



BERNINA

Record 
930 Electronic

Contents

Page	Page
2 View of machine	16 Honeycomb stitch
4 Electrical section	Towelling stitch
Connecting mains cable and foot control unit	Double-overlock stitch
Power switch	Jersey stitch
Sewing light	Edge stitch
Motor	Combi-zig-zag stitch
Electronic needle stop	17 Applications of green stitches
5 Winding	Sewn out zig-zag
Removing bobbin case	Blind stitch
Winding bobbin thread	Universal stitch
Inserting bobbin	Lycra stitch
Inserting bobbin case into hook	Stretch stitch
6 Threading, Changing presser foot	Gathering stitch
Inserting needle	Vari-overlock stitch
Changing presser foot	Running stitch
Threading upper thread	Scallop stitch
7 Feed-dog, Thread tension	18 Sewing knitted fabrics
Bringing up lower thread	Sewing rib-trims
Lowering feed-dog	Rib-trim with decorative seam
Thread tension	Rib-trim with overlock seam
8 Presser foot lifter	19 Hems with practical stitches
Sewing table	Visible hem with jersey stitch
Accessories box	Visible hem with vari-overlock
9 Presser feet	Visible hem with triple zig-zag
10 Needle and thread, special needle	20 Seams with practical stitches
11 Some sewing tips	Triple straight stitch seam
12 Straight stitch	Zig-zag seam
Forward sewing	Stretch seam
Reverse sewing	21 Vari-overlock seam
Securing the ends	Double-overlock seam
Five needle positions	Flat joining seam, towelling
13 Zig-zag	Flat joining seam, lycra
Setting the zig-zag	22 Zips — Jeans foot
Overcasting edges	Plastic — Leather
Satin stitch	23 Autom. long stitch—Basting device
14 Selecting the green stitches	Decorative seams
15 Selecting the red stitches	24 Blind hemming
16 Applications of red stitches	25 Stitching edges
Triple straight stitch	Narrow stitched edges
Triple zig-zag seam	Wide stitched edges
	26 Buttonhole,

Page
27 Buttonhole with gimp cord
28 Mending jersey
Patching with jersey stitch
Edging with elastic thread
29 Mending fabrics
Patching with honeycomb stitch
Mending tears with running stitch
30 Darning
Principle of darning
31 The small darning ring
32 Edgings on material
Fine edge finish
Lace and insertions on woven material
Scallop edging
33 Edgings on jersey
Shell edging
Lace on jersey
Elastic
34 Tailor tacking
36 Gathering
Gathering with cord
Normal gathering
Gathering with elastic thread
37 Monograms
38 Appliqué
Single colour appliqué
39 Multi-colour appliqué
40 Embroidery with decorative stitches
Pattern indicator
41 Leaves
Flowers
42 Parallel sewing of patterns
43 Sewing and calculating corners
44 Sewing and calculating curves
45 Changing the bulb
Maintenance: cleaning and lubricating
Cleaning
Lubricating the hook
Cleaning the hook

Page
46 Prevention of faults
Upper thread breaks
Lower thread breaks
Faulty stitches
Needle breaks
Seam error
Machine only runs slowly or not at all
47 Stowing in carrying case
Correct position in case

Important!

Safety Regulations

Subject to BEAB and OSHA safety regulations (official testing centres in Great Britain and the U.S.A.).

The following safety regulations must be observed without fail:

