min.		
Body and sleeves	95 ± 3	SABS method 79
Rib & cuffs	80 ± 3	
Mass per unit area, g/m ² , min.		
Body and sleeves	415	
Resistance to pilling, rating, min.	3-4	
Dimensional changes on washing, %, max.		BS 5811 ¹⁾
Length	5	
Width	8	
Colour fastness to light, rating, min.	5	SABS method 405
Colour fastness to washing, rating, min.		SABS method 442
Change in colour	4	
Staining of transfer cloths	4	
Colour fastness to perspiration, rating, min.		SABS method 731
Change in colour	4	
Staining of transfer cloths	4	

4.2 Workmanship

The jerseys shall be made with first-class workmanship throughout and shall be free from defects that affect their appearance or may affect their serviceability (or both), and from marks, spots and stains incurred in the making up. All seams shall be smooth and all stitching uniform and free from twists, pleats and puckers. All ends of sewing shall have been trimmed and loose threads removed. The jerseys shall be of uniform and acceptable make, colour and finish.

4.3 Style

The jerseys (see figure 1) shall have a V- Neck, a waistband at the lower edge of the body, and the sleeves shall have a single cuffs.

4.4 Sizes

The jerseys shall be supplied in one or more of the size designations given in column 1 of table 2, as specified in the order or contract, and their measurements, determined (where applicable) in accordance with SANS 0188.

Table 2 - Size range

1	2	3	4	5	6
Size designation 1)	Nominal finished garments measurements, cm				
	Chest	Back Length	Underarm Sleeve Length	Sleeve circum.2)	Depth of V-neck
XS (72-77)	82	60	44	36	20
S (82-87)	92	63	46	37	20
M (92-97)	102	68	48	40	20
L (102-107)	112	70	50	42	20
XL (112-117)	122	72	51	44	22
2XL (122-127)	132	73	52	46	22
3XL (132-137)	142	74	52	48	22
4XL (142-147)	152	78	54	48	22
5XL (152-157)	162	80	54	50	24
6XL (162-167)	172	82	54	50	24
(1) Based on the chest girth, in centimetres, of intended wearer					
(2) Measured at the widest point of the sleeve					

4.5 Make

NOTE — Unless inconsistent with the text, all measurements are nominal.

4.5.1 Body

The body of a jersey shall consist of two parts (i.e. a front and a back) that are seamed together at the sides and shoulders and secured at the bottom of the side seams. The lower edge of the body shall have a rib welt (see table 1) of depth 80 mm. Each shoulder shall be stayed on the inside with stay tape (see 4.1.4) or with knitted fabric of width (in the direction of the courses) 15 mm, that is (in both cases) sewn in with the shoulder seam. The sleeves will be set-in-sleeves.

4.5.2 Neck opening

The neck opening shall be oval in shape and shall be positioned centrally on the front. It shall be finished off with a ribbed neck trim (see table 1) of finished depth (after it has been folded double and sewn to the neck opening) 50 mm. The neck trim shall be neatly closed on the left side (as worn) in line with the shoulder seam.

4.5.3 Sleeves

The sleeves shall be one-piece set-in sleeves that are seamed under the arms and secured at the bottom of the seams and tapered to the rib cuff. The sleeve shall be knitted-on single cuff of length 10 cm.

4.5.4 Shoulder straps only for ref 35162437

The shoulder straps shall be mitred straps, of outer fabric and lined with outer fabric of finished width 50 mm at the shoulder and tapering to 40 mm at the buttonhole end, and 14 cm long. The edges of the straps shall be top stitched 6 mm from the edge.

4.5.5 Logos

Transnet Logo:

Logo on left chest as specified below. Embroidered with an acceptable embroidery thread.

The colour of the embroidery thread shall be an acceptable match to colour No. 1c "White" of CKS 129 and the logos shall be as follows.

Train Crew logo:

Logo on left chest as specified below. Embroidered with an acceptable embroidery thread.

The colour of the embroidery thread shall be an acceptable 100% Viscose machine embroidery thread.

Colour to be an acceptable match to Pantone colour no. 376 "Olive Green"

The words TRAIN CREW to be embroidered with an acceptable 100% Viscose machine embroidery thread.

Colour to be an acceptable match to Pantone colour no. 376 "Olive Green"

4.6 Stitches, seams and stitchings

4.6.1 General

All sewing shall be in accordance with SANS 0101.

4.6.2 Stitches

The stitches shall be as follows:

a) **all other sewing:** stitch type 504 or other acceptable type of overlocking stitch

4.6.3 Seams

The seams shall be as follows:

a) **all other seams:** seam type SSa and finished with cover thread (see 4.1.6.2).

4.6.4 Number of stitches

The number of stitches per 10 cm (for both seams and cover thread) shall be 40 ± 4 throughout.

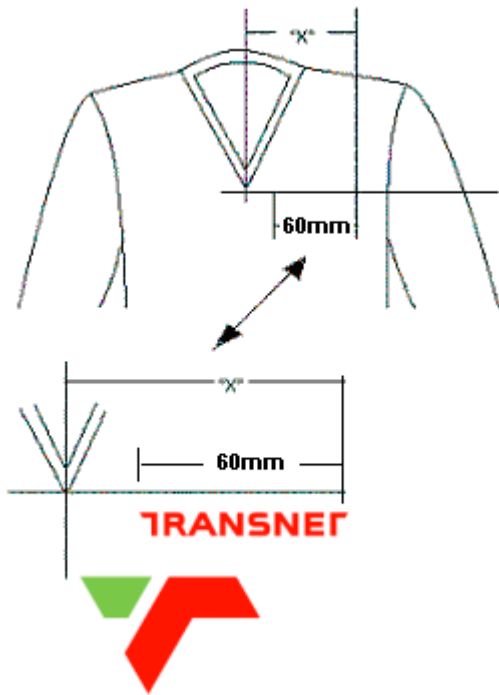
5 Labelling, packing and marking

5.1 Labelling

As specified in CSS 286.21 LAB/1.

5.2 Packing and marking

As specified in CSS 286.21 PAC/1.



POSITION OF LOGO (cm.)													
SIZE DESIGNATION	72	77	82	87	92	97	102	107	112	117	122	127	132
DIMENTION "X"	12	13	13	14	14	15	15	16	16	17	17	18	18

"X" Distance from center of garment to logo

For reference no. 35/161190, Hazmat logo.

The best practice of applying this logo will be an embossed logo for the purpose of detail and definition.

The logo to be applied on right hand side when worn.



Annex A
(normative)

Special conditions of tender

- A-1** Unless otherwise stated, Transnet Limited (or an officer or organization deputed by it), shall be the inspecting authority.
- A-2** Three pre-production sample jerseys, and at least two square metres of the main knitted fabric clearly marked with the dye batch, shall have been inspected, tested and approved by the inspecting authority before bulk production is commenced and it shall be the duty of the manufacturer to give adequate notice to the inspecting authority of the availability of these samples. From time to time, further samples will also be drawn during consignment inspections for destruction testing.

NOTE: When new dye batches of yarn are to be used in production, a sample piece of the knitted fabric, 50 cm x 50 cm, with the dye batch clearly marked, shall be tested and approved by the inspecting authority before the dye batch may be used in production.

- A-3** The jerseys 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 jerseys supplied to this specification may be in progress.
- A-4** The contractor shall inspect the finished jerseys for compliance with the specification before submitting them to the inspecting authority for final inspection.
- A-5** Before acceptance, the jerseys shall have been inspected and tested by the inspecting authority and found to comply with the requirements of the specification.

REVISION HISTORY SHEET

Document Quality Assurance
SubjectADMINISTRATION, PREPARATION, MAINTENANCE AND
DISTRIBUTION OF PRIVATE SPECIFICATIONSEffective date
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Rev/No	Date approved	Nature of revision
1	January 1999	1) Title - Add Reference Item No. 35/134903 2) Table 2 - Add size designations 72 - 77 3) 4.5.4 - Add reference ite number 35/134903: Coallink logo 4) Figure 4 - Add Coallink logo
2	February 2004	1) Title - Add Reference Item No. 35/155255 2) Table 2 - Add size designations 122 – 127: 132-137; and 142-147 3) 4.5.4 - Add reference ite number 35/155255: Transwerk logo 4) Figure - Add Transwerk logo 5) Removed reference item 35/99042; 35/98971 and 35/112049
3	November 2005	1) Insert Petronet reference item no. 3598489
4	November 2008	1) Removed reference item 35/98720; 35/98489 and 35/103224 35/134976; 35/147751; and 35/149267 2) Implement new Transnet Logo 3) Implement new size range
5	November 2010	1) Rewrite, CKS 96 has been discontinued
6	April 2011	1) Rectify clause 4.5.3
7	June 2012	1) Add reference 35/161190 Hazmat and 35/163455 “TRAIN CREW
8	October 2015	1) Corrected the Train Crew Logo requirements clause 4.5.5

JACKET, WORKWEAR, UNISEX.

Reference item No. 35/170460 "Orange" Transnet Logo (Registered colour No. 232c "Transnet Orange" of CKS 129)
 No. 35/180003 "Orange" Transnet Logo (Registered colour No. 232c "Transnet Orange" of CKS 129)
 (Reference no 35/1800003 is a PPE item procured as non-stock) it has been incorporated into this specification and serves as a guidance for the requirements (Cloth, reflective strips, colour, logo, sizing SANS 434)

1. REQUIREMENTS:**1.1 MATERIAL:**

- 1.1.1 The outer material ref. no. 35/170662 shall be all cotton drill fabric that complies with the requirements for type D59 of SANS 1387 – 4 and shall be of a colour that is an acceptable match to colour No. 232c "Transnet Orange" of CKS 129
- 1.1.2 The outer material ref. no 35/180003 shall be all cotton drill fabric that complies with the requirements for type D59 **Fire treated Acid resistant** (SANS 1432 Part 1) and shall be of a colour that is an acceptable match to colour No. 232c "Transnet Orange" of CKS 129"
- 1.1.3 Copy of cloth compliance certificate to accompany all tender documents.

1.2 GARMENT:

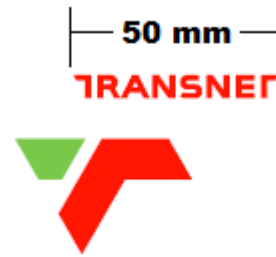
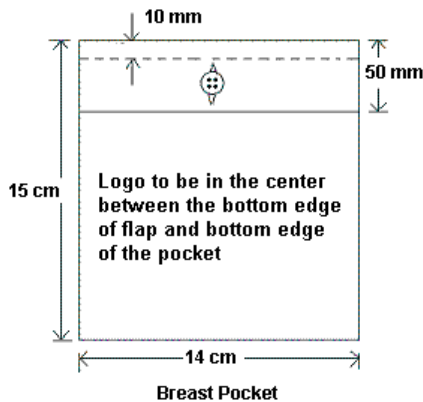
The jacket shall comply with the requirements (other than Packing and Marking and Labeling of Garments) to SABS 434/Latest.

- (a) Style C for front- (S) Slide fastener without butted front. One breast pocket and two side pockets with blunted or square corners.
- (b) Style 1 – Back with yoke, back pleats and adjustment tabs, except side vents are not required. Back yoke depth must be 18 cm at the centre back.
- (c) Style p- plain cuff.
- (d) Patch pocket to be square
- (e) Adjustment tabs to be square and fasten with button, size 105 mm x 55 mm.
- (f) Breast pocket flap to be square with button and button hole fastener.
- (f) Breast pocket size to be 14 cm x 15 cm and 10 mm from yoke seam.
- (g) Side pocket size to be 16 cm x 18 cm and positioned 30 mm from hem
- (h) Reflective strips shall comply with requirements other than positing and colour to:
 SANS 50471 : 2006 / EN 471: CLASS 2 Industrial wash, minimum 50 washes at 75°C
 (Copy of manufacturer's compliance certificate to accompany the tender documents)
 * Strips to be silver (20 mm) on lime (50 mm)
 (Silver strip has to be clearly marked on the front or back with the manufacturer's identification)
 - a) One reflective strip on waist circumference line (same height as the arm strip), one across the shoulder from back to front, with four rows of stitching.
 - b) Sleeve strips to be ± 17 cm from underarm with four rows of stitching
 - c) Colour to be silver (17mm) on lime (50 mm)
- i) The reflective strips for ref. 35/180003 to be fire retardant.

1.3 LOGO, SAFETY AWARENESS & FIRE RETARDANT /ZERO FLAME AWARENESS LOGO:**1.3.1 Logo on pocket.**

"Orange" Ref. no. 35/170460 Transnet logo silk-screened in white*

"Navy" Ref. no. 35/180003 Transnet logo embroidered in the Transnet colours.



1.3.2 Safety awareness

Ref no 35/170460 (ONLY) The words "Safety starts with me" proportionately sized, printed on the center back, between the two reflective strips. The wording to be one size for all sizes.

*White close colour match No. 1c/2 of CKS 129.

1.3.3 Fire Retardant awareness logo (only for ref. no 35/180003)

The manufacturers "Fire Acid Retardant / Zero Flame Acid Awareness" logo to be depicted on the right hand (when worn) sleeve (top).



(All artwork to be confirmed with the Quality Assurance Department)

1.4 SCREENPRINTING:

Colour fastness to washing of screen printing. The numerical ratings for change in colour and staining of transfer cloths, determined in accordance with the relevant SABS method, shall not be less than 4.

1.5 LABELING:

The garment shall be labeled and marked in accordance with the requirements of specification CSS 286.21 LAB/1.

Other than above the label for ref. no. 35 180003 has to comply with the fire retardant requirements.

Note that both Transnet Freight rail and RME item numbers have to be depicted on the label.

1.6 PACKING:

The garments shall be packed and marked in accordance with requirements of specification CSS 286.21 PAC/1.

Annex A
(normative)

Special conditions of tender

A-1 Unless otherwise stated, Transnet Limited (or an officer or organization deputed by it), shall be the inspecting authority.

A-2 Two pre-production sample jackets shall have been inspected, tested and approved by the inspecting authority before bulk production is commenced, and these samples shall each be accompanied by a trim chart containing a sample of each component material. It shall be the duty of the manufacturer to give adequate notice to the inspecting authority of the availability of these samples.

A-3 The jackets 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 jackets supplied to this specification may be in progress.

A-4 The contractor shall inspect the finished jackets for compliance with the specification before submitting them to the inspecting authority for final inspection.

A-5 Before acceptance, the jackets shall have been inspected and tested by the inspecting authority and found to comply with the requirements of the specification.

Document Quality Assurance		Document No.
Subject ADMINISTRATION, PREPARATION, MAINTENANCE AND DISTRIBUTION OF PRIVATE SPECIFICATIONS		Effective date 31 March 2004
Controlling Officer: R. Steynberg		
Approving Officer: C. J.V. du Plooy		
Rev/No	Date approved	Nature of revision
1	March 2004	1 Remove Portnet item. 35/140408 and 35/91071 General amendments, add logo's
2	April 2005	1.2 (b) Change back yoke to 18 cm
3	November 2005	Insert Petronet reference item 35/91337
4	July 2008	1 Remove Old logo items Spoornet 35/91463, Transnet 35/102129 Coallink Freightdynamics 35147472 Petronet 35/91337 2) Reinstate ref 35/140408 (for National Port Authority) 3) Implement reflective strips clause (1.2 h)
5	November 2010	1) Change cut make & trim to supply 2) Four row of stitching on reflective strips 3) Add the printing of the safety awareness words under 1.3
6	May 2013	1) Include High-Visibility reflective tape compliance requirements (1.2 h)
7	Nov 2014	1) Incorporate new item ref. 35/170460 Transnet Orange CKS 129/232c 2014 this will apply to all garments ordered against the particular item ...range 2) Remove ref. 148566 Steward Blue 3) Different format logo
8	Oct 2015	1) Incorporate new reflective strip requirements. 2) Reposition the wording "Safety starts with me". 3) In corporate Fire retardant requirements for non-stock purchase only

TROUSERS WORKWEAR, UNISEX

Reference item No. 35/170662 "Orange" (Registered colour No. 232c "Transnet Orange" of CKS 129)
 No. 35/162235 (Shorts) Orange (Registered colour No. 232c "Transnet Orange" of CKS 129)
 No. 35/180003 "Orange" Transnet Logo (Registered colour No. 232c "Transnet Orange" of CKS 129)
 (Reference no 35/180217 is a PPE item procured as non-stock) it has been incorporated into this specification serves as a guidance for the requirements of (Cloth, reflective strips, colour, logo, sizing SANS 434)

1. REQUIREMENTS:

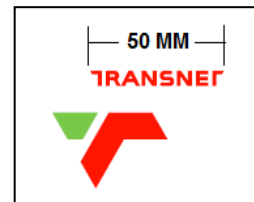
1.1 MATERIAL:

- 1.1.1 The outer material ref. no. 35/170662 shall be all cotton drill fabric that complies with the requirements for type D59 of SANS 1387 – 4 and shall be of a colour that is an acceptable match to colour No. 232c "Transnet Orange" of CKS 129
- 1.1.2 The outer material shall be all cotton drill fabric that complies with the requirements for type D59 Fire treated Acid resistant (SANS 1432 Part 1) and shall be of a colour that is an acceptable match to colour No. 232c "Transnet Orange" of CKS 129
- 1.1.3 Copy of cloth compliance certificate to accompany tender documents.

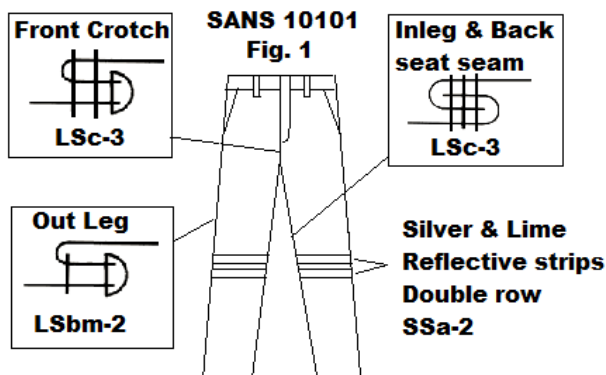
1.2 GARMENT:

The trousers shall comply with the requirements (other than Packing and Marking,& Labeling of Garments) to SANS 434/Latest.

- (a) The hip pocket shall be of width 15 cm and depth 16 cm
- (b) Belt loop length of 55mm
- (c) Slide fastener front closure.
- (d) The top end of the pocket to be 30 mm forward of the side seam
- (e) Seams according to SANS 434 and main seams according to Fig 1.
- (f) Logo, to be in the center of the back pocket



- (g) Reflective strips shall comply with requirements other than positing and colour to:
 SANS 50471: 2006 / EN 471 CLASS 2 Industrial wash, minimum 50 washes at 75 °C
 (Copy of manufacturer's compliance certificate to accompany the tender documents)
 * Strips to be silver (20 mm) on lime (50 mm)
 (Silver strip has to be clearly marked on the front or back with the manufacturer's identification)
 * One strip on each leg positioned proportionally below knee, stitched with four rows of stitching
- (h) For ref. no.35/180003 The reflective strips to be fire retardant
- (i) For ref. no. 35/180217The Fire acid retardant / zero flame acid awareness logo to be depicted on the thigh of the trouser.



1.3 LABELING:

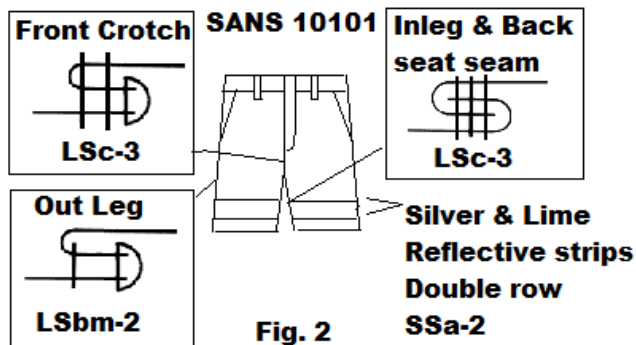
The garment shall be labeled and marked in accordance with the requirements of specification CSS 286.21 LAB/1. In addition to the requirements of the labeling specification the trousers left front to be folded for the sewn-in label to be visible when in the plastic envelope.

Other than above the label for ref. no. 35 180003 has to comply too the fire retardant requirements.

Note that both Transnet Freight rail and RME item numbers have to depicted on the label.

1.4 PACKING:

The garments shall be packed and marked in accordance with requirements of specification CSS 286.21 PAC/1.



Shorts size chart

1	2	3	4	5	6	7
Size	Nominal measurements of finished garment (cm)					
Designation ¹⁾	Out leg	Inleg	Waist extend	Seat	Knee	Bottom
67	52	25	80	92	51	42
72	52	25	85	97	52	44
77	53	26	90	102	53	46
82	53	26	95	107	54	48
87	55	27	100	112	55	50
92	57	28	105	117	56	50
97	59	29	110	122	57	50
102	61	30	115	127	58	50
107	62	31	120	132	58.5	51
112	63	32	125	137	59	51
117	64	33	130	142	59.5	51
122	64	33	135	147	60	51
127	65	34	140	152	60.5	52
132	65	34	145	157	61	52
137	66	36	150	162	61.5	52
142	66	36	155	167	62	52
147	67	37	160	172	62.5	52
1) Based on the waist girth, in centimetres, of the intended wearer						

Annex A
(normative)

Special conditions of tender

A-1 Unless otherwise stated, Transnet Limited (or an officer or organization deputed by it), shall be the inspecting authority.

A-2 Two pre-production sample trousers shall have been inspected, tested and approved by the inspecting authority before bulk production is commenced, and these samples shall each be accompanied by a trim chart containing a sample of each component material. It shall be the duty of the manufacturer to give adequate notice to the inspecting authority of the availability of these samples.

A-3 The trousers 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 trousers supplied to this specification may be in progress.

A-4 The contractor shall inspect the finished trousers for compliance with the specification before submitting them to the inspecting authority for final inspection.

A-5 Before acceptance, the trousers shall have been inspected and tested by the inspecting authority and found to comply with the requirements of the specification.

REVISION HISTORY SHEET		
Document Quality Assurance		Document No.
Subject ADMINISTRATION, PREPARATION, MAINTENANCE AND DISTRIBUTION OF PRIVATE SPECIFICATIONS		Effective date 12 September 2004
Controlling Officer: R. Steynberg		
Approving Officer: C. J.V. du Plooy		
Rev/No	Date approved	Nature of revision
1	September 2006	1) Remove reference items. Metrorail 35/117898 and Portnet 35/40408 2) Replace button fly with slide fastener (SABS 434) 3) Waistband to SABS 434 4) Fronts to SABS 434 5) Pockets to SABS 434
4	July 2008	1 Implement reflective strips clause (1.2d)
5	March 2009	1 Amend button front closure to slide fastener (clause 1.2 c)
6	November 2010	1) Quote cloth in 1.1.1 2) Add stitching requirements to drawing. 3) 1.1.2 Copy of cloth compliance certificate to accompany tender documents
7	May 2013	1) Include the shorts ref. 35/162235 2) Include High-visibility reflective tape compliance requirements (1.2 f)
8	Oct 2014	1) Apply appropriate seams according to SANS 10101 to illustrations.
9	Nov 2014	1) Incorporate new item ref. 35/170662 Transnet Orange CKS 129/232c 2014 this will apply to all garments ordered against the particular item ...range 2) The Orange will also apply for the shorts 3) Remove ref. 35/92254 Steward Blue 4) Incorporate the Transnet logo.
10	Oct 2015	1) Incorporate Fire retardant requirements for non-stock item ref. No. 35/180217 (see 1.2 i)

DENIM TROUSER MENS (CHINO)

Reference item no. 35/157570 TRANSNET

Colour: Pre-washed Indigo blue denim 390 g/m² (11 ounce) 3/1 Z Twill

1. SCOPE

This specification covers the materials and make of denim trouser intended for personnel employed by Transnet.

NOTES :

1. The following requirements will be specified in tender invitations and in each order or contract:
 - a) The outer material, if other than as specified (see 4.1)
 - b) The item(s) required (see 4.3)
 - c) The size designation(s) required (see 4.4)
- 2.) Special conditions of tender (which cover the conditions of acceptance of the garments are given in Annex A.

2. NORMATIVE REFERENCES

The following standards contain provisions which, through reference in this text, constitute provisions of this specification. All the standards are subject to revision and, since any reference to a standard is deemed to be a reference to the latest edition of a standard, parties to agreements based on this specification are encouraged to take steps to ensure the use of the most recent editions of the standards indicated below. Information on currently valid national and international standards may be obtained from the South African Bureau of Standards.

CSS 286.21, *Clothing -- LAB/1: Labelling -- PAC/1: Packing and marking.*

SANS 79, *Textiles – Mass per unit area of conditioned fabrics*

SANS 105-BO2, *Tests for colour fastness – Part Bo2: Colour fastness to artificial light: Xenon artificial lamp test.*

SANS 1309, *Printed labels for textiles.*

SANS 1360-1, *Size designation of clothes -- Part 1: Women's and girls' outerwear garments.*

SANS 1362, *Sewing threads*

SANS 1387-10 *Pocketing Woven cotton and similar apparel fabrics*

SANS 1822, *Slide (zip) fasteners.*

SANS 5278 *Sewing stitches per unit length*

SANS 50471, *High-visibility warning clothing for professional use- test method and requirements*

SANS 7211-2, *Textiles-Woven fabrics – Construction – Method of analysis Part 2: Determination of number of threads per unit area.*

SANS 10076-6, *The assessment of defects in textile piece-goods and made-up articles-Part 6: Defects in woven Filament piece-goods (synthetics)*

SANS 10076 - 7, *The assessment of defects in textile piece-goods and made-up articles-Part 7: Defects in household articles*

SANS 13934 –1, *Textiles-Tensile properties of fabrics. Part 1. Determination of maximum force and elongation at maximum force using the strip method s Part 1*

SANS 10101, *Standard nomenclature for stitches, seams, and stitchings.*

SANS 10188, *Standard methods of garment measurements..*

SANS 100004, *Terms and definitions for textiles and textiles merchandise.*

SANS 10011, *Care-labelling of textiles piece goods, textiles articles and clothing.*

3. DEFINITIONS

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

3.1 ACCEPTABLE : Acceptable to the Executive Manager, Transnet.

3.2 NOMINAL : Subject to the tolerances normal to good manufacturing practice.

4. REQUIREMENTS

4.1 MATERIALS

The outer material shall be cotton denim fabric that complies with the requirements of for type DEN 41 of SABS 1387 Part VI and of a Indigo Blue colour of CKS 129. Yarn sulphur dyed and natural yarn. The material shall be supplied and used by the manufacturer .

4.1.1. GENERAL

The materials specified in 4.1.2 to 4.1.6 (inclusive), all of a colour that is an acceptable match to the outer material, shall be supplied and used by the manufacturer,

4.1.2 POCKETING

A pocketing complying with the requirements for type PT 56 of SABS 1387 : Part X, or a warp-knitted pocketing complying with the requirements of SABS 1008.

4.1.3 WAISTBAND LINING

The waistband lining shall be of the same colour and material as the jeans (self material)

4.1.4 SLIDE FASTENERS

Metallic (gilding type) ass one-way closed-end slide fasteners (figure 3a) that complies with the requirements of performance class B or C slide fasteners of SANS 1822. The slider & puller shall be a locking type

4.1.5 BUTTONS AND STUDS

- a) Brass stud button of an intrinsically corrosion resistant metal and having a smooth finish and a nominal width of 17mm.
- b) Brass nipple studs of an intrinsically corrosion resistant metal and having a nipple top and smooth finish and a nominal width of 9mm.

4.1.6 THREADS

Threads shall comply with the relevant requirements of SANS 1362, and shall be as follows:

- 1) Needle, bobbin and looper threads shall have a breaking strength of at least 12 N
Colour used is an acceptable match.
- 2) Overlocking threads shall have a breaking strength of at least 8 N.
Colour used is an acceptable match.

4.1.7 REFLECTIVE TAPE

- 40 mm
- Standard type ref.: 8910

4.2 WORKMANSHIP

The garments shall be cut and made with first-class workmanship throughout and shall be free from defects that effect their appearance or may affect their serviceability (or both), and from marks, spots and stains incurred in the making-up. All seams shall be smooth and all stitching shall be uniform. Seams and stitching shall be free from twists, pleats and puckers and shall be extensible enough to obviate seam cracking and undue shrinkage in use. All seams shall be saddle stitched in bronze colour thread. All ends of sewing that are not secured in the seams or in other sewing shall be adequately bar-tacked. All ends of sewing shall have been trimmed and loose threads removed. The garment shall be of uniform and acceptable make, colour and finish, and the matching of the shades of the component parts of a garment shall be such as to be acceptable.

4.3 STYLE

The denim trouser (see figure 1 and 2) shall have a plain waistband with belt loops and slide-fastening fly. They shall have two slanted side pockets, one back pocket. The outer material of the denim jeans shall be sulphur dyed Indigo Blue denim.

4.4 SIZES

The Denim trousers shall be supplied in one (or more) of the size designations given in table 1, as specified in the order or contract.

- a) When required, the Denim jeans shall be made to special measurements, furnished by Transnet.

*Sealed samples are held by, and may be viewed at, the Transnet Freight rail Clothing division.

4.5 MAKE SIZE RANGE

Size chart

1	2	4	5	6	
Size designation 1)	Nominal Finished garment Measurements, c				
	Waist	Hip / Seat	Out/leg	In/Leg	Bottom
72	72	92	102	74	42
77	77	97	102	76	42
82	82	102	104	77	42
87	87	107	104	77	42
92	92	112	106	77	42
97	97	117	106	77	42
102	102	122	110	78	44
107	107	127	110	78	44
112	112	132	112	78	44
117	117	137	112	78	44
122	122	142	112	78	44
127	127	147	113	78	44
132	132	152	113	78	46
137	137	157	113	78	46
142	142	162	114	78	46
147	147	167	114	78	46
152	152	172	114	78	46
157	157	177	115	78	46
162	162	182	115	78	46
1) Size based on WAIST measurement					

4.5.1 DENIM TROUSER

4.5.1.1 FRONTS

Each front (see figure 1) shall have two slanted side pockets and two pleats, the first pleat shall be in line with the front crease line and second pleat 35 mm behind the first pleat.

4.5.1.2 BACKS

Each back (see figure 2) shall have dart of finished length 80 mm positioned approximately midway between the seat seam and the side seam. The right back shall have a jetted pocket

4.5.1.3 FLY

The fly shall be lined with the outer material and shall be fitted with a slide fastener. The fly shall be of finished width 30mm and shall be stitched down 30mm from the edge, and the bottom of

the fly shall be securely tacked. (See 4.1.4).

4.5.1.4 FLY CATCH

The fly catch shall be of outer material (see 4.1) and shall be of finished width of 40mm. The catch shall be the same width throughout with a 15mm piece of tape along the seam. The bottom shall have a fold of 3cm which is bar-tacked. The catch shall be secured to the fly with bar-tacks.

4.5.1.5 WAISTBAND

The waistband shall be plain and shall be of finished width 40mm. It shall be of self-material.

4.5.1.6 BELT LOOPS

Each pair of Denim Trousers of size designation have seven belt loops on the waistband shall be positioned as follows:

- a) One on front pleat one on side seam, one on back dart and one on the centre back seam

4.5.1.7 POCKETS

All pocket bags shall be of pocketing (see 4.1.2), shall be double stitched or bound, and the top ends of each size pocket bag shall be secured in the waistband. The ends of the pocket mouths shall be securely bar-tacked and secured with studs (see 4.1.5) The jetted back pocket mouth shall be securely bar-tacked. All the pockets shall be as follows:

- a) Side pocket: The side shall have a slanted pocket. The finished width of the pocket shall be approximately 15 cm, and each mouth shall have a facing of the outer material of 17 cm width at the part and curving round in the shape of the pocket mouth. The finished pocket bags shall be of width and depth 18 cm and 26 cm respectively measured from the inside of the jeans.
- c) **Back hip pocket:** the pocket shall be double-jetted with button fastening. The pocket mouth shall be of finished width 13 cm and depth of 18 cm with an outer material facing of 55 mm.

4.5.1.8 BOTTONHOLES

The waistband shall have a buttonhole with a rounded face and ending in a secured point (fish-eye). It shall measure 30 mm in length.

4.5.9 BUTTONS AND STUDS

There shall be one button on the waistband. Nipple studs shall secure the ends of the two front and the hip pocket.

4.5.10 BOTTOMS

The bottoms shall be plain, folded up and topstitched down to from a finished hem of 20 mm.

4.5.11 REFLECTIVE STRIPS

The 40 mm silver reflective tape to be positioned below the knee on the circumference of the leg. Tape to be stitched 3.5- 4 mm from the edge.

4.6 STICED, SEAMS AND STITCHINGS

4.6.1 GENERAL

All sewing shall be in accordance with SABS 0101.

4.6.2 STITCHES

- | | | |
|----|--------------|----------------------|
| a) | Main seaming | Stitch type 401. |
| b) | Overlocking | Stitch type 502-505. |
| c) | Other sewing | Stitch type 301. |

4.6.3 SEAMS

Seams shall be least 10 mm wide. They shall be as follows:

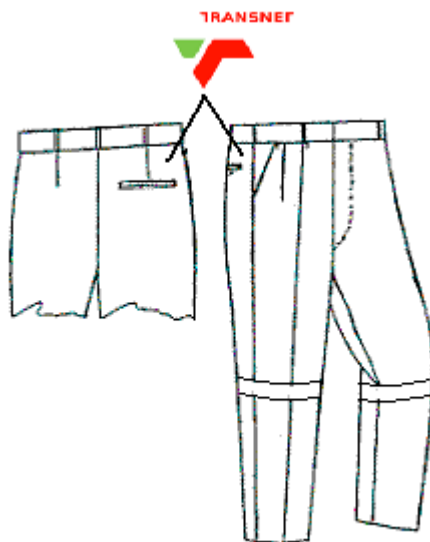
- | | | |
|----|-----------------------|------------------------|
| a) | Main and pocket seams | Seam type Ssa-2, Lsc-3 |
|----|-----------------------|------------------------|

4.6.4 STITCHING

- | | | |
|----|-------------------|-----------------------|
| a) | Overlocking edges | Stitching type Efd-1. |
| b) | Hems | Stitching type Efb-1. |

4.6.5 NUMBER OF STITCHES

- | | | |
|----|--------------------------|----------------------|
| a) | Seaming and topstitching | - 40 +- 4 per 10 cm. |
| b) | Overlocking | - 32 +- 2 per 10 cm. |
| c) | Buttonholes | - 12 +- 1 per 1 cm. |
| d) | Bar tacks | - 18 min per 1 cm. |
| e) | Buttons | - 18 min per button. |



45 mm
TRANSNET



Annex A
(Normative)

Special conditions of tender

A-1 Unless otherwise stated, the Executive Manager, (Transnet) (or an officer or organization deputed by him), shall be the inspecting authority.

A-2 Three pre-production samples of trousers, shall have been inspected, tested and approved by the inspecting authority before bulk production is commenced, and these samples shall each be accompanied by a trim chart containing a sample of each component material (as given in 4.1.2 to 4.1.14). It shall be the duty of the manufacturer to give adequate notice to the inspecting authority of the availability of these samples.

A-3 The trousers 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 garments supplied to this specification may be in progress.

A-4 The contractor shall inspect the finished trousers for compliance with the specification before submitting them to the inspecting authority for final inspection.

A-5 Before acceptance, the trousers shall have been inspected and tested by the inspecting authority and found to comply with the requirements of the specification.

