



BS 5426 : 1987

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British Standard Specification for **Workwear and career wear**

Vêtements de travail — Spécifications

Berufsbekleidung und Arbeitsanzüge

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Foreword

This British Standard has been prepared under the direction of the Textiles and Clothing Standards Committee and supersedes BS 5426 : 1976 which is withdrawn.

The standard incorporates specifications for workwear garments for general industrial, public sector and hospital use and, at the request of local authorities, requirements for a lightweight, two-piece working rig which also satisfy local authority requirements.

The use of the 8 cm module for workwear has been reaffirmed but the need has been recognized for a 4 cm module in some career wear garments in certain of the size tables. Any reference to intermediate sizes has been deleted. Adjustments permitted to the size tables to allow for the use of 100 % cellulosic fabrics have now been introduced to cater for the continuing demand for this type of material. Tolerances on particular garment dimensions are also specified in the size tables.

Users of this standard should note that it sets no requirements in relation to the flammable or ignition properties of materials from which garments are made. Where users might encounter any specific risk from fire or ignition of workwear, they should impose additional requirements in this respect or utilize more appropriate British Standards. Publications relevant to clothing for protection against fire, ignition and other hazards are listed in appendix A.

This British Standard has been approved by the Health and Safety Commission, with the consent of the Secretary of State, under Section 16 of the Health and Safety at Work etc. Act 1974 for the purpose of providing practical guidance on the design and manufacture of workwear and career wear in compliance with Section 6(1) of the Act.

It should be noted that the Operations at Unfenced Machinery Regulations, 1938, only allow such operations to be carried out by persons who are wearing a close-fitting single-piece suit in good repair that:

- (a) is fastened by means having no exposed loose ends;
- (b) has no external pockets other than a hip pocket.

Compliance with a British Standard does not of itself confer immunity from legal obligations. In particular, attention is drawn to the need for the fibre content to be given in accordance with Statutory Instrument 1986 No. 26 Trade Descriptions, The Textile Products (Indications of Fibre Content) Regulations 1986.

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Specification. Section one

Section one. General

1 Scope

This British Standard specifies materials, standards of manufacture, sizing and marking requirements for workwear for general industrial, public sector and hospital use and specifies in section four requirements for a lightweight two piece working rig.

It also specifies, in section three, a coverall style for use in protecting the personal clothing of the wearer against general soiling, in circumstances where there is a risk of entanglement in moving parts of machinery and where a close fitting coverall is required.

The standard also includes, in appendix A, a list of publications concerning risk from fire, ignition and other hazards.

NOTE. The titles of the publications referred to in this standard are listed on the inside back cover and in appendix A.

2 Definitions

For the purpose of this British Standard the definitions given in BS 1903 and BS 5511 apply.

Section two. General requirements

3 Materials

3.1 General

Unless otherwise specified, fabrics complying with BS 1771 : Part 2 shall be used (see clause 8 (b)(2)).

3.2 Additional requirements for fabrics for theatre gowns, caps and hoods

As a safeguard against static electricity, theatre gowns, caps and hoods for use in anaesthetizing areas shall only be made from cellulosic, including viscose, fabrics, e.g. CB1, as specified in BS 1771 : Part 2.

4 Manufacture

4.1 Seams

4.1.1 Visible seams. All visible seams (i.e. those that are visible on the surface or inside the garment) shall be one of the following as described in BS 3870 : Part 2 : 1983:

- (a) seam type 1.01.01 overedged, sewn in one or more operations;
- (b) a bound seam, for example, seam types 3.01.02 or 3.05.05;
- (c) a lapped seam with two or more rows of sewing, for example, seam type 2.04.03.

There shall be no raw edges, but a single row of stitching shall be permitted where the edges are selvages.

4.1.2 Hidden seams. For hidden seams (e.g. inside collar) seam type 1.01.01 as described in BS 3870 : Part 2 : 1983 shall be used.