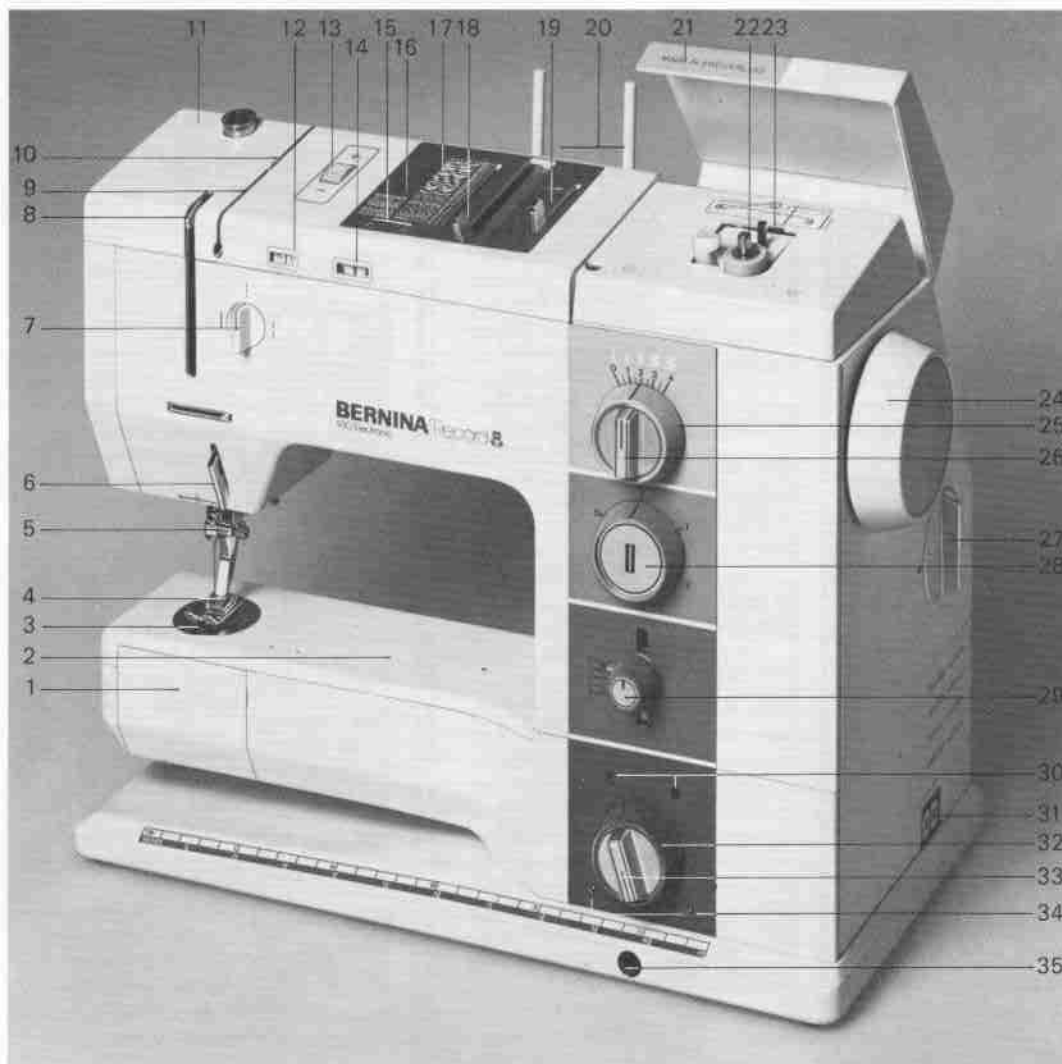
- The moving needle is a source of danger (risk of injury to fingers). The sewing position must therefore be kept under constant observation.
- Manipulations within the area of movement of the needle, such as changing the needle, the presser foot or stitch plate, must only be performed with the machine switched off (main switch set to  position). The same applies when removing and replacing the lower thread bobbin or hook.
- During maintenance work (cleaning or lubricating) or changing the light bulb and interruptions in sewing or after completion of work, the machine must be disconnected from the power supply by pulling out the mains plug.
- Repairs to the electronic section, especially the changing of the lead wire to the foot control unit, may only be carried out by one of our service agencies.

Contents

View to machine

	Page		Page		Page		Page
Accessories box	8	Forwards sewing	12	Parallel sewing of patterns	42	Long, automatic	23
Applications		Gathering	36	Pattern indication	40	Running	29
Green stitches	17	Gathering stitch	17	Patching with honeycomb stitch	29	Satin	13
Red stitches	16	Gimp cord – buttonholes	26–27	with jersey stitch	28	Selecting red	14
Appliqué	38–39	Green stitches, applications	17	Plastic	22	Selecting green	15
Automatic long stitch	23	Selecting	14	Presser feet	9	Straight	12
Basting device	23	Hems With practical stitches	19	Presser foot	6	Stretch	16
Blind hemming	24	Visible	19	Changing	8	Towelling	16
Blind stitch	17	Honeycomb stitch	16	Lifter	8	Stitched edges	
Bobbin – inserting – removing	5	Honeycomb stitch, mending	29	Prevention of faults	46	Narrow-stitched	25
Bulb – changing	45	Hook – cleaning/lubricating	45	Red stitches	16	Wide stitched	25
Buttonholes	26–27	Jeans foot	22	Selecting	15	Stowing in carrying case	47
Carrying case	47	Jersey Mending	28	Reverse sewing	12	Straight stitch	12
Changing Bulb	45	Stitch	16	Rib-trim Decorative seam	18	Stretch seam	20
Presser foot	6	Stitch – visible hem	19	Overlock seam	18	Stretch stitch	17
Cleaning	45	Stitch – placing patch	28	Running stitch Applications	17	Switch	4
Combi-zig-zag	16	Joining seam	21	Mending	29	Tailor tacking	34–35
Connecting mains cable and		Lace and insertions on		Satin stitch	13	Towelling stitch	16
foot control unit	4	woven material	32	Scallop edging	32	Thread	
Darning	30–31	Lace on jersey	33	Scallop seam	17	Cord – gathering	36
Decorative Seams	23	Leather	22	Seams Decorative	23	Elastic – gathering	36
Stitches – embroidery	40–41	Light	4	With plain stitches	20–21	Lower – breaks	46
Double-overlock	16	Lubricating the hook	45	Securing the edges	12	Lower – bringing up	7
Double-overlock seam	21	Lycra stitch	17	Selecting Green stitches	14	Upper – breaks	46
Edge stitch	16	Lycra – flat joining seam	21	Red stitches	15	Upper – threading	6
Edges		Machine faults	46	Setting the zig-zag	13	Presser foot	6
Elastic thread	28	Main switch	4	Sewing Calculating corners	43	Tension	7
Jersey	33	Maintenance	45	Calculating curves	44	Winding bobbin	5
Material	32	Mending Fabrics	29	Forward	12	Tips – sewing	11
Narrow-stitched	25	Jersey	28	Light	4	Triple lockstitch	16
Overcasting	13	Tears with running stitch	29	Knitted fabrics	18	Triple lockstitch seam	20
Securing	12	Monograms	37	Reverse	12	Triple zig-zag Seam	16
Wide-stitched	25	Motor	4	Rib-trims	18	Visible hem	19
Elastics	33	Needle Breaks	46	Table	8	Universal stitch	17
Elastic thread – gathering	36	Five positions	12	Tips	11	Vari-overlock Applications	21
Electrical section	4	Inserting	6	Sewn out zig-zag	17	visible hem	19
Electronic needle stop	4	Special	10	Shell edging	33	View of machine	2
Embroidery	40–44	Stop	4	Stitches Decorative	40–44	Winding	5
Faults – prevention	46	Thread	10	Faulty	46	Zig-zag Seam	20
Feed-dog – thread tension	7	Overcasting edges	13	Honeycomb	28	Setting	13
Fine edge finish	32			Jersey	28	Zips	22
Flat joining seam	21						