REVISION HISTORY SHEET		
Document	Quality Assurance	Effective date
Subject	ADMINISTRATION, PREPARATION, MAINTENANCE AND	

DISTRIBUTION		
Controlling Officer: R. Steynberg		
Approving Officer: C.J.V. du Plooy		
Rev/No	Date approved	Nature of revision
1	November 2005	1) Insert Petronet reference item 35/134308 2) Remove Portent reference item 35/122009
2	April 2010	1) Add reflective strips

Unisex (Dual purpose coats)

Reference no. 35/84220 AND 35162437 (TRAIN CREW)

1. Scope

This specification covers the materials of coats intended for personnel employed by Transnet Limited.

NOTES

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

- a) the outer material, if other than as specified (see note to 4.1) ; and
- b) the size designation(s) required (see 4.4).

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

2. Normative References

The following standards contain provisions, which through reference in this text constitute provisions of the specification. All standards are subject to revision and, since any reference to a standard is deemed to be a reference to the latest edition of that standard, parties to agreements based on this specification are encouraged to take steps to ensure the use of the most recent editions of the standards listed below. Information on currently valid national and international standards may be obtained from the South African Bureau of Standards.

CSS 286.21, *Clothing -- LAB/1: Labelling -- PAC/1: Packing and marking.*

SANS 79, *Textiles – Mass per unit area of conditioned fabrics*

SANS 105-BO2, *Tests for colour fastness – Part Bo2: Colour fastness to artificial light: Xenon artificial lamp test.*

SANS 1309, *Printed labels for textiles.*

SANS 1360-1, *Size designation of clothes -- Part 1: Women's and girls' outerwear garments.*

SANS 1362, *Sewing threads*

SANS 1387-7 *Woven cotton and similar apparel fabrics - Part 7: Jacket Linings*

Part 11 : Polyester and viscose raincoat fabric

SANS 1822, *Slide (zip) fasteners.*

SANS 5278 *Sewing stitches per unit length*

SANS 7211-2, *Textiles-Woven fabrics – Construction – Method of analysis Part 2: Determination of number of threads per unit area.*

SANS 10076-6, *The assessment of defects in textile piece-goods and made-up articles-Part 6: Defects in woven Filament piece-goods (synthetics)*

SANS 10076 - 7, *The assessment of defects in textile piece-goods and made-up articles-Part 7: Defects in household articles*

SANS 13934 –1, *Textiles-Tensile properties of fabrics. Part 1. Determination of maximum force and elongation at maximum force using the strip method s Part 1*

SANS 10101, *Standard nomenclature for stitches, seams, and stitchings.*

SANS 10188, *Standard methods of garment measurements..*

SANS 100004, *Terms and definitions for textiles and textiles merchandise.*

SANS 10011, *Care-labelling of textiles piece goods, textiles articles and clothing*

3. Definitions

For the purpose of this specification, the following definitions shall apply :

3.1 acceptable : Acceptable to Executive Manager,Transnet Limited.

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

4. Requirements

4.1 Materials

NOTE : Reference no. 35/84220 The colour will be an acceptable match to colour No. 2015c/1997 of CKS 129 “Navy” Reference no 35162437 (TRAIN CREW) Black

Cloth, Twill. Colour navy 65% Polyester / Viscose to SANS 1387-2 Type RPR 66 / Latest.

The quantity supplied will be in accordance with the material ratings agreed to for the fulfilment of the contract.

4.1.1 General

The materials specified in 4.1.2 to 4.1.11 (inclusive) all of a colour that is an acceptable match to that of the outer material, shall be supplied and used by the manufacturer.

4.1.2 Interlining

An acceptable fusible woven or non-woven interlining that complies with the requirements of CKS 627 for interlinings that are suitable for use in garments that will be dry-cleaned. The mass per unit area shall be such that the interlining is suitable for use in the forepart, collar, welts, cuff-tabs and the bottom of the sleeve. The selection of interlinings of appropriate type and mass per unit area shall be determined by consultation with the manufacturer(s) of the interlining(s).

4.1.3 Detachable warm lining, body and sleeve lining

A polyester lining that complies with the requirements for type L61P of SABS 1387 - 7.

4.1.4 Coated inner lining

The inner lining shall be coated fabric that complies with the requirements given in the table 1.(L61P of SANS 1387-7)

4.1.5 Wadding for detachable warm lining

A non-woven polyester fill of nominal mass per unit area 85 g/m² which has a finish on both sides to prevent fibre penetration.

4.1.6 Pocketing

An acceptable polyester-and-cotton pocketing.

4.1.7 Binding tape

An acceptable bias binding tape of nominal width 25 mm.

4.1.8 Buckles

Buckles shall be of steel, neatly covered with fabric, and shall have a centre prong and shall be capable of acceptable accommodating a belt of finished width 50 mm.

4.1.9 Buttons

Four-hole dope-dyed rimmed plastic buttons, of nominal diameter 26 mm. The colour shall be an acceptable match to that of the outer material. The backing buttons shall be four-hole plastic buttons of diameter 12 mm

4.1.10 Eyelets with washer

Acceptable black corrosion-resistant metal eyelets with washers, and having a nominal inside diameter of 4 mm.

4.1.11 Slide fastener

Detachable warm liner One-way open end slide fasteners with spiral elements that comply with the requirements of SANS 1822

Table 1 - Coated inner lining

1	2	3
Property	Requirements	SANS number
	Type	
	L61P	
Composition of base fabric .	100% Polyester	AATCC 20
Weave.....	Plain	Visual examination
Mass of coated fabric, (free from non-fibrous material). g/m ² ,min	70	79
Number of threads per cm ¹⁾ , min.		7211-2
Warp	39	
Weft ²⁾	22	
Breaking strength, N, min.		13934-1
Warp	550	
Weft	520	
Resistance to opening at seams ³⁾ , N .min	65	5726
Removable non-fibrous material content. % max.....	3	5966
Dimensional changes on: Dry cleaning, (warp & weft), %, max	2	
Laundering (warp & weft), % , max		960:Washing procedure A1
Press dry.....	2	Dry cleaning procedure E
Tumble dry.....	3	Dry cleaning procedure F
Colourfastness to :		
Washing, rating, min.....		11166: procedure C
Change in colour.....	4	
Staining of transfer cloths.....	3	
Dry cleaning, rating, min		105-D01
Change in colour.....	4	
Staining of transfer cloths.....	4	
Perspiration, rating, min		105-E04
Change in colour.....	4	
Staining of transfer cloths.....	3-4	
Light, rating, min.....	3	105-B02
1) Suitable yarn linear densities are given in annex B. 2) Subject to a tolerance – 10 % 3) Determined on the fabric as received, and also after dry cleaning in accordance with ISO 3175-2, also after washing in accordance with sans 96: procedure A1		

4.1.11 Threads

Threads shall comply with the relevant requirements of SABS 1362 and there shall be as follows :

- a) sewing threads : a polyester-and-cotton core-spun thread or a stable polyester thread, ticket No. 80 (in both cases).
- b) buttonhole thread : a mercerised cotton thread, ticket No. 36.
- c) buttonhole gimp: a glace cotton thread ticket No. 10.

4.2 Workmanship

The garments shall be cut and made with first-class workmanship throughout and shall be free from defects that affect their appearance or may affect their serviceability (or both), and from marks, spots and stains incurred in the making-up. All seams shall be smooth and all stitching uniform and free from twists, pleats and puckers and shall be sufficiently extensible to obviate seam cracking and undue shrinkage in use. All ends of sewing that are not secured in seams or other sewing shall be adequately back-tacked. All ends of sewing shall have been trimmed and loose threads removed. The garments shall be of uniform and acceptable make, colour and finish, and the matching of the shades of the component parts of a coat shall be such as to be acceptable.

4.3 Style

The dual purpose coat shall be double-breasted coat with a 3-button fastening, and with raglan sleeves (SEE Fig.1 and Fig.2) as specified. There shall be a seam and a vent at the centre back, a two-way storm collar, two welted side pockets with through opening, front and back laid-on shoulder yokes, a loose belt, a detachable lining. The body and sleeves shall be fully lined with body lining, and the body, sleeves and shoulder yokes shall be inner lined with a coated inner lining.

4.4 Sizes

The dual purpose coats shall be supplied in one or more of the size designations given in column 1 of table 2 as specified in the order or contract. Their measurements, determined in accordance with SABS 0188, and shall conform to the appropriate values given in table 2. The patterns shall conform to the specification and to the sealed sample and shall be drafted by the manufacturer.

Table 2 Size chart

1	2	3	4	5	6	7	8
Size designation 1)		Nominal finished garment measurements, cm					
Cm	inches	Chest	Back Length	Back width	Sleeve length 2)	Cuff circumference	Hem circumference
72	28	88	119	36	74	29	147
77	30	93	119	37	75	29	152
82	32	98	119	38	76	30	157
87	34	103	122	39	77	30	162
92	36	108	125	40	78	32	167
97	38	113	126	41	80	32	172
102	40	118	127	42	81	34	177
107	42	123	128	43	82	34	182
112	44	128	128	44	83	36	187
117	46	133	128	45	84	36	192
122	48	138	128	46	84	37	197
127	50	143	129	46	85	37	202
132	52	148	129	47	85	38	207
137	54	153	129	47	86	38	212
142	56	158	130	48	86	39	217
147	60	163	130	48	87	39	222
152	62	168	130	49	87	40	227
157	64	173	131	49	87	40	232
162	66	178	131	50	88	41	237
1) Based on the bust measurement of the intended wearer							
2) Measured from the center back to the end of the cuff							

1) The sealed sample is held by, and may be viewed at, the Transnet Freight rail Clothing Division.

4.5 Make

NOTE - Unless inconsistent with the text, all measurements are nominal.

4.5.1 Forepart

Each forepart (see figure 1) shall interlined with fusible interlining (4.1.2), fully interlined with coated interlining (4.1.4) and fully lined with rayon lining and shall have side pockets. The break of the lapel shall have a stay of a suitable fusible tape of width 25 mm. The finished width of a lapel from the point to the crease-line of the lapel shall be 13 cm.

4.1.2 Pockets

Each forepart shall have a semi-vertical welted side pocket (forming an angle of 20° with the vertical) of finishing length and with 16 cm and 50 mm respectively, and each pocket shall be stayed with an acceptable material. The welts shall be lined with outer-material and interlined with fusible interlining (see 4.1.2) and the welt shall be top-stitched 7 mm from the free edge on the pocket mouth. The ends of the welt shall be securely stitched down 1 mm and 7 mm from the free edge. The pocket bag shall be of pocketing (see 4.1.6) and shall be of finished width and depth 14 cm and 11 cm respectively (measured at the bottom of the pocket mouth) and the top of the pocket bag shall be stayed.

4.5.3 Back

The back (see figure 2) shall be plain.

4.5.4 Facings and linings

Each front shall have a facing of finished width 25mm at the neck shaped to 100 mm at the finished hem. One piecing of a facing shall be permitted provided that the join is between the bottom buttonhole and the hem of the coat. The seam joined the lining and inner to the facing shall be securely fastened. The inner lining shall extend to within 30mm of the button of the finished lining. The lining shall extend to within 25 mm of the bottom of the coat, shall have a hem bottom, and shall be attached, at each side seam, to the hem of the coat by means of length 60 mm off doubled rayon lining (see 4.1.2).

4.5.5 Cuff tabs

Each tab shall be of outer-material that is lined with self-material and interlined with fusible interlining (see 4.1.2). The cuff tab shall have a mitred end and the width measured at the base of the mitre and at the end of the tab shall be 60 mm and 40 mm respectively. The finished length of the tab shall be (measured from the raglan sleeve seam to the mitred end) 90 mm and its free edges shall be top-stitched 7 mm from its free edge. The cuff tabs shall be 60 mm above the cuff so positioned out of the outer sleeve seam that the mitred end faces the outside. Each cuff tab shall have 20 mm buttonhole so positioned with the eye of the buttonhole in line with the base of the mitre.

4.5.6 Ragan Sleeves

Raglan sleeves (see Fig. 1) shall be two-pieces raglan sleeves with a centre seam and an underarm seam, the underarm seam being a pressed open seam and the centre seam top-stitched. Each sleeve shall have a mitred tab of a double thickness of outer material sewn in with the underarm seam 60 mm from the lower edge of the sleeves. A finished tabs hall be 80 mm long, 40 mm wide at the underarm seam and 60 mm wide at the base of the mitre. A tab shall fasten to the sleeves with a buttonhole in the base of the nitre and a button at the corresponding position on the sleeves. In addition, there shall be a second button on the cuff 50 mm beyond the first button. The sleeves shall be fully lined with rayon lining (see 3.1.2) and inner lined with coated inner lining (see 3.1.6).

4.5.7 Collar

The collar shall be a two-way storm collar interlined with fusible interlining 9SEE 3.1.5). The under collar shall be of outer material and may have a center seam. The collar shall have a stand of with 40 mm and a fall of width 80 mm.

4.5.8 Shoulder straps only for ref 35162437

The shoulder straps shall be mitred straps, of outer fabric and lined with outer fabric of finished width 50 mm at the shoulder and tapering to 40 mm at the buttonhole end, and 14 cm long. The edges of the straps shall be top stitched 6 mm from the edge.

4.5.9 Belt

The belt shall be of doubled outer material, shall be interlined with fusible interlining (see 4.1.2), and shall a finished width 50 mm, an outer-material runner loop at one end and a mitred point at the outer. At the mitred end there shall be five eyelets with washers (see 4.1.10) spaced at 50 mm centres, the first eyelet being positioned 70 mm from the point. Then length of a finished belt (measured from the middle eyelet to the buckle) shall be equal to the circumference of the coat (when buttoned) at the waistline. The belt shall be stitched through the centre along its length.

4.5.10 Hanger

A hanger of folded outer material, or lining, of finished length 90 mm and width 10 mm, shall be securely attached to the collar stand at the centre back neck on the inside of each coat.

4.5.11 Detachable lining

The body of a coat shall have a detachable lining (see 4.1.5), of a knitted pile fabric (see 4.1.3), and the length such as to extend beyond the top of the vent, and that buttons to the inside of the body. On each front there shall be a pocket opening, of finished length 20 cm, that is inserted in apposition corresponding to that of the pocket opening in the forepart.

4.5.12 Buttonholes

- a) General. All buttons shall be neatly made, gimped and barred
- b) 30 mm long buttonholes. There shall be four 30 mm long buttonholes in the left forepart, i.e. one in the point of the lapel, and three near the front edge, the first being at the lapel, and three near the front edge, the first being at the lapel break the this third level with the lower end of the welt of the pocket, and the second midway between the other two. In the right forepart there shall be 30 mm long buttonholes, i.e. one in the point of lapel, and the other either at the lapel break or in a position corresponding to that of the second of the three buttonholes in the left-front, depending on the position of the jigger button (see 4.1.7).

One in each sleeve tab, one in the vent underlay and thirteen vertically inserted in the detachable lining i.e. three across the back of the neck and five in each front.

4.5.13 Buttons

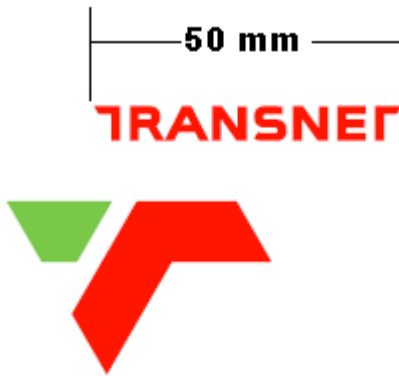
- a) Each forepart shall have three 25 mm buttons, the buttons on the right front in position that correspond to those of the three 30 mm long buttonholes in the left front, and the buttons on the left forepart horizontally aligned with those three buttonholes. The right front shall have, in addition, one 19 mm button at the gorge under the collar. The left forepart shall have, on the inside a 25mm jigger button either behind the button at the level of the lapel break, or behind the middle button. Each 25 mm button, other than that backed by the jigger button shall be reinforced on the inside by a backing button.
- b) There shall be twenty 14 mm buttons positioned as follows:
 - 1) One on each shoulder;
 - 2) Two on each cuff;
 - 3) One on the overlay of the vent: and

4.5.13 Logo

Transnet logo

For reference no. 35/84220 embroidered in white

For reference no. 35162437 (TRAIN CREW) Olive Green



4.5.14 Embroidery thread

The words TRAIN CREW to be embroidered with an acceptable 100% Viscose machine embroidery thread. Colour to be an acceptable match to Pantone colour no. 376 “Olive Green”

4.5.15 Edges

The front edges, lapels and the collar shall be top-stitched 9 mm from the free edge.

4.5.16 Hems

The bottom hem of the outer material shall be of finished depth 25 mm and the bottom of the lining shall be 25 mm. The two hems shall be attached on each side seam with a lining strap of finished width and length 25 mm and 60 mm respectively. The hems of the sleeves shall be finished depth 40 mm.

4.5.17 Loops

A loop of folded outer material of finished width 10 mm and of finished length 70 mm shall be positioned at the waistline on each side seam.

4.6 Stitches, seams and stitchings

4.6.1 General

All sewing shall be in accordance with SABS 0101.

4.6.2 Stitches

All stitches, stitch type 301.

4.6.3 Seams

Seams shall be as follows :

- a) front edge, collar and cuff tabs: seam type Sse-2;
- c) side and sleeve seams: seam type Ssa-1 and pressed open;
- c) bias-binding for warm lining: seam type Bsc-1/ and
- d) all other seams: seam type SSa-1.

4.6.4. Stitchings

The stitching shall be as follows :

- a) set in seam of welt: stitching type Ssq; and
- b) bottoms hem of outer material and lining : stitching type EFb-1.

4.6.5 Number of stitches

The number of stitches shall be as follows :

- a) all main seaming and top-stitched : 40 ± 4 per 10 cm;
- b) buttonholes : 12 ± 1 per cm; and
- c) bar tacks : 20 ± 2 per cm.
- d) buttons : 16 ± 1 per button;

5 Labelling, packing and marking

5.1 Labelling

As specified in CSS 286.21 lab/1.

5.2 Packing and marking

As specified in CSS 286.21 PAC/1.

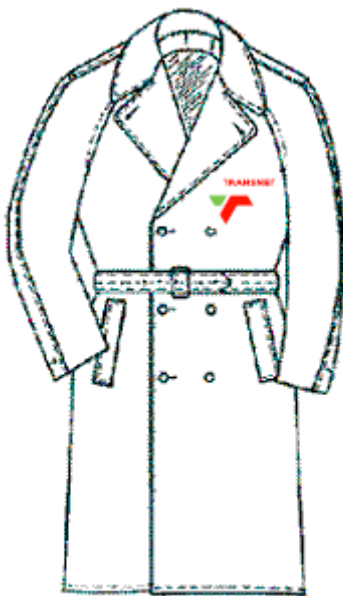


Figure 1 - Front Raglan Sleeve

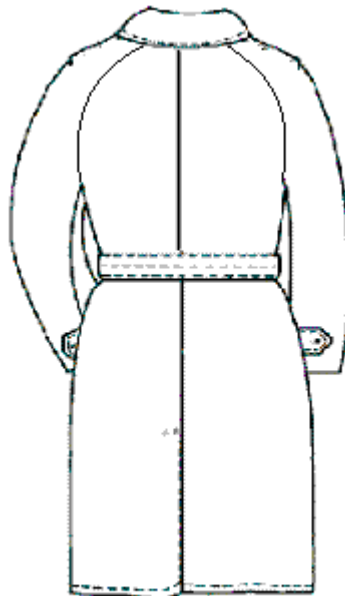


Figure 2 - Back Raglan Sleeve

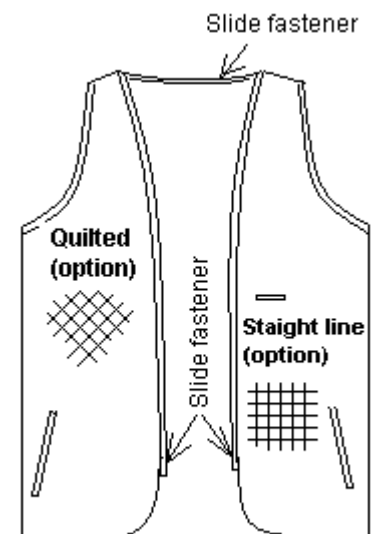


Figure 3 - Detachable warm lining

Annex A
(Normative)

Special conditions of tender

A-1 Unless otherwise stated, Transnet Limited (or an officer or organization deputed by it), shall be the inspecting authority.

A-2 Three pre-production sample Dual Purpose Coats shall have been inspected, tested and approved by the inspecting authority before bulk production is commenced, and it shall be the duty of the manufacturer to give adequate notice to the inspecting authority of the availability of these samples.

A-3 The Dual Purpose Coats 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 Dual Purpose Coats supplied to this specification may be in progress.

A-4 The contractor shall inspect the finished Dual Purpose Coats for compliance with the specification before submitting them to the inspecting authority for final inspection.

A-5 Before acceptance, the Dual Purpose Coats shall have been inspected and tested by the inspecting authority and found to comply with the requirements of the specification.

REVISION HISTORY SHEET		
Document Quality Assurance		Document No.
Subject ADMINISTRATION, PREPARATION, MAINTENANCE AND DISTRIBUTION OF PRIVATE SPECIFICATIONS		Effective date 26 October. 2005
Controlling Officer: R. Steynberg		
Approving Officer: C. du Plooy		
Rev/No.	Date approved	Nature of revision
1	October 2005	1) Adopted item reference 35/84369 and removed reference 35/123306 2) 4.4) Insert revised size chart 3) 4.5.10) Detachable warm liner, Change “button on” to slide fastener 4) 4.3) Style and 4.5.6 Shoulder straps – Remove shoulder straps 5) Insert sketches on page 7
2)	November 2010	1) Adoption of CKS 310 as it has been archived. 2) Add logo to specification
3)	June 2012	1) Inclusion of ref 35162437. 2) Change logo format 3) Shoulder strap included only for ref 35162437
4)	July 2016	1) Replace colour 507c with 2015c of CKS 129 in clause 4.1

Windbreakers, Unisex

1 Scope

This specification covers the material, and make of windbreakers, for use by male and female personnel employed by Transnet Limited.

Reference Item No. 35/91588 Transnet

NOTES

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

- a) The item(s) required {see 1)
- b) The size(s) required {see 4.4)
- c) The packing, if other than as specified (see 5.1)
- d) Additional marking, if required (see 5.4)

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

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this specification. All standards are subject to revision and, since any reference to a standard is deemed to be a reference to the latest edition to a standard, parties to agreements based on this specification are encouraged to take steps to ensure the use of the most recent editions of the standards indicated below. Information on currently valid national and international standards may be obtained from the South African Bureau of Standards.

CKS 627, *Fusible interlinings.*

CKS 129, *Colours for Textiles*

CSS 286.21 LAB/1, *Labelling.*

CSS 286.21 PAC/1, *Packaging.*

SANS 79, *Textiles - Mass per unit area of conditioned fabrics.*

SANS 142, *Narrow elastic fabrics and strip.*

SANS 1309, *Printed labels for textiles.*

SANS 1362, *Sewing threads.*

SANS 1387-2, *Woven cotton and similar apparel fabrics – Part 2: Polyester-and-cotton workwear fabrics*

SANS 1387-7, *Woven cotton and similar apparel fabrics – Part 7: Jacket linings.*

SANS 1387-11, *Woven cotton and similar apparel fabrics – Part 11: Polyester-and-cellulosic raincoat fabrics.*

SANS 1822, *Slide fasteners.*

SANS 1833-1/ISO 1833-1, *Textiles – Quantitative chemical analysis – Part 1: General principles of testing.*

SANS 1833-11/ISO 1833-11, *Textiles – Quantitative chemical analysis – Part 11: Mixtures of cellulose and polyester fibres (method using sulphuric acid).*

SANS 5278, *Sewing stitches per unit length.*

SANS 50471, *High visibility warning clothing for professional use – test methods and requirements.*

SANS 10011, *Care-labelling of textiles and clothing.*

SANS 10235, *Fibre content labelling of textiles and textile products.*

SANS 10371, *Terms and definitions for clothing*

3 Definitions

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

3.1 acceptable: Acceptable to Transnet Limited.

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

4 Requirements

4.1 Materials

The following polyester-and-viscose fabric shall be supplied and used by the manufacturer.

Cloth twill colour: "navy" no 2105 c/1997 of CKS 129 65% polyester and 35% viscose
specifications: SABS 1387 – 11 / Latest / type RPR 66

4.1.1 General

The materials specified in 4.1.2 to 4.1.9 (inclusive), all of a colour that is an acceptable match to that of the outer material, shall be supplied and used by the manufacturer.

4.1.2 Lining

A polyester lining that complies with the requirements for type L61P of SANS 1387- 7.

4.1.3 Interlining

An acceptable fusible woven or non-woven interlining that complies with the requirements of CKS 627 for interlinings that are suitable for use in garments that may be dry-cleaned or washed or both.

NOTE - The selection of interlining of appropriate mass per unit area shall be determined by consultation with the suppliers of the interlining.

4.1.4 Wadding

A polyester wadding of nominal mass per unit area 85 g/m².

4.1.5 Slide fasteners

- a) **Front** One-way open end slide fasteners with plastic moulded elements that comply with the requirements of SANS 1822
- b) **Detachable warm liner** One-way open end slide fasteners with spiral elements that comply with the requirements of SANS 1822

4.1.6 Press-studs

Press-studs of an intrinsically corrosion-resistant chromed base metal of the male and female type. The inside diameter of the hole in the female section shall be at least 5 mm.

4.1.7 Binding tape

An acceptable bias binding tape of nominal width 10 mm.

4.1.8 Elastic Webbing

An acceptable woven elastic webbing having a cotton and rubber warp and a cotton weft, a nominal width of 20 mm and a stretch of at least 120%.

4.1.9 Reflective Tape

Reflective strips shall comply with requirements other than positing and colour to:
SANS 50471 : 2006 / EN 471: CLASS 2 Industrial wash, minimum 50 washes at 75°C

4.1.10 Threads

4.1.10.1 Sewing thread

The threads shall comply with the relevant requirements of SABS 1362 and shall be as follows:

- a) **sewing and top-stitching thread:** a polyester and cotton core spun thread, or a staple polyester thread, ticket No. 80 (in both cases)
- b) **sewing and binding of warm lining:** a polyester-and-cotton core-spun thread, or a staple polyester thread, ticket No. 120 (in both cases).

4.1.9.2 Embroidery thread

The embroidery thread shall be as follows: A white 100% viscose machine embroidery thread.

4.2 Workmanship

The windbreakers shall be cut and made with first-class workmanship throughout and shall be free from defects that affect their appearance or can affect their serviceability (or both), and from marks, spots and stains incurred in the making-up. All seams shall be smooth and all stitching shall be uniform. Seams and stitching shall be free from twists, pleats and puckers and shall be extensible enough to obviate seam cracking and undue shrinkage in use. All ends of sewing that are not secured in seams or in other sewing shall be adequately back-tacked. All ends of sewing shall have been trimmed and loose threads removed. The windbreakers shall be of uniform and acceptable make, colour and finish, and the matching of the shades of the component parts of a windbreaker shall be such as to be acceptable.

4.3 Style

The windbreaker shall be single breasted with a storm flap and a slide fastener fastening closure, two welted side pockets, one outer slide fastener cell phone pocket and inner cell phone pocket. The set-in sleeves shall consist of two sections with cuff and tabs. Each forepart shall have two panels. The body and sleeves shall be fully lined and the jacket shall have a slide fastener detachable warm lining and inter lined with wadding (see 4.1.4). The detachable warm liner shall have an inner double pocket.

4.4 Sizes

The windbreakers shall be supplied in one (or more) of the size designations given in column 1 of table 1, as specified in the order or contract, and their measurements, determined in accordance with SANS 10188, shall conform to the relevant values given in columns 2-8. The patterns shall conform to the specification and to the sealed sample, and shall be drafted by the manufacturer.

Table 1 - Size range

1		2	3	4	5	6	7	8
Size designation 1) Cm inches		Nominal garment measurements, cm						
		Chest	Back length	Back Width	Under arm sleeve	Depth of scye	Sleeve circ.2)	Cuff circ.
72	28	94	74	37	43	26	41	27
77	30	99	74	39	43	26.5	42	28
82	32	104	75	41	44	27.5	43	28
87	34	109	75	43	44	28.5	44	29
92	36	114	76	45	44	29.5	45	29
97	37	119	76	47	45	30.5	46	29
102	38	124	77	49	45	31	47	30
107	40	129	77	51	45	32	48	30
112	42	134	78	53	46	33	49	31
117	44	139	78	55	46	34	50	31
122	46	144	78	57	46	35	51	32
127	48	149	78	59	47	35.5	52	32
132	50	154	80	61	47.5	36	54	33
137	52	159	80	61	48	36.5	56	33
142	56	164	81	63	48.5	37	58	34
147	58	169	81	63	49	37.5	60	34
152	60	174	82	65	49.5	38	62	35
157	62	179	82	65	50	38.5	64	35
162	64	184	82	67	51	39	66	36
1) Based on the chest measurement in centimetres of the intended wearer.								
2) Sleeve circumference measured ± 30 cm from the crown of the sleeve								

4.5 Make

NOTE - Unless inconsistent with the text, all measurements are nominal.

4.5.1 Fronts

Each fore part shall be two sections, slanted pocket, with five equidistantly spaced press-studs in the storm flap and fasten with a slide fastener (see 4.1.5.). Each forepart shall consist of two section i.e. a yoke that extends from the shoulder seam to 50 mm above the base of the scye, and a lower section beneath it. The front and back yoke shall be top-stitched 7 mm from the edge. The 50 mm reflective strip to be positioned below the yoke seam in the front and back.

4.5.2 Logo

On the left forepart shall be the appropriate embroidered in white an acceptable thread

4.5.3 Pockets

4.5.3.1 Side pockets

Each forepart shall have a slanted welted side pocket. The welts shall be of folded outer material and interlined with interlining (see 4.1.3). The finished length and width shall be 17,5 cm and 45 mm respectively. The free edge shall be top stitched 7 mm from the edge, the sides 2mm and 7 mm from the edge. Each end of each pocket mouth shall be stayed at the back. The pocket bag shall be of lining (see 4.1.2) and not sewn in with the hem.

4.5.3.2 Inside pocket (right hand side when worn) and detachable warm liner pocket

The warm liner double pocket of outer material shall consist of two pockets 160 width x 200 mm depth with a top stitched pocket sized 80 mm x 200 mm.

The pocket mouth shall be double jetted, constructed from outer material and of finished length 15 cm, positioned 30 mm below the level of the scye. The pocket bag shall be of lining (see 4.1.2) and the depth shall be 22 cm.

4.5.4 Back

The back shall consist of two parts, i.e. a yoke that extends 160 mm from the shoulder seam with the reflective tape below the yoke seam.

4.5.5 Facings and linings

Each forepart shall have an outer material facing that shall be of finished width 45 mm at the shoulder seam shaped to 90 mm at the bottom hem. The stringer of a slide fastener (see 4.1.5) shall be inserted in the front edge seam, between the facing and the forepart. The slide fastener shall extend from the gorge seam of the collar to the bottom edge of the hem. The body and sleeves of the windbreaker shall be fully lined with lining (see 4.1.2) and the bottom of the lining shall have a pleat of at least 15 mm. In each forepart lining, there shall be an inside breast pocket (see 4.5.3.2).

4.5.6 Collar

The collar shall have a separate stand and fall, lined with outer material and interlined with interlining (see 4.1.3). The seam joining the stand and fall shall be folded into the stand section when finished. The stand and fall at the centre back shall be of finished width 35 mm and 60 mm respectively. The points of the collar shall be of finished length 75 mm. The free edges shall be top-stitched 7 mm from the edge.

4.5.7 Sleeves

The sleeves shall be plain two-piece sleeves lined with lining (see 4.1.2). The hind arm seam shall have at the cuff, 20 mm from the edge, a mitred adjustable tab of outer material fused with interlining (see 4.1.3) and lined with outer material. The finished tab shall be of width and length 50 mm and 85 mm respectively. The female section of a press-stud fastener (see 4.1.6) shall be attached to the base of the mitre. Two male sections of press-stud fasteners (see 4.1.6) shall be attached to the hind arm, 60 mm and 110 mm from the hind arm seam.

4.5.8 Detachable lining

The detachable warm lining shall consist of a back and two fronts of one layer of wadding (see 4.1.4) sandwiched between two layers of lining (see 4.1.2) that is quilted in a diamond shape of dimensions 50 mm by 50 mm. The armholes, fronts, bottom and neck shall be bound with binding tape (see 4.1.7). Each front shall have a faced slit of lining (see 4.1.2), so positioned for access to the inside breast pockets of the windbreaker. The detachable warm lining shall be attached to the windbreaker by means of a slide fastener (see 4.1.5).

4.5.9 Edges

The front and back yoke shall be top-stitched 7 mm from the edge. The free edges of the collar, front edges and cuff tabs shall be top-stitched 7 mm from their respective edges.

4.5.10 Hems

The bottom and sleeve hem shall be of finished width 40 mm, turned in and tacked at the seams. The bottom hem shall be interlined with interlining (see 4.1.3).

4.5.11 Hanger

A hanger of folded lining (see 4.1.2) of finished length 75 mm and width 10 mm, shall be securely attached below the collar stand at the centre back neck on the inside of each windbreaker.

4.6 Stitches, seams and stitchings

4.6.1 General

All sewing shall be in accordance with SANS 10101.

4.6.2 Stitches

Stitches shall be as follows:

- a) **side seams, shoulder, sleeve and sleeve insertion seams:** any of stitch type 515 to 519; and
- b) **all other stitching:** stitch type 301.

4.6.3 Seams

Seams shall be at least 10 mm wide and shall be as follows:

- a) **side seams, shoulder, sleeve and sleeve insertion:** seam type SSa;
- b) **yoke seams:** seam type SSa-2
- c) **front edges, collar and cuff tab:** seam type SSae-2; and
- d) **attachment of pocket welts:** LSq-2.

4.6.4 Stitchings

Stitchings shall be as follows:

- a) **hems:** stitching type EFb-1; and
- b) **yoke edges:** stitching type EFa-2

4.6.5 Number of Stitches

- a) **seams and top-stitching:** 40 ± 4 per 10 cm;
- b) **buttonholes:** 12 ± 1 per cm; and
- buttons:** 12 ± 1 per button.

5. Packing, care-labeling and marking

5.1 Packing

The windbreakers shall be delivered in a clean, dry and pressed condition and shall be so packed that they will not be damaged in transit or storage. Each windbreaker shall be neatly folded and packed in a plastics envelope of suitable size and shape and then, unless otherwise specified in the order or contract, packed for transit (in units of ten) in acceptable bulk containers. Only windbreakers of the same item number and size shall be packed together in a bulk container (unless quantities ordered are such that packing of the same item number and size only is not justified). Windbreakers of different item numbers and sizes may also be packed together to accommodate the last part of an order or contract.

5.2 Care-labelling

Each windbreaker shall have a woven or printed label that is permanently secured and that provides (in accordance with SABS 011) correct and appropriate care instructions. Printed labels shall comply with the requirements of SANS 1309. All care-labels and their markings shall be such that they outlast the garments.

5.3 Marking

5.3.1 Windbreakers

Each windbreaker shall have a woven fabric label that complies with the requirements of SABS 1309 securely sewn to the inside of the back neck. The label shall provide the following information printed in legible and indelible block letters of height at least 3 mm:

- a) The manufacturer's name or trade mark or both;
- b) the size designation;
- c) the date of manufacture;
- d) the item number; and
- e) the composition of the fabric.