4.1.3 Seam allowance. The minimum seam allowance shall be 0.8 cm for all fabrics.

4.2 Stitching

4.2.1 For garments with the exception of the lightweight two-piece working rig, the stitching shall be one of the following as described in BS 3870 : Part 1 : 1982:

- (a) multi-thread chain stitch, type 401, 506 or 514;
- (b) lock stitch, type 301.

There shall be not less than 3.2 and not more than 4 stitches per centimetre.

4.2.2 For the lightweight two-piece working rig, for side, sleeve head, sleeve, shoulder, yoke, inside leg and seat seams and side pockets and pocket bags, stitching shall be one of the following:

- (a) multi-thread chain stitch, type 514, as described in BS 3870 : Part 1 : 1982;
- (b) combination stitch, (401.504), as described in BS 3870 : Part 1 : 1982;
- (c) six thread safety stitch.

4.3 Sewing threads

For 100 % cellulosic fabrics, sewing threads shall be spun polyester fibre or polyester/cellulosic core spun or 100 % polyester core spun or 100 % cellulosic.

For all other fabrics, sewing threads shall be spun polyester fibre or polyester/cellulosic core spun or 100 % polyester core spun.

4.4 Facings

Where facings of coats and jackets are stitched on, the inner edges shall be stitched to the foreparts using seam type 5.31.01 as described in BS 3870 : Part 2 : 1983. The stitching shall be no more than 0.5 cm from the edge.

4.5 Fronts

Where studs and buttons are used, the fronts of jackets and coats shall be finished with a button stand of not less than 2 cm.

4.6 Closures and fasteners

Closures and fasteners shall be suitable for the care maintenance process to which the garment is to be subjected and shall be in correct register. Buttons, buttonholes and studs shall be affixed through a minimum of two thicknesses of fabric or through one thickness and a fused patch. Buttonholes shall be not less than 0.2 cm and not greater than 0.4 cm longer than the diameter of the button used. Buttons shall comply with BS 3866. Slide fasteners shall comply with the requirements of codes C or D as defined in BS 3084.

4.7 Pockets

All pockets shall be fastened by bar tacking, back tacking, triangular tacking, or riveting.

4.8 Hanger

All garments shall be provided with hangers.

NOTE. The strength of the hanger is governed by the following parameters:

- (a) length, width and number of thicknesses of the loop materials;
- (b) distance between the inside edges of the loop;
- (c) type of sewing thread and seam type used for its anchorage to the garment;
- (d) type and strength of fabric used for its manufacture.

The hanger strength shall be not less than 30 % of the breaking strength, in the warpwise direction of the fabric used for the manufacture of the garment, when determined in accordance with appendix D of BS 4171 : 1981, using a gauge length of 110 mm between the top of the 7 mm diameter rod and the upper edge of the lower jaw.

4.9 Garment presentation

Garments shall be clean and free from loose threads and ends of thread.

5 Seam strength

Seams shall have a minimum strength of 185 N for load bearing seams and 135 N for all other seams when measured using the method described in appendix B.

6 Sizing

6.1 Garment dimensions

6.1.1 General. Dimensions of finished garments shall be as given in:

- (a) tables 1 to 9 for general industrial and public sector use;
- (b) tables 10 to 17 for garments for hospital use, i.e. dresses, womens' overalls, donor attendants' dresses, general purpose gowns, theatre gowns, theatre caps and hoods, jackets and slacks;
- (c) tables 18 and 19 for a lightweight two-piece working rig.

NOTE. Garment lengths, where unspecified, depend on the requirements of the user and are also subject to certain fashion trends.

6.1.2 Skirt hem girth. For a coat of 100 cm length, the hem girth shall be equal to the wearer's chest measurement plus 37 cm. This allowance shall be increased or decreased by 3 cm for each 8 cm change in length.

For a jacket of 74 cm length, the hem girth shall be equal to the wearer's chest measurement plus 20 cm.

NOTE. This allowance may be increased or decreased by 1 cm for each 4 cm change in jacket length.