View of Machine



- 1 Hinged cover on free-arm
- 2 Free-arm cover
- 3 Needle plate
- 4 Presser foot
- 5 Needle holder clamp
- 6 Thread regulator
- 7 Automatic long stitch & basting device switch
- 8 Thread take-up lever
- 9 Thread tension slot
- 10 Thread tension disc
- 11 Top frame cover
- 12 Thread tension indicator
- 13 Adjusting wheel for thread tension
- 14 Pattern indicator
- 15 Lamp indications
- 16 Red stitches
- 17 Green stitches
- 18 Selector lever
- 19 Changeover lever
- 20 Reel holder pins
- 21 Cover of bobbin winding device
- 22 Bobbin spindle
- 23 Thread cutter
- 24 Hand-wheel
- 25 Stitch width knob
- 26 Needle position knob
- 27 Main switch
- 28 Buttonhole knob
- 29 Stitch length knob
- 30 Symbol for sewing / darning
- 31 Connection for foot control unit
- 32 Sewing / darning knob
- 33 Red / green stitch knob
- 34 Lamp indications
- 35 Opening for knee lifter



Dear Bernina Customer,

We would like to congratulate you on the purchase of your new Bernina sewing machine and thank you for the confidence shown in our products.

You have acquired a top-quality Swiss product, manufactured with the utmost skill and care at our Bernina factory in Steckborn / Switzerland.

«My Bernina Guide» provides you with all the necessary information about your Bernina and its countless applications for sewing work.

If you should require further details or advice about your sewing machine or sewing problems, please contact your Bernina stockist.

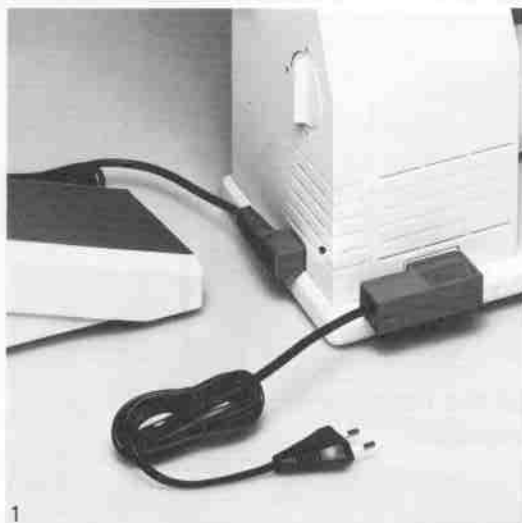
We hope you are successful and happy with your sewing and dressmaking work.

With kind regards

Odette Ueltschi

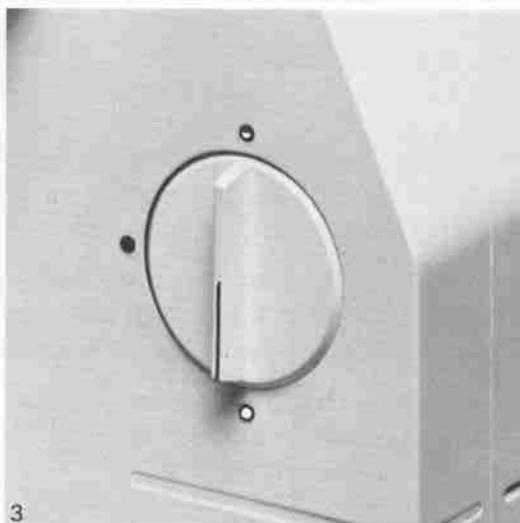
Odette Ueltschi-Gegauf, Chairman of the Board
FRITZ GEGAUF LTD.
Manufacturer of Bernina Sewing Machines, CH-8266 Steckborn TG, Switzerland

Electrical Section



Connecting mains cable and foot control unit

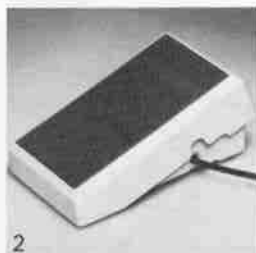
The terminals on the machine for mains cable and foot control unit can be seen in Fig. 1.