5.3.2 Plastics envelopes

Each envelope shall be clearly marked with the size designation (as given in column 1 of table 1) and the item number of the contents.

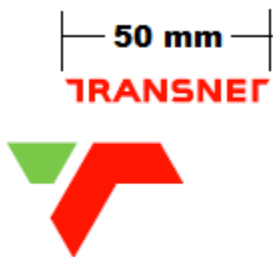
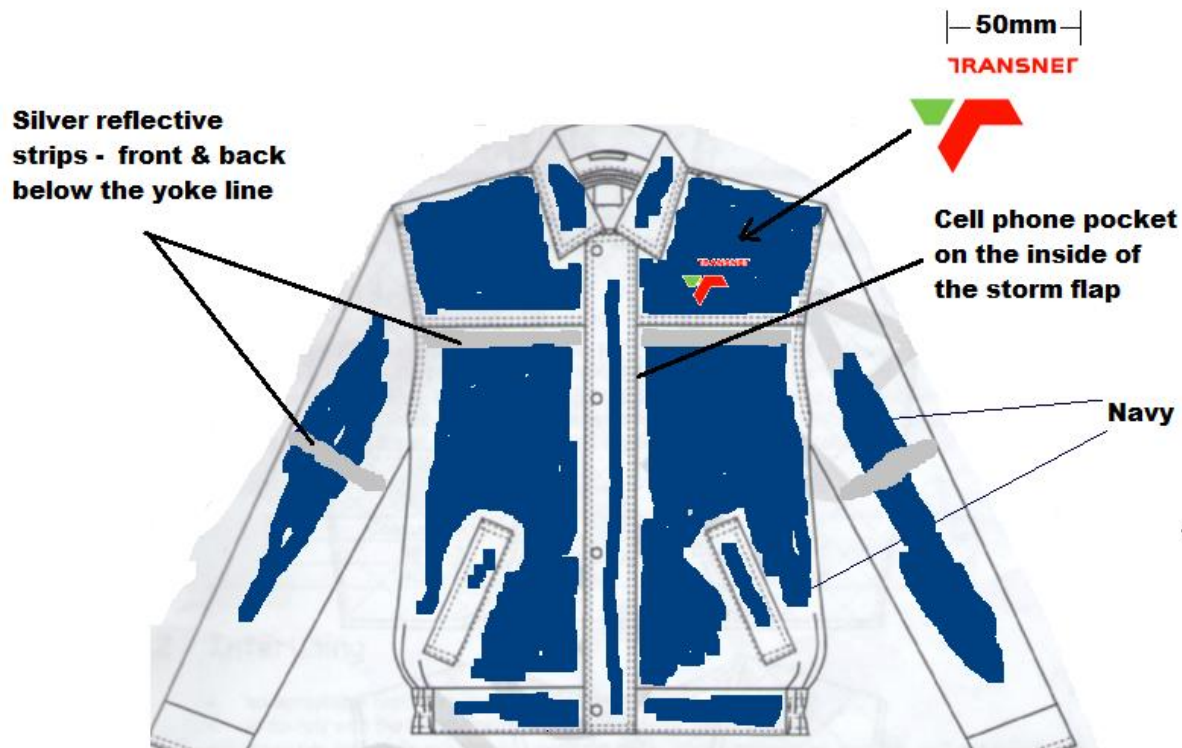
5.3.3 Bulk containers

Each bulk container shall have a label securely attached to the outside. This label shall be visible when the containers are stacked and shall provide the following information:

- a) The manufacturer's name or trade mark or both;
- b) the designation, i.e. "Windbreakers, men's";
- c) the size designation;
- d) the quantity;
- e) the package number;
- f) the year of manufacture; and
- g) the item number.

5.4 Additional marking

When so required by Transnet Limited, windbreakers, envelopes or containers, or any combination of these three, shall bear information additional to that specified in 5.3.



Annex A
(normative)

Special conditions of tender

A-1 Unless otherwise stated, Transnet Limited (or an officer or organization deputed by it), shall be the inspecting authority.

A-2 Two pre-production samples shall have been inspected, tested and approved by the inspecting authority before bulk production is commenced, and it shall be the duty of the manufacturer to give adequate notice to the inspecting authority of the availability of these samples.

A-3 The windbreakers 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 windbreakers supplied to this specification may be in progress.

A-4 The contractor shall inspect the finished windbreakers for compliance with the specification before submitting them to the inspecting authority for final inspection.

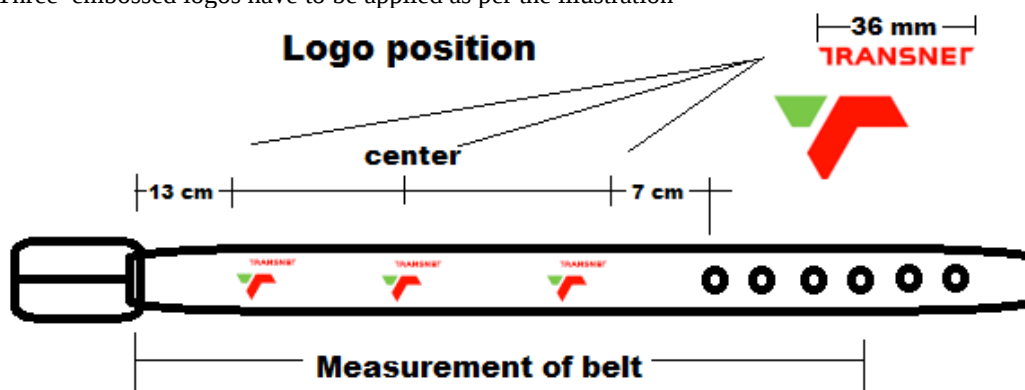
A-5 Before acceptance, the windbreakers shall have been inspected and tested by the inspecting authority and found to comply with the requirements of the specification.

REVISION HISTORY SHEET		
Document Quality Assurance		Effective date 18 JULY 1997
Subject ADMINISTRATION, PREPARATION, MAINTENANCE AND DISTRIBUTION		
Controlling Officer: R. Steynberg		
Approving Officer: C.J.V. du Plooy		
Rev/No	Date approved	Nature of revision
1	January 1999	1. Add item No. 35/135112 Coallink 4.1 Change Item Nos. and add Item No. 35/135112 4.5.2 Add Coallink and Item No. 35/135112 Figure 3 Add Coallink logo
2	March 2004	1. Add item No. 35/155356 Transwerk 1 & 4.5.2 Remove No. 35/91867 Portnet 35/109876 PX 35/92128 Petronet
3	July 2005	1) 4.1.5 change to two different slide fasteners 2) 4.1.8 delete “Buttons” 3) 4.5.8 Changed method of attaching warm liner from buttons to slide fastener 4) 4.4 Add revised / increased size chart Remove No. 35/135112 Coallink
4	November 2005	1) Insert Petronet reference item 35/92128
5	December 2008	1) Remove reference no. 35/100903, 35155356 & 35/92128 2) Add Transnet logo
6	October 2010	1) Change cut make and trim to supply
7	May 2017	1) Change to new unisex style
8	Sept 2018	1) Remove “Cut make and trim” from the scope (page 1)

BELT, LEATHER UNISEX

Reference no. 35/154072

1. **MATERIAL NOTE:**
Transnet Limited will supply no material.
2. **BELT:**
Made from dyed through vegetable tan full grain leather. Stitched down buckle.
Rounded point Five (5) holes 2,5 cm pitch for adjustment
3. **COLOUR:**
“Black” – Sample which can be viewed at:
Transnet Supply Chain Services (Clothing)
Quality Assurance
Langlaagte
4. **SIZE:**
 - (a) Length : As specified in relevant contract/order.
 - (b) Width : 40 mm
 - (c) Thickness : 3,5 to 3,8 mm
5. **BUCKLE:**
Prong buckle nickel-plated, square corners and 3 cm long.
6. **MAKEUP:**
Belt loop 2 cm wide stitched – in with returned end.
7. **Logo**
Three embossed logos have to be applied as per the illustration



8. **PACKING:**
Each belt shall be wrapped in Plastics envelope and packed in cartons.
8. **MARKING OF CARTON:**
Each carton shall bear the following information in legible indelible marking in a position that is visible when boxes are stacked.
 - (a) The contract/order number
 - (b) The item number
 - (c) The manufacturers name.
 - (d) Contents.

REVISION HISTORY SHEET		
Document Subject	Quality Assurance ADMINISTRATION, PREPARATION, MAINTENANCE AND DISTRIBUTION	Effective date
Controlling Officer: R. Steynberg		
Approving Officer: C.J.V. du Plooy		
Rev/No	Date approved	Nature of revision
1	March 2018	1) Include logo application illustration .

WET WEATHER (RAIN) TWO PIECE SUIT, UNISEX (TWO TONE)

Reference item No. 35158502 Transnet logo

1 Scope

This specification covers the requirements for material & supply of unisex wet weather (rain) suits to Transnet.

NOTES

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

a) The size(s) required (see 7)

2 Special conditions of tender (which cover the conditions of acceptance of the Wet weather suit) are given in annex A.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this specification. All standards are subject to revision and, since any reference to a standard is deemed to be a reference to the latest edition to a standard, parties to agreements based on this specification are encouraged to take steps to ensure the use of the most recent editions of the standards indicated below. Information on currently valid national and international standards may be obtained from the South African Bureau of Standards.

CSS 286.21, *Clothing — LAB/1: Labelling — PAC/1: Packing and marking.*

SANS 79, *Textiles – Mass per unit area of conditioned fabrics*

SANS 105-BO2, *Tests for colour fastness – Part Bo2: Colour fastness to artificial light: Xenon artificial lamp test.*

SANS 105-CO3, *Textiles- Tests for colour fastness – Part CO3: Colour fastness to washing: Test 3.*

SANS 105-X12, *Tests for colour fastness – Part X12: Colour fastness to rubbing.*

SANS 142, *Elastic webbing*

SANS 410, *Textiles – Tearing strength of fabrics: tongue tear test.*

SANS 1309, *Printed labels for textiles.*

SANS 1360-1, *Size designation of clothes — Part 1: Women's and girls' outerwear garments.*

SANS 1362, *Sewing threads*

SANS 1822, *Slide (zip) fasteners.*

SANS 1823, *Touch and close fastener*

SANS 5266, *Water resistance of textile: variable head test.*

SANS 5278 *Sewing stitches per unit length*

SANS 50471, *High-visibility warning clothing for professional use- test method and requirements*

SANS 7211-2, *Textiles-Woven fabrics – Construction – Method of analysis Part 2: Determination of number of threads per unit area.*

SANS 10076-6, *The assessment of defects in textile piece-goods and made-up articles-Part 6: Defects in woven Filament piece-goods (synthetics)*

SANS 10076 - 7, *The assessment of defects in textile piece-goods and made-up articles-Part 7: Defects in household articles*

SANS 13934 –1, *Textiles-Tensile properties of fabrics. Part 1. Determination of maximum force and elongation at maximum force using the strip method s Part 1*

SANS 10101, *Standard nomenclature for stitches, seams, and stitchings.*

SANS 10188, *Standard methods of garment measurements..*

SANS 100004, *Terms and definitions for textiles and textiles merchandise.*

SANS 10011, *Care-labelling of textiles piece goods, textiles articles and clothing.*

3 Definitions

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

3.1 **acceptable:** acceptable to Transnet Limited.

3.2 **nominal:** subject to the tolerances normal to good manufacturing practice.

4 Requirements

4.1 Style

Jacket:

- ❖ Single breasted
- ❖ Slide fastener front fastening
- ❖ Double storm flap fastening with press-studs
- ❖ Hood with storage pouch
- ❖ Storm collar
- ❖ Sleeves to be integral part of jacket body
- ❖ Storm cuffs
- ❖ Screen sprinted or embroidered logo
- ❖ Front lower patch pockets with flaps
- ❖ Straight sides
- ❖ With reflective stripe at waist height
- ❖ Top section to be lime colour (above waist line / reflective strip)

Trouser:

- ❖ Pyjama-type/pull-on type
- ❖ Bottom adjustment straps
- ❖ Elastic webbing and draw cord in waist
- ❖ With a single reflective stripe at knee height
- ❖ Top section to be lime colour (above reflective strip)

Separate bag:

- ❖ Square flat bag
- ❖ Draw cord

5 Materials

NOTE: No material will be supplied by Transient Limited.

5.1 MATERIAL:

- ❖ Outer base fabric and the bag fabric to be a 100% polyester continuous filament breathable
- ❖ Shall comply with the requirements of table 1
- ❖ Cloth shall be assessed for defects , in accordance with SANS 10076-6 Part 6
- ❖ Colour shall be a close match to “Pantone Navy ” No. 285 and “Pantone Lime” No. 374
- ❖ All trimming material to be supplied and used by the manufacturer and to be an acceptable match to that of outer material

Table 1 - Requirements for coated fabric

1	2	3
Property	Requirement	Method of test
Fibre composition	100 % Polyester continuous filament ¹⁾	Microscopical examination and chemical analysis
Weave.....	Oxford	Physical examination
Mass ¹⁾ per unit area after coating, g/m ²	150	SANS 79
Number of threads per cm. min		SANS 7211-2
Warp	22	
Weft	18	
Breaking strength, N, min		SANS 13934-1
As received:		
Warp.....	950	)
Weft	710	
Tearing strength, N, mi ²⁾		SANS 410
Warp.....	55	
Weft.....	50	
Water resistance (variable head) mm, min	4000	SANS 5266
As received.....		
After weathering ³⁾	2000	
After dry-cleaning ⁴⁾	2000	
After accelerated ageing ⁵⁾	2000	
Colour fastness to light, rating, min.	4-5	SANS 105-BO2
Colour fastness to washing, rating, min.		SANS 105-CO3
Change in colour	4	
Staining of transfer cloths	4	
Colour fastness to rubbing, rating, min.		SANS 105-X12
Dry	4	
Wet	4	
1) $\pm 5\%$ 2) Except that the size of the test specimens shall be 180mm x 150mm and the width of the tongue shall be 50 mm. Report the mean of the highest peak values. 3) After weathering in accordance with SABS method 481 for an exposure period of 200 h. 4) After dry-clean in accordance with SABS 1026 Procedure B, but using white spirit as the reagent and omitting steam pressing 5) After being subjected to accelerated aging in accordance with SABS method 415, the coated surface shall not show any appreciable change in pliability or separation of the coating from the fabric or become tacky or adversely affected in appearance or serviceability.		

5.2 COMPONENT MATERIAL**5.2.1 SLIDE FASTENER**

Front slide fastener class B

- One-way open-end
- Spiral elements

Slide fasteners for collar – class B

- One-way closed-end
- Spiral elements

5.2.2 TOUCH AND CLOSE FASTENER

- Nominal width of 25mm

5.2.3 PRESS-STUDS

- male and female type with dome
- intrinsically corrosion resistant metal
- Gun metal colour
- Nominal outside diameter of dome of female part to be 15mm & inside of hole to be 7 mm

5.2.4 DRAW CORD

- Acceptable polyester or nylon
- Nominal diameter of 6 mm
- Each end shall be acceptable sealed and knotted with plastic “bell-end”

5.2.5 ADHESIVE TAPE

- Acceptable adhesive tape for sealing of all seams
- Width 20 mm

5.2.6 REFLECTIVE TAPE

- 50 mm
- Standard type ref.: 8910

5.2.7 THREADS

- To comply with relevant requirements of SANS 1362 “Sewing threads”
- Colour to be an acceptable match to colour of the outer material.

Sewing, buttonhole and top-stitching threads

- polyester-and-cotton core-spun or staple polyester thread
- ticket no.80

Overlocking threads

- Crimp-textured polyester
- Ticket no. 140

6 Workmanship

The wet weather suit and storage bags shall be:

- Cut and made with first-class workmanship

Shall be free from:

- Defects, as specified in SANS 10076-7
- Marks / Spots
- Stains, incurred in the making-up

Seams and stitches shall be:

- Smooth and free from twists, pleats and puckers

End of sewing shall be:

- Trimmed and loose threads removed
- Back-tacked if unsecured

7 Sizes

Size chart -Jacket

1	2	3	4	5	6
Size designation	Nominal finished garment measurements, cm				
	Chest	Back length	Sleeve length 1)	Depth of Scye	Cuff Circumference
77-82 (XS)	100	78	80	28	33
87-92(S)	110	80	81	30	34
97-102 (M)	120	82	82	32	35
107-112 (L)	130	84	83	34	36
117-122 (XL)	140	86	84	36	37
127-132 (2XL)	150	88	85	38	38
137-142(3XL)	160	90	86	40	39
147-152 (4XL)	170	92	87	42	39
157-162 (5XL)	180	94	88	44	40
167-172 (6XL)	190	94	88	46	40

1) Measured from the neck point to the bottom edge of cuff

Size chart -Trousers

1	2	3	4	5	6	7
Size designation 1)	Nominal finished garment measurements, cm					
	Waist Relaxed	Waist Extended	Seat Circumf.	Outside leg	Inside Leg	Bottoms
77-82 (XS)	70	95	105	98	72	50
87-92(S)	80	105	115	103	73	52
97-102 (M)	90	115	125	108	77	54
107-112 (L)	100	125	135	113	78	56
117-122 (XL)	110	135	145	115	80	58
127-132 (2XL)	120	145	155	116	80	60
137-142(3XL)	130	155	165	117	81	62
147-152 (4XL)	140	165	175	117	81	62
157-162 (5XL)	150	175	185	117	81	62
167-172 (6XL)	160	185	195	118	81	62

1) Based on the waist girth of the intended wearer

8 Make

NOTE: Unless inconsistent with the text, all measurements are nominal.

8.1 JACKET:

8.1.1 Fronts, back and sleeves

- Consist of top and bottom section
 - ⇒ Top section to be integral with the sleeves to a point 40 mm below the base of the scye
- Seam joining the top and bottom section to be top-stitched 1 mm and 6 mm above the joint of the seam
- Front & back 25 mm reflective strip 80 mm below the scye (i.e. 40 mm below base point)
- 25 mm sleeve reflective strip 19 cm below the scye.
- Foreparts fasten with slide fastener
 - ⇒ Visible when closed
 - ⇒ Inserted into the front edges
 - ⇒ Extended from top edge of collar to approximately 11 cm above bottom edge of jacket for size large other sizes to be graded proportionally.
- Foreparts to each have a storm flap
 - ⇒ Which conceals the slide fastener
 - ⇒ Fastens with press-stud fasteners
- Top and bottom section of the back shall each be cut in one piece
 - No centre back seam
- Straight side seam & hem

8.1.2 Storm Flap

- each flap to be of folded outer material.
 - ⇒ Of finished width 70 mm
 - ⇒ Shall extend from the top edge of collar to bottom hem
- Top and front edges shall have an edge-stitching of 7 mm
- Left storm flap to have five female press-stud sections
 - ⇒ Positioned 10mm from the front edge
 - ⇒ Topmost fastener shall be centred 20 mm from top edge of flap
 - ⇒ Section fastener to be 60mm below the topmost one
 - ⇒ Bottom press-stud section to be centred 30 mm from bottom edge of flap
 - ⇒ Other two fasteners shall be spaced equidistantly between second and bottom fastener section.
- Right side storm flap to have the male fastener sections.
 - ⇒ To correspond to the female sections.

8.1.3 Two side pockets

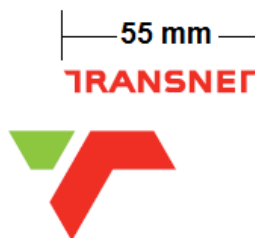
- To be of outer material
- To be patch pockets
- Square corners
- To be of finished width and depth 18 cm and 21 cm respectively
- Centrally positioned on the front sections
- Side of each pocket parallel to the front edge of jacket
- Bottom edge of pocket shall be positioned 40 mm above the hem on size large (to be graded proportionally)
- Pocket mouth edge to be turned in 5 mm
 - ⇒ Turned over 10 mm
 - ⇒ Top-stitched 1 mm from the turned-in edge
- Sides and bottom edges of pockets shall be turned in 8 mm
 - ⇒ Top-stitched 1 mm from the turned-in edge

8.1.4 Pockets flaps

- To be of folded outer material
- Square corners
- Of finished width and depth 18 cm and 55 mm.
- Stitched down 15 mm above the mouth openings of side pockets

8.1.5 Logo

- Have the Transnet Logo embroidered in white.
- Position in the top section of the left front
- To be positioned 140 mm above the base point (40 mm below the scye)
- 60 mm from storm flap edge
- The name TRANSNET to be 60 mm
- Embroidery to be covered on the inside with sealing tape.

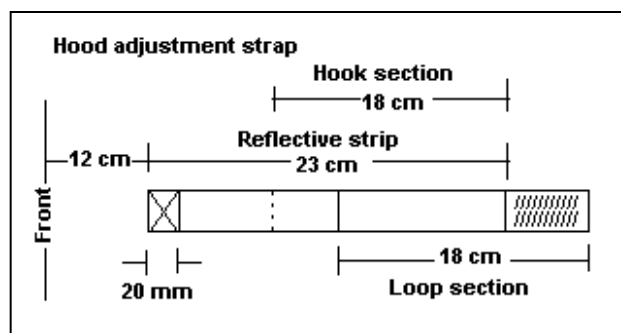
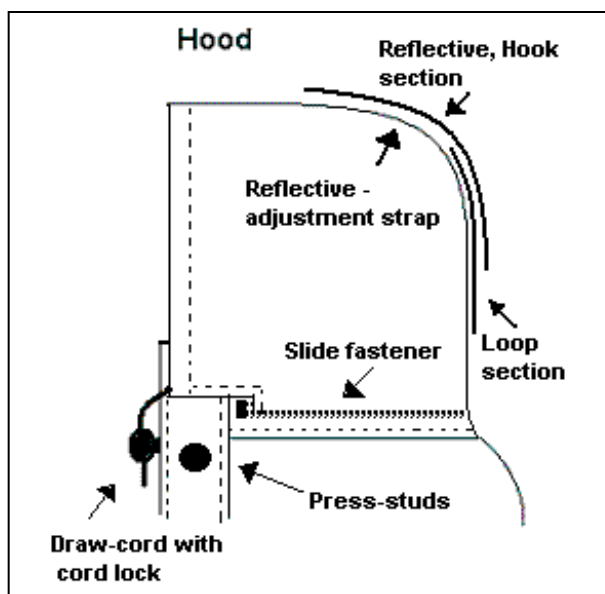


8.1.6 Collar

- be of two layers of outer material with the coated sides to the inside.
- be of finished width 80 mm.
- extend from the left side of the centre front to the right side of the centre front
- be sewn to the top of the jacket
- be fitted with a slide fastener
 - ⇒ Centred in the outer collar
 - ⇒ Visible when closed
 - ⇒ Commencing 40 mm within the front edges of the collar for size large (to be graded proportionally)
 - ⇒ edges of the slide fastener opening shall be stitched 1 mm from the edges.
- have a 1 mm top-stitching above the join of the neck-to-body seam.

8.1.7 Hood

- have a right and left section of outer material
- be seamed together from the forehead to the back of the neck.
- Have a face opening circumference of 60cm for size large (to be graded proportionally)
- Have a 25 mm reflective adjustment strap on the centre seam
- A section of touch and close fastener (loop section) to be stitched to the hood
 - ⇒ Of finished length 18cm 23 cm from front edge
- A 18 cm section of touch and close fastener (hook section) stitched to a 23cm reflective strip.
 - ⇒ 20mm box stitch to the hood 12cm from front edge
- Be turned in 5 mm at the front edge.
 - ⇒ Turned over 20 mm
 - ⇒ Stitched down 2 mm from the turned-in edge to form a tunnel for the draw-cord.
 - ⇒ End of the tunnel to be left open to provide openings for the draw-cord.
 - ⇒ Draw-cord shall be of sufficient length to protrude 15 mm within each front collar edge for size large. (to be graded proportionally)



8.1.8 Cuffs

- Be faced with outer material
 - ⇒ Of finished depth 13 cm
 - ⇒ Free edges shall be turned inwards and enclosed by a length of elastic webbing
 - Of width 5 mm to form a storm cuff
 - ⇒ Shall be secured to the sleeve with a bar-tack 50 mm from the edge of the cuff and across.
- Have an edge-stitching of 5 mm

9 Trousers**9.1 Front & back:**

- be plain
- be cut without side seams
- have an elasticized waist
- have a 25 mm reflective strip 28 cm below the crotch for size 107-112 (L) (to be graded proportionally)

The waistband lining shall:

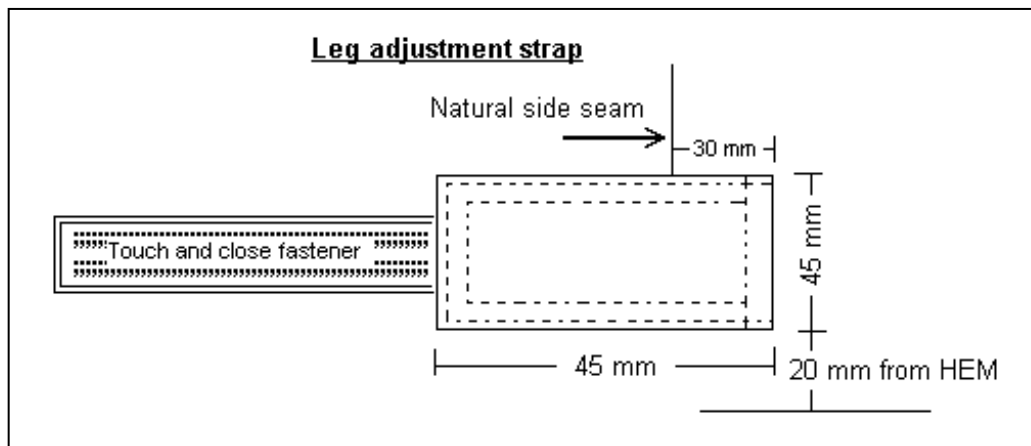
- be of finished width 30 mm
- be interlined with elastic outer material.
- Top-stitched 30 mm from the folded edge
- Raw edge to be overlocked.

The waistband shall:

- Be grown on
- Folded along the top to form a waistband lining
- Be fitted with one button hole
 - ⇒ Horizontal
 - ⇒ Shirt type
 - ⇒ Barred at each end
 - ⇒ Through the waistband lining only
 - ⇒ Centrally position over the centre front seam
- Be fitted with a draw-cord
 - ⇒ Threaded through the tunnel and button holes
 - ⇒ Long enough to protrude 10 cm at each end (before adjustment)
 - ⇒ Threaded through draw-cord cones at the ends
 - ⇒ Security knotted and heat sealed at the ends

9.2 Leg adjustment straps

- To be of outer material.
- Lined with outer material
- Top-stitched 1 mm & 7 mm from the free edges
- Each strap to have a square end
- Of finished width and length 45 mm and 10 cm respectively
- A section of touch and close fastener to be stitched to the lining only
 - ⇒ Of finished length 60 mm
 - ⇒ Centred
 - ⇒ 10 mm in from the free edges
- strap to be equal with the bottom hem of trousers
- positioned 30 mm backward from the actual side seam and facing forward to the front leg.
- A length of touch and close fastener sewn along the bottom hem.
 - ⇒ Starting from the actual side seam
 - ⇒ Of finished length 16 mm
 - ⇒ So positioned as to correspond with the touch and close fastener on strap.

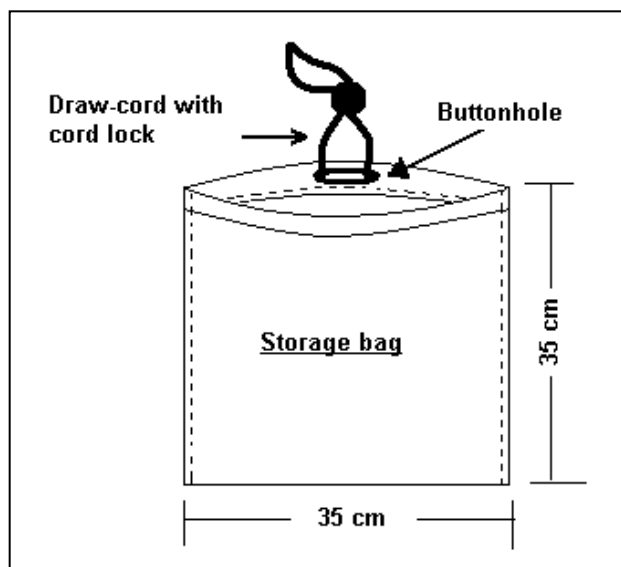


9.3 Bottom hem

- Be turned in 5 mm.
- Be turned over 20 mm
- Stitched 1 mm from the turned in edge.

9.4 Storage bag

- Of double folded outer material
- Sewn along each side
- Turned out and top-stitched 2 mm from the turned out edge.
- Of finished width and depth 35 cm
- Top edge to be turned in 5 mm
 - ⇒ Turned over 20 mm
 - ⇒ Stitched 2 mm from the turned-in edge to form a tunnel through which a draw-cord shall be threaded.
- Be fitted with a button hole
 - ⇒ Centrally position on the inside of the tunnel
 - ⇒ Of finished length 25 mm
 - ⇒ To provide an opening for the ends of the draw-cord.
 - To be of sufficient length to protrude 12 cm before adjustment
 - To be equipped with cord locks
 - End of cord to be knotted and heat sealed



10 Stitches, seams and stitchings

10.1 Stitches

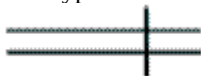
- **Main seam:** single needle lock stitch
- **Overlocking:** three-thread overlocking stitch
- **Top-stitching:** single needle lock stitch

10.2 Seams

- At least 10mm wide
- Sealed at the inside with adhesive tape for water resistance
 - ⇒ Shall be tested as specified in Annex B

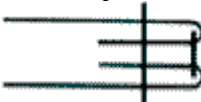
Jacket side and sleeve seams; trousers inside leg and seat seam:

Seam type Ssa-1



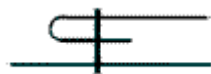
Superimpose two or more plies of material and seam with the appropriate number of rows of stitches positioned at the specific distance(s) from the aligned edges.

Pocket flaps and adjustment straps: seam type Ssae-2



form seam type Ssa-1, using two plies of material. Then turn back each ply at the seam and seam through the turned edges with the appropriate number of rows of stitches.

Side pockets & slide fasteners: seam type LSd-1



Turn in the edge of one ply of material, lap it on the body of a second ply (at the specific distance from the edge of the second ply), and seam with the appropriate number of rows of stitches.

Front and back cross panel seams: seam type LSb-2



Turn in the edge of one ply of material, lap it on the edge of a second ply, and seam with the appropriate number of rows of stitches.

Attaching pocket flaps and storm flaps adjustment straps on trousers:

Seam type LSs-2



So super two superimpose two plies of material that their edges are the specified distance apart, and seam with one row of stitches At the specified distance from the edge of the top ply. Then turn the top ply back at the seam with one row of stitches through the top and bottom plies.

Top edges of collars and storage and storage bag: seam type SSae-2



Form seam type Ssa-1, using two plies of material. Then turn back each ply at the seam and seam with the appropriate number of rows of stitches, ensuring that when more than one row of stitches is used, one row passes through the folded edges.

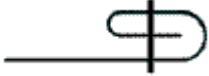
10.3 Stitchings

All exposed raw edges of trousers: stitching type Efd

Stitch over the edge of ply of material with one row of stitches.



Hems: stitching type Efb-1



Turn in the specified width at the edge of a ply of material, fold back the turned edge, and stitch the turned-in and folded portion With the appropriate number of rows of stitches.

10.4 Number of stitches

All seams and top-stitching: 32 ± 2 per 10 cm

Overlocking: 32 ± 4 per 10 cm

Buttonholes: 12 ± 1 per 1 cm

Bar-tacks: 22 ± 2 per 1 cm

10.5 LABELING:

The garment shall be labeled and marked in accordance with the requirements of specification CSS 286.21 LAB/1

10.6 PACKING:

Each rain suit shall be (in conjunction with specification CSS.286.21 PAC/1):

- Each neatly packed Jacket & trouser shall be packed on top of the storage bag and then packed in a durable clear plastic envelope, with the label of the jacket visible
- Delivered in a commercially dry condition

Annex A
(normative)

Special conditions of tender

A-1 GENERAL

- A-1.1** Unless otherwise stated, The Chief Executive Transnet (or an officer or organization deputed by it), shall be the inspecting authority.
- A-1.2** Two pre-production sample garments shall have been inspected, tested and approved by the inspecting authority before bulk production is commenced, and it shall be the duty of the manufacturer to give adequate notice to the inspecting authority of the availability of these samples.
- A-1.3** The individual garments shall be subject to inspection during the course of the 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 the individual garments supplied to this specification may be in progress.
- A-1.4** The contractor shall inspect the finished garment for compliance with the specification before submitting them to the inspecting authority for final inspection.
- A-1.5** Before acceptance, the garments shall have been inspected and tested by the inspecting authority and found to comply with the requirements of the specification.

Annex B

(normative)

Test method for water resistance (seam taping)

All test results and relevant documentation shall be stored, be traceable and available for inspection

The efficiency of the seam taping process is essential to the required environmental protective properties of the garment. That efficiency is affected by the number of process variables including central positioning of the tape, time, speed, temperature and pressure profile. In order to provide assurance of the machine controls, the contractor is to prescribe speed settings for each seam and to demonstrate their effectiveness during production by implementing the procedures outlined below.

Method of test: SANS 5266 with static water head of 200 cm for 2 minutes.

Requirements: maximum of three growing drops.

1. Prior to the start of garment construction and before re-use of a machine after an idle period of longer than thirty minutes, all test of resistance to water penetration (waterproofness) of seams are to be carried out for 2 minutes at the specified pressure, with the outer material fabric face to water
 - a) Four pieces of fabric are to be seamed and taped to produce a flat test specimen with a right-angled cross-over.
 - b) The cross-over seam of the specimen is to be tested at 15kPa. If the test specimen fails,
 - c) The machine settings are to be adjusted, and the test shall be repeated until a pass is achieved.
2. The following areas shall be tested to exemplify the overall water resistance of the garment.
 - a) One straight seam either in a sleeve or at the side, is to be tested at 200kPa.
 - b) Crossover points in the underarm is to be tested at 15kPa
3. The following are the specified inspection intervals during garment production.
 - a) Each operator of a taping machine is to make a cross-over test specimen, as in Paragraph 1, and test the cross-over seam at 15kPa, every morning before production Commences
 - b) One out of every twenty garments being manufactured shall be tested.
 - c) Embroidery shall be heat sealed with an appropriately size patch to avoid water leaking through the embroidery stitches.
4. The final production inspection.
 - a) . Two garments are to be selected at random from the packing department
 - b) Garments are to be tested in “as received” state. Straight seams at 20 kPa, at different areas from where they may have been tested previously

REVISION HISTORY SHEET

Document Subject	Quality Assurance ADMINISTRATION, PREPARATION, MAINTENANCE AND DISTRIBUTION
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Effective date 21 January 2009
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Controlling Officer: R. Steynberg**Approving Officer: C.J.V. du Plooy**

Rev/No	Date approved	Nature of revision
1	September 2011	1) Rectify point of measurement of the sleeve length.
2	May 2013	1) Implement breathable cloth 2) Add two tone requirements
3	Nov. 2014	1) Implement new outside & inside leg length (Page 5)
4	Oct 2015	1) Amended packing requirements 10.6 (label visible)
5	Nov 2020	2) Add depth of Scye to size chart.

DENIM TROUSER WOMENS (CHINO)

Reference item no. 35/157700 TRANSNET

Colour: Pre-washed Indigo blue denim 390 g/m² (11 ounce) 3/1 Z Twill

1. SCOPE

This specification covers the materials and make of denim trouser intended for personnel employed by Transnet.