6.2 Methods of measuring

All measurements of garments shall be carried out in accordance with methods given in appendix C. Definitions of wearers' body measurements are given in BS 5511.

7 Colour fastness of theatre gowns, caps and hoods

The colour fastness of theatre gowns, caps and hoods (see tables 14 and 15) shall be as given in table 20 when tested according to the relevant section of BS 1006.

8 Marking

Labels shall be attached to each garment. Sewn-on labels shall comply with BS 5742.

NOTE. The labels should be durable to the appropriate cleaning process. Labels that are not sewn on should be firmly and durably affixed.

The labels shall give the following information:

- (a) the name, trademark or other means of identification of the supplier;
- (b) either:
 - (1) the number and date of this British Standard, i.e. BS 5426 : 1987 together with the number and date of the relevant British Standard, e.g. BS 1771 : Part 2 : 1984 for the fabric (see 3.1); or
 - (2) the number and date of this British Standard, i.e. BS 5426 : 1987;
- (c) an indication of the body measurement of the person the garment is intended to fit, by giving the size designation as shown in tables 1 to 19. Where appropriate, an indication shall be given of the height of the person the garment is intended to fit. Garments designed specifically for short, regular, tall or very tall persons shall be provided with an indication to that effect by means of the suffixes S, R, T or XT respectively, according to the height ranges in the appropriate tables, using measurements taken in stockinged feet;
- (d) instructions for care and cleansing using appropriate care labelling in accordance with BS 2747.

NOTE. If the garment is not for retail sale this may be omitted.

Section three. Particular requirements for machinery attendants' coveralls

9 Manufacture and sizing

9.1 General

Coveralls intended for machinery attendants shall comply with the requirements of this section in addition to the requirements of section two. See tables 1 and 7.

9.2 Fastening

The garment shall be fastened by means having no exposed loose ends. It shall have a concealed slide fastener or concealed touch-and-close fastener, or shall have a fly front fastened by means of a minimum of six buttons or six press fasteners down the front. All buttons, except the top one shall be concealed.

NOTE. The top button may either be concealed or buttoned through.

9.3 Pockets

There shall be no external pockets other than a hip pocket.

NOTE. There may be one inside breast pocket on the overlap.

9.4 Sleeves

The garment shall have either plain full-length sleeves or plain half sleeves. There shall be no fastening on the sleeves.

9.5 Collar

The garment shall have a 3 cm stand collar or a stitched-down laid-on collar.

9.6 Back strap or belt

If waist adjustment is required, there shall be an elasticated back waist or a strap or belt which shall be inside and fitted with button or buckle adjustment.

10 Marking

10.1 Coveralls intended for machinery attendants shall comply with **10.2** in addition to the requirements of clause 8.

10.2 An indication that the requirements of clause 9 have been complied with shall be given on the label attached to the garment.

Section four. Particular requirements for a lightweight two-piece working rig

11 Fabric, manufacture and sizing

NOTE. The lightweight two-piece working rig consists of a jacket and trousers, the jacket being fastened at the front by a centrally located slide fastener.

11.1 General

The lightweight two-piece working rig shall comply with the requirements of this section in addition to the requirements of section two.

NOTE. An example of seam and pocket details is given in figure 1.

11.2 Jacket

11.2.1 Fabric. The fabric shall be CD1 or PC1 as specified in BS 1771 : Part 2.

11.2.2 Design requirements

11.2.2.1 General. Jackets shall be single breasted and hip length with front yoke, centre slide fastener, two slanted pockets and breast patch pockets.

11.2.2.2 Yoke. The yoke shall be 22 cm deep measured from the neck point.

11.2.2.3 Back. The back shall be in one piece.

11.2.2.4 Front. The front shall have two slanted pockets, with the overall size of the pocket opening 18 cm. The bottom of the pocket opening shall be 13 cm from the hem. The top of the pocket opening shall be 30 cm from the hem. The pocket bag shall be fully overlapped.