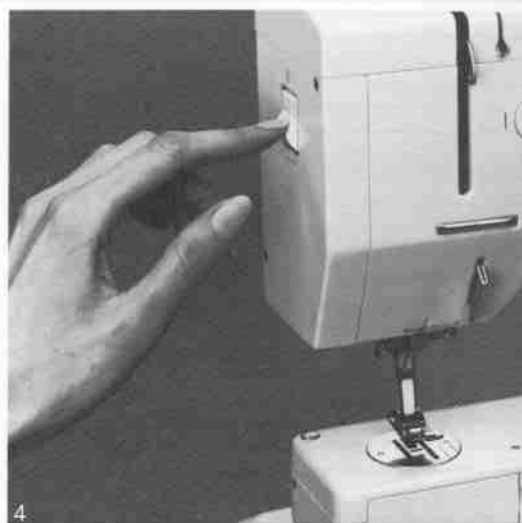
Power switch

The power switch on the right below the hand-wheel (Fig. 3) has 3 positions:

- Off — the machine is switched off
- On — the machine is switched on for maximum sewing speed. The sewing speed can be regulated up to maximum speed by pressing the foot plate of the foot control unit.
- On — the machine is switched on for reduced sewing speed. At this switch position the maximum speed is reduced to approximately half. When switched to «reduced sewing speed» sewing is made much easier for more difficult work as well as for those less used to electric sewing machines.



Foot control unit (Fig. 2)
For controlling the sewing speed.



Sewing light

The sewing light is switched on and off with the switch fitted in the front cover (Fig. 4). The sewing light is also switched off when the main switch is at ○ = off.

Motor

The d.c. motor and electronic speed control ensure exceptional penetrating power even when sewing slowly. The high penetrating power considerably simplifies the sewing of very heavy materials, very dense fabrics and thick seams.

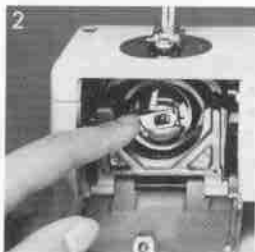
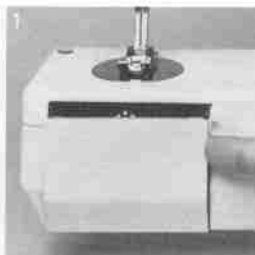
Electronic needle stop

Every time you stop sewing an electronic system takes the needle to its highest position. A light tap with the heel on the back of the foot control will take the needle electronically down into the work. A second tap will bring it up again and so on.

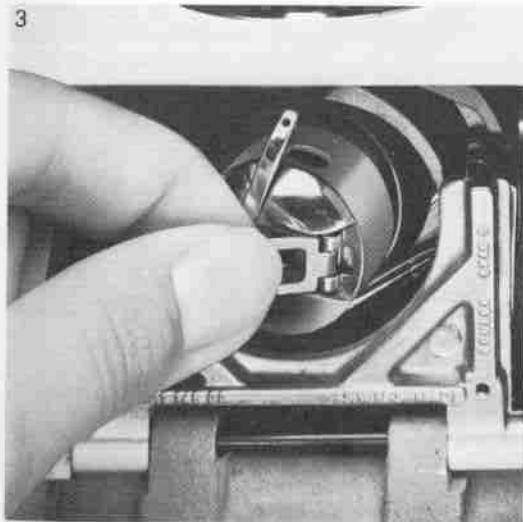
Removing Bobbin Case

- Set power switch to ○.
- Check whether needle is up. If not, raise needle with handwheel.

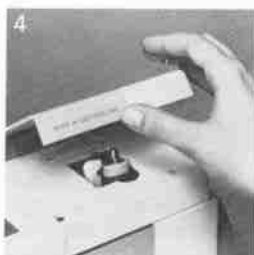
- Open hinged cover on free-arm (Fig. 1).



- Lift the latch of the bobbin case with the index finger of the left hand (Fig. 2) and remove bobbin case (Fig. 3).

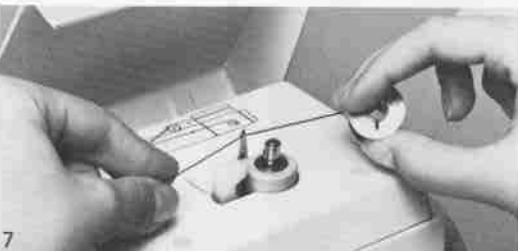


Winding Lower Thread



- Open cover of bobbin winding device (Fig. 4). This disengages the machine.

- Place empty bobbin on spindle (Fig. 5). This switches on the winding device.



- Place thread on a reel holder pin and take it clockwise around the pre-tension stud to the empty bobbin (Fig. 6). Wind



round empty bobbin several times, also in a clockwise direction.

- Set power switch to ●
- Start bobbin winding device by operating foot control unit. When the bobbin is fully wound, the winding device switches off automatically.