NOTES :

1. The following requirements will be specified in tender invitations and in each order or contract:
 - a) The outer material, if other than as specified (see 4.1)
 - b) The item(s) required (see 4.3)
 - c) The size designation(s) required (see 4.4)
- 2.) Special conditions of tender (which cover the conditions of acceptance of the garments are given in Annex A.

2. NORMATIVE REFERENCES

The following standards contain provisions which, through reference in this text, constitute provisions of this specification. All the standards are subject to revision and, since any reference to a standard is deemed to be a reference to the latest edition of a standard, parties to agreements based on this specification are encouraged to take steps to ensure the use of the most recent editions of the standards indicated below. Information on currently valid national and international standards may be obtained from the South African Bureau of Standards.

CSS 286.21, *Clothing -- LAB/1: Labelling -- PAC/1: Packing and marking.*

SANS 79, *Textiles – Mass per unit area of conditioned fabrics*

SANS 105-BO2, *Tests for colour fastness – Part Bo2: Colour fastness to artificial light: Xenon artificial lamp test.*

SANS 1309, *Printed labels for textiles.*

SANS 1360-1, *Size designation of clothes -- Part 1: Women's and girls' outerwear garments.*

SANS 1362, *Sewing threads*

SANS 1822, *Slide (zip) fasteners.*

SANS 5278 *Sewing stitches per unit length*

SANS 50471, *High-visibility warning clothing for professional use- test method and requirements*

SANS 7211-2, *Textiles-Woven fabrics – Construction – Method of analysis Part 2: Determination of number of threads per unit area.*

SANS 10076-6, *The assessment of defects in textile piece-goods and made-up articles-Part 6: Defects in woven Filament piece-goods (synthetics)*

SANS 10076 - 7, *The assessment of defects in textile piece-goods and made-up articles-Part 7: Defects in household articles*

SANS 13934 –1, *Textiles-Tensile properties of fabrics. Part 1. Determination of maximum force and elongation at maximum force using the strip method s Part 1*

SANS 10101, *Standard nomenclature for stitches, seams, and stitchings.*

SANS 10188, *Standard methods of garment measurements..*

SANS 100004, *Terms and definitions for textiles and textiles merchandise.*

SANS 10011, *Care-labelling of textiles piece goods, textiles articles and clothing.*

SANS 1387 *Woven cotton and similar apparel fabrics*

Part X : Pocketing

3. DEFINITIONS

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

3.1 ACCEPTABLE : Acceptable to the Executive Manager, Transnet.

3.2 NOMINAL : Subject to the tolerances normal to good manufacturing practice.

4. REQUIREMENTS**4.1 MATERIALS**

The outer material shall be cotton denim fabric that complies with the requirements of for type DEN 41 of SABS 1387 Part VI and of a Indigo Blue colour of CKS 129. Yarn sulphur dyed and natural yarn. The material shall be supplied and used by the manufacturer

4.1.1. GENERAL

The materials specified in 4.1.2 to 4.1.6 (inclusive), all of a colour that is an acceptable match to the outer material, shall be supplied and used by the manufacturer,

4.1.2 POCKETING

A pocketing complying with the requirements for type PT 56 of SABS 1387 : Part X, or a warp-knitted pocketing complying with the requirements of SABS 1008.

4.1.3 WAISTBAND LINING

The waistband lining shall be of the same colour and material as the jeans (self material)

4.1.4 SLIDE FASTENERS

Metallic (gilding type) ass one-way closed-end slide fasteners (figure 3a) that complies with the requirements of performance class B or C slide fasteners of SANS 1822. The slider & puller shall be a locking type

4.1.5 BUTTONS AND STUDS

- a) Brass stud button of an intrinsically corrosion resistant metal and having a smooth finish and a nominal width of 17mm.
- b) Brass nipple studs of an intrinsically corrosion resistant metal and having a nipple top and smooth finish and a nominal width of 9mm.

4.1.6 THREADS

Threads shall comply with the relevant requirements of SANS 1362, and shall be as follows:

- 1) Needle, bobbin and looper threads shall have a breaking strength of at least 12 N
Colour used is an acceptable match.
- 2) Overlocking threads shall have a breaking strength of at least 8 N.
Colour used is an acceptable match.

4.1.7 REFLECTIVE TAPE

- 40 mm
- Standard type ref.: 8910

4.2 WORKMANSHIP

The garments shall be cut and made with first-class workmanship throughout and shall be free from defects that effect their appearance or may affect their serviceability (or both), and from marks, spots and stains incurred in the making-up. All seams shall be smooth and all stitching shall be uniform. Seams and stitching shall be free from twists, pleats and puckers and shall be extensible enough to obviate seam cracking and undue shrinkage in use. All seams shall be saddle stitched in bronze colour thread. All ends of sewing that are not secured in the seams or in other sewing shall be adequately bar-tacked. All ends of sewing shall have been trimmed and loose threads removed. The garment shall be of uniform and acceptable make, colour and finish, and the matching of the shades of the component parts of a garment shall be such as to be acceptable.

4.3 STYLE

The denim trouser (see figure 1 and 2) shall have a plain waistband with belt loops and slide-fastening fly. They shall have two slanted side pockets, one back pocket. The outer material of the denim jeans shall be sulphur dyed Indigo Blue denim.

4.4 SIZES

The Denim trousers shall be supplied in one (or more) of the size designations given in table 1, as specified in the order or contract.

- a) When required, the Denim jeans shall be made to special measurements, furnished by Transnet.

*Sealed samples are held by, and may be viewed at, the Transnet Freight rail Clothing division.

4.5 MAKE SIZE RANGE

Size chart

1	3	4	5	6	7
Size designation (inch)	Nominal Finished garment Measurements, cm				
	Waist	Hip / Seat	Out/leg	Inside Leg	Bottom
26	55	90	106	80	42
28	60	95	107	80	42
30	65	100	107	80	42
32	70	105	108	80	42
34	75	110	108	80	42
36	80	115	109	80	42
38	85	120	109	80	42
40	90	125	109	80	44
42	95	130	110	80	44
44	100	135	110	80	44
46	105	140	111	80	44
48	110	145	111	80	44
50	115	150	112	80	44
52	120	155	112	80	46
54	125	160	113	80	46
56	130	165	113	80	46
58	135	170	113	80	46
60	140	175	114	80	46
62	145	180	114	80	46
64	150	185	114	80	46

1) Size based on **WAIST** measurement

4.5.1 DENIM TROUSER

4.5.1.1 FRONTS

Each front (see figure 1) shall have two slanted side pockets and two pleats, the first pleat shall be in line with the front crease line and second pleat 35 mm behind the first pleat.

4.5.1.2 BACKS

Each back (see figure 2) shall have dart of finished length 80 mm positioned approximately midway between the seat seam and the side seam. The right back shall have a jetted pocket

4.5.1.3 FLY

The fly shall be lined with the outer material and shall be fitted with a slide fastener. The fly shall be of finished width 30mm and shall be stitched down 30mm from the edge, and the bottom of the fly shall be securely tacked. (See 4.1.4).

4.5.1.4 FLY CATCH

The fly catch shall be of outer material (see 4.1) and shall be of finished width of 40mm. The

catch shall be the same width throughout with a 15mm piece of tape along the seam. The bottom shall have a fold of 3cm which is bar-tacked. The catch shall be secured to the fly with bar-tacks.

4.5.1.5 WAISTBAND

The waistband shall be plain and shall be of finished width 40mm. It shall be of self-material.

4.5.1.6 BELT LOOPS

Each pair of Denim Trouser of size designation have seven belt loops on the waistband shall be positioned as follows:

- a) One on front pleat one on side seam, one on back dart and one on the centre back seam

4.5.1.7 POCKETS

All pocket bags shall be of pocketing (see 4.1.2), shall be double stitched or bound, and the top ends of each size pocket bag shall be secured in the waistband. The ends of the pocket mouths shall be securely bar-tacked and secured with studs (see 4.1.5) The jettied back pocket mouth shall be securely bar -tacked. All the pockets shall be as follows:

- a) Side pocket: The side shall have a slanted pocket. The finished width of the pocket shall be approximately 15 cm, and each mouth shall have a facing of the outer material of 17 cm width at the part and curving round in the shape of the pocket mouth. The finished pocket bags shall be of with and depth 18 cm and 26 cm respectively measured from the inside of the jeans.
- c) **Back hip pocket:** the pocket shall be double-jetted with button fastening. The pocket mouth shall be of finished width 13 cm and depth of 18 cm with an outer material facing of 55 mm.

4.5.1.8 BOTTONHOLES

The waistband shall have a buttonhole with a rounded face and ending in a secured point (fish-eye). It shall measure 30 mm in length.

4.5.9 BUTTONS AND STUDS

There shall be one button on the waistband. Nipple studs shall secure the ends of the two front and the hip pocket.

4.5.10 BOTTOMS

The bottoms shall be plain, folded up and topstitched down to from a finished hem of 20 mm.

4.5.11 REFLECTIVE STRIPS

The 40 mm silver reflective tape to be positioned below the knee on the circumference of the leg.
Tape to be stitched 3.5- 4 mm from the edge.

4.6 STICED, SEAMS AND STITCHINGS

4.6.1 GENERAL

All sewing shall be in accordance with SABS 0101.

4.6.2 STITCHES

- | | | |
|----|--------------|----------------------|
| a) | Main seaming | Stitch type 401. |
| b) | Overlocking | Stitch type 502-505. |
| c) | Other sewing | Stitch type 301. |

4.6.3 SEAMS

Seams shall be least 10 mm wide. They shall be as follows:

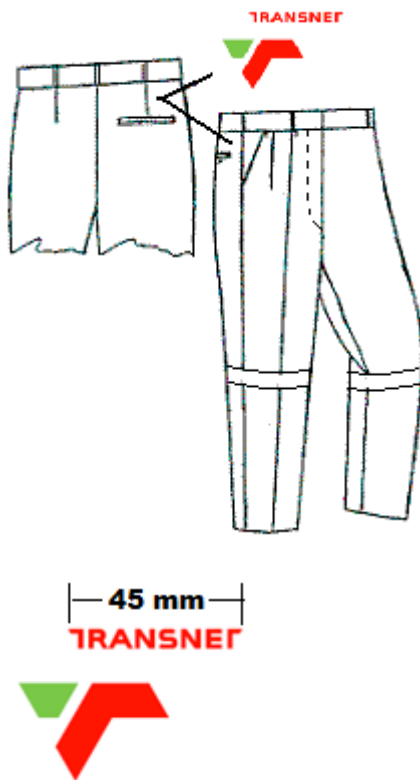
- a) Main and pocket seams Seam type Ssa-2, Lsc-3

4.6.4 STITCHING

- a) Overlocking edges Stitching type Efd-1.
b) Hems Stitching type Efb-1.

4.6.5 NUMBER OF STITCHES

- a) Seaming and topstitching - 40 +- 4 per 10 cm.
b) Overlocking - 32 +- 2 per 10 cm.
c) Buttonholes - 12 +- 1 per 1 cm.
d) Bar tacks - 18 min per 1 cm.
e) Buttons - 18 min per button.



Special conditions of tender

A-1 Unless otherwise stated, the Executive Manager, (Transnet) (or an officer or organization deputed by him), shall be the inspecting authority.

A-2 Three pre-production samples of trousers, shall have been inspected, tested and approved by the inspecting authority before bulk production is commenced, and these samples shall each be accompanied by a trim chart containing a sample of each component material (as given in 4.1.2 to 4.1.14). It shall be the duty of the manufacturer to give adequate notice to the inspecting authority of the availability of these samples.

A-3 The trousers 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 garments supplied to this specification may be in progress.

A-4 The contractor shall inspect the finished trousers for compliance with the specification before submitting them to the inspecting authority for final inspection.

A-5 Before acceptance, the trousers shall have been inspected and tested by the inspecting authority and found to comply with the requirements of the specification.

REVISION HISTORY SHEET	

Document	Quality Assurance	Effective date
Subject	ADMINISTRATION, PREPARATION, MAINTENANCE AND DISTRIBUTION	
Controlling Officer: R. Steynberg		
Approving Officer: C.J.V. du Plooy		
Rev/No	Date approved	Nature of revision
1	October 2009	1) Remove metric sizing from size chart
2	April 2010	1) Add reflective strips

SOCKS, UNISEX (FOOTWEAR TYPE)

Reference Item No. 35/99382 "Navy"

Reference Item No. 35/161962 "Black"

1. MATERIAL:

NOTE: No material will be supplied by Transnet Limited.

2. HOSE: The Unisex hose (socks).

Specific requirements

(a) Type: Quarter hose, same style as MQ2 Table 1 of SANS 1382/Latest.

(Composition to be cotton / nylon 65/35 %)

(b) Size: As per relevant contract/order

(c) Colour: "Navy" No. 616C of CKS129

(c) Toe closure: Closure by linking.

3. ADDITIONAL MARKINGS:

The style, size and item number must be reflected on the four pack with a self adhesive label.

REVISION HISTORY SHEET		
Document Subject	Quality Assurance ADMINISTRATION, PREPARATION, MAINTENANCE AND DISTRIBUTION OF PRIVATE SPECIFICATIONS	Doc. No. Effective date March 2009
Controlling Officer: R. Steynberg		
Approving Officer: C. J.V. du Plooy		
Rev/No	Date approved	Nature of revision
1	March 2009	1 Remove Reference Item No. 35/134559 "Black" Reference Item No. 35/99410 "Medium Grey" 2 Change composition to cotton / nylon 3 Change to Unisex
2	June 2012	1 Add Reference Item No. 35/161962 "Black"

SHIRTS, COMBAT (UNISEX)

Garment reference number : 35/106758 (long sleeve)

Garment reference number : 35/113799 (short sleeve)

Garment reference number 35160730 (short sleeve) Hazmat & Transnet with logo

1. Scope

This specification covers the requirements for material & supply of unisex combat shirts intended for personnel employment by Transnet Limited.

NOTES

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

a) the item(s) required (see 4.3)

b) the size(s) required (see 4.4)

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

2. Normative references

The following standards contain provisions that, through reference in this text, constitute provisions of the specification. All standards are subject to revision and, since any reference to a standard is deemed to be a reference to the latest edition of that standard, parties to agreements based on this specification are encouraged to take steps to ensure the use of the most recent editions of the standards listed below. Information on currently valid national and international standards may be obtained from the South African Bureau of Standards.

CSS 286.21, *Clothing -- LAB/1: Labelling -- PAC/1: Packing and marking.*

SANS 79, *Textiles – Mass per unit area of conditioned fabrics*

SANS 105-BO2, *Tests for colour fastness – Part Bo2: Colour fastness to artificial light: Xenon artificial lamp test.*

SANS 1309, *Printed labels for textiles.*

SANS 1362, *Sewing threads*

SANS 1387-2, *Woven cotton and similar apparel fabrics.*

SANS 5278 *Sewing stitches per unit length*

SANS 7211-2, *Textiles-Woven fabrics – Construction – Method of analysis Part 2: Determination of number of threads per unit area.*

SANS 10076-6, *The assessment of defects in textile piece-goods and made-up articles-Part 6: Defects in woven Filament piece-goods (synthetics)*

SANS 10076 - 7, *The assessment of defects in textile piece-goods and made-up articles-Part 7: Defects in household articles*

SANS 10101, *Standard nomenclature for stitches, seams, and stitchings.*

SANS 10188, *Standard methods of garment measurements..*

SANS 100004, *Terms and definitions for textiles and textiles merchandise.*

SANS 10011, *Care-labelling of textiles piece goods, textiles articles and clothing.*

3. Definitions

For the purpose of this specification the following definitions apply :

3.1 acceptable : Acceptable to the Executive Manager (Promat), Transnet Limited.

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

4. Requirements

4.1 Materials

Note: No materials will be supplied by Transnet.

NOTE - The outer material shall be

Matt weave polyester-and-cotton field dress fabric that complies with the requirements for type PC74M of SANS 1387 - 2 / 2009 and of a colour that is an acceptable match to colour No. 34c (Transnet colour sample).

4.1.1 General

The materials specified in 4.1.2 and 4.1.4, all of a colour that is an acceptable match to that of the outer material, shall be supplied and used by the manufacturer.

4.1.2 Fusible interlinings CKS 627

4.1.3 Buttons

The buttons shall be four-hole, fully impregnated, dope-dyed plastics buttons of nominal diameter 14 mm.

4.1.4 Threads

The threads shall comply with the relevant requirements of SABS 1362 and shall be as follows :

a) sewing thread : a polyester-and-cotton core-spun thread or a staple polyester thread, ticket No. 80 (in both cases).

b) overlocking thread : a crimp-textured polyester thread, ticket No. 140.

4.2 Workmanship

The shirts shall be cut and made with first-class workmanship throughout and shall be free from defects that affect their appearance or can affect their serviceability (or both), and from marks, spots and stains incurred in the making-up. All seams shall be smooth and all stitching shall be uniform. Seams and stitching shall be free from twists, pleats and puckers and shall be sufficiently extensible to prevent seam cracking and undue shrinkage in use. All ends of sewing that are not secured in seams or in other sewing shall be adequately backstitched. All ends of sewing shall have been trimmed and loose threads removed. The shirts shall be of uniform and acceptable make, colour and finish and the matching of the shades of the component parts of a shirt shall be such as to be acceptable.

4.3 Style

The shirts shall be of the jacket type with a five-buttoned open front, an attached sports-type collar,

two pleated breast pockets with flaps. The back shall be plain, and the hem of the shirt shall be straight. The sleeves shall be of one of the following variations, as required :

- a) long sleeves : reference number : 35/106758 shall be one-piece sleeves with single cuffs (see figure 1).
- b) short sleeves : reference number : 35/113799 shall be one-piece short sleeves with mock cuffs (see figure 2).

4.4 Sizes

The shirts shall be supplied in one (or more) of the size designations given in column 1 of table 1, as specified in the order or contract, and their measurements, determined (where applicable) by the relevant methods given in SABS 0188, shall conform to the appropriate values given in columns 2-9 (inclusive).

Table 1 - Shirts, combat.

1	2	3	4	5	6	7	8
Size designation	Nominal Finished garment Measurements, cm						
	Chest Circumference – 1, +2	Length of back ± 1	Width of back (3) ±1	Depth of Scye (4) ± 0,5	Length of long sleeve (2) ± 1	Cuff Circumference ± 1	Length of short sleeve ±1
82-87 (S)	103	77	43	29	49	21	13
92-97 (M)	113	81	46	29	51	23	13
102-107 (L)	125	83	49	31	52	24	15
112-117 (XL)	135	85	52	31	53	25	15
122-127 (2XL)	145	85	55	33	54	26	17
132-137 (3XL)	150	85	57	33	55	27	17
142 - 147 (4XL)	155	88	60	35	56	28	17
(1) Based in accordance with SABS 1360-6, on the girth, in centimeters, of the intended, wearer. (2) Measured at the underarm to the end of cuff (3) For shirts without a yoke, measure at the mid-point of the scye (4) Measured from the centre back neck, to the level of the bottom of the scye							

4.5 Make

NOTE - Unless inconsistent with the text, all measurements are nominal.

4.5.1 Foreparts

The front of each forepart shall have a shaped facing that is cut on, or cut separately and attached. The finished width of each facing shall be 40 mm at the shoulder seam shaped to a finished width of 45 mm at the hem of the shirt. The inner edges of the facings shall be overlocked and shall not be stitched to the forepart. The front edge of each forepart shall be swelled 5 mm and the stitching shall continue along the collar-to-body seam of the shirt to the end of the facing.

4.5.2 Pockets

The breast pockets (see figure 1) shall be pleated patch pockets with blunted corners. Blunted corners shall be of finished length 20 mm, measured along the blunted edge. Each pocket shall have a vertical

box pleat of finished width 30 mm at the centre of the pocket. The pocket hem shall be wide enough to accommodate the sewing on of a button (see 4.1.3) and the hem edge shall be turned in and sewn through the pocket. The front edges of each pocket shall be parallel to the front edge of the shirt and at least 65 mm from the edge.

4.5.3 Pocket Flap

The flap of the pocket shall be rectangular flap with blunted corners lined with outer material and interlined with fusible lining (see 4.1.2) and the finished depth shall be 55 mm. The edge shall be swelled 5 mm. Each flap shall have in centre, and 12 mm from the edge a button hole. The flap shall be stitched to the front, turned over and raised 5 mm. There shall be a 10 mm gap between the top of the pocket and the stitching of the flap. The flap shall fasten with a button (see 4.1.3) secured through the hem of the pocket mouth. The top edge of the flap shall be at the level of the mid-point between the first and second buttons and button holes in the fronts (see figure 1).

4.5.4 Back

The back shall be one-piece and shall be plain.

4.5.5 Collar

The collar shall be a sports-type collar with an outer material under-collar and interlined with fusible lining (4.1.2). It shall have a finished width of 75 mm at the centre back and at the points. The edge of the collar shall be swelled 5 mm.

4.5.6 Sleeves

The sleeves shall be as required by the purchaser and shall be as follows ;

a) long sleeves : the sleeves shall be plain shirt sleeves with single cuffs with blunted corners that are faced with outer material and interlined with fusible lining (see 4.1.2). At the hind arm there shall be a 18 cm long opening, measured from the buttonhole (see figure 1). The edge of the opening shall be bound with outer material.

b) short sleeves : the sleeves shall be one-piece short sleeves, seamed under the arm with a mock cuff (see figure 2) of finished width 30 mm that is stitched down 6 mm from the top edge.

4.5.7 Cuffs

The cuffs shall be 65 mm wide, shall have blunted corners and shall fasten with a button and buttonhole in the centre. The edge of the cuffs shall be swelled 5 mm.

4.5.8 Buttonholes

Each shirt shall have eleven shirt-type buttonholes, positioned as follows :

a) Five vertical buttonholes in the left front, spaced 10 cm apart and with the top buttonhole

positioned 10 cm below the top edge of the gorge;

- b) one buttonhole in each shoulder strap;
- c) one buttonhole in each pocket flap; and
- d) one buttonhole in each cuff.

All buttonholes shall be neatly made and barred at each end.

4.5.9 Buttons

Each shirt shall have 11 buttons (see 4.1.2) secured to positions corresponding to those of the relevant button holes (see 4.5.9). In addition, each shirt shall have two spare buttons secured to the left facing near the hem of the shirt (see figure 1).

4.5.10 Hems

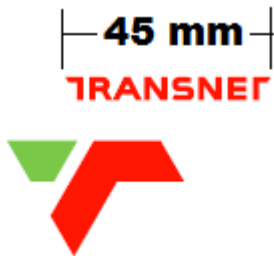
The hem at the bottom of the shirt shall have a finished width of 20 mm, and the hems at the mouth of the breast pockets shall have a finished width of 25 mm. Edges to be hemmed shall be turned in 6 mm and stitched down 2 mm from the turned-in edge.

4.5.12 Hanger

A hanger of outer material, 75 mm long and 10 mm wide when finished, shall be sewn in with the collar at the centre back on the inside of the shirt (see figure 1).

4.5.13 Logo

The **Transnet** logo shall be embroidered on the pocket, positioned centrally below the hem . The colour shall be an acceptable match to colour No 1C –95 “White of CKS 129 (See fig. I



For reference no. 35/160730, Hazmat logo to be on the right hand side chest when worn.



4.6 Stitches, seams and stitchings

4.6.1 General

All sewing shall be in accordance with SABA 0101.

4.6.2 Stitches

The stitches shall be as follows :

- a) shoulder, side, sleeve and sleeve insertion seams : any of stitch types 515-519 (safety stitch type);
- b) overlock stitching : stitch type 502 or other acceptable overlock stitch type; and
- c) other stitches : stitch type 301.

4.6.3 Seams

Seams shall be at least 10 mm wide, and shall be as follows:

- a) shoulder, side, sleeve and sleeve insertion seams : seam type SSa;
- b) hind arm sleeve opening : seam type BSc; and
- c) other seams : seam type Ssa.

4.6.4 Stitchings

Stitchings shall be as follows :

- a) overlock stitching : stitching type EFd; and
- b) hems : stitching type EFb-1.

4.6.5 Number of stitches

The number of stitches shall be as follows :

- a) seams : 40 ± 4 per 10 cm,
- b) overlock stitching : 32 ± 4 per 10 cm;
- c) buttons : 16 ± 1 per button;
- d) bar tacks : 20 ± 2 per cm; and
- e) buttonholes : 12 ± 1 per cm.

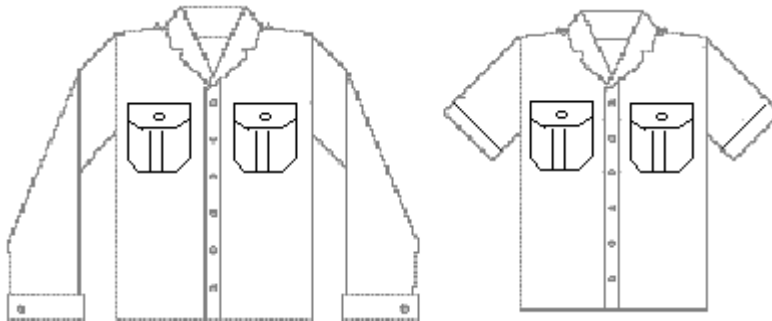
5. Labeling, packing and marking

5.1 Labeling

As specified in CSS 286.21 LAB/1.

5.2 Packing and marking

As specified in CSS 286.21 PAC/1.



Annex A
(Normative)

Special conditions of tender

A - 1 Unless otherwise stated, the Executive Manager, Transnet Limited (or an officer or organization deputed by it) , shall be the inspecting authority.

A - 2 Three pre-production sample shirts shall have been inspected, tested and approved by the inspecting authority before bulk production is commenced and it shall be the duty of the manufacturer to give adequate notice to the inspecting authority of the availability of these samples.

A - 3 The shirts 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 shirts supplied to this specification may be in progress.

A - 4 The contractor shall inspect the finished shirts for compliance with the specification before submitting them to the inspecting authority for final inspection.

A - 5 Before acceptance, the shirts shall have been inspected and tested by the inspecting authority and found to comply with the requirements of the specification.

REVISION HISTORY SHEET	
Document	Quality Assurance
Subject	ADMINISTRATION, PREPARATION, MAINTENANCE AND

DISTRIBUTION OF PRIVATE SPECIFICATIONS		
Controlling Officer: R. steynberg		
Approving Officer: C. J.V. du Plooy		
Rev/No	Date approved	Nature of revision
1	July 2007	1) Replace cloth stock item 35/154060 with previous item 35/113787
2	November 2010	1) Change scope fro cmt to supply and 2) Change 4.1 from FD74 (CKS 488) to PC74M (SANS 1387-2)
3	June 2019	1) Incorporate the Hazmat and Transnet logo

Trousers, Mens

Reference item numbers. Trousers, navy

35/160001

1 Scope

This specification covers the materials and make of trousers intended for personnel employed by Transnet Limited.

NOTES

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

a) The outer material, if other than as specified (see note to 4.1)

b) The item(s) required (see 4.3)

c) The size designation(s) required (see 4.4)

2) Special conditions of tender (which cover the conditions of acceptance of the garments) are given in Annex A.

2 Normative references

The following standards contain provisions, which, through reference in this text, constitute provisions of this specification. All standards are subject to revision and, since any reference to a standard is deemed to be a reference to the latest edition of a standard, parties to agreements based on this specification are encouraged to take steps to ensure the use of the most recent editions of the standards indicated below. Information on currently valid national and international standards may be obtained from the South African Bureau of Standards.

CSS 286.21, *Clothing -- LAB/1: Labelling -- PAC/1: Packing and marking.*

CKS 129 : *Colours for textiles*

SANS 1387 : *Woven cotton and similar apparel fabrics - Part 9: polyester-and-cotton shirt fabrics.*

SANS 79, *Textiles – Mass per unit area of conditioned fabrics*

SANS 105-BO2, *Tests for colour fastness – Part Bo2: Colour fastness to artificial light: Xenon artificial lamp test.*

SANS 1309, *Printed labels for textiles.*

SANS 1360-1, *Size designation of clothes -- Part 1: Women's and girls' outerwear garments.*

SANS 1362, *Sewing threads*

SANS 1822, *Slide (zip) fasteners.*

SANS 5278 *Sewing stitches per unit length*

SANS 7211-2, *Textiles-Woven fabrics – Construction – Method of analysis Part 2: Determination of number of threads per unit area.*

SANS 10076-6, *The assessment of defects in textile piece-goods and made-up articles-Part 6: Defects in woven Filament piece-goods (synthetics)*

SANS 10076 - 7, *The assessment of defects in textile piece-goods and made-up articles-Part 7: Defects in household articles*

SANS 13934 –1, *Textiles-Tensile properties of fabrics. Part 1. Determination of maximum force and elongation at maximum force using the strip method s Part 1*

SANS 10101, *Standard nomenclature for stitches, seams, and stitchings.*

SANS 10188, *Standard methods of garment measurements..*

SANS 100004, *Terms and definitions for textiles and textiles merchandise.*

SANS 10011, *Care-labelling of textiles piece goods, textiles articles and clothing.*

SANS 985, *Polyester-and-wool uniform fabrics.*

SANS 1008, *Warp-knitted pocketing.*

SANS 5418, *Dimensional changes of textile fabrics during steam pressing.*

SANS 85, *Thickness of wool fabrics.*

SANS 79, *Mass per unit area of conditioned textile fabrics.*

SANS 85, *Thickness of wool fabrics.*

SANS 1254 *Fusible interlinings*

3 Definitions

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

3.1 acceptable: Acceptable to the Executive Manager (Promat), Transnet Limited.

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

4 Requirements

4.1 Materials

NOTE – No material will be supplied by Transnet limited..

The outer material shall be 65% Polyester / 35% Viscose 240 g/m² colour no. 507c of CKS 129 (See Table 1)

4.1.1 General

The material specified in 4.1.2 to 4.1.14.(inclusive), all of colour that is an acceptable match to the outer material, shall be supplied and used by the manufacturer.

4.1.2 Interlining

An acceptable fusible woven or non-woven interlining that complies with the requirements of CKS 627 for interlinings that is suitable for use in garments that will be dry-cleaned. The mass per unit area shall be such that the interlining is suitable for use in the foreparts and chest-piece.

NOTE - The selection of interlinings of appropriate type and mass per unit area shall be determined by consultation with the manufacturer(s) of the interlining(s).

4.1.3 Pocketing

An acceptable warp-knitted pocketing that complies with the requirements of SABS 1008.

4.1.4 Waistband lining

An acceptable synthetic, woven, bias-cut interlining faced with pocketing (see 4.1.4) and of finished width 35 mm.

4.1.5 Slide fasteners

One-way closed-end slide fasteners that comply with the requirements for performance class B slide fasteners of CKS 574.

4.1.6 Hooks and bars

Hooks and bars of an intrinsically corrosion resistant metal and having a smooth finish and a nominal width of 10 mm.

4.1.7 Buttons

Four-hole dope dyed plastics buttons of nominal diameter and type as follows:

a) **Trousers:** 14 mm trouser type buttons.

4.1.8 Threads

Threads shall comply with the relevant requirements of SABS 1362, and shall be as follows:

a) **sewing thread:** a polyester-and-cotton core-spun thread or a staple polyester thread, ticket No. 80 (in both cases).

b) **overlocking thread:** a crimp-textured polyester thread, ticket No. 140.

SPECIFICATION: CSS 286.21 WWP100

Issued: August 1991

Revised: October 2020

Table 1 Polyester Viscose

1	2	3
Property	Requirement	SANS number Unless otherwise indicated
Fibre composition, %		1833-2, 1833-6 and 1833-11
Polyester	65 ±3	
Viscose	35±3	
Mass per area, g/m², min	320	79
Weave	Plain 1/1	Physical examination
Ends/cm	18	Physical examination
Picks/cm	16	Physical examination
Tensile strength, N, min		
Warp	980	13934-1
Weft	642	
Tearing strength, N, min		13937-4
Across the warp	75	
Across the weft	75	
Dimensional changes on	±3	11167, procedure F3
Laundering, %, max		Drying Procedure A
Press dry, (warp & weft)		
Resistance to Abrasion (Pilling)	3	6116:2005
(6000 cycles)		
Colourfastness to:		
Washing, rating, min	4	105-C10
Change in colour	4	Test C(3)
Staining	4	
Perspiration, rating, min	4	105-E04
Change in colour	3-4	
Staining		
Rub Fastness, rating, min	4	105-X12
Dry	3-4	
Wet		
Light, rating, min	4-5	105-B02

4.2 Workmanship

The garments shall be cut and made with first-class workmanship throughout and shall be free from defects that affect their appearance or may affect their serviceability (or both), and from marks, spots and stains incurred in the making-up. All seams shall be smooth and all stitching shall be uniform. Seams and stitching shall be free from twists, pleats and puckers and shall be extensible enough to obviate seam cracking and undue shrinkage in use. All ends of sewing that are not secured in seams or in other sewing shall be adequately back-tacked. All ends of sewing shall have been trimmed and loose threads removed. The garments shall be of uniform and acceptable make, colour and finish, and the matching of the shades of the component parts of a garment shall be such as to be acceptable.

4.3 Style

Each suit shall consist of a jacket, a waistcoat and a pair of trousers, of the same size designation, or supplied as individual garments as required in the order or contract. The fabric and the garment styles shall be as follows:

a) **trousers:** the trousers (see figure 4 and 5) shall have a plain waistband with belt loops, pleated fronts and slide-fastening fly. They shall have two side pockets, one hip pocket, a fob pocket and plain bottoms.

4.4 Sizes

The trousers shall be supplied in the size designations given in column 1 of table 1, as specified in the order or contract, and their measurements,

a) When required, the trousers shall be made to special measurements, furnished by Transnet Limited.

The patterns shall conform to the specification and the sealed samples and shall be drafted by the manufacturer.

Table 1 – Size range for trousers

1	2	3	4	5	6
Size designation 1)	Nominal finished garment measurement, cm				
	Waist	Seat	Inside leg	Out leg	Bottom
72	72	94	81	108	42
77	77	99	81	108	42
82	82	104	81	109	42
87	87	109	81	109	42
92	92	114	81	110	42
97	97	119	81	110	42
102	102	124	81	111	44
107	107	129	81	111	44
112	112	134	81	112	44
117	117	139	81	112	44
122	122	144	81	112	44
127	127	149	81	113	44
132	132	154	81	113	46
137	137	159	81	113	46
142	142	164	81	114	46
147	147	169	81	114	46
152	152	174	81	114	46
157	157	179	81	115	46
162	162	184	81	115	46
SPECIAL					
1) Based on the "waist" measurement					

4.5 Make

Note - Unless inconsistent with the text, all measurements are nominal.

4.5.2 Trousers

4.5.2.1 Fronts

Each front (see figure 4) shall have two pleats of finished depth 10 mm, the first pleat shall be in line with the front crease line and the second pleat 35 mm behind the first pleat. A fob pocket shall be inserted in the waistband seam on the right front.

4.5.2.2 Backs

Each back (see figure 5) shall have a dart of finished length 80 mm, positioned approximately midway between the seat seam and the side seam. The right back shall have a hip pocket.

4.5.2.3 Fly

The fly shall be lined with outer material and shall be fitted with a slide fastener (see 4.1.11). The fly shall be of finished width 45 mm and shall be stitched down 35 mm from the edge, and the bottom of the fly shall be securely tacked.