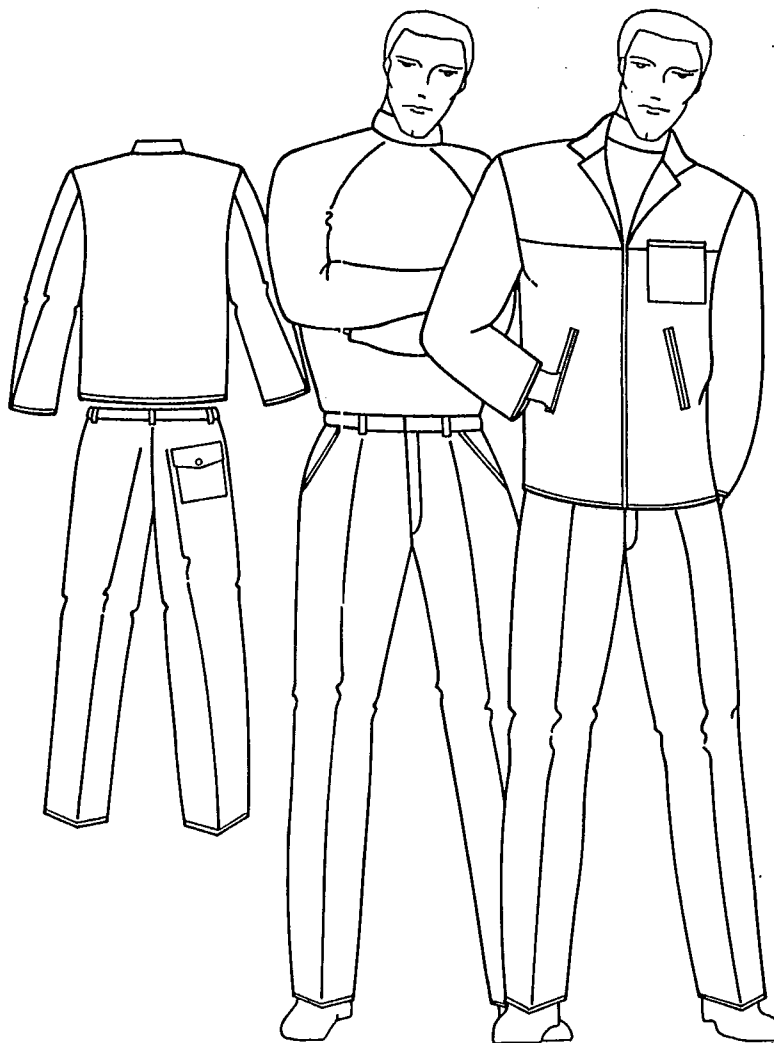


Figure 1. Lightweight two-piece working rig: example of seam and pocket details

11.2.2.5 Slide fastener. The slide fastener shall be centrally located and open ended. It shall have a locking slider and shall be made from polyamide.

11.2.2.6 Breast patch pocket(s). A breast patch pocket (or pockets) with a square closing flap shall be positioned on the jacket with the top of the pocket against the yoke. The pocket shall be 14 cm deep and 13 cm wide overall. The pocket shall be top stitched in a matching colour polyester thread, and stress points shall be bar tacked. Hems shall be neatened, turned back to 2 cm and top stitched.

11.2.2.7 Collar. The collar shall be one piece, with pointed ends bagged to the gorge (with no leaf-edge seam but bagged at the collar end). It shall be pressed into a 3 cm stand with a 4 cm fall and shall be 7 cm wide at the collar end. The inside of the top collar shall be turned in and neatened. The top of the forepart above the slide fastener shall be pressed back (lapel style).

11.2.2.8 Edges. Edges on foreparts, collar, patch pocket and hems shall be top-stitched in self-colour polyester thread. The upturn at the bottom and sleeves shall be neatened to 2 cm and machined through.