Inserting Bobbin



- Cut thread when removing bobbin by pulling against the small blade (Fig. 7).

- Do **not** yet close cover of winding device!

- Hold bobbin case in one hand, insert bobbin so that the thread is wound in the clockwise direction, see arrow (Fig. 8).

- Pull thread through the slot and below the spring until it lies in the T-shaped slot at the end of the spring, do **not** hold bobbin for this purpose, (Figs. 9+10).

- The bobbin must turn in the clockwise direction of the arrow when pulling the thread.

Inserting bobbin case into hook

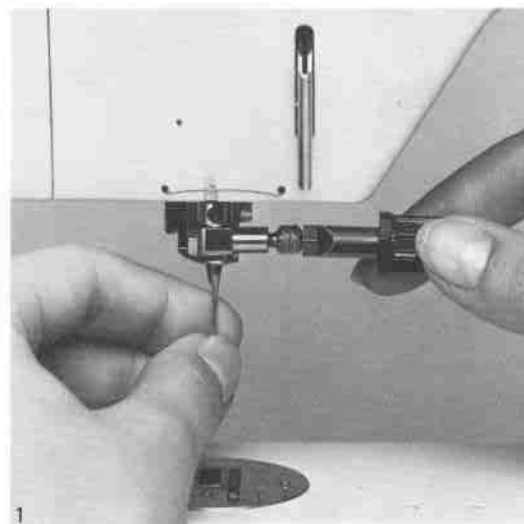
- Hold bobbin case by the latch with the index finger and thumb of the left hand. Insert so that the finger of the bobbin case points upwards and fits in the notch of the hook race cover.

- Check: pull end of thread
- Close hinged cover
- Close cover of winding device

Inserting Needle

Changing Presser Foot

Threading Upper Thread



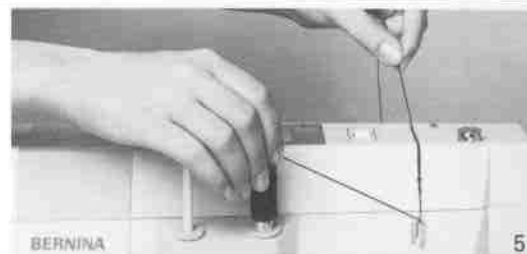
Refer to page 9 concerning presser feet and their range of application. The success or otherwise of a piece of sewing largely depends on the correct choice of presser foot. It must therefore be simple and quick to change the presser foot.



- Set power switch to 
- Check whether needle is up
- Raise presser foot (Fig. 2)

- Raise clamping lever with the index finger of the right hand and remove the presser foot using the middle finger and thumb (Fig. 3).

- Securing the presser foot: same procedure, but press clamping lever downwards with index finger (Fig. 4).

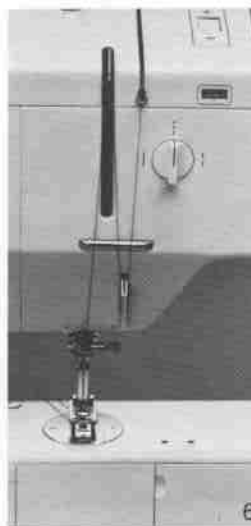


- Set power switch to 
- Check whether needle is up
- Raise presser foot
- Place reel of thread on one of the two reel holder pins.

Hold reel of thread firmly while threading (Fig. 5).

• First clip the thread into the thread guide at the rear of the machine, then bring it through the slot in the thread tension (Fig. 5).

• At the front of the machine take thread downwards under the thread regulator, up again to the take-up lever and then downwards to the needle holder thread guide (Fig. 6).



- Always thread needle from front. The small white plate on the front of the presser foot shaft makes it easier to thread the eye of the needle.
- Pull thread approx. 10 cm through eye of needle.

See page 10 for suitable needle sizes.

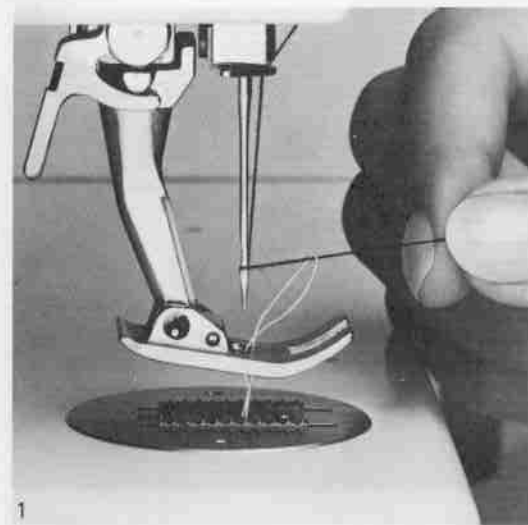
- Set power switch to 
- Check whether needle is up
- The accessories box contains a small black screwdriver for loosening or tightening the needle clamp.
- Loosening the needle clamp: half a turn to left, anticlockwise (Fig. 1)
- Inserting needle: **flat shank side** of needle always at **rear**

- Insert needle **fully** until it **reaches the top**. If the needle does not contact the top, i.e. is set too low, faulty stitches are produced.
- Tighten needle clamp firmly.