4.5.2.4 Fly catch

The fly catch shall be lined with pocketing (see 4.1.4) and shall be of finished width 30 mm. The lining shall be folded to a width of 25 mm below the tack at the base of the fly and shall be carried through to the fork. The top of the fly shall be fitted with a french bearer and the fork area shall be covered with a crotch lining.

4.5.2.5 Waistband

The waistband shall be plain and shall be of finished width 35 mm. It shall be lined with a waistband lining (see 4.1.8) and the front shall fasten with a hook and bar (see 4.1.12).

4.5.2.6 Belt loops

Each pair of trousers up to and including waist size 87 cm, shall have six belt loops of nominal width 10 mm and of length that will accommodate a belt of 30 mm, on the waistband. Larger sizes shall have eight belt loops. The belt loops shall be positioned as follows:

- a) On all sizes, one forward of each pleat, one forward of each side seam and one 50 mm either side of the seat seam.
- b) On trousers with eight loops, the additional two loops shall be positioned one above each back dart.

4.5.2.7 Pockets

All pocket bags shall be of pocketing (see 4.1.4), shall be double stitched or bound, and the top ends of each side pocket bag, and one upper end of the fob and hip pocket bags shall be secured in the waistband. The ends of all pocket mouths shall be securely bar-tacked, the tacks on the hip and fob pocket mouths being inserted vertically. The pockets shall be as follows:

- a) **side pockets:** each side pocket shall have slanting pocket mouth of finished length 17 cm, with the top end 30 mm forward of the side seam and the bearer shall be of finished width 60 mm measured at the top. Each mouth shall have a facing of outer material of width 50 mm and the pocket bags shall be of finished width and depth 17 cm and 13 cm respectively measured from the bottom tack of the pocket mouth.
- b) **hip pocket:** the hip pocket shall be a double-jetted pocket with an outer material loop and button fastening. The pocket mouth shall be of finished length 15 cm with an outer material facing of width

30 mm, and the pocket bag shall be of finished depth 16 cm.

c) **fob pocket:** the fob pocket shall have a mouth of finished length 80 mm (between bar-tacks) and shall be positioned on the right front. The mouth shall have a facing of outer material and the finished width and depth of the pocket bag shall be 10 cm.

4.5.2.8 Buttonholes

The french bearer shall have one trouser type buttonhole of finished length 16 mm.

4.5.2.9 Buttons

There shall be one button (see 4.1.13(c)) on the hip pocket and one button on the inside of the waistband (for the french bearer).

4.5.2.10 Inlays

The waistband, waistband lining and the centre back seam shall have inlays of width 40 mm on each side.

4.5.2.11 Bottoms

The bottoms shall be plain, folded up and blind-felled to form a hem of finished width 50 mm.

4.6 Stitches seams and stitchings

4.6.1 General

All sewing shall be in accordance with SABS 0101.

4.6.2 Stitches

4.6.2.1 Trousers

- a) **side, seat and inside leg seams:** stitch type 401;
- b) **bottom hem:** stitch type 103; and
- c) **all other stitches:** stitch type 301.

4.6.3 Seams

Unless otherwise specified, seams shall be of width at least 10 mm. they shall be as follows:

- a) **all main seams:** seam type SSa-1 and pressed; and
- b) **edge of fly and seat seam:** stitching type BSc-1.

4.6.4 Stitching's

All exposed raw edges of the trousers shall be stitching type EFd.

4.6.5 Number of stitches

- a) **seams:** 40 ∇ 4 per 10 cm;
- b) **overlocking:** 32 ∇ per 10 cm;
- c) **blind stitching:** 32 ∇ 4 per 10 cm;
- d) **buttons:** 16 ∇ 1 per button;
- e) **buttonholes:** 12 ∇ 1 per 1 cm; and

f) **bar tacks:** 20 ∇ 2 per 1 cm.

5 Labelling, packing and marking

5.1 Labelling

As specified in CSS 286.21 LAB/1.

5.2 Packing and marking

As specified in CSS 286.21 PAC/1.

Figure 1 – Front

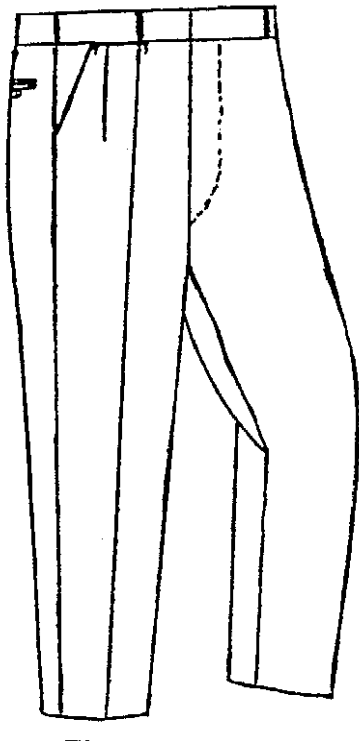


Figure 3 – Back with centre vent

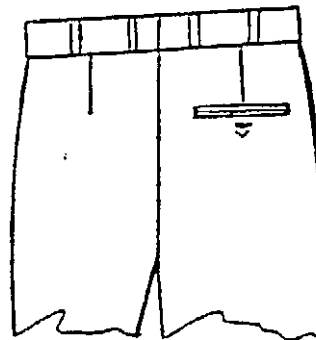


Figure 4 – Front
Figure 5 - Back

Annex A
(normative)

Special conditions of tender

A-1 Unless otherwise stated, the Executive Manager, Transnet Limited (or an officer or organization deputed by him), shall be the inspecting authority.

A-2 Three pre-production samples of the trousers, shall have been inspected, tested and approved by the inspecting authority before bulk production is commenced, and these samples shall each be accompanied by a trim chart containing a sample of each component material (as given in 4.1.2 to 4.1.14). It shall be the duty of the manufacturer to give adequate notice to the inspecting authority of the availability of these samples.

A-3 The trousers 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 suits or individual garments supplied to this specification may be in progress.

A-4 The contractor shall inspect the finished trousers for compliance with the specification before submitting them to the inspecting authority for final inspection.

A-5 Before acceptance, the trousers shall have been inspected and tested by the inspecting authority and found to comply with the requirements of the specification.

SPECIFICATION: CSS 286.21 WWP100**Issued: August 1991****Revised: October 2020**

REVISION HISTORY SHEET		
Document Subject ADMINISTRATION, PREPARATION, MAINTENANCE AND DISTRIBUTION OF PRIVATE SPECIFICATIONS		DocumentNo. Effective date 18 JULY 1997
Approving Officer: C. DU PLOOY		
Rev/No	Date approved	Nature of revision
1	November 1999	4.1.4 Pocketing 4.1.8 Waistband lining 4.4 Size chart 4.4.2.1 Fronts 4.5.2.3 Fly 4.5.2.4 Fly catch 4.5.2.6 Belt loops 4.5.2.7 Pockets (a) and (c) 4.6.3 Seams (b) 4.6.4 Stitchings
2	October 2020	1)Remove suits & waist coats from specification 2) Implement new size chart., 3) Change to supply of cloth

JACKET, WINDBREAKER

Garment Reference item number 35/161824

1. Scope

This specification covers the material and make of windbreakers intended for personnel employed by Transnet Limited.

NOTES

- 1) The following requirements will be specified in tender invitations and in each order or contract:
 - a) The size designation(s) required (see 4.4).
 - b) The packing, if other than as specified (see 5.1)
 - c) The marking, if other than as specified (see 5.3)
 - d) Additional marking, if required
- 2) Special conditions of tender (which cover the conditions of acceptance of the garments) are given in annex A.

2. Normative References

The following standards contain provisions which, through reference in this text, constitute provisions of the specification. All standards are subject to revision and, since any reference to a standard is deemed to be a reference to the latest edition of that standard, parties to agreements based on this specification are encouraged to take steps to ensure the use of the most recent editions of the standards listed below. Information on currently valid national and international standards may be obtained from the South African Bureau of Standards.

CKS 129	Colours for textiles.
CKS 574	Slide (zip) fasteners.
CKS 627	Fusible interlinings.
SABS 432	Indible marking ink for textile fabrics.
SABS 1309	Printed labels for textiles
SABS 1360-1	Size designation of clothes-----Part: men's and boy's Outerwear, garmens.
SABS 1362,	Sewing threads.
SABS 1387-7	Woven cotton and similar apparel fabrics-----Part 7: jacket linings.
SABS 011	Care-labeling of textiles and clothing
SABS 0101,	Standard nomenclature for stitches, seams and stitchings.
SABS 0188,	Standard methods of garment measurement.

3. Definitions

For the purpose of this specification, the following definitions apply :

3.1 acceptable : Acceptable to Transnet Limited.

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

4. Requirements

4.1 Materials

NOTE -The outer material a polyester and cotton field dress fabric that complies with the requirements for type FD74 of CKS 488 and of a colour that is an acceptable match to colour No. 34c "NAVY Blue" of CKS 129 will be supplied by Transnet Limited.

4.1.1 General

The materials specified in 4.1.2 to 4.1.9 (inclusive) all of a colour that is an acceptable match to that of the outer material, shall be supplied and used by the manufacturer.

4.1.2 Elastic webbing

A woven elastic webbing with a cotton-and rubber warp and a cotton or a polyester welt. The webbing should be of width of at least 55 mm and have a stretch of at least 120%.

4.1.3 Lining

A polyester lining that complies with the requirements for type L61p of SABS 1387-part 7.

4.1.4 Interlining

A fusible interlining that complies with the requirements of CKS 627 for interlinings that are suitable for use in garments that may be dry-cleaned or washed or both.

NOTE – The selection of interlining of appropriate mass per unit area shall be determined by consultation with the suppliers of the interlining.

5.3.1 Wadding

A polyester wadding of nominal mass per area 65 g/m².

4.1.6 Interlocking slide fasteners

One –way open end slide fasteners with molded synthetic elements that comply with the requirements for type C of CKS 574.

4.1.7 Press-studs

Press-studs of an intrinsically corrosion-resistant base gun metal of the male and female type. The inside diameter of the hole in the female section shall be at least 5 mm.

4.1.9 Threads

The threads shall comply with the relevant requirements of SABS 1362. They shall be as follows:

a) **main seaming and top stitching thread:** a polyester-and-cotton core-spun thread, or staple thread, ticket no.80 (in both cases)

4.2 Workmanship

The jacket shall be cut and made with first-class workmanship throughout and shall be free from defects that affect their appearance or may affect their serviceability (or both), and from marks, spots and stains incurred in the making-up. All seams shall be smooth and all stitching uniform and free from twists, pleats and puckers and shall be sufficiently extensible to obviate seam cracking and undue shrinkage in use. All ends of sewing that are not secured in seams or other sewing shall be adequately back-tacked. All ends of sewing shall have been trimmed and loose threads removed. The jackets shall be of uniform and acceptable make, colour and finish, and the matching of the shades of the component parts of jackets shall be such as to be acceptable.

4.3 Style

The jacket shall be a storm flap, and a slide fastener fastening, a laid-on press-stud fly flap and fly catch, inner and outer collar, two breast pockets with flaps. Each forepart shall have two panels.

The sleeves shall have elasticized cuffs The jackets shall have a fully elasticized waistband. The body and sleeves shall be fully lined with body lining (see 4.1.3) and inter lined with wadding (see 4.1.5).

4.4 Sizes

The jackets shall be supplied in one (or more) of the size designations given in column 1 of table 1, as specified in the order or contract, their measurements determined in accordance with SABS 0188, shall conform to the relevant values given in columns 2 to 7. The patterns shall conform to the specification and to the sealed sample, and shall be drafted by the manufacturer.

Table 1 Size chart

1	2	3	4	5	6	7
Size designation 1)	Nominal finished garment measurements, cm					
	Chest	Back Length	Waistband Relaxed.	Waistband extended	Sleeve Length 2)	Cuff Circumference relaxed
62-67 (XXS)	88	67	59	89	46	16
72-77 (XS)	98	70	69	98	46	16
82-87 (S)	108	73	79	108	48	16
88-97 (M)	118	75	89	118	50	16
97-102 (L)	128	77	99	128	52	20
108-117 (XL)	138	79	109	138	54	20
122-127 (2XL)	148	79	119	148	56	24
128-137 (3XL)	158	79	129	158	58	24
138-147 (4XL)	168	82	139	168	60	26
148-157 (5XL)	178	82	149	179	62	26
158-167 (5XL)	188	82	158	188	64	26
162-167 (6XL)	198	82	169	198	66	26
1) Based on the waist girth of the intended wearer						
2) Underarm sleeve measurement						

1) Sealed samples are held by, and may be viewed at, the Clothing Manager, Langlaagte.

4.5 Make

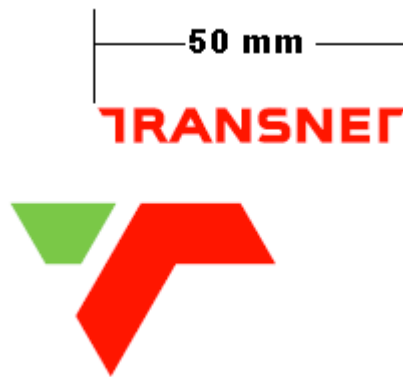
NOTE - Unless inconsistent with the text, all measurements are nominal.

4.5.1 Fronts

Each front shall consist of two shaped panels with breast pockets and flaps. The outer panel and front sleeve panel in one piece. The left (when worn) forepart shall have seven female press studs and a slide fastener catch. The left and right forepart shall have a fly flap with seven male press studs. Sandwiched between the outer front edge of fly catch 80 mm wide and lining seam on the front shall be the stringer of the slide fastener (see 4.1.6). There shall be seven equidistantly spaced press studs (see 4.1.7), 20 mm from the edge of the fronts.

4.5.2 Logo

On the left forepart shall be the appropriate logo where applicable screen printed in white or embroidered in an acceptable thread (see 4.1.10.2). The, Transnet, logo embroidered in white



4.5.3 Pockets

Breast pocket: Each fore part shall a square pleated pocket. The edges of the pocket shall be parallel to the front edge. Each end of each pocket mouth shall be securely tacked with a vertical box tack of finished width and length 3mm and 15 mm respectively. The pocket shall be of width 140 cm and depth 140 cm. Each pocket shall have a vertical box pleat of finished width 30 mm at the center of the pocket. With a press-stud centrally positioned.

4.5.4 Pocket flaps

The breast pocket flap shall be mitered s and shall be lined with outer material. The finished depth of flap shall be 55 mm on the edge and 60 mm in the center. The length of the pocket flap shall be such that the flap covers the full width of the pocket mouth. There shall be a 10 mm gap between the top of the pocket mouth and the stitching down of the flap. Each flap shall have, in the center, 15 mm from mitere edge a press-stud. The flap shall be top - stitched 7 mm from the free edges.

4.5.5 Back

The back shall be a cut in one piece.

4.5.5 Sleeves

The sleeves shall be cut in one piece, set in sleeve, which are seamed under the arm. The sleeves shall be finished with a cuff of double folded outer material and shall contain elastic webbing (see 4.1.2). The cuffs shall be of finished width 45 mm and shall be roused with three equidistant rows of stitches. The circumference of the cuffs shall conform to the relevant values given in size chart.

4.5.6 Waistband

The waistband shall be made in three sections. Two front sections shall be grown on and shall be finished width 45 mm. These sections shall be folded along the bottom line to form a lining and shall extend 8 cm from the front edge to the start

of the third (back) section of the waistband. The back section extending to the front of the waistband shall be of outer material and shall contain elastic webbing, and shall be of finished width 45 mm and roused with three equidistant rows of stitches. The circumference of the finished waistband shall conform to the relevant value given in columns in the size chart.

4.5.7 Collars

The outer collar shall be stand collar cut in one section. The collar shall be of outer material lined with outer material and interlined with wadding (see 4.1.5). The finished width of the collar shall be 100 mm and extend to the center front and the center front and the free edges shall be topstitched 7 mm from the edge. The inner collar shall be a stand collar cut in one section and shall be lined with outer material. The finished width of the collar shall be 100 mm. The collar shall accommodate the press – studs position. Free edges of collar shall be topstitched 7 mm from the edge.

4.5.8 Shoulder straps

The shoulder straps shall be mitred straps, of outer fabric and lined with outer fabric of finished width 50 mm at the shoulder and tapering to 40 mm at the buttonhole end, and 14 cm long. The edges of the straps shall be top stitched 6 mm from the edge.

4.5.9 Buttons

Two hole dope dyed plastic buttons of nominal diameter 14 mm of a colour that is an acceptable match to that of the outer fabric.

4.6 Bottoms

4.6 Stitches, seams and stitching's

4.6.1 General

All sewing shall be in accordance with SABS 0101.

4.6.2 Stitches

The stitches shall be as follows:

a) side seams, sleeves and sleeve insertion seams::: any of stitches type 515 to 519 and

b) all other stitching : stitch type 301.

4.6.3 Seams

Seams shall be as follows:

5side seams, sleeves seams: seam type Ssa of width at least 10 mm;

6breast pocket to jacket: seam type Lsd-1;

7flap to front: seam type Lss-2

e) over-arm sleeve seam: seam type LSBm-3;

f) collar: seam type Ssae-3;

g) cuffs: seam type Sse-2

4.6.4. Stitching's

The stitching shall be as follows:

- a) Hems: stitching type Efd-1.
- b) .fly flap, fly catch: seam type Efa-1

4.6.5 Number of stitches

The number of stitches shall be as follows:

- a) Seams: 40 ± 4 per 10 cm;
- b) Buttons: 12 ± 1 per button;
- c) Buttonholes: 12 ± 1 per cm; and

5 Packing, care-labeling and marking

5.3 Packing

The jacket shall be delivered in a clean, dry and pressed condition and shall be so packed that they will not be damaged in transit or storage. Each jacket shall be neatly folded and packed in a plastic envelope of suitable size and shape and then, unless otherwise specified in the order or contract, packed for transit (in units of ten) in acceptable bulk containers. Only jackets of the same item number and size shall be packed together in bulk containers (unless quantities ordered are such that packing of the same item number and size only is not justified). Jackets of different item numbers and sizes may also be pack together to accommodate the last part of an order or contract.

5.4 Care-labeling

Each jacket shall have a woven or printed label that is permanently secured and that provides (in accordance with SABS 011) correct and appropriate care instructions. Printed labels shall comply with the requirements of SABS 1309. All care-labels and their marking shall be such that they outlast the garments.

5.3 Marking

5.3.1 Jackets

Each jacket shall have a woven fabric label that complies with the requirements of SABS 1309 securely sewn to the inside of the back neck. The label shall provide the following information printed in legible and inedible block letters of height at least 3 mm:

- 1) The manufacturer's name or trade mark or both;
- 2) the size designation;
- 3) the year of manufacture;
- 4) the item number; and
- 5) the composition of the fabric.

5.3.2 Plastic envelopes

Each envelope shall be clearly marked with the size designation (as given in column 1 of table 1) and the item number of the contents.

5.3.3 Bulk containers

Each bulk container shall have a label securely attached to the outside. This label shall be visible when the containers are stacked and shall provide the following information:

- a) The manufacturer's name or trade mark or both;

- b) the designation, i.e. jackets (windbreakers)
- c) the size designation;
- d) the quantity;
- e) the package number;
- f) the year of manufacture; and
- g) the item number

5.4 Additional marking

When so required by Transnet Limited, jackets or envelopes or containers, or any combination of these three, shall bear information additional to that specification in 5.3.

Annex A (normative)

Special conditions of tender

A-1 Unless otherwise stated, Transnet Limited (or an officer or organization deputed by it), shall be the inspecting authority.

A-2 Two pre-production samples shall have been inspected, tested and approved by the inspecting authority before bulk production is commenced, and these samples shall each be accompanied by a trim chart containing a sample of each component material. It shall be the duty of the manufacturer to give adequate notice to the inspecting authority of the availability of these samples.

A-3 The Jackets 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 jackets supplied to this specification may be in progress.

A-4 The contractor shall inspect the finished jackets for compliance with the specification before submitting them to the inspecting authority for final inspection.

A-5 Before acceptance, the jackets shall have been inspected and tested by the inspecting authority and found to comply with the requirements of the specification.

REVISION HISTORY SHEET	
Document	Quality Assurance
Document No.	

Subject ADMINISTRATION, PREPARATION, MAINTENANCE AND DISTRIBUTION OF PRIVATE SPECIFICATIONS		Effective date April 2015
Controlling Officer: R. Steynberg		
Approving Officer: C. J.V. du Plooy		
Rev/No	Date approved	Nature of revision
1	April 2015	1) Adopted the old spec.
2	Sept 2018	1) Remove "Cut make and trim" from the scope (page 1).

Unisex (Dual purpose coats)

Reference no. 35/84220 AND 35162437 (TRAIN CREW)

1. Scope

This specification covers the materials of coats intended for personnel employed by Transnet Limited.

NOTES

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

- a) the outer material, if other than as specified (see note to 4.1) ; and
- b) the size designation(s) required (see 4.4).

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

2. Normative References

The following standards contain provisions, which through reference in this text constitute provisions of the specification. All standards are subject to revision and, since any reference to a standard is deemed to be a reference to the latest edition of that standard, parties to agreements based on this specification are encouraged to take steps to ensure the use of the most recent editions of the standards listed below. Information on currently valid national and international standards may be obtained from the South African Bureau of Standards.

CSS 286.21, *Clothing -- LAB/1: Labelling -- PAC/1: Packing and marking.*

SANS 79, *Textiles – Mass per unit area of conditioned fabrics*

SANS 105-BO2, *Tests for colour fastness – Part Bo2: Colour fastness to artificial light: Xenon artificial lamp test.*

SANS 1309, *Printed labels for textiles.*

SANS 1360-1, *Size designation of clothes -- Part 1: Women's and girls' outerwear garments.*

SANS 1362, *Sewing threads*

SANS 1387-7 *Woven cotton and similar apparel fabrics - Part 7: Jacket Linings*

Part 11 : Polyester and viscose raincoat fabric

SANS 1822, *Slide (zip) fasteners.*

SANS 5278 *Sewing stitches per unit length*

SANS 7211-2, *Textiles-Woven fabrics – Construction – Method of analysis Part 2: Determination of number of threads per unit area.*

SANS 10076-6, *The assessment of defects in textile piece-goods and made-up articles-Part 6: Defects in woven Filament piece-goods (synthetics)*

SANS 10076 - 7, *The assessment of defects in textile piece-goods and made-up articles-Part 7: Defects in household articles*

SANS 13934 –1, *Textiles-Tensile properties of fabrics. Part 1. Determination of maximum force and elongation at maximum force using the strip method s Part 1*

SANS 10101, *Standard nomenclature for stitches, seams, and stitchings.*

SANS 10188, *Standard methods of garment measurements..*

SANS 100004, *Terms and definitions for textiles and textiles merchandise.*

SANS 10011, *Care-labelling of textiles piece goods, textiles articles and clothing*

3. Definitions

For the purpose of this specification, the following definitions shall apply :

3.1 acceptable : Acceptable to Executive Manager, Transnet Limited.

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

4. Requirements

4.1 Materials

NOTE : Reference no. 35/84220 The colour will be an acceptable match to colour No. 2015c/1997 of CKS 129 “Navy” Reference no 35162437 (TRAIN CREW) Black

Cloth, Twill. Colour navy 65% Polyester / Viscose to SANS 1387-2 Type RPR 66 / Latest.

The quantity supplied will be in accordance with the material ratings agreed to for the fulfilment of the contract.

4.1.1 General

The materials specified in 4.1.2 to 4.1.11 (inclusive) all of a colour that is an acceptable match to that of the outer material, shall be supplied and used by the manufacturer.

4.1.2 Interlining

An acceptable fusible woven or non-woven interlining that complies with the requirements of CKS 627 for interlinings that are suitable for use in garments that will be dry-cleaned. The mass per unit area shall be such that the interlining is suitable for use in the forepart, collar, welts, cuff-tabs and the bottom of the sleeve. The selection of interlinings of appropriate type and mass per unit area shall be determined by consultation with the manufacturer(s) of the interlining(s).

4.1.3 Detachable warm lining, body and sleeve lining

A polyester lining that complies with the requirements for type L61P of SABS 1387 - 7.

4.1.4 Coated inner lining

The inner lining shall be coated fabric that complies with the requirements given in the table 1.(L61P of SANS 1387-7)

4.1.5 Wadding for detachable warm lining

A non-woven polyester fill of nominal mass per unit area 85 g/m² which has a finish on both sides to prevent fibre penetration.

4.1.6 Pocketing

An acceptable polyester-and-cotton pocketing.

4.1.7 Binding tape

An acceptable bias binding tape of nominal width 25 mm.

4.1.8 Buckles

Buckles shall be of steel, neatly covered with fabric, and shall have a centre prong and shall be capable of acceptable accommodating a belt of finished width 50 mm.

4.1.9 Buttons

Four-hole dope-dyed rimmed plastic buttons, of nominal diameter 26 mm. The colour shall be an acceptable match to that of the outer material. The backing buttons shall be four-hole plastic buttons of diameter 12 mm

4.1.10 Eyelets with washer

Acceptable black corrosion-resistant metal eyelets with washers, and having a nominal inside diameter of 4 mm.

4.1.11 Slide fastener

Detachable warm liner One-way open end slide fasteners with spiral elements that comply with the requirements of SANS 1822

Table 1 - Coated inner lining

1	2	3
Property	Requirements	SANS number
	Type	
	L61P	
Composition of base fabric .	100% Polyester	AATCC 20
Weave.....	Plain	Visual examination
Mass of coated fabric, (free from non-fibrous material). g/m ² ,min	70	79
Number of threads per cm ¹⁾ , min.		7211-2
Warp	39	
Weft ²⁾	22	
Breaking strength, N, min.		13934-1
Warp	550	
Weft	520	
Resistance to opening at seams ³⁾ , N .min	65	5726
Removable non-fibrous material content. % max.....	3	5966
Dimensional changes on: Dry cleaning, (warp & weft), %, max	2	
Laundering (warp & weft), % , max		960:Washing procedure A1
Press dry.....	2	Dry cleaning procedure E
Tumble dry.....	3	Dry cleaning procedure F
Colourfastness to :		
Washing, rating, min.....		11166: procedure C
Change in colour.....	4	
Staining of transfer cloths.....	3	
Dry cleaning, rating, min		105-D01
Change in colour.....	4	
Staining of transfer cloths.....	4	
Perspiration, rating, min		105-E04
Change in colour.....	4	
Staining of transfer cloths.....	3-4	
Light, rating, min.....	3	105-B02
1) Suitable yarn linear densities are given in annex B. 2) Subject to a tolerance – 10 % 3) Determined on the fabric as received, and also after dry cleaning in accordance with ISO 3175-2, also after washing in accordance with sans 96: procedure A1		

4.1.11 Threads

Threads shall comply with the relevant requirements of SABS 1362 and there shall be as follows :

- sewing threads : a polyester-and-cotton core-spun thread or a stable polyester thread, ticket No. 80 (in both cases).
- buttonhole thread : a mercerised cotton thread, ticket No. 36.
- buttonhole gimp: a glace cotton thread ticket No. 10.

4.2 Workmanship

The garments shall be cut and made with first-class workmanship throughout and shall be free from defects that affect their appearance or may affect their serviceability (or both), and from marks, spots and stains incurred in the making-up. All seams shall be smooth and all stitching uniform and free from twists, pleats and puckers and shall be sufficiently extensible to obviate seam cracking and undue shrinkage in use. All ends of sewing that are not secured in seams or other sewing shall be adequately back-tacked. All ends of sewing shall have been trimmed and loose threads removed. The garments shall be of uniform and acceptable make, colour and finish, and the matching of the shades of the component parts of a coat shall be such as to be acceptable.

4.3 Style

The dual purpose coat shall be double-breasted coat with a 3-button fastening, and with raglan sleeves (SEE Fig.1 and Fig.2) as specified. There shall be a seam and a vent at the centre back, a two-way storm collar, two welted side pockets with through opening, front and back laid-on shoulder yokes, a loose belt, a detachable lining. The body and sleeves shall be fully lined with body lining, and the body, sleeves and shoulder yokes shall be inner lined with a coated inner lining.

4.4 Sizes

The dual purpose coats shall be supplied in one or more of the size designations given in column 1 of table 2 as specified in the order or contract. Their measurements, determined in accordance with SABS 0188, and shall conform to the appropriate values given in table 2. The patterns shall conform to the specification and to the sealed sample and shall be drafted by the manufacturer.

Table 2 Size chart

1	2	3	4	5	6	7	8
Size designation 1)		Nominal finished garment measurements, cm					
Cm	inches	Chest	Back Length	Back width	Sleeve length 2)	Cuff circumference	Hem circumference
72	28	88	119	36	74	29	147
77	30	93	119	37	75	29	152
82	32	98	119	38	76	30	157
87	34	103	122	39	77	30	162
92	36	108	125	40	78	32	167
97	38	113	126	41	80	32	172
102	40	118	127	42	81	34	177
107	42	123	128	43	82	34	182
112	44	128	128	44	83	36	187
117	46	133	128	45	84	36	192
122	48	138	128	46	84	37	197
127	50	143	129	46	85	37	202
132	52	148	129	47	85	38	207
137	54	153	129	47	86	38	212
142	56	158	130	48	86	39	217
147	60	163	130	48	87	39	222
152	62	168	130	49	87	40	227
157	64	173	131	49	87	40	232
162	66	178	131	50	88	41	237
1) Based on the bust measurement of the intended wearer							
2) Measured from the center back to the end of the cuff							

1) The sealed sample is held by, and may be viewed at, the Transnet Freight rail Clothing Division.

4.5 Make

NOTE - Unless inconsistent with the text, all measurements are nominal.

4.5.1 Forepart

Each forepart (see figure 1) shall interlined with fusible interlining (4.1.2), fully interlined with coated interlining (4.1.4) and fully lined with rayon lining and shall have side pockets. The break of the lapel shall have a stay of a suitable fusible tape of width 25 mm. The finished width of a lapel from the point to the crease-line of the lapel shall be 13 cm.

4.1.2 Pockets

Each forepart shall have a semi-vertical welted side pocket (forming an angle of 20° with the vertical) of finishing length and with 16 cm and 50 mm respectively, and each pocket shall be stayed with an acceptable material. The welts shall be lined with outer-material and interlined with fusible interlining (see 4.1.2) and the welt shall be top-stitched 7 mm from the free edge on the pocket mouth. The ends of the welt shall be securely stitched down 1 mm and 7 mm from the free edge. The pocket bag shall be of pocketing (see 4.1.6) and shall be of finished width and depth 14 cm and 11 cm respectively (measured at the bottom of the pocket mouth) and the top of the pocket bag shall be stayed.

4.5.3 Back

The back (see figure 2) shall be plain.

4.5.4 Facings and linings

Each front shall have a facing of finished width 25mm at the neck shaped to 100 mm at the finished hem. One piecing of a facing shall be permitted provided that the join is between the bottom buttonhole and the hem of the coat. The seam joined the lining and inner to the facing shall be securely fastened. The inner lining shall extend to within 30mm of the button of the finished lining. The lining shall extend to within 25 mm of the bottom of the coat, shall have a hem bottom, and shall be attached, at each side seam, to the hem of the coat by means of length 60 mm off doubled rayon lining (see 4.1.2).

4.5.5 Cuff tabs

Each tab shall be of outer-material that is lined with self-material and interlined with fusible interlining (see 4.1.2). The cuff tab shall have a mitred end and the width measured at the base of the mitre and at the end of the tab shall be 60 mm and 40 mm respectively. The finished length of the tab shall be (measured from the raglan sleeve seam to the mitred end) 90 mm and its free edges shall be top-stitched 7 mm from its free edge. The cuff tabs shall be 60 mm above the cuff so positioned out of the outer sleeve seam that the mitred end faces the outside. Each cuff tab shall have 20 mm buttonhole so positioned with the eye of the buttonhole in line with the base of the mitre.

4.5.6 Ragan Sleeves

Raglan sleeves (see Fig. 1) shall be two-pieces raglan sleeves with a centre seam and an underarm seam, the underarm seam being a pressed open seam and the centre seam top-stitched. Each sleeve shall have a mitred tab of a double thickness of outer material sewn in with the underarm seam 60 mm from the lower edge of the sleeves. A finished tabs hall be 80 mm long, 40 mm wide at the underarm seam and 60 mm wide at the base of the mitre. A tab shall fasten to the sleeves with a buttonhole in the base of the nitre and a button at the corresponding position on the sleeves. In addition, there shall be a second button on the cuff 50 mm beyond the first button. The sleeves shall be fully lined with rayon lining (see 3.1.2) and inner lined with coated inner lining (see 3.1.6).

4.5.7 Collar

The collar shall be a two-way storm collar interlined with fusible interlining 9SEE 3.1.5). The under collar shall be of outer material and may have a center seam. The collar shall have a stand of with 40 mm and a fall of width 80 mm.

4.5.8 Shoulder straps only for ref 35162437

The shoulder straps shall be mitred straps, of outer fabric and lined with outer fabric of finished width 50 mm at the shoulder and tapering to 40 mm at the buttonhole end, and 14 cm long. The edges of the straps shall be top stitched 6 mm from the edge.

4.5.9 Belt

The belt shall be of doubled outer material, shall be interlined with fusible interlining (see 4.1.2), and shall a finished width 50 mm, an outer-material runner loop at one end and a mitred point at the outer. At the mitred end there shall be five eyelets with washers (see 4.1.10) spaced at 50 mm centres, the first eyelet being positioned 70 mm from the point. Then length of a finished belt (measured from the middle eyelet to the buckle) shall be equal to the circumference of the coat (when buttoned) at the waistline. The belt shall be stitched through the centre along its length.

4.5.10 Hanger

A hanger of folded outer material, or lining, of finished length 90 mm and width 10 mm, shall be securely attached to the collar stand at the centre back neck on the inside of each coat.

4.5.11 Detachable lining

The body of a coat shall have a detachable lining (see 4.1.5), of a knitted pile fabric (see 4.1.3), and the length such as to extend beyond the top of the vent, and that buttons to the inside of the body. On each front there shall be a pocket opening, of finished length 20 cm, that is inserted in apposition corresponding to that of the pocket opening in the forepart.

4.5.12 Buttonholes

- a) General. All buttons shall be neatly made, gimped and barred
- b) 30 mm long buttonholes. There shall be four 30 mm long buttonholes in the left forepart, i.e. one in the point of the lapel, and three near the front edge, the first being at the lapel, and three near the front edge, the first being at the lapel break the this third level with the lower end of the welt of the pocket, and the second midway between the other two. In the right forepart there shall be 30 mm long buttonholes, i.e. one in the point of lapel, and the other either at the lapel break or in a position corresponding to that of the second of the three buttonholes in the left-front, depending on the position of the jigger button (see 4.1.7).

One in each sleeve tab, one in the vent underlay and thirteen vertically inserted in the detachable lining i.e. three across the back of the neck and five in each front.