11.2.2.9 Hanger. The hanger shall be sewn-in, with the stitching at the bottom of the collar, inside the centre-back neck position.

11.3 Trousers

11.3.1 Fabric. The same fabric as used for the coat (see 11.2) shall be used.

11.3.2 Design requirements

11.3.2.1 General. Trousers shall be made with 2 side pockets and 1 hip patch pocket with a button-down flap.

11.3.2.2 Waistband. A one-piece outer waistband shall be 4 cm wide. The inner waistband shall be in a white polyamide with shirt gripper and shall be 5 cm wide.

The waistband closure shall be a 30 ligne, 4 hole button matching the colour of the main fabric. The buttonhole

shall be machined through the outer waistband, and bar tacked.

11.3.2.3 Belt loops. Six belt loops, each 1 cm wide, shall be attached to each waistband.

11.3.2.4 Adjusting tabs. Adjusting tabs, of finished dimensions 9 cm long and 2 cm wide shall be laid-on, 3 cm in advance of the side seams, turned back and sewn through the waistband, 15 mm away from the fold. Each tab shall be fitted with nickel-plated-steel waist adjustment buckles.

11.3.2.5 Pockets. The top and bottom of the side pocket mouths and each top corner of the hip pocket shall be bar tacked. The hip pocket shall be 14 cm deep and 13 cm wide, positioned on the right hip, 9 cm from the top of the waistband. If required, a flap shall be positioned 7 cm from the top of the waistband and shall be 7 cm deep. The flap shall be fastened by means of a 30 ligne matching-colour button on a patch with a buttonhole in the flap.

11.3.2.6 Fly. All garments shall be fitted with a fly slide fastener in polyamide, with locking slider. The finished width of the top fly shall be 5 cm and the under fly 4 cm. A slide fastener tape shall be inserted between the centre front seam under the fly, top sewn and overedged. The edge of the slide fastener tape at the top fly shall be attached 3 cm from the fly edge by two rows of stitching, 5 cm to 6 cm apart. The under fly shall be single thickness and arm locked on edge.

11.3.2.7 Inlays. The upturn of the bottom of the leg shall be neatened to 4 cm and machined through.

12 Marking

12.1 The lightweight two-piece working rig shall comply with 12.2 in addition to the requirements of clause 8.

12.2 Labels shall be cellulosic and shall be sewn inside, the jacket label being sewn inside the back neck.

An indication that the requirements of clause 11 have been complied with shall be given on the label attached to the garment.

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Section four

Table 1. Coveralls for men and youths

Size*	Measurements of wearer		Measurements of garment when fastened						
	Height	Chest girth (over shirt)	Chest	Seat	Back neck to crotch	Across back	Sleeve length	Inside leg	Bottom of leg
92S 100S 108S	cm 156 to 166	cm 92 100 108	cm 106 114 122	cm 106 114 122	cm 88 90 92	cm 42 44 46	cm 76 77 78	cm 70 70 70	cm 49 49 49
92R 100R 108R 116R 124R	166 to 176	92 100 108 116 124	106 114 122 130 138	106 114 122 130 138	92 94 96 98 100	42 44 46 48 50	80 81 82 83 84	74 74 74 74 74	49 49 49 49 49
92T 100T 108T 116T 124T	176 to 186	92 100 108 116 124	106 114 122 130 138	106 114 122 130 138	96 98 100 102 104	42 44 46 48 50	84 85 86 87 88	78 78 78 78 78	49 49 49 49 49
92XT 100XT 108XT 116XT 124XT	186 to 196	92 100 108 116 124	106 114 122 130 138	106 114 122 130 138	100 102 104 106 108	42 44 46 48 50	88 89 90 91 92	82 82 82 82 82	49 49 49 49 49
Adjustment for 100 % cellulosic fabrics			+2	+2	+3	+1	+2	+3	+1
Tolerance			+3 -0	+3 -0	+2 -0	+1 -0	+2 -0	+2 -0	+2 -0
*See clause 8 (c).									