Bringing up Lower Thread

- Hold end of upper thread with the right hand
- Sew 1 stitch by tapping the foot control unit. The electronic needle stop ensures that the needle will be in the raised position.
- Pull upper thread so that the lower thread is brought up through the hole in the needle plate (Fig. 1).
- Take both threads through the slot of the presser foot and clip into thread cutter.

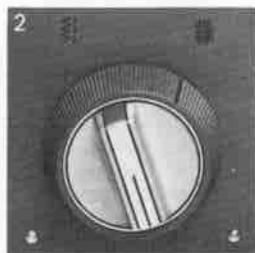
hand-wheel forward with the right hand until the needle and take-up lever are again in their highest position. In this case the upper thread must be held in the left hand.



1

Lowering Feed-dog

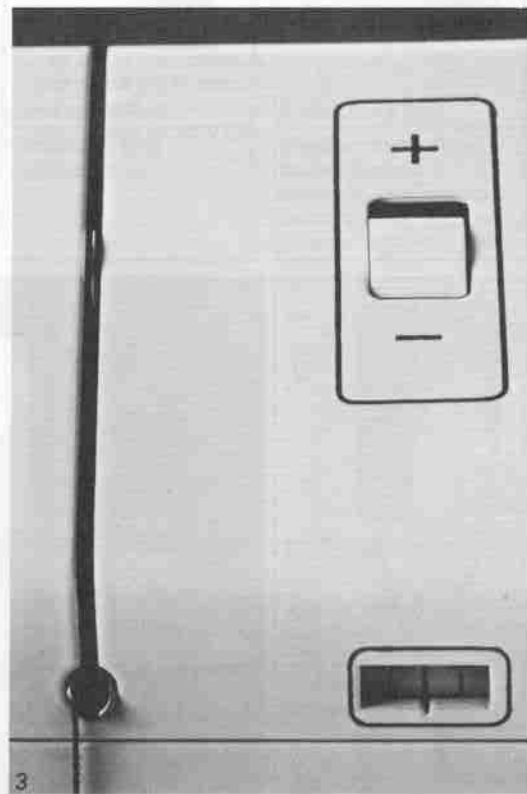
For certain types of sewing, e.g. darning, the material should not be moved by the feed. For this purpose, the feed-dog must be lowered by turning the outside, bottom circular knob to the right, until the mark is below the  symbol (Fig. 2)



For all normal sewing work the mark must be on the left below the  symbol.

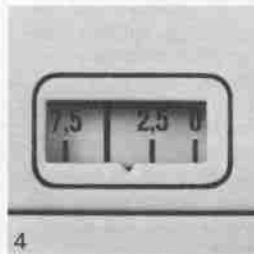
Thread Tension

One of the most important Bernina advantages is that the thread tension does not have to be altered for normal sewing. The normal tension is set when the red line on the scale is at the middle of the window (Fig. 3).



3

For special sewing, e.g. for sewing tailor tacks, the thread tension can be adjusted with the adjusting wheel. Turning this wheel backwards, towards the «+» sign, produces a tighter upper thread tension. The figures 7, 5 and 10 appear in the window. Turning the adjusting wheel forwards, towards the «-» sign, produces a looser upper thread tension. The figures 2, 5 and 0 appear in the window (Fig. 4). Do not forget: reset thread tension to normal, red line in the middle, when a special piece of sewing requiring tension alteration has been completed.



4

Presser Foot Lifter

Many sewing operations are considerably simplified if both hands can be used for guiding the work.

The presser foot lifter is used for raising and lowering the presser foot with the right knee, leaving the hands free.

Attaching

the presser foot lifter:

The presser foot lifter is contained in the carrying case. The opening for the presser foot lifter is located at the right on the front in the base-plate below the lower knob.

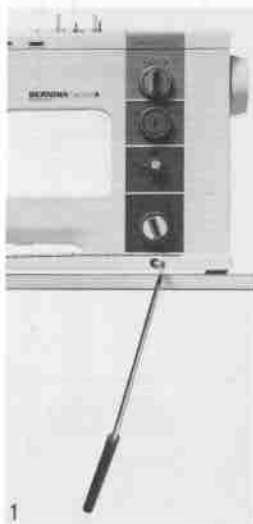
● Insert presser foot lifter so that it hangs to the left (Fig. 1).

If the presser foot lifter is moved to the right, the presser foot is raised. It should be possible to operate the presser foot lifter comfortably with the right knee, without altering your customary sitting position.

If the angle of the presser foot lifter provided is inconvenient, it can be adjusted.

Your Bernina dealer will gladly make this adjustment for you.

When the presser foot lifter is pressed to the right the foot is raised, at the same time the feed-dog will be lowered. The next stitch will return the feed-dog to sewing position.