4.5.13 Buttons

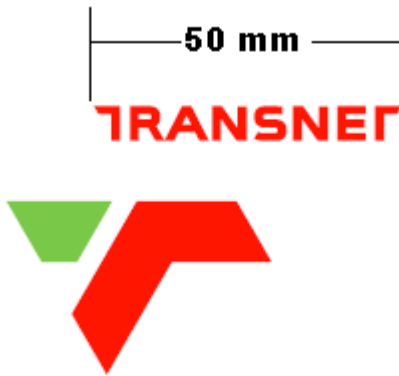
- a) Each forepart shall have three 25 mm buttons, the buttons on the right front in position that correspond to those of the three 30 mm long buttonholes in the left front, and the buttons on the left forepart horizontally aligned with those three buttonholes. The right front shall have, in addition, one 19 mm button at the gorge under the collar. The left forepart shall have, on the inside a 25mm jigger button either behind the button at the level of the lapel break, or behind the middle button. Each 25 mm button, other than that backed by the jigger button shall be reinforced on the inside by a backing button.
- b) There shall be twenty 14 mm buttons positioned as follows:
 - 1) One on each shoulder;
 - 2) Two on each cuff;
 - 3) One on the overlay of the vent: and

4.5.13 Logo

Transnet logo

For reference no. 35/84220 embroidered in white

For reference no. 35162437 (TRAIN CREW) Olive Green



4.5.14 Embroidery thread

The words TRAIN CREW to be embroidered with an acceptable 100% Viscose machine embroidery thread. Colour to be an acceptable match to Pantone colour no. 376 “Olive Green”

4.5.15 Edges

The front edges, lapels and the collar shall be top-stitched 9 mm from the free edge.

4.5.16 Hems

The bottom hem of the outer material shall be of finished depth 25 mm and the bottom of the lining shall be 25 mm. The two hems shall be attached on each side seam with a lining strap of finished width and length 25 mm and 60 mm respectively. The hems of the sleeves shall be finished depth 40 mm.

4.5.17 Loops

A loop of folded outer material of finished width 10 mm and of finished length 70 mm shall be positioned at the waistline on each side seam.

4.6 Stitches, seams and stitchings

4.6.1 General

All sewing shall be in accordance with SABS 0101.

4.6.2 Stitches

All stitches, stitch type 301.

4.6.3 Seams

Seams shall be as follows :

- a) front edge, collar and cuff tabs: seam type Sse-2;
- c) side and sleeve seams: seam type Ssa-1 and pressed open;
- c) bias-binding for warm lining: seam type Bsc-1/ and
- d) all other seams: seam type SSa-1.

4.6.4. Stitchings

The stitching shall be as follows :

- a) set in seam of welt: stitching type Ssq; and
- b) bottoms hem of outer material and lining : stitching type EFb-1.

4.6.5 Number of stitches

The number of stitches shall be as follows :

- a) all main seaming and top-stitched : 40 ± 4 per 10 cm;
- b) buttonholes : 12 ± 1 per cm; and
- c) bar tacks : 20 ± 2 per cm.
- d) buttons : 16 ± 1 per button;

5 Labelling, packing and marking

5.1 Labelling

As specified in CSS 286.21 lab/1.

5.2 Packing and marking

As specified in CSS 286.21 PAC/1.

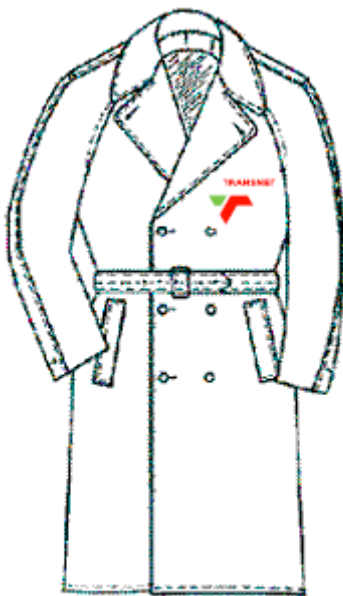


Figure 1 - Front Raglan Sleeve

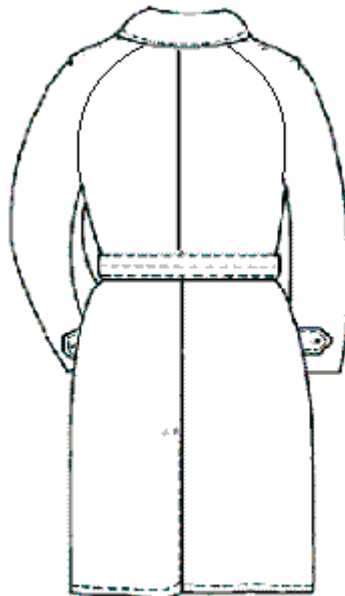


Figure 2 - Back Raglan Sleeve

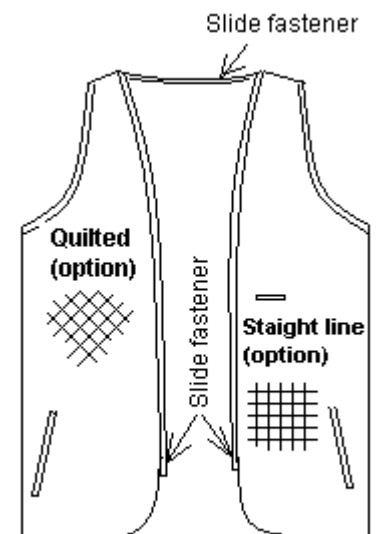


Figure 3 - Detachable warm lining

Annex A
(Normative)

Special conditions of tender

A-1 Unless otherwise stated, Transnet Limited (or an officer or organization deputed by it), shall be the inspecting authority.

A-2 Three pre-production sample Dual Purpose Coats shall have been inspected, tested and approved by the inspecting authority before bulk production is commenced, and it shall be the duty of the manufacturer to give adequate notice to the inspecting authority of the availability of these samples.

A-3 The Dual Purpose Coats 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 Dual Purpose Coats supplied to this specification may be in progress.

A-4 The contractor shall inspect the finished Dual Purpose Coats for compliance with the specification before submitting them to the inspecting authority for final inspection.

A-5 Before acceptance, the Dual Purpose Coats shall have been inspected and tested by the inspecting authority and found to comply with the requirements of the specification.

REVISION HISTORY SHEET		
Document Quality Assurance		Document No.
Subject ADMINISTRATION, PREPARATION, MAINTENANCE AND DISTRIBUTION OF PRIVATE SPECIFICATIONS		Effective date 26 October. 2005
Controlling Officer: R. Steynberg		
Approving Officer: C. du Plooy		
Rev/No.	Date approved	Nature of revision
1	October 2005	1) Adopted item reference 35/84369 and removed reference 35/123306 2) 4.4) Insert revised size chart 3) 4.5.10) Detachable warm liner, Change “button on” to slide fastener 4) 4.3) Style and 4.5.6 Shoulder straps – Remove shoulder straps 5) Insert sketches on page 7
2)	November 2010	1) Adoption of CKS 310 as it has been archived. 2) Add logo to specification
3)	June 2012	1) Inclusion of ref 35162437. 2) Change logo format 3) Shoulder strap included only for ref 35162437
4)	July 2016	1) Replace colour 507c with 2015c of CKS 129 in clause 4.1

Windbreakers, Unisex

1 Scope

This specification covers the material, and make of windbreakers, for use by male and female personnel employed by Transnet Limited.

Reference Item No. 35/91588 Transnet

NOTES

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

- a) The item(s) required {see 1)
- b) The size(s) required {see 4.4)
- c) The packing, if other than as specified (see 5.1)
- d) Additional marking, if required (see 5.4)

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

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this specification. All standards are subject to revision and, since any reference to a standard is deemed to be a reference to the latest edition to a standard, parties to agreements based on this specification are encouraged to take steps to ensure the use of the most recent editions of the standards indicated below. Information on currently valid national and international standards may be obtained from the South African Bureau of Standards.

CKS 627, *Fusible interlinings.*

CKS 129, *Colours for Textiles*

CSS 286.21 LAB/1, *Labelling.*

CSS 286.21 PAC/1, *Packaging.*

SANS 79, *Textiles - Mass per unit area of conditioned fabrics.*

SANS 142, *Narrow elastic fabrics and strip.*

SANS 1309, *Printed labels for textiles.*

SANS 1362, *Sewing threads.*

SANS 1387-2, *Woven cotton and similar apparel fabrics – Part 2: Polyester-and-cotton workwear fabrics*

SANS 1387-7, *Woven cotton and similar apparel fabrics – Part 7: Jacket linings.*

SANS 1387-11, *Woven cotton and similar apparel fabrics – Part 11: Polyester-and-cellulosic raincoat fabrics.*

SANS 1822, *Slide fasteners.*

SANS 1833-1/ISO 1833-1, *Textiles – Quantitative chemical analysis – Part 1: General principles of testing.*

SANS 1833-11/ISO 1833-11, *Textiles – Quantitative chemical analysis – Part 11: Mixtures of cellulose and polyester fibres (method using sulphuric acid).*

SANS 5278, *Sewing stitches per unit length.*

SANS 50471, *High visibility warning clothing for professional use – test methods and requirements.*

SANS 10011, *Care-labelling of textiles and clothing.*

SANS 10235, *Fibre content labelling of textiles and textile products.*

SANS 10371, *Terms and definitions for clothing*

3 Definitions

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

3.1 acceptable: Acceptable to Transnet Limited.

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

4 Requirements

4.1 Materials

The following polyester-and-viscose fabric shall be supplied and used by the manufacturer.

Cloth twill colour: "navy" no 2105 c/1997 of CKS 129 65% polyester and 35% viscose
specifications: SABS 1387 – 11 / Latest / type RPR 66

4.1.1 General

The materials specified in 4.1.2 to 4.1.9 (inclusive), all of a colour that is an acceptable match to that of the outer material, shall be supplied and used by the manufacturer.

4.1.2 Lining

A polyester lining that complies with the requirements for type L61P of SANS 1387- 7.

4.1.3 Interlining

An acceptable fusible woven or non-woven interlining that complies with the requirements of CKS 627 for interlinings that are suitable for use in garments that may be dry-cleaned or washed or both.

NOTE - The selection of interlining of appropriate mass per unit area shall be determined by consultation with the suppliers of the interlining.

4.1.4 Wadding

A polyester wadding of nominal mass per unit area 85 g/m².

4.1.5 Slide fasteners

- a) **Front** One-way open end slide fasteners with plastic moulded elements that comply with the requirements of SANS 1822
- b) **Detachable warm liner** One-way open end slide fasteners with spiral elements that comply with the requirements of SANS 1822

4.1.6 Press-studs

Press-studs of an intrinsically corrosion-resistant chromed base metal of the male and female type. The inside diameter of the hole in the female section shall be at least 5 mm.

4.1.7 Binding tape

An acceptable bias binding tape of nominal width 10 mm.

4.1.8 Elastic Webbing

An acceptable woven elastic webbing having a cotton and rubber warp and a cotton weft, a nominal width of 20 mm and a stretch of at least 120%.

4.1.9 Reflective Tape

Reflective strips shall comply with requirements other than positing and colour to:
SANS 50471 : 2006 / EN 471: CLASS 2 Industrial wash, minimum 50 washes at 75°C

4.1.10 Threads

4.1.10.1 Sewing thread

The threads shall comply with the relevant requirements of SABS 1362 and shall be as follows:

- a) **sewing and top-stitching thread:** a polyester and cotton core spun thread, or a staple polyester thread, ticket No. 80 (in both cases)
- b) **sewing and binding of warm lining:** a polyester-and-cotton core-spun thread, or a staple polyester thread, ticket No. 120 (in both cases).

4.1.9.2 Embroidery thread

The embroidery thread shall be as follows: A white 100% viscose machine embroidery thread.

4.2 Workmanship

The windbreakers shall be cut and made with first-class workmanship throughout and shall be free from defects that affect their appearance or can affect their serviceability (or both), and from marks, spots and stains incurred in the making-up. All seams shall be smooth and all stitching shall be uniform. Seams and stitching shall be free from twists, pleats and puckers and shall be extensible enough to obviate seam cracking and undue shrinkage in use. All ends of sewing that are not secured in seams or in other sewing shall be adequately back-tacked. All ends of sewing shall have been trimmed and loose threads removed. The windbreakers shall be of uniform and acceptable make, colour and finish, and the matching of the shades of the component parts of a windbreaker shall be such as to be acceptable.

4.3 Style

The windbreaker shall be single breasted with a storm flap and a slide fastener fastening closure, two welted side pockets, one outer slide fastener cell phone pocket and inner cell phone pocket. The set-in sleeves shall consist of two sections with cuff and tabs. Each forepart shall have two panels. The body and sleeves shall be fully lined and the jacket shall have a slide fastener detachable warm lining and inter lined with wadding (see 4.1.4). The detachable warm liner shall have an inner double pocket.

4.4 Sizes

The windbreakers shall be supplied in one (or more) of the size designations given in column 1 of table 1, as specified in the order or contract, and their measurements, determined in accordance with SANS 10188, shall conform to the relevant values given in columns 2-8. The patterns shall conform to the specification and to the sealed sample, and shall be drafted by the manufacturer.

Table 1 - Size range

1		2	3	4	5	6	7	8
Size designation 1) Cm inches		Nominal garment measurements, cm						
		Chest	Back length	Back Width	Under arm sleeve	Depth of scye	Sleeve circ.2)	Cuff circ.
72	28	94	74	37	43	26	41	27
77	30	99	74	39	43	26.5	42	28
82	32	104	75	41	44	27.5	43	28
87	34	109	75	43	44	28.5	44	29
92	36	114	76	45	44	29.5	45	29
97	37	119	76	47	45	30.5	46	29
102	38	124	77	49	45	31	47	30
107	40	129	77	51	45	32	48	30
112	42	134	78	53	46	33	49	31
117	44	139	78	55	46	34	50	31
122	46	144	78	57	46	35	51	32
127	48	149	78	59	47	35.5	52	32
132	50	154	80	61	47.5	36	54	33
137	52	159	80	61	48	36.5	56	33
142	56	164	81	63	48.5	37	58	34
147	58	169	81	63	49	37.5	60	34
152	60	174	82	65	49.5	38	62	35
157	62	179	82	65	50	38.5	64	35
162	64	184	82	67	51	39	66	36
1) Based on the chest measurement in centimetres of the intended wearer.								
2) Sleeve circumference measured ± 30 cm from the crown of the sleeve								

4.5 Make

NOTE - Unless inconsistent with the text, all measurements are nominal.

4.5.1 Fronts

Each fore part shall be two sections, slanted pocket, with five equidistantly spaced press-studs in the storm flap and fasten with a slide fastener (see 4.1.5.). Each forepart shall consist of two section i.e. a yoke that extends from the shoulder seam to 50 mm above the base of the scye, and a lower section beneath it. The front and back yoke shall be top-stitched 7 mm from the edge. The 50 mm reflective strip to be positioned below the yoke seam in the front and back.

4.5.2 Logo

On the left forepart shall be the appropriate embroidered in white an acceptable thread

4.5.3 Pockets

4.5.3.1 Side pockets

Each forepart shall have a slanted welted side pocket. The welts shall be of folded outer material and interlined with interlining (see 4.1.3). The finished length and width shall be 17,5 cm and 45 mm respectively. The free edge shall be top stitched 7 mm from the edge, the sides 2mm and 7 mm from the edge. Each end of each pocket mouth shall be stayed at the back. The pocket bag shall be of lining (see 4.1.2) and not sewn in with the hem.

4.5.3.2 Inside pocket (right hand side when worn) and detachable warm liner pocket

The warm liner double pocket of outer material shall consist of two pockets 160 width x 200 mm depth with a top stitched pocket sized 80 mm x 200 mm.

The pocket mouth shall be double jetted, constructed from outer material and of finished length 15 cm, positioned 30 mm below the level of the scye. The pocket bag shall be of lining (see 4.1.2) and the depth shall be 22 cm.

4.5.4 Back

The back shall consist of two parts, i.e. a yoke that extends 160 mm from the shoulder seam with the reflective tape below the yoke seam.

4.5.5 Facings and linings

Each forepart shall have an outer material facing that shall be of finished width 45 mm at the shoulder seam shaped to 90 mm at the bottom hem. The stringer of a slide fastener (see 4.1.5) shall be inserted in the front edge seam, between the facing and the forepart. The slide fastener shall extend from the gorge seam of the collar to the bottom edge of the hem. The body and sleeves of the windbreaker shall be fully lined with lining (see 4.1.2) and the bottom of the lining shall have a pleat of at least 15 mm. In each forepart lining, there shall be an inside breast pocket (see 4.5.3.2).

4.5.6 Collar

The collar shall have a separate stand and fall, lined with outer material and interlined with interlining (see 4.1.3). The seam joining the stand and fall shall be folded into the stand section when finished. The stand and fall at the centre back shall be of finished width 35 mm and 60 mm respectively. The points of the collar shall be of finished length 75 mm. The free edges shall be top-stitched 7 mm from the edge.

4.5.7 Sleeves

The sleeves shall be plain two-piece sleeves lined with lining (see 4.1.2). The hind arm seam shall have at the cuff, 20 mm from the edge, a mitred adjustable tab of outer material fused with interlining (see 4.1.3) and lined with outer material. The finished tab shall be of width and length 50 mm and 85 mm respectively. The female section of a press-stud fastener (see 4.1.6) shall be attached to the base of the mitre. Two male sections of press-stud fasteners (see 4.1.6) shall be attached to the hind arm, 60 mm and 110 mm from the hind arm seam.

4.5.8 Detachable lining

The detachable warm lining shall consist of a back and two fronts of one layer of wadding (see 4.1.4) sandwiched between two layers of lining (see 4.1.2) that is quilted in a diamond shape of dimensions 50 mm by 50 mm. The armholes, fronts, bottom and neck shall be bound with binding tape (see 4.1.7). Each front shall have a faced slit of lining (see 4.1.2), so positioned for access to the inside breast pockets of the windbreaker. The detachable warm lining shall be attached to the windbreaker by means of a slide fastener (see 4.1.5).

4.5.9 Edges

The front and back yoke shall be top-stitched 7 mm from the edge The free edges of the collar, front edges and cuff tabs shall be top-stitched 7 mm from their respective edges.

4.5.10 Hems

The bottom and sleeve hem shall be of finished width 40 mm, turned in and tacked at the seams. The bottom hem shall be interlined with interlining (see 4.1.3).

4.5.11 Hanger

A hanger of folded lining (see 4.1.2) of finished length 75 mm and width 10 mm, shall be securely attached below the collar stand at the centre back neck on the inside of each windbreaker.

4.6 Stitches, seams and stitchings

4.6.1 General

All sewing shall be in accordance with SANS 10101.

4.6.2 Stitches

Stitches shall be as follows:

- a) **side seams, shoulder, sleeve and sleeve insertion seams:** any of stitch type 515 to 519; and
- b) **all other stitching:** stitch type 301.

4.6.3 Seams

Seams shall be at least 10 mm wide and shall be as follows:

- a) **side seams, shoulder, sleeve and sleeve insertion:** seam type SSa;
- b) **yoke seams:** seam type SSa-2
- c) **front edges, collar and cuff tab:** seam type SSae-2; and
- d) **attachment of pocket welts:** LSq-2.

4.6.4 Stitchings

Stitchings shall be as follows:

- a) **hems:** stitching type EFb-1; and
- b) **yoke edges:** stitching type EFa-2

4.6.5 Number of Stitches

- a) **seams and top-stitching:** 40 ± 4 per 10 cm;
- b) **buttonholes:** 12 ± 1 per cm; and
- buttons:** 12 ± 1 per button.

5. Packing, care-labeling and marking

5.1 Packing

The windbreakers shall be delivered in a clean, dry and pressed condition and shall be so packed that they will not be damaged in transit or storage. Each windbreaker shall be neatly folded and packed in a plastics envelope of suitable size and shape and then, unless otherwise specified in the order or contract, packed for transit (in units of ten) in acceptable bulk containers. Only windbreakers of the same item number and size shall be packed together in a bulk container (unless quantities ordered are such that packing of the same item number and size only is not justified). Windbreakers of different item numbers and sizes may also be packed together to accommodate the last part of an order or contract.

5.2 Care-labelling

Each windbreaker shall have a woven or printed label that is permanently secured and that provides (in accordance with SABS 011) correct and appropriate care instructions. Printed labels shall comply with the requirements of SANS 1309. All care-labels and their markings shall be such that they outlast the garments.

5.3 Marking

5.3.1 Windbreakers

Each windbreaker shall have a woven fabric label that complies with the requirements of SABS 1309 securely sewn to the inside of the back neck. The label shall provide the following information printed in legible and indelible block letters of height at least 3 mm:

- a) The manufacturer's name or trade mark or both;
- b) the size designation;
- c) the date of manufacture;
- d) the item number; and
- e) the composition of the fabric.

5.3.2 Plastics envelopes

Each envelope shall be clearly marked with the size designation (as given in column 1 of table 1) and the item number of the contents.

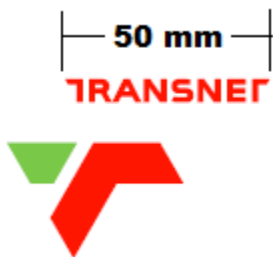
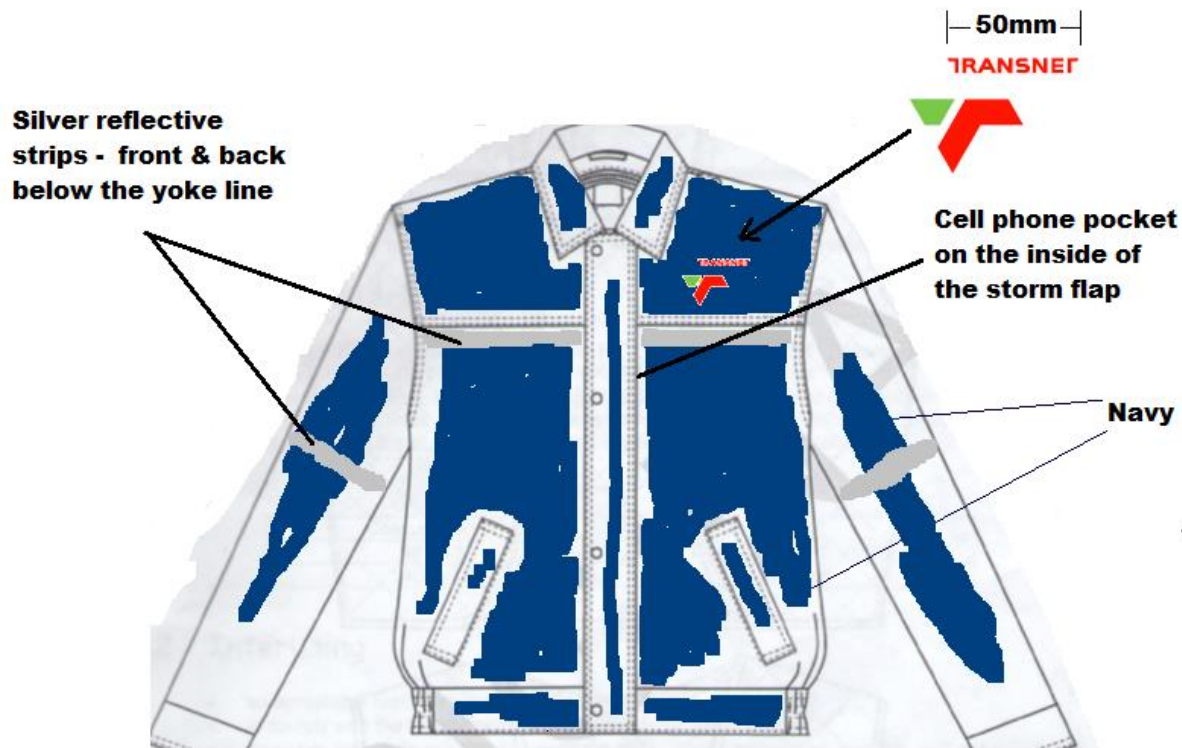
5.3.3 Bulk containers

Each bulk container shall have a label securely attached to the outside. This label shall be visible when the containers are stacked and shall provide the following information:

- a) The manufacturer's name or trade mark or both;
- b) the designation, i.e. "Windbreakers, men's";
- c) the size designation;
- d) the quantity;
- e) the package number;
- f) the year of manufacture; and
- g) the item number.

5.4 Additional marking

When so required by Transnet Limited, windbreakers, envelopes or containers, or any combination of these three, shall bear information additional to that specified in 5.3.



Annex A
(normative)

Special conditions of tender

A-1 Unless otherwise stated, Transnet Limited (or an officer or organization deputed by it), shall be the inspecting authority.

A-2 Two pre-production samples shall have been inspected, tested and approved by the inspecting authority before bulk production is commenced, and it shall be the duty of the manufacturer to give adequate notice to the inspecting authority of the availability of these samples.

A-3 The windbreakers 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 windbreakers supplied to this specification may be in progress.

A-4 The contractor shall inspect the finished windbreakers for compliance with the specification before submitting them to the inspecting authority for final inspection.

A-5 Before acceptance, the windbreakers shall have been inspected and tested by the inspecting authority and found to comply with the requirements of the specification.

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Rev/No	Date approved	Nature of revision
1	January 1999	1. Add item No. 35/135112 Coallink 4.1 Change Item Nos. and add Item No. 35/135112 4.5.2 Add Coallink and Item No. 35/135112 Figure 3 Add Coallink logo
2	March 2004	1. Add item No. 35/155356 Transwerk 1 & 4.5.2 Remove No. 35/91867 Portnet

Knitted caps

Reference item nos. 35/98340 "NAVY" without Transnet logo

Reference item nos. 35/163860 "BLACK" (Train Crew) with Transnet logo

1 Scope

This specification covers the material and make of knitted caps for use by male personnel of Transnet Limited.

NOTES

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

a) the reference item number.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this specification. All standards are subject to revision and, since any reference to a standard is deemed to be a reference to the latest edition of that standard, parties to agreements based on this specification are encouraged to take steps to ensure the use of the most recent editions of the standards listed below. Information on currently valid national and international standards may be obtained from the South African Bureau of Standards.

CSS 286.21, *Clothing — LAB/1: Labelling — PAC/1: Packing and marking.*

CKS 129, *Colours for textiles.*

SABS 1362, *Sewing threads.*

SABS 0101, *Standard nomenclature for stitches, seams and stitchings.*

SABS method 72, linear density of textile yarns (other than stretch-type yarns) on packages

SABS method 74, twist in textile yarns on packages

SABS method 79, mass per unit area of conditioned textile fabrics.

SABS method 275, Wales and courses per unit length in knitted textile fabrics (counting glass Method)

SABS method 405, Colour fastness of textile to artificial light: xenon lamp method.

SABS method 442, Textile – colour fastness to washing – test 1.

SABS method 731, Colour fastness of textiles to perspiration (histidine method).

SABS method 960, *Dimensional changes of textile fabrics during washing.*

3 Definitions

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

3.1 acceptable: Acceptable to the Executive Manager Transnet Limited.

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

4 Requirements

4.1 Materials

NOTE — No material will be supplied by Transnet Limited

4.1.1 General

The materials specified in 4.1.2 and 4.1.3 shall be supplied and used by the manufacturer. For reference item No. 35/98340 the colour shall be an acceptable match to colour No. 616c "Purple navy" of CKS 129.

4.1.2 Knitted fabric

The knitted fabric shall comply with the requirements given in table 1.

Table 1 - Knitted requirements

Table 1. Related Requirements		
1	2	3
Property	Requirement	Method of test
Composition	100 % Acrylic ¹⁾	Microscopical examination and chemical analysis
Construction	1 x 1 rib ²⁾	Visual examination
Courses per 10 cm, min.	65	SABS METHOD 275
Wales per 10 cm, min	36	SABS method 275
Mass per unit area, g/m ² , min.	480	SABS method 79
Dimensional changes on washing, %, max.		SABS method 960
Total area, % . max	6	Procedure D ³⁾
Colour fastness to light, rating, min.	5	SABS method 405
Colour fastness to washing, rating, min.	4	
Change in colour	4	
Staining of transfer cloths		SABS method 442
Colour fastness to perspiration, rating, min.		
Change in colour	4	
Staining of transfer cloths	4	SABS method 731
1) The acrylic shall be of the high bulk type.		
2) Knitted from two ends of suitable linear density Recommended linear density R64 tex/2.		
3) Test in tubular form, using ECE detergent instead of soap flakes and dry flat instead of pressing		

4.1.3 Threads

4.1.3.1 Sewing thread

The sewing thread shall comply with the relevant requirements of SABS 1362 and shall be a polyester-and-cotton core-spun thread, ticket No. 75, or a staple polyester thread, ticket No. 60.

4.1.3.2 Cover thread

The cover thread shall be the yarn as used in the knitted fabric.

4.2 Workmanship

The caps shall be made with first – class workmanship though-out and shall be free from defects that affect their appearance or may affect their serviceability (or both), and from marks, spots and stains incurred in the making up. All seams shall be smooth and stitching uniform and free from twists, pleats and puckers. All ends of sewing shall have been trimmed and loose threads removed. The caps shall be of uniform and acceptable make, colour and finish

4.3 Style and make

NOTE — Unless inconsistent with the text, all measurements are nominal.

The caps shall be knitted (see 4.1.2) in the form of a tube, folded double and cut and seamed with four seams of length 9cm at the top and one side seam. The caps shall be made in one size only and shall have an overall finished length of 27 cm and a circumference of 45 cm.

4.4 Stitches, and seams

4.4.1 General

All sewing shall be in accordance with SABS 0101.

4.4.2 Stitches

Stitch Type 504 or other acceptable type of over locking stitch.

- a) **attaching of patches:** stitch type 301; and
- b) **all other sewing:** stitch type 504 or other acceptable type of overlocking stitch.

4.4.3 Seams

Seam type Ssa finished with cover thread (see 4.1.3.2).

4.4.4 Number of stitches

40 ± 4 per 10 cm for both seams and cover thread.

5 Labelling, packing and marking

5.1 Labelling

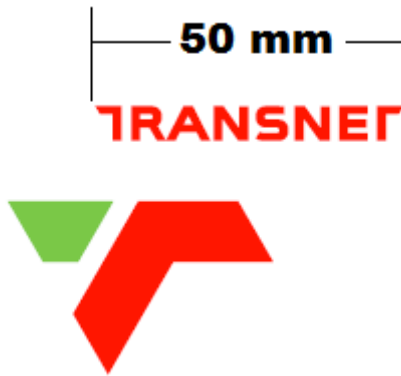
As specified in CSS 286.21 LAB/1.

5.2 Packing and marking

As specified in CSS 286.21 PAC/1.

6 Logos

Reference item no. 35/163860 to be embroidered with an acceptable 100% Viscose machine embroidery thread. Colour to be an acceptable match to Pantone colour n. 376 "Olive Green"



Annex A
(normative)

Special conditions of tender

A-1 Unless otherwise stated, Transnet Limited (or an officer or organization deputed by it), shall be the inspecting authority.

A-2 Two pre-production sample, shall have been inspected, tested and approved by the inspecting authority before bulk production commences and it shall be the duty of the manufacturer to give adequate notice to the inspecting authority of the availability of these samples. From time to time, further samples will also be drawn during consignment inspections for destruction testing.

A-3 The contractor shall inspect the finished knitted cap for compliance with the specification before submitting them to the inspecting authority for final inspection.

A-4 Before acceptance, the Knitted cap shall have been inspected and tested by the inspecting authority and found to comply with the requirements of the specification.

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Rev/No	Date approved	Nature of revision
1	April 2004	1 Remove Transtel item. 35/118325 General amendments
2	June 2012	1 Add reference item nos. 35/163860 "BLACK" with logo
3	Nov. 2016	1 Change overall length from 25 cm to 27 cm 2.Change the circumference from 50 cm to 45 cm

DENIM TROUSER MENS (CHINO)

Reference item no. 35/157570 TRANSNET

Colour: Pre-washed Indigo blue denim 390 g/m² (11 ounce) 3/1 Z Twill

1. SCOPE

This specification covers the materials and make of denim trouser intended for personnel employed by Transnet.

NOTES :

1. The following requirements will be specified in tender invitations and in each order or contract:
 - a) The outer material, if other than as specified (see 4.1)
 - b) The item(s) required (see 4.3)
 - c) The size designation(s) required (see 4.4)
- 2.) Special conditions of tender (which cover the conditions of acceptance of the garments are given in Annex A.

2. NORMATIVE REFERENCES

The following standards contain provisions which, through reference in this text, constitute provisions of this specification. All the standards are subject to revision and, since any reference to a standard is deemed to be a reference to the latest edition of a standard, parties to agreements based on this specification are encouraged to take steps to ensure the use of the most recent editions of the standards indicated below. Information on currently valid national and international standards may be obtained from the South African Bureau of Standards.

CSS 286.21, *Clothing -- LAB/1: Labelling -- PAC/1: Packing and marking.*

SANS 79, *Textiles – Mass per unit area of conditioned fabrics*

SANS 105-BO2, *Tests for colour fastness – Part Bo2: Colour fastness to artificial light: Xenon artificial lamp test.*

SANS 1309, *Printed labels for textiles.*

SANS 1360-1, *Size designation of clothes -- Part 1: Women's and girls' outerwear garments.*

SANS 1362, *Sewing threads*

SANS 1387-10 *Pocketing Woven cotton and similar apparel fabrics*

SANS 1822, *Slide (zip) fasteners.*

SANS 5278 *Sewing stitches per unit length*

SANS 50471, *High-visibility warning clothing for professional use- test method and requirements*

SANS 7211-2, *Textiles-Woven fabrics – Construction – Method of analysis Part 2: Determination of number of threads per unit area.*

SANS 10076-6, *The assessment of defects in textile piece-goods and made-up articles-Part 6: Defects in woven Filament piece-goods (synthetics)*

SANS 10076 - 7, *The assessment of defects in textile piece-goods and made-up articles-Part 7: Defects in household articles*

SANS 13934 –1, *Textiles-Tensile properties of fabrics. Part 1. Determination of maximum force and elongation at maximum force using the strip method s Part 1*

SANS 10101, *Standard nomenclature for stitches, seams, and stitchings.*

SANS 10188, *Standard methods of garment measurements..*

SANS 100004, *Terms and definitions for textiles and textiles merchandise.*

SANS 10011, *Care-labelling of textiles piece goods, textiles articles and clothing.*

3. DEFINITIONS

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

3.1 ACCEPTABLE : Acceptable to the Executive Manager, Transnet.

3.2 NOMINAL : Subject to the tolerances normal to good manufacturing practice.

4. REQUIREMENTS

4.1 MATERIALS

The outer material shall be cotton denim fabric that complies with the requirements of for type DEN 41 of SABS 1387 Part VI and of a Indigo Blue colour of CKS 129. Yarn sulphur dyed and natural yarn. The material shall be supplied and used by the manufacturer .

4.1.1. GENERAL

The materials specified in 4.1.2 to 4.1.6 (inclusive), all of a colour that is an acceptable match to the outer material, shall be supplied and used by the manufacturer,

4.1.2 POCKETING

A pocketing complying with the requirements for type PT 56 of SABS 1387 : Part X, or a warp-knitted pocketing complying with the requirements of SABS 1008.

4.1.3 WAISTBAND LINING

The waistband lining shall be of the same colour and material as the jeans (self material)

4.1.4 SLIDE FASTENERS

Metallic (gilding type) ass one-way closed-end slide fasteners (figure 3a) that complies with the requirements of performance class B or C slide fasteners of SANS 1822. The slider & puller shall be a locking type

4.1.5 BUTTONS AND STUDS

- a) Brass stud button of an intrinsically corrosion resistant metal and having a smooth finish and a nominal width of 17mm.
- b) Brass nipple studs of an intrinsically corrosion resistant metal and having a nipple top and smooth finish and a nominal width of 9mm.

4.1.6 THREADS

Threads shall comply with the relevant requirements of SANS 1362, and shall be as follows:

- 1) Needle, bobbin and looper threads shall have a breaking strength of at least 12 N
Colour used is an acceptable match.
- 2) Overlocking threads shall have a breaking strength of at least 8 N.
Colour used is an acceptable match.