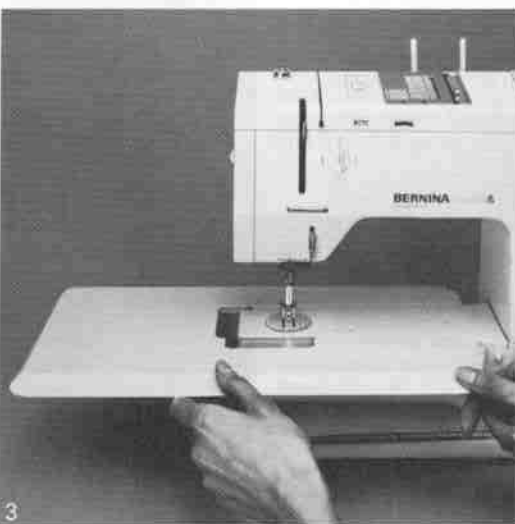


Sewing Table

The sewing table is used to enlarge the working surface. It should be used for all sewing for which the free-arm is not required.

Attaching the sewing table

Slide the table in over the free-arm until the center pins slip into the corresponding openings. By pushing hard in the direction of the arrow the table can be fixed to the pins with its holding device.



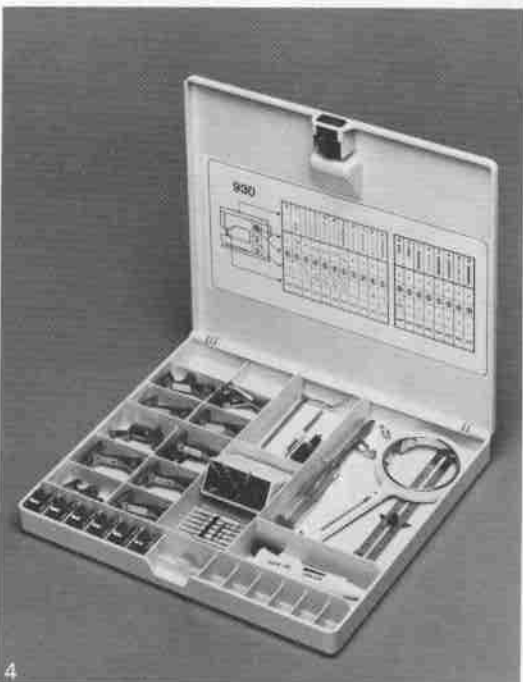
Removing sewing table

The table can be released from its holding device by pulling it hard to the left (away from the machine).



Accessories Box

The accessories are clearly accommodated in the flat accessories box. A summary of the most important basic settings of your sewing machine can be found inside the cover.



Presser Foot

Presser feet are an important aid to sewing. They are provided with grooves and guides. The success or failure of a piece of sewing therefore also depends on the correct choice of presser foot.

The presser feet are not therefore only suitable for a specific operation. They are also used for simplifying any other work.

For example the buttonhole foot:

Buttonhole
= main application
Gathering
= further application

Several presser feet look very similar at first glance. They are provided with numbers to avoid confusion.

The presser feet illustrated on this page are the standard accessories supplied to most countries. In other countries with varying sewing practices, the range of presser feet may be different.

Additional presser feet can be obtained for more specialised sewing work. Ask your Bernina dealer for advice.

000



presser foot for green stitches

straight stitch
zig-zag
green practical stitches

007



zipper foot

sewing in zips
sewing piping
close along stitching line
raised seam

016



blind stitch foot

blind hemming
edge stitching

030



Embroidery foot

decorative stitches
satin stitches
appliqué, oversewing
beading cord, couching
on woollen thread

145



blue spot

Jeans foot

straight stitch sewing
in thick, hard materials
and over thick seams

285



Darning foot

Darning
Monograms by free hand
Free hand embroidery

419



Tailor tacking foot

Tailor tacking
Fringes
Embroidering terry cloth

452



Buttonhole foot

Buttonholes
Gathering

470



Overlock foot

Vari-overlock seam
Vari-overlock hem
Overcasting seams

560



red spot

Presser foot for red stitches

Red stitches

Needle and Thread

Please note:

Your Bernina is provided with **Needle System 130/705H**

Make sure when purchasing new needles that you receive needles of the 130/705H system.

The needle size to be used depends on the thread selected, **the needle must match the thread.**

The adjoining table indicates which needle is suitable for which thread.

Needle sizes no. 70 to no. 120 are usual in the trade. The finer the needle, the lower the number. It is the opposite for the thread. The finer the thread, the higher the number.

The thread lies in the long groove of the needle during sewing. If the needle is too fine, there is no room for the thread in the groove. The result is faulty stitches.

Needle	70	80	90	100	110-120
Darning thread	*	*			
Embroidery thread No. 30		*			
Sewing thread Mercerised cotton		*	*		
Sewing thread synthetic		*	*		
Sewing thread coarse Mercerised cotton, synthetic			*	*	
Buttonhole thread for decorative seams (cordonnet)				*	*

Special Needles

Special needles make it easier to sew difficult materials.

Ball-point needles help to prevent damage to knitted fabric.

System 130/705 H-SES = fine round tip for fine knitted fabrics, particularly synthetics.

System 130/705 H-SUK = medium round tip for medium to coarse knitted fabric, particularly synthetics.

System 130/705 H-S = stretch (only Nm90!) specially for elastic synth. knitted fabrics.