4.1.7 REFLECTIVE TAPE

- 40 mm
- Standard type ref.: 8910

4.2 WORKMANSHIP

The garments shall be cut and made with first-class workmanship throughout and shall be free from defects that effect their appearance or may affect their serviceability (or both), and from marks, spots and stains incurred in the making-up. All seams shall be smooth and all stitching shall be uniform. Seams and stitching shall be free from twists, pleats and puckers and shall be extensible enough to obviate seam cracking and undue shrinkage in use. All seams shall be saddle stitched in bronze colour thread. All ends of sewing that are not secured in the seams or in other sewing shall be adequately bar-tacked. All ends of sewing shall have been trimmed and loose threads removed. The garment shall be of uniform and acceptable make, colour and finish, and the matching of the shades of the component parts of a garment shall be such as to be acceptable.

4.3 STYLE

The denim trouser (see figure 1 and 2) shall have a plain waistband with belt loops and slide-fastening fly. They shall have two slanted side pockets, one back pocket. The outer material of the denim jeans shall be sulphur dyed Indigo Blue denim.

4.4 SIZES

The Denim trousers shall be supplied in one (or more) of the size designations given in table 1, as specified in the order or contract.

- a) When required, the Denim jeans shall be made to special measurements, furnished by Transnet.

*Sealed samples are held by, and may be viewed at, the Transnet Freight rail Clothing division.

4.5 MAKE SIZE RANGE

Size chart

1	2	4	5	6	
Size designation 1)	Nominal Finished garment Measurements, c				
	Waist	Hip / Seat	Out/leg	In/Leg	Bottom
72	72	92	102	74	42
77	77	97	102	76	42
82	82	102	104	77	42
87	87	107	104	77	42
92	92	112	106	77	42
97	97	117	106	77	42
102	102	122	110	78	44
107	107	127	110	78	44
112	112	132	112	78	44
117	117	137	112	78	44
122	122	142	112	78	44
127	127	147	113	78	44
132	132	152	113	78	46
137	137	157	113	78	46
142	142	162	114	78	46
147	147	167	114	78	46
152	152	172	114	78	46
157	157	177	115	78	46
162	162	182	115	78	46
1) Size based on WAIST measurement					

4.5.1 DENIM TROUSER

4.5.1.1 FRONTS

Each front (see figure 1) shall have two slanted side pockets and two pleats, the first pleat shall be in line with the front crease line and second pleat 35 mm behind the first pleat.

4.5.1.2 BACKS

Each back (see figure 2) shall have dart of finished length 80 mm positioned approximately midway between the seat seam and the side seam. The right back shall have a jetted pocket

4.5.1.3 FLY

The fly shall be lined with the outer material and shall be fitted with a slide fastener. The fly shall be of finished width 30mm and shall be stitched down 30mm from the edge, and the bottom of

the fly shall be securely tacked. (See 4.1.4).

4.5.1.4 FLY CATCH

The fly catch shall be of outer material (see 4.1) and shall be of finished width of 40mm. The catch shall be the same width throughout with a 15mm piece of tape along the seam. The bottom shall have a fold of 3cm which is bar-tacked. The catch shall be secured to the fly with bar-tacks.

4.5.1.5 WAISTBAND

The waistband shall be plain and shall be of finished width 40mm. It shall be of self-material.

4.5.1.6 BELT LOOPS

Each pair of Denim Trousers of size designation have seven belt loops on the waistband shall be positioned as follows:

- a) One on front pleat one on side seam, one on back dart and one on the centre back seam

4.5.1.7 POCKETS

All pocket bags shall be of pocketing (see 4.1.2), shall be double stitched or bound, and the top ends of each size pocket bag shall be secured in the waistband. The ends of the pocket mouths shall be securely bar-tacked and secured with studs (see 4.1.5) The jetted back pocket mouth shall be securely bar-tacked. All the pockets shall be as follows:

- a) Side pocket: The side shall have a slanted pocket. The finished width of the pocket shall be approximately 15 cm, and each mouth shall have a facing of the outer material of 17 cm width at the part and curving round in the shape of the pocket mouth. The finished pocket bags shall be of width and depth 18 cm and 26 cm respectively measured from the inside of the jeans.
- c) **Back hip pocket:** the pocket shall be double-jetted with button fastening. The pocket mouth shall be of finished width 13 cm and depth of 18 cm with an outer material facing of 55 mm.

4.5.1.8 BOTTONHOLES

The waistband shall have a buttonhole with a rounded face and ending in a secured point (fish-eye). It shall measure 30 mm in length.

4.5.9 BUTTONS AND STUDS

There shall be one button on the waistband. Nipple studs shall secure the ends of the two front and the hip pocket.

4.5.10 BOTTOMS

The bottoms shall be plain, folded up and topstitched down to from a finished hem of 20 mm.

4.5.11 REFLECTIVE STRIPS

The 40 mm silver reflective tape to be positioned below the knee on the circumference of the leg. Tape to be stitched 3.5- 4 mm from the edge.

4.6 STICED, SEAMS AND STITCHINGS

4.6.1 GENERAL

All sewing shall be in accordance with SABS 0101.

4.6.2 STITCHES

- | | | |
|----|--------------|----------------------|
| a) | Main seaming | Stitch type 401. |
| b) | Overlocking | Stitch type 502-505. |
| c) | Other sewing | Stitch type 301. |

4.6.3 SEAMS

Seams shall be least 10 mm wide. They shall be as follows:

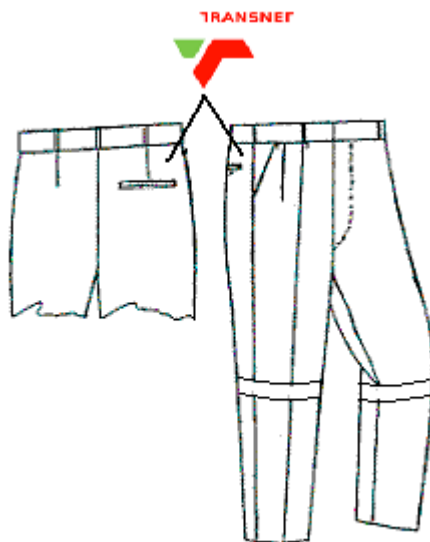
- | | | |
|----|-----------------------|------------------------|
| a) | Main and pocket seams | Seam type Ssa-2, Lsc-3 |
|----|-----------------------|------------------------|

4.6.4 STITCHING

- | | | |
|----|-------------------|-----------------------|
| a) | Overlocking edges | Stitching type Efd-1. |
| b) | Hems | Stitching type Efb-1. |

4.6.5 NUMBER OF STITCHES

- | | | |
|----|--------------------------|----------------------|
| a) | Seaming and topstitching | - 40 +- 4 per 10 cm. |
| b) | Overlocking | - 32 +- 2 per 10 cm. |
| c) | Buttonholes | - 12 +- 1 per 1 cm. |
| d) | Bar tacks | - 18 min per 1 cm. |
| e) | Buttons | - 18 min per button. |



45 mm
TRANSNET



Annex A
(Normative)

Special conditions of tender

A-1 Unless otherwise stated, the Executive Manager, (Transnet) (or an officer or organization deputed by him), shall be the inspecting authority.

A-2 Three pre-production samples of trousers, shall have been inspected, tested and approved by the inspecting authority before bulk production is commenced, and these samples shall each be accompanied by a trim chart containing a sample of each component material (as given in 4.1.2 to 4.1.14). It shall be the duty of the manufacturer to give adequate notice to the inspecting authority of the availability of these samples.

A-3 The trousers 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 garments supplied to this specification may be in progress.

A-4 The contractor shall inspect the finished trousers for compliance with the specification before submitting them to the inspecting authority for final inspection.

A-5 Before acceptance, the trousers shall have been inspected and tested by the inspecting authority and found to comply with the requirements of the specification.

REVISION HISTORY SHEET		
Document	Quality Assurance	Effective date
Subject	ADMINISTRATION, PREPARATION, MAINTENANCE AND	

DISTRIBUTION		
Controlling Officer: R. Steynberg		
Approving Officer: C.J.V. du Plooy		
Rev/No	Date approved	Nature of revision
1	November 2005	1) Insert Petronet reference item 35/134308 2) Remove Portent reference item 35/122009
2	April 2010	1) Add reflective strips

PRIVATE SPECIFICATION

prepared for



PARKA JACKET, UNISEX



CSS 286.21 G156

Version 01.0

June 2012

1. Scope

This specification covers the material and make of parka jackets for personnel of Transnet Limited.

ITEM NUMBER: 35162640

2. Definitions

For the purpose of this specification the definitions given in SANS 10371 "Terms and definitions for clothing" and the following shall apply:

Acceptable: Acceptable to the Transnet Limited

Nominal: Subject to the tolerances normal to good manufacturing practice

SANS: South African National Standard

3. Style

- ♦ slide fastener front closure with storm flap
 - storm flap to fasten with press-studs
- ♦ two side pockets
- ♦ fitted with embroidery on the foreparts
- ♦ front panels to have a horizontal seam that shall be covered with a strip of reflective tape
- ♦ each forepart shall consist of two contrasting colours
- ♦ back panels to have a horizontal seam that shall be covered with a strip of reflective tape
- ♦ each back panel shall consist of two contrasting colours
- ♦ turned-down type collar
- ♦ long sleeves that consist of two contrasting colours with a length of reflective tape covering the seam
- ♦ cuffs to be ruched with elastic webbing
- ♦ shoulder straps that fasten with press-studs
- ♦ fully lined with lining
- ♦ fully interlined with wadding

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4. Illustrations

Illustrations are not to scale and are for guidance only.

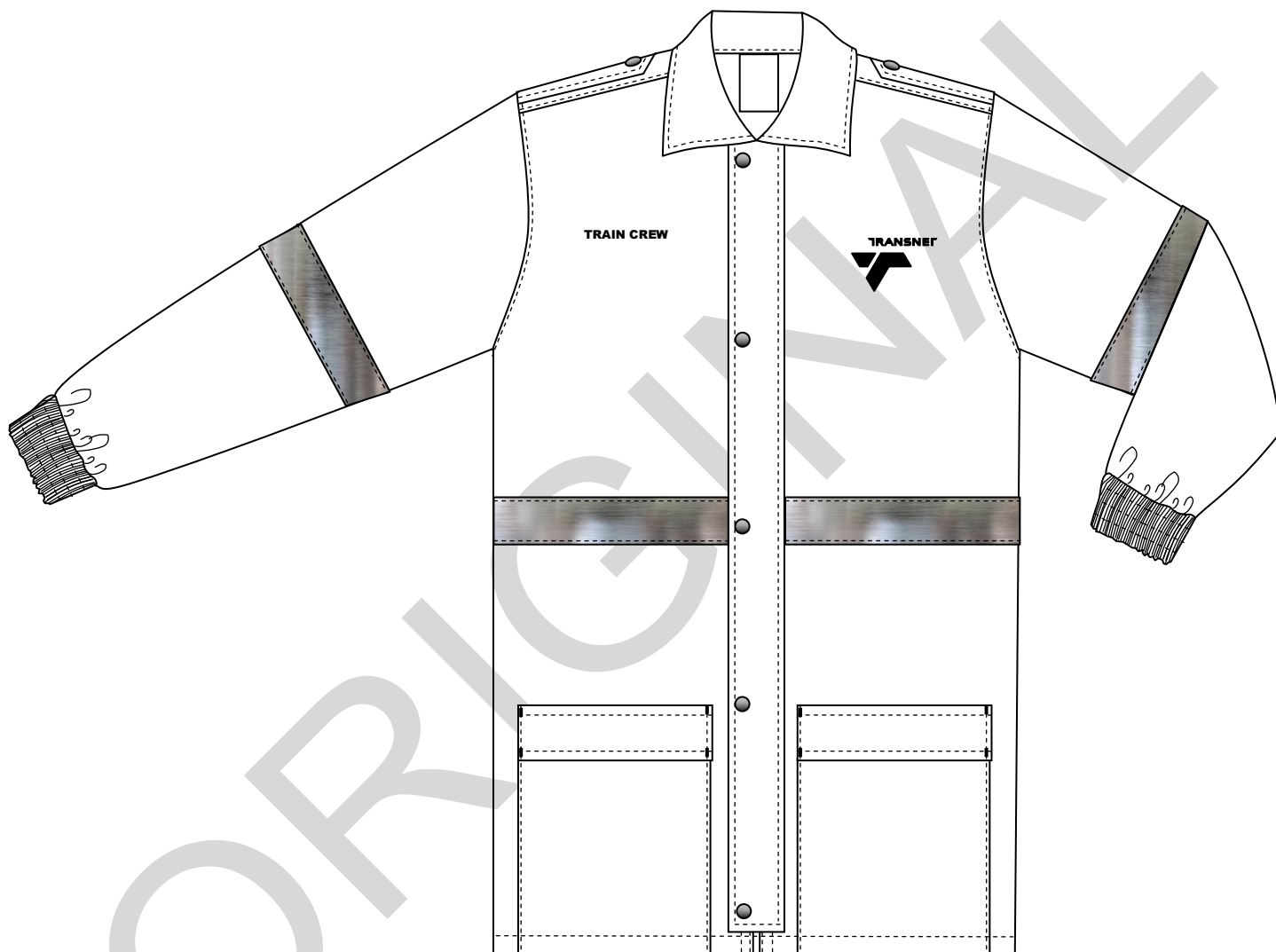


Figure 1 - Front

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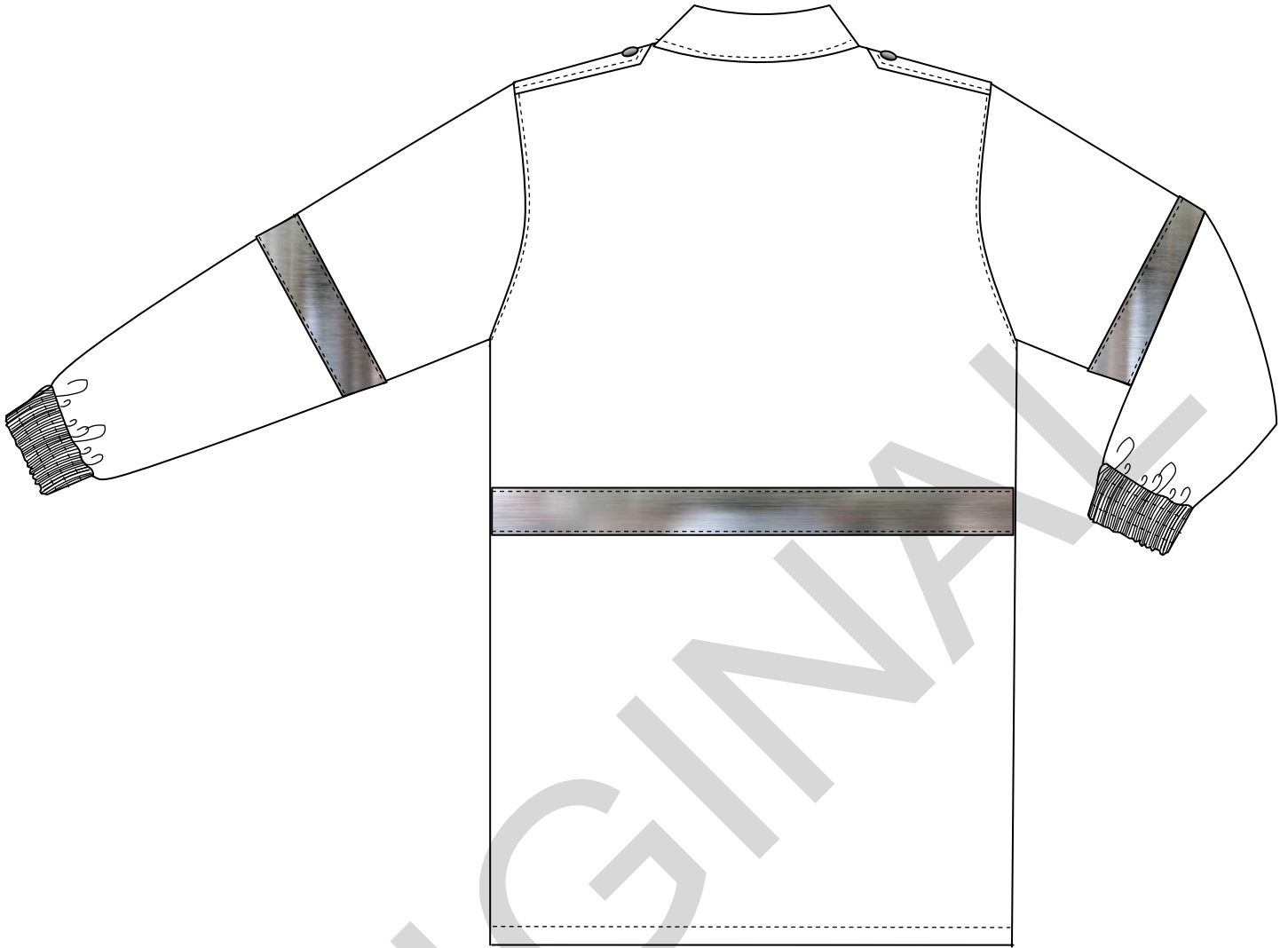


Figure 2 - Back

5. Client furnished Materials

No materials will be supplied by the Transnet Limited.

6. Component Materials

The following materials shall be supplied and used by the manufacturer. Trim charts shall also be submitted by the manufacturer (see Annex A).

6.1 Outer material

- ◆ to be an acceptable 2/1 twill Poly/Cotton fabric
- ◆ of nominal mass 235 g/m² when tested in accordance with SANS 79
- ◆ fibre composition to be 65% Polyester and 35% Cotton when tested in accordance with SANS 1833-1 and 1833-11
- ◆ resistance to pilling, colour fastness, dimensional stability requirements to comply with the relevant

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- requirements as given in SANS 1387 -2
- ♦ finish to be such that it shall have a soft handle and shall be as agreed upon between the purchaser and supplier
- ♦ to include a water repellent finish that shall comply with the relevant performance requirements for water repellence as given for type RPR66 of SANS 1387-11
- ♦ to be supplied in two colours:
 - colour 1: an acceptable black colour as agreed upon between the purchaser and supplier
 - colour 2: to be an acceptable match to Pantone Colour No. 376 “Olive green”

6.2 Lining

- ♦ polyester lining that complies with the requirements for type L61P SANS 1387-7 “Woven cotton and similar apparel fabrics – Part 7: Jacket linings”
- ♦ colour to be black

6.3 Interlining

- ♦ acceptable fusible interlining
- ♦ complying with the requirements of CKS 627 “Fusible interlinings”

The selection of interlining of appropriate mass per unit area to be determined by consultation with the supplier of the interlining. The manufacturer will be held responsible for the performance of the interlining.

6.4 Wadding

- ♦ polyester wadding
- ♦ of nominal mass 120 g/m²

6.5 Press stud fasteners

NOTE: Behind each press-stud fastener section shall be a reinforcing patch of outer material on the inside of the jacket (not visible).

- ♦ corrosion resistant metal components with a plastics cap
- ♦ male and female type
- ♦ to consist of a cap, socket, stud and post
- ♦ plastics cap to have dome of nominal outside diameter 15 mm
- ♦ nominal inside diameter of the hole to be 7 mm
- ♦ colour of plastics cap to be black

6.6 Slide fasteners

- ♦ to comply with the requirements of Class D slide fasteners of SANS 1822 “Slide fasteners”
- ♦ synthetic elements
- ♦ colour to be black
- ♦ one-way open end

6.7 Elastic webbing

- ♦ to comply with the requirements for type 1 of SANS 142 “Narrow elastic fabrics and strip”

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- ♦ to be of nominal width 45 mm

6.8 Reflective tape

- ♦ a high visibility reflective silver tape
- ♦ nominal width 37 mm – 40 mm
- ♦ retro-reflective properties to comply with the relevant requirements for a class 2 retro-reflective material of SANS 50471 “High visibility warning clothing for professional use – test methods and requirements”

6.9 Embroidery thread

- ♦ an acceptable 100% Viscose machine embroidery thread
- ♦ colour to be black

6.10 Sewing thread

- ♦ to comply with relevant requirements of SANS 1362 “Sewing thread”
- ♦ polyester-and-cotton core-spun
- ♦ ticket No 80
- ♦ colour to be an acceptable match to the colour with which it is used

7. Workmanship

The warm jackets shall be:

- ♦ cut and made with first-class workmanship throughout
- ♦ of uniform and acceptable make, colour and finish

Shall be free from:

- ♦ defects, which affect their appearance or may affect their serviceability (or both)
- ♦ marks
- ♦ spots
- ♦ stains, incurred in the making-up

Seams and stitches shall be:

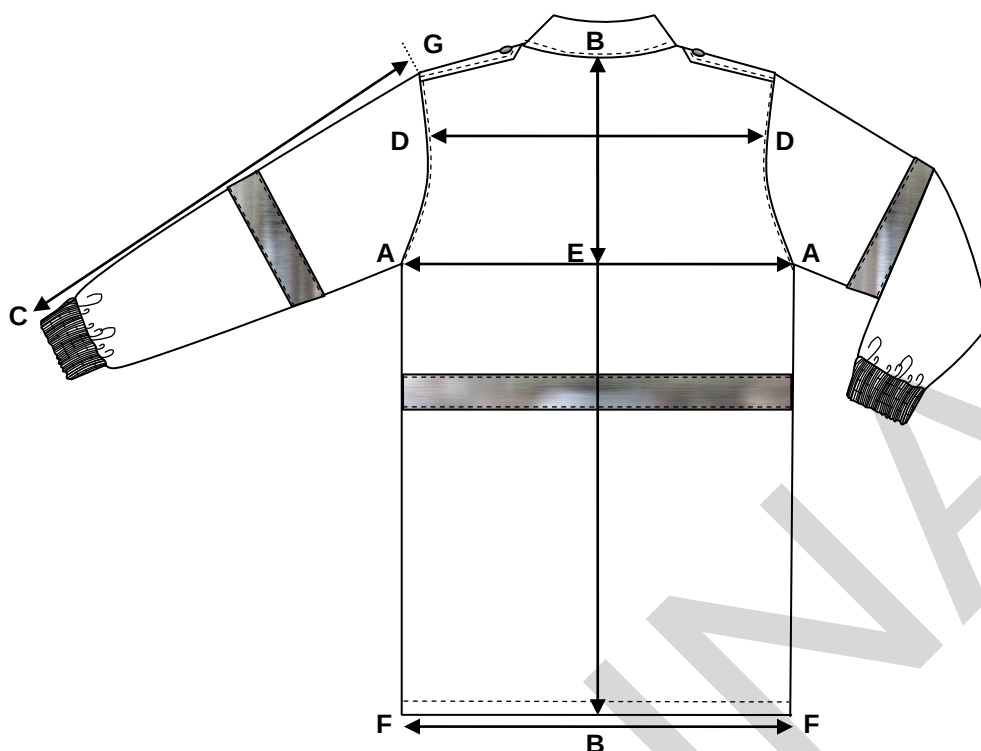
- ♦ smooth and uniform
- ♦ free from twists, peats and puckers
- ♦ sufficiently extensible to avoid seam cracking and undue shrinkage in use

Ends of sewing shall be:

- ♦ trimmed and loose threads removed
- ♦ back-tacked if unsecured

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8. Sizes



Measuring point		Description
A – A	Chest Circumference	Measure at the base of the scye, with garment spread completely flat, front slide fastener fastened, and multiply by two.
B – B	Back length	Measure from the centre back neck seam to the bottom edge of the garment.
C – G	Sleeve length	Measure along the overarm of the sleeve, from the crown of the sleeve to the outer edge of the cuff.
D – D	Back width	Measure across the narrowest part of the back (back pitch position), from one sleeve insertion seam to the other.
B – E	Depth of scye	Measure from the centre back neck seam to the level of the base of the scye.
F – F	Bottom hem	Measure across the width of the bottom hem, with the slide fastener fastened and multiply by two.

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Table 1 - Size chart

1	2	3	4	5	6
Size Designation	Nominal finished garment measurements, cm				
	Chest	Back length	Sleeve length	Back width	Bottom hem circumference
2X-Small 62/67	90	79	56	44	90
X-Small 72/77	100	81	58	46	100
Small 82/87	110	83	60	48	110
Medium 92/97	120	85	62	50	120
Large 102/107	130	87	64	52	130
X-Large 112/117	140	89	66	54	140
2X-Large 122/127	150	91	68	56	150
1) Based on the chest circumference, in centimetres, of the intended wearer.					

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Table 1 - Size chart (continued)

1	2	3	4	5	6
Size Designation	Nominal finished garment measurements, cm				
	Chest	Back length	Sleeve length	Back width	Bottom hem circumference
3X-Large 132/137	160	93	70	58	160
4X-Large 142/147	170	95	71	60	170
5X-Large 152/157	180	97	72	62	180
6X-Large 162/167	190	99	73	64	190
Special Measurement					
1) Based on the chest circumference, in centimetres, of the intended wearer.					

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9. Make

Illustrations are not to scale and for guidance only, and unless inconsistent with the text, all measurements are nominal.

9.1 Foreparts

9.1.1 General:

- ♦ be single breasted
- ♦ fasten with a slide fastener
- ♦ be cut with straight side seams
- ♦ have straight bottom hems
- ♦ be fully lined with lining
- ♦ be fully interlined with wadding
- ♦ centre front edges to be abutted (i.e. front edges of jacket to meet and conceal the slide fastener)

9.1.2 Forepart panels

Each forepart to:

- ♦ be cut with a horizontal seam and divided into two sections
 - top section
 - lower section
 - horizontal seam to be centrally positioned between the neck point and the bottom hem (see figure 4)
- ♦ be fitted with a stringer of a slide fastener
 - to extend from the gorge seam to 50 mm above the bottom hem
 - stringer to be sandwiched between the forepart and lining and sewn down with two rows of stitching
- ♦ be fitted with a strip of reflective tape that shall encircle the whole body of the garment (see 9.3)

9.1.2.1 Right forepart

- ♦ to be fitted with five male press stud sections in corresponding positions to the female sections on the storm flap
- ♦ **right top section:**
 - made from “Olive Green” outer material (See 6.1)
 - to be fitted with embroidery
 - the words “TRAIN CREW” to be embroidered with embroidery thread
 - colour of embroidery thread to be black
 - word to be in capital letters
 - length of word to be 65 mm
 - height of letters to be 6 mm
 - positioned in such a way that the two words shall be centred in the distance between the front edge and the sleeve insertion seam
 - top edge to be positioned in line with the top edge of the Transnet Logo on the left forepart
- ♦ **right lower section**
 - made from “Black” outer material” (see 6.1)
 - to be fitted with a side patch pocket

9.1.2.2 Left forepart

- ♦ to be fitted with a storm flap (see 9.2)
- ♦ **left top section:**
 - made from “Olive Green” outer material (See 6.1)
 - to be fitted with embroidery
 - the registered Transnet Logo to be embroidered with embroidery thread
 - colour of embroidery thread to be black

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- dimensions to be as given in figure 3
- positioned in such a way that the logo is centred in the distance between the front edge and the sleeve insertion seam
- positioned from the neck point as given in figure 4 on size Large and graded proportionally on the smaller and larger sizes

◆ **left lower section**

- made from “Black” outer material” (see 6.1)
- to be fitted with a side patch pocket

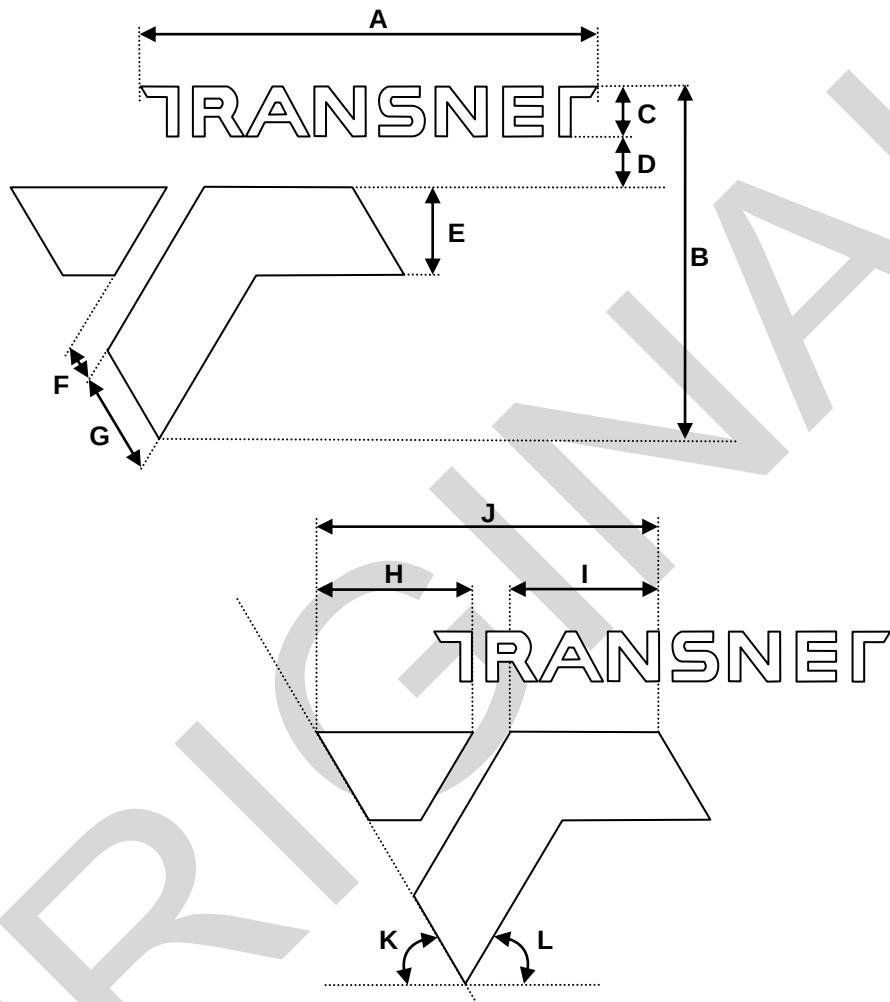


Figure 3 – Dimensions of Transnet logo

Figure No	Item	A	B	C	D	E	F	G
3		37 mm	32 mm	6 mm	6 mm	8 mm	2 mm	8 mm
	Item	H	I	J	K	L	-	-
		12 mm	12 mm	25 mm	60°	60°	-	-

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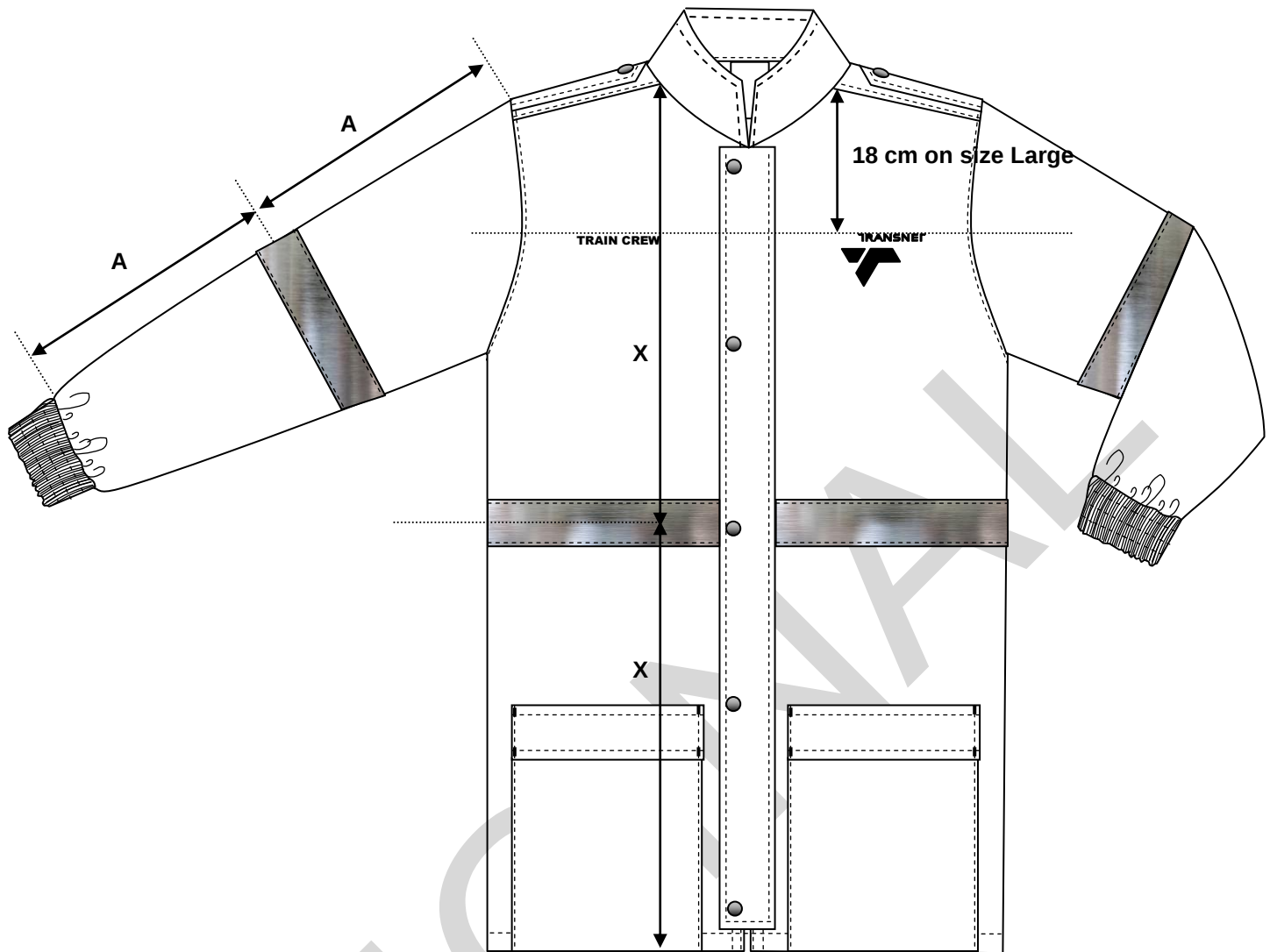


Figure 4 – Position of embroidery on size Large

9.2 Storm flap

- ♦ of outer material
- ♦ lined with outer material
- ♦ interlined with interlining
- ♦ sewn to the left forepart
- ♦ of finished width 75 mm
- ♦ to conceal the slide fastener front opening
- ♦ to extend from the gorge seam to 25 mm above the bottom hem
- ♦ edge-stitched 6 mm along all edges
- ♦ sewn down in such a way that the outer edge of the storm flap shall be positioned 25 mm from the centre front edge (excluding the stringer of the slide fastener)
- ♦ cut edge of storm flap to be sewn to the forepart, folded over and sewn down 6 mm from the folded edge
- ♦ fitted with five female press-studs
 - positioned 15 mm from the front free edge of the storm flap (centres)
 - top press-stud to be positioned 15 mm below the top edge of the storm flap (centres)
 - bottommost press-stud to be positioned 15 mm above the bottom edge of the storm flap (centres)
 - the remaining press-studs shall be equidistantly spaced between the topmost and bottommost press-studs

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9.3 Reflective tape on body

- ♦ to encircle the whole body of the jacket
- ♦ cut ends to be sewn in with the centre front edges of the jacket
- ♦ attached by means of 2 mm edge-stitchings along the top and bottom edges of the tape
- ♦ tape to be centred over the horizontal seam of the foreparts and back

9.4 Side pockets and flaps

9.4.1 Pockets

- ♦ each lower forepart section shall be fitted with a side pocket
- ♦ of "Black" outer material
- ♦ to be a patch pocket
- ♦ bottom edge of pocket to be sewn in with the bottom hem of the jacket
- ♦ pocket mouth hem to be of finished depth 20 mm
- ♦ pocket mouth ends to be bar-tacked
- ♦ side edges to be folded in 10 mm and edge-stitched 2 mm
- ♦ of finished width and depth 20 cm
- ♦ positioned 55 mm from the front edge of size designation Large and graded proportionally on the other sizes (where required)

9.4.2 Pocket flaps

- ♦ each pocket shall have a pocket flap
- ♦ of "Black" outer material
- ♦ to be of double folded outer material
- ♦ to be of finished depth 60 mm
- ♦ to be the same width as specified for the pocket
- ♦ bottom edge to be edge-stitched 6 mm
- ♦ top edge to be sewn to the forepart, folded over and sewn down 7 mm from the folded edge
- ♦ side edges to be sewn down onto the forepart and pocket
- ♦ flap to be positioned in such a way that it shall overlap the mouth opening by 40 mm
- ♦ bar-tacked at the top and bottom outer edges

NOTE: *If the pockets do not fit on all sizes, deviations shall be as agreed upon between the purchaser and supplier.*

9.5 Back

- ♦ be cut with a horizontal seam and divided into two sections
 - top section
 - lower section
- horizontal seam to be a continuation of the horizontal seam on the foreparts
- ♦ be fitted with a strip of reflective tape that shall be a continuation of the tape on the foreparts (see 9.3)
- ♦ fully lined with lining and fully interlined with wadding

9.5.1 Top back section

- ♦ to be made from "Olive green" outer material
- ♦ cut in such a way that the shoulder seam shall be positioned 50 mm forward of the natural shoulder line and top-stitched 3 mm
- ♦ fitted with a male section of a press-stud fastener in a corresponding position to the female section on the shoulder straps

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9.5.2 Lower back section

- ♦ made from “Black” outer material

9.6 Collar

- ♦ a one-piece, turned-down collar
- ♦ to be made from “Olive green” outer material
- ♦ lined with “Olive Green” outer material
- ♦ interlined with interlining and wadding
- ♦ constructed in such a way that the:
 - collar shall be of finished depth 95 mm at the centre back
 - collar shall be of finished depth 95 mm at the points
- ♦ such that it shall extend from the right front edge to the left front edge (to meet at centre front)
- ♦ edge-stitched 10 mm along the free edges

9.7 Sleeves

- ♦ one-piece type sleeves
- ♦ set in sleeves
- ♦ depth of scye to measure 34 cm on size designation Large and graded proportionally on the smaller and larger sizes
- ♦ the underarm sleeve length shall measure 57 cm on size designation Large and graded proportionally on smaller and larger sizes (measure along the underarm seam from the base of the scye to the outer edge of the cuff)
- ♦ fully lined with lining and fully interlined with wadding
- ♦ to be cut in two sections (see figure 4)
 - upper section to be made from “Olive Green” outer material
 - lower sections to be made from “Black” outer material
- ♦ a strip of reflective tape shall encircle the sleeve and shall be centrally positioned over the horizontal seam
 - cut edges shall be sewn in with the underarm seam
 - attached by means of a 2 mm edge-stitching
- ♦ sleeve insertion seams to be top-stitched 3 mm
- ♦ to have sewn-on cuffs
 - of double folded outer material (“Black”)
 - of finished width 45 mm
 - fitted with elastic webbing and ruched with three rows of equidistantly spaced stitchings
 - relaxed measurement to be such that it shall fit comfortably around the wrist of the intended wearer

9.8 Shoulder straps

- ♦ of outer material
- ♦ lined with outer material
- ♦ interlined with interlining
- ♦ have a mitred point
- ♦ top stitched 6 mm around the free edges
- ♦ mitre to be of finished length 25 mm
- ♦ of minimum length 12 cm (measured to base of mitre to sleeve insertion seam)
- ♦ of width 50 mm at the sleeve end tapering to 40 mm at the base of the mitre
- ♦ wide end of the strap sewn in with the sleeve-to-shoulder seam
- ♦ positioned in such a way that the front edge of the shoulder strap is 10 mm above the shoulder seam and parallel to the shoulder seam
- ♦ fitted with a female section press-stud
 - positioned at the base of the mitre (centre)

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9.9 Lining

- ♦ a layer of lining fabric and a layer of wadding that are quilted by vertical rows of stitching 10 cm apart
- ♦ front, back and sleeves to be fully lined and interlined with wadding as given above

9.10 Bottom hem

- ♦ to be folded to the inside and of finished width 20 mm

10. Stitches, seams and stitching

10.1 Stitches

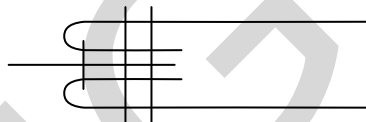
Sewing: lock stitch or safety stitch

Overlocking stitch: three of four thread overlocking stitch

10.2 Seams

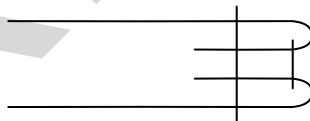
Seams to be least 10 mm wide (unless otherwise stated)

Attaching front slide fastener: seam type SSq-3



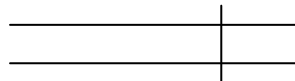
Form seam Type SSa-1, using three or more plies of material. Then turn each outer ply back at the seam and seam with the appropriate number of rows of stitches.

Free edges of collar, storm flap and shoulder straps: seam type SSe-2



Form seam Type SSa-1, using two plies of material. Then turn back each ply at the seam and seam through the turned edges with the appropriate number of rows of stitches.

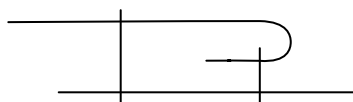
Main seams: seam type SSa-1



Superimpose two or more plies of material and seam with one row of stitches positioned at the specific distance(s) from the aligned edges.

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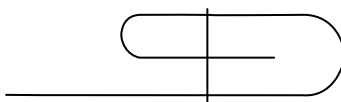
Attaching the storm flap and top edge of pocket flaps: seam type LSs-2



So superimpose two plies of material that their edges are the specified distance apart, and seam with one row of stitches at the specified distance from the edge of the top ply. Then turn the top ply back at the seam and seam with one row of stitches through the top and bottom plies.

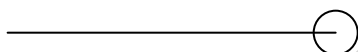
10.3 Stitchings

Bottom hem and pocket mouth hems: stitching type EFb



Turn in the specified width at the edge of a ply of material, fold back the turned edge, and stitch the turned-in and folded portion with the appropriate number of rows of stitches.

All exposed raw edges: stitching type EFd



Stitch over the edge of a ply of material with one row of stitches.

10.4 Number of stitches

seaming and top stitching: 40 ± 4 per 10 cm

overlocking: 36 ± 4 per 10 cm

bar tracks: 12 ± 1 per 1 cm

11. Care-labelling and marking

11.1 Label properties

All labels shall:

- ♦ be white woven rayon labels that are printed
- ♦ comply with SANS 1309 "Printed labels for textiles"
 - information to be in legible and indelible block letters of height at least 3 mm
- ♦ permanently secured
- ♦ be such that they outlast the garments (including the markings)

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11.2 Care-labelling

- ♦ each garment shall have a label that provides correct and appropriate care instructions (in words and symbols, in accordance with SANS10011 “Care-labelling of textile piece-goods, textile articles and clothing”)
- ♦ each label to include the composition of the main fabric in accordance with the requirements of SANS 10235 “Fibre-content labelling of textiles and textile products”

11.3 Marking

- ♦ Each jacket shall have, sewn in with the centre back collar seam on the inside, a label that provides the following information:
 - the word “TRANSNET”
 - the manufacturer's name or trade mark or both
 - the item number
 - the size designation
 - the spec number
 - the fibre composition of the body fabric
 - the country of origin
 - the year of manufacture
 - the VAT number of the contractor

TRANSNET

Manufacturer's name

ITEM NO:

35/000000

SIZE: LARGE

Spec No: CSS 286.21 G156

65% Polyester/ 35 % Cotton

MADE IN SOUTH AFRICA

2012

VAT No: 4679312

Figure 5 – Example of information on label

12. Packaging and marking of packaging

12.1 Packing

12.1.1 The jacket shall be:

- ♦ delivered in a commercially dry condition

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- ♦ so packed that they will not be damaged in transit or in storage
- ♦ neatly folded and individually packed in a plastics envelope of suitable size and shape
- ♦ unless otherwise specified in the order or contract, acceptably packed for transportation in acceptable bulk containers

12.1.2 Jacket:

- ♦ of the same size designation to be packed together in a bulk container (unless quantities ordered are such that packing together of the same size is not justified)
- ♦ of different size designations may also be packed together to accommodate the last part of an order or contract

12.2 Marking

12.2.1 Envelopes

To be as specified in CSS 286.21 LAB/1.

12.2.2 Bulk containers

To be as specified in CSS 286.21 PAC/1.

12.3 Additional marking

When so required by the Transnet, jacket, envelopes or containers (or any combination of these) to bear information additional to that specified above.

13. Normative References

The following documents contain provisions which, through reference in this text, constitute provisions of this specification. All documents are subject to revision and, since any reference to a document is deemed to be a reference to the latest edition of that document, parties to agreements based on this specification are encouraged to take steps to ensure the use of the most recent editions of the documents indicated below. Information on currently valid national, international and CKS documents may be obtained from Standards South Africa*.

CKS 627, *Fusible interlinings.*

CSS 286.21 LAB/1, *Labelling.*

CSS 286.21 PAC/1, *Packaging.*

SANS 79, *Textiles - Mass per unit area of conditioned fabrics.*

SANS 142, *Narrow elastic fabrics and strip.*

SANS 1309, *Printed labels for textiles.*

SANS 1362, *Sewing threads.*

SANS 1387-2, *Woven cotton and similar apparel fabrics – Part 2: Polyester-and-cotton workwear fabrics.*

* Standards South Africa: Tel. +27 (0) 12 4287911

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SANS 1387-7, *Woven cotton and similar apparel fabrics – Part 7: Jacket linings.*

SANS 1387-11, *Woven cotton and similar apparel fabrics – Part 11: Polyester-and-cellulosic raincoat fabrics.*

SANS 1822, *Slide fasteners.*

SANS 1833-1/ISO 1833-1, *Textiles – Quantitative chemical analysis – Part 1: General principles of testing.*

SANS 1833-11/ISO 1833-11, *Textiles – Quantitative chemical analysis – Part 11: Mixtures of cellulose and polyester fibres (method using sulphuric acid).*

SANS 5278, *Sewing stitches per unit length.*

SANS 50471, *High visibility warning clothing for professional use – test methods and requirements.*

SANS 10011, *Care-labelling of textiles and clothing.*

SANS 10235, *Fibre content labelling of textiles and textile products.*

SANS 10371, *Terms and definitions for clothing.*

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ANNEX A

(Normative)

Special conditions of tender

A-1 GENERAL

- A-1.1** Unless otherwise stated, Transnet (or an organization deputed by it), shall be the inspecting authority.
- A-1.2** Three pre-production sample jackets, shall have been inspected, tested and approved by the inspecting authority before bulk production is commenced. Each one of these samples shall be accompanied by a trim chart containing a sample of each component material (as given in section 6) and the relevant certificates. It shall be the duty of the manufacturer to give adequate notice to the inspecting authority of the availability of these samples.
- A-1.3** The jackets 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 jackets supplied to this specification may be in progress
- A-1.4** The contractor shall inspect the finished jackets for compliance with the specification before submitting them to the inspecting authority for final inspection.
- A-1.5** Before acceptance, the jackets shall have been inspected and tested by the inspecting authority and found to comply with the requirements of the specification.

A-2 DOCUMENTATION

One container of each consignment shall be marked "DOCUMENTS" and in addition to the jackets, shall contain the following:

- a) The packaging slip or delivery note;
- b) where applicable the inspection certificate(s);
- c) a copy of the invoice containing the following information:
 - the order number
 - the financial authority number
 - a full description of the consignment, i.e. Item number, quantity, etc

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ANNEX B
(Normative)
CKS 129 Colours

Due to the fact that colours can change over a period of time, any colour standard which has been registered for a period of SEVEN YEARS or more shall be considered obsolete. These standards shall then be allocated an archived status (as opposed to current status) and re-registration shall be required.

A. The following scenarios require a submission of three metres of fabric and/or a reel of embroidery thread from the successful tenderer:

1. A colour standard is archived.
2. First time registration is required (CKS 129 colour number does not exist).
3. Colour swatch stock at the SABS is no longer available.

B. Requirements for the submission of fabric as identified in A:

1. The colour shall be as agreed upon between Transnet and the successful tenderer.
2. The fabric and embroidery thread shall be used to make new colour swatches which shall be the responsibility of the SABS.
3. The cost of the three metres of fabric and embroidery thread shall be incorporated in the relevant tender submission.

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HISTORY SHEET				
Version	DATE	AMENDMENTS/HISTORY	CHECKED	
			NAME	INIT.
1.0	June 2012	First release		

ORIGINAL

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Caps, combat

Reference item No. 35/123189

1. Scope

This specification covers the cut, make and trim of combat caps for personnel of Transnet Limited.

NOTES

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

a) the size(s) required (see 4.4)

2) Special conditions of tender (that cover the conditions of acceptance of the caps) are given in annex A.

3. Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of the specification. All standards are subject to revision and, since any reference to a standard is deemed to be a reference to the latest edition of that standard, parties to agreements based on this specification are encouraged to take steps to ensure the use of the most recent editions of the standards listed below. Information on currently valid national and international standards may be obtained from the South African Bureau of Standards.

CSS 286.21, Clothing - PAC/1: Packing and marking.

CKS 129, Colours for textiles.

CKS 488, Field dress material (polyester-and-cotton).

SABS 1362, Sewing threads.

SABS 04, Terms and definitions for textiles and textile merchandise.

SABS 0101, Standard nomenclature for stitches, seams and stitchings.

4. Definitions

For the purpose of this specification on the relevant definitions given in SABS 04 and the following definitions apply :

- 4.1 acceptable : Acceptable to Transnet Limited.
- 4.2 body : The upright sides of a cap.
- 4.3 crown : The top surface of a cap.
- 4.4 nominal : Subject to the tolerances normal to good manufacturing practice.

5. Requirements

5.1 Materials

NOTE - The outer material (stock item No. 113787), a polyester-and-cotton field dress fabric that complies with the requirements for type FD74 of CKS 488 and of a colour that is an acceptable match to colour No. 34c "Oxford blue" of CKS 129 will be supplied by Transnet Limited.

The quantity supplied will be in accordance with the material ratings agreed to for the fulfilment of a contract. The outer material to be used in the manufacture of pre-production samples, as well as any outer material required for test purposes, must be estimated and rated additionally.

5.1.1 General

The materials specified in 4.1.2 and 4.1.5 shall be supplied and used by the manufacturer.

5.1.2 Peak interlining

Flexible hardened polypropylene of nominal thickness 1 mm.

5.1.3 Sewing thread

The thread shall comply with the relevant requirements of SABS 1362 and shall be a polyester-and-cotton core-spun thread, ticket No. 75.

5.1.4 Brow interlining

Knitted fabric, PVC coated (stiffener)

5.1.5 Eyelets

Brass eyelets of 3-4 inside diameter diameter, with corrosion resistant metal with washer 9ring) that fits eyelet The eyelet coated with an acceptable colour match to that of the outer material

5.2 Workmanship

The caps shall be made with first-class workmanship throughout and shall be free from defects that affect their appearance or may affect their serviceability (or both), and from marks, spots and stains incurred in the making-up. All seams shall be smooth and all stitching uniform and free from twists, pleats and puckers. All ends of sewing shall have been trimmed and loose threads removed. The caps shall be of uniform and acceptable make, colour and finish.

5.3 Style

The caps (see figure 1) shall have a soft finish a pear shaped and elongated crown, a body shaped to a point at the back, a stiffened peak, a stiffened body on brow a patch pouch on inner front body and elasticized back. The cap shall be fully lined with outer material.

5.4 Sizes

The caps shall be supplied in one or more of the following cap sizes, as specified in the order or contract

- a) Small (54-55)
- b) Medium (56-57)
- c) Large (58-59)
- d) Extra Large (60-61)

5.5 Make

NOTE - Unless inconsistent with the text, all measurements are nominal.

5.5.1 Crown

The crown (see fig. 1) shall be pear shaped and the width at the widest part of finished crown on a size medium cap shall be 150 mm and the length from front to back shall be 250 mm. The elasticized back of the crown shall be 70 mm relaxed and 90 mm extended for caps of larger and smaller sizes these dimensions shall be increased or decreased proportionately to the size of the cap.

5.5.2 Body

The body (see figure 1) of the cap shall be of one piece of outer material panel, shaped to a point at the back and lined with outer material. The body shall be of finished depth 80 at the centre front. A patch pouch of inner material of width 80 mm and depth 70 mm top stitched to the lining, positioned centrally on the brow. Pouch opening at the crown seam. The brow interlining (stiffener) (see 4.1.4) shall extend from outer points of the peak at the bottom and to the crown and body seam. Eyelets (4.1.5) shall be inserted inside the body panels, two on both sides positioned at the points of the outer points of the cape peak.

5.5.3 Peak

The peak shall consist of an interlining (see 4.1.2) faced on the top and on the underside with outer material. The peak shall be securely attached to the centre front of the cap between the outer material and the lining of the body and when assembled and laid flat, the length of the peak (measured as the distance between the ends of the points), shall be 200 mm and the width at the centre front (measured from the inner edge to the outer edge) shall be 75 mm.

5.6 Stitches and seams

5.6.1 General

all sewing shall be in accordance with SABA 0101.

5.6.2 Stitches

Stitch type 301 throughout.

5.6.3 Seams

The seams shall be at least 9 mm wide and shall be as follows:

- a) crown-to-body and peak-to-body : seam type LSbp;
- b) all other seams: seam type SSa.

5.6.4. Number of stitches

40 ± 4 per 10 cm throughout.

6 Labelling, packing and marking

6.1 Labelling

Each cap shall bear the following information legibly and permanently marked on the inner crown lining, or on a label sewn onto the inner crown lining :

- a) the manufacturer's name or trade mark or both;
- b) the year of manufacture;
- c) the size designation;
- d) the garment reference number, i.e. G 60;
- e) the stock item number for each size; and
- f) the words "Made in South Africa - Vervaardig in Suid-Afrika".

6.2 Packing a marking

As specified in CSS 286.21 PAC/1.

Shirts, open neck (short sleeve)

Reference item no. 35/106608

Reference item no. 35/161683 Hazmat & Transnet Logo

1 Scope

1.1 This specification covers the materials and make of shirts intended for personnel employed by Transnet Limited.

NOTES

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

a) The size(s) required (see 4.4)

b) The packing, if other than as specified (see 5.1)

d) Additional marking, if required (see 5.4)

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

2 Normative references

The following standards contain provisions, which, through reference in this text, constitute provisions of this specification. All standards are subject to revision and, since any reference to a standard is deemed to be a reference to the latest edition to a standard, parties to agreements based on this specification are encouraged to take steps to ensure the use of the most recent editions of the standards indicated below. Information on currently valid national and international standards may be obtained from the South-African Bureau of Standards.

The latest issues of the following standards part of this specification:

CSS 286.21, *Clothing -- LAB/1: Labelling -- PAC/1: Packing and marking.*

CKS 129 : *Colours for textiles*

SANS 1387 : *Woven cotton and similar apparel fabrics - Part 9: polyester-and-cotton shirt fabrics.*

SANS 79, *Textiles – Mass per unit area of conditioned fabrics*

SANS 105-BO2, *Tests for colour fastness – Part Bo2: Colour fastness to artificial light: Xenon artificial lamp test.*

SANS 1309, *Printed labels for textiles.*

SANS 1360-1, *Size designation of clothes -- Part 1: Women's and girls' outerwear garments.*

SANS 1362, *Sewing threads*

SANS 1822, *Slide (zip) fasteners.*

SANS 5278 *Sewing stitches per unit length*

SANS 7211-2, *Textiles-Woven fabrics – Construction – Method of analysis Part 2: Determination of number of threads per unit area.*

SANS 10076-6, *The assessment of defects in textile piece-goods and made-up articles-Part 6: Defects in woven Filament piece-goods (synthetics)*

SANS 10076 - 7, *The assessment of defects in textile piece-goods and made-up articles-Part 7: Defects in household articles*

SANS 13934 –1, *Textiles-Tensile properties of fabrics. Part 1. Determination of maximum force and elongation at maximum force using the strip method s Part 1*

SANS 10101, *Standard nomenclature for stitches, seams, and stitchings.*

SANS 10188, *Standard methods of garment measurements..*

SANS 100004, *Terms and definitions for textiles and textiles merchandise.*

SANS 10011, *Care-labelling of textiles piece goods, textiles articles and clothing.*

SANS 985, *Polyester-and-wool uniform fabrics.*

SANS 1008, *Warp-knitted pocketing.*

SANS 5418, *Dimensional changes of textile fabrics during steam pressing.*

SANS 85, *Thickness of wool fabrics.*

SANS 79, *Mass per unit area of conditioned textile fabrics.*

SANS 85, *Thickness of wool fabrics.*

SANS 1254 *Fusible interlinings*

3 Definitions

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

3.1 acceptable: Acceptable to Transnet.

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

4 Requirements

4.1 Materials

NOTE: – No material will be supplied by Transnet limited..

Store stock item number 35/109763. A 65% Polyester / 35 Cotton (105 g/m²) shirt fabric that complies with the relevant requirements for Type P71 of SABS 1387: Part ix the colour of the outer material shall be an acceptable match to colour No.1c/2 "White" of CKS 129.

4.1.1 General

The materials specified in 4.1.2 and 4.1.3 (inclusive) shall be supplied and used by the manufacturer. The colour of the buttons and of the threads shall be an acceptable match to that of the outer material.

4.1.2 Buttons

Two-hole dope dyed plastics buttons of nominal diameter 11mm.

4.1.3 Threads

The Threads shall comply with the relevant requirements of SABS 1362 and shall be as follows:

- a) **Sewing and buttonhole thread.** A polyester-and cotton core-spun thread, ticket No. 140 or a crimp-textured polyamide thread, Ticket No. 160.
- b) **Overlocking thread:** a crimp-textured polyester thread, ticket No. 160.

4.2 Workmanship

The shirts shall be cut and made with first-class workmanship throughout and shall be free from defects that affect their appearance or can affect their serviceability (or both), and from marks, spots and stains incurred in the making-up. All seams shall be smooth and all stitching shall be uniform. Seams and stitching shall be free from twists, pleats and puckers and shall be extensible enough to obviate seam cracking and undue shrinkage in use. All ends of sewing that are not secured in seams or in other sewing shall be adequately back-tacked. All ends of sewing shall have been trimmed and loose threads removed. The shirts shall be of uniform and acceptable make, colour and finish, and the matching of the shades of the component parts of a shirt shall be such as to be acceptable.

4.3 Style

The shirts (see fig.1 and 2) shall be of the jacket type with 5 or 6 button open fronts, a sports type collar and front facing, a double yoke and mitred shoulder straps. The shirts shall have two breast pockets with flaps and both pockets and flaps shall have blunted corner. The side seams shall be shaped and the hem shall be straight. The sleeves shall be short, and of the set-in type and shall have mock cuffs.

4.4 Sizes

The shirts shall be supplied in one (or more) of the size designations given in column 1 table 1, as specified in the order or contract, shall conform to the relevant values given in columns 2-6 (inclusive).

Size range,

1	2	3	4	5	6	7	8
Size designation ¹⁾	Nominal finished garment measurements, cm						
	Neck	Chest	Back Length	Back Width	Sleeve length (short)	Sleeve length (Long)	Depth of Scye
62-67 (XXS)	30-32	85	75	40	11	50	26
72-77 (XS)	33-35	95	77	42	12	51	27
82-87 (S)	36-38	105	79	44	13	51	28
92-97 (M)	39-41	115	81	46	14	52	29
102-107 (L)	42-44	125	83	48	15	53	30
112-117 (XL)	45-47	135	85	50	16	53	31
122-127 (2XL)	48-50	145	87	52	17	54	32
132-137 (3XL)	51-53	155	89	54	18	55	33
142-147 (4XL)	54-56	165	91	56	19	55	34
152-157 (5XL)	57-59	175	93	58	20	56	35
162-167 (6XL)	60-63	180	95	60	21	58	36

¹⁾ Based on the Chest girth, in centimeters of the intended wearer.

²⁾ Measured at the underarm to the end of cuff

³⁾ For shirts without a yoke, measure at the mid-point of the scye

⁴⁾ Measured from the centre back neck, to the level of the bottom of the scye

4.5 Make

NOTE - Unless inconsistent with the text, all measurements are nominal.

4.5.1 Fronts

Each front shall have a breast pocket and flap. The left front shall have six buttonholes and the right front six buttons, except on shirts of size designations smaller than 92-97, which shall only have five buttonholes and five buttons.

4.5.2 Facings

The facing shall extend from the front seam of the yoke to the hem of the shirt. The facings shall be cut in one with the fronts and shall have a finished width of 3 cm at the yoke seam, 10 cm (measured horizontally) at the point of the lapel step, tapering to 5cm at the seam. The free edge of each facing shall be (overlocked) and fused with a suitable interlining from the front of the yoke seam to just before the second buttonhole/button.

4.5.3 Pockets

Pockets shall be patch pockets that have a mouth with a hem wide enough to accommodate the sewing on of a button. The hem edge shall be overlocked and left loose (not sewn through the pocket). The pocket shall have blunted corners of length 20 mm and the edges of each pocket shall be turned in 5 mm and stitched down 2 mm from the folded edge. The front edge each pocket shall be parallel to the front edge of the shirt and at least 65 mm from the edge. Each end of each pocket mouth shall be securely tacked with a vertical box tack of finished width and length 3 mm and 15 mm respectively. On shirts of size designation 101-105 or smaller, the finished pocket shall be of width 13 cm and depth 14 cm. On larger sizes these dimensions shall be 14 cm and 15 cm respectively.

4.5.4 Pocket flaps

The flaps shall be lined with outer material. Each flap shall have, in the centre and 15 mm from the edge, A buttonhole, and each flap shall be so positioned that when the button is fastened, it is in line with the second button from the top of the shirts front. There shall be 10 mm gap between the top of the pocket mouth and the stitching-down of the flap. The length of each flap shall be such that the flap covers the full width of the pocket and the finished depth of the flap shall be 60 mm. Each blunted corner shall be of

finished length 20 mm, measured along the blunted edge.

4.5.5 Back

The back shall be plain and shall have a double yoke of finished depth 75 mm at the shoulder points and 70 mm at the centre back. The side seam shall be shaped.

3.5.6 Collar

The collar shall be a one-piece sports-type collar and shall be of finished width 70 mm at the centre back and 60 mm at the points. The step of the lapel shall be of width 25 mm and the leaf edge of the collar shall be stitched 6 mm from the edge.

4.5.7 Sleeves

The sleeves shall be plain one-piece set-in type short sleeves, seamed under the arms, and with a mock cuff of finished width 30 mm that is stitched down 6 mm from the top edge.

4.5.8 Shoulder straps

The straps shall be mitred straps of outer material, lined with outer material and free edge shall be top-stitched 6 mm from the edge. The straps shall be of finished width 50 mm at the sleeve-to-shoulder seam tapering to 40 mm at the base of the mitre, and the length seam, tapering to 40 mm at the base of the mitre and the length of each strap shall be such that the eye of the buttonhole at the eye of buttonhole at the free end of the strap will centre 25 mm from the collar-t-neck seam. The straps shall be so positioned on the shoulder that centre line of the strap is 5 mm forward of the centre line of the shoulder and the front edge of the strap is on the front seam of the yoke at the sleeve-to-shoulder seam.

4.5.9 Buttonholes

All buttonholes shall be neatly made with a bar at each end and each shirt shall have nine or ten (as appropriate) shirt-type buttonholes of length 15 mm positioned as follows:

On size designations up to and including 86-90, five buttonholes and on the larger size designations, six buttonholes, inserted vertically in the left front, 15mm from the front edge. On size designations 91-105 (inclusive), the top buttonhole shall be positioned 9 cm from the lapel point and the remaining buttonholes shall be spaced 10 cm apart. On other size designation the positioning of the buttonhole shall be graded proportionately. All shirts shall have a buttonhole inserted vertically in each pocket flap (see 4.5.4) and one in each shoulder strap (see 4.5.8).

4.5.10 Buttons

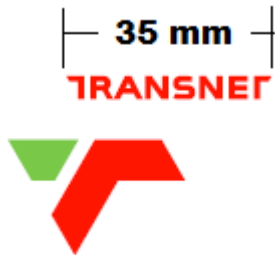
The buttons (see 4.1.2) shall be securely sewn, and the holes of the button aligned to positions corresponding to that of the relevant buttonhole. There shall be two spare buttons sewn to the bottom of the inner button-stand. The buttons on the right front shall be 15 mm from the front edge and pocket flap buttons shall be sewn through the pocket hem. Each shirt shall also have two spare buttons sewn to the left side seam near the bottom of the seam.

4.5.11 Hem

Each shirt shall have a straight hem of finished width of at least 6 mm. The hem shall be of finished width 6 mm. The hem shall be turned in and turned over, or overlocked and turned in, and shall be stitched down (2 mm) from the inside edge.

4.5.12 Logo

The **Transnet** logo shall be embroidered on the pocket, positioned centrally above the pocket. The colour shall be according to the red and green of the Transnet colours



For reference no. 35/161683, Hazmat logo to be on the right hand side chest when worn.



4.6 Stitches, seams and stitching's

4.6.1 General

All sewing shall be in accordance with SABS 0101.

4.6.2 Stitches

Stitches shall be as follows:

- a) **side seams, sleeve and sleeve insertion seams:** any of stitch types 515 to 518 (inclusive).
- b) **Inside edge of facing:** any of stitch types 502 to 505; and (inclusive).
- c) **all other stitching:** stitch type 301.

4.6.3 Seams

Seams shall be as follows:

- a) **side seams, sleeve and sleeve insertion seams:** seam type SSa of width at least 5 mm;
- b) **pockets to shirt:** seam type SSb-1; and
- c) **pocket flap to shirt seam:** Seams Type LSs-2
- c) **edges of flaps, shoulder straps ,and cuffs and collar:** seam type SSe-2.

4.6.4 Stitchings

Stitchings shall be as follows:

- a) **hems:** stitching type EFb; and
- b) **Inside edge of facing:** stitching type Efd-1.

4.6.5 Number of Stitches

The number of stitches shall be as follows:

- a) **seams and top-stitching:** 48 ± 4 per 10 cm;
- b) **overlock stitching:** 32 ± 4 per 10 cm;
- c) **buttonholes:** 12 ± 1 per cm; and
- d) **buttons:** 12 ± 1 per button.

5 Packing, care-labelling and marking

5.1 Packing

The shirts shall be delivered in a clean, dry and pressed condition and shall be so packed that they will not be damaged in transit or storage. Each shirt shall be neatly folded around a piece of cardboard with the collar supported by a strip of a plastics material or cardboard along the back and at the front and then individually packed in a plastics envelope of suitable size and shape. Only stainless steel pins or plastic clips (or both) shall be used in the folding and presentation of a shirt. Unless otherwise specified in the order or contract the shirts shall then be acceptably packed (in units of ten) for transit in bulk containers. Only shirts of the same size designation and style shall be packed together in a bulk container (unless quantities ordered are such that packing of the same size and style only is not justified). Shirts of different sizes and styles may also be packed together to accommodate the last part of an order or contract.

5.2 Care-labelling

Each shirt shall have a woven or printed label that is permanently secured and that provides (in accordance with SABS 011) correct and appropriate care instructions. Printed labels shall comply with the requirements of SABS 1309. All care-labels and their markings shall be such that they outlast the garments.

5.3 Marking

5.3.1 Shirts

Each shirt shall have a woven fabric label securely attached to the collar seam at the centre back. The label shall comply with the requirements of SABS 1309 and shall provide the following information in legible and indelible block letters of height at least 3 mm:

- a) the manufacturer' s name or trade mark or both;
- b) the item number;
- c) the size designation; and
- d) the year of manufacture.

5.3.2 Plastics envelopes

Each envelope shall be clearly marked with the size designation and the item number of the contents.

5.3.3 Bulk containers

Each container shall have a label securely attached to the outside. This label shall be clearly visible when the containers are stacked and shall provide the following information in legible and indelible block letters:

- a) the manufacturer's name or trade mark or both;
- b) the contract/order number.
- c) the contents, i.e. "Shirts";
- d) the item number;
- e) the size designation;
- f) the quantity of garments
- g) designation (as stated in the order or contract)

5.4 Additional marking

When so required by Transnet, shirts, envelope or containers (or any combination of these) shall bear information additional to that specified in 5.3

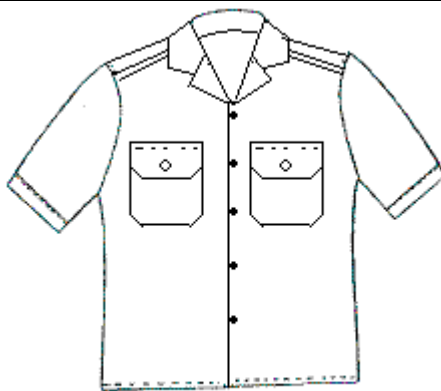


Figure 1 - Front

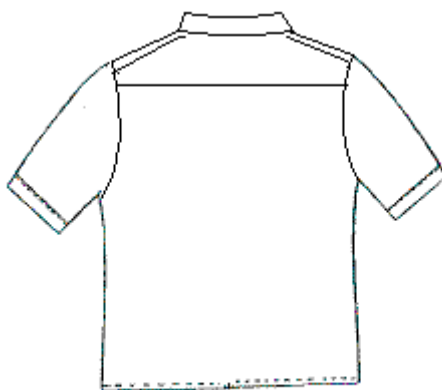


Figure 2 - Back

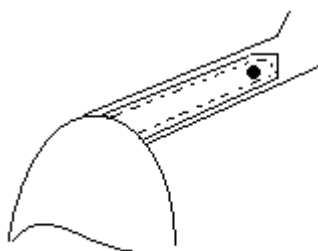


Figure 3 - Position of shoulder straps

Annex A
(normative)

Special conditions of tender

A-1 Unless otherwise stated, Transnet (or an officer or organization deputed by it), shall be the inspecting authority.

A-2 Three pre-production sample shirts of each type shall have been inspected, tested and approved by the inspecting authority before bulk production is commenced, and these samples shall each be accompanied by a trim chart containing a sample of each component material (as given in 4.1.2 to 4.1.5). It shall be the duty of the manufacturer to give adequate notice to the inspecting authority of the availability of these samples.

A-3 The shirts 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 sub-contractor where work on shirts supplied to this specification may be in progress.

A-4 The contractor shall inspect the finished shirts for compliance with the specification before submitting them to the inspecting authority for final inspection.

A-5 Before acceptance, the shirts shall have been inspected and tested by the inspecting authority and found to comply with the requirements of the specification.

REVISION HISTORY SHEET		
Document Quality Assurance		Document No.
Subject ADMINISTRATION, PREPARATION, MAINTENANCE AND DISTRIBUTION OF PRIVATE SPECIFICATIONS		Effective date 17 October. 2005
Approving Officer: C. J.V. du Plooy		
Rev/No	Date approved	Nature of revision
1	October 2005	Retype into electronic format Pervious revision : February 1998)
2	June 2019	1) Incorporate the Hazmat and Transnet Logo 2) Standardize size chart to the Security Shirts
3	October 2020	1) Change to cloth supply 2) Apply latest specification