Jeans needles penetrate easier through hard fabrics.

System 130/705 H-J = slender tipped form for jeans fabrics and other compact, hard fabrics.

Leather needles penetrate leather more easily.

System 130/705 H-LR = cutting tip for hard leather particularly.

Some Sewing Tips

Sewing is made much easier if the correct sitting position is adopted and the work is guided properly.

Some advice

Place your Bernina far enough in from the edge of the table, so that the attached presser foot lifter hangs just in front of the table edge. Sit right in front of the needle, i.e. in front of the work area, and not at the centre of the machine. This will enable you to watch the working area more closely without strain. Ensure that the height of your seat permits comfortable working. Sitting too low or too high makes the work more tiring.

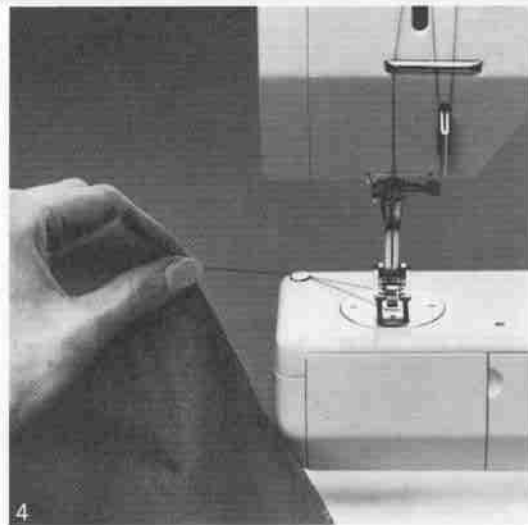
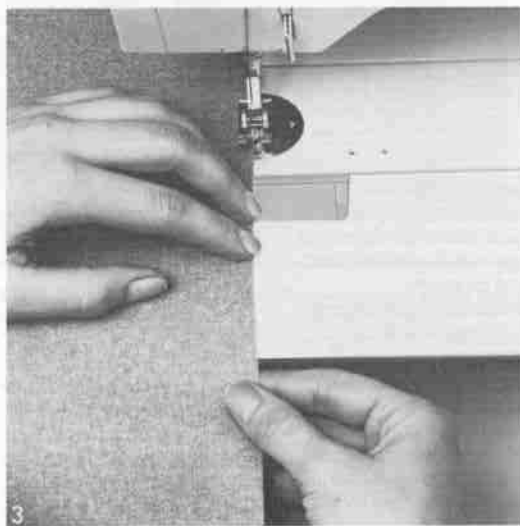
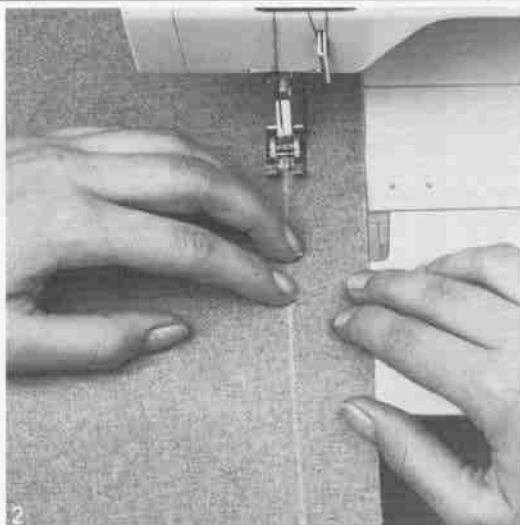
Guiding from the front is not satisfactory, since the material can be involuntarily held back (Fig. 1). Nor should the material be pulled from behind the presser foot.



It is best to guide the material from the side with the fingers of the left hand close to the presser foot (Fig. 2).

For difficult work, particularly with thin materials, it is preferable to stop and guide it a little at a time rather than let work slide beneath the hand.

Sewing of edges, overcasting, top stitching, edge finishing, sewing on lace, etc. are more successful if guided on the edge (Fig. 3).



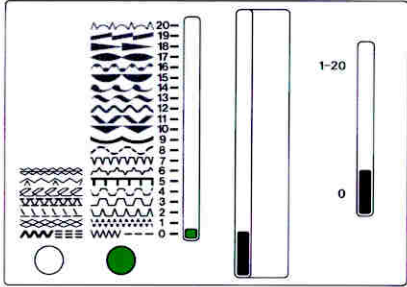
When removing the sewing raise the presser foot, remove the material to the rear left and pull both threads through the thread cutter.

The threads are released automatically when sewing begins again.

Straight Stitch

Green stitch 0

Presser foot: 000
Thread: to suit material
Needle: to suit the thread
see Needle and thread table page 10



Stitch selector lever 0
selection: changeover lever 0

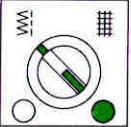
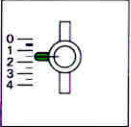
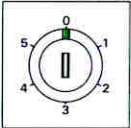
Stitch width: 0
Needle position: centre

Buttonhole 0

Stitch length: 1-4
as required
normal stitch
length is
1½-2

Feed-dog: sewing

Colour mark: ●
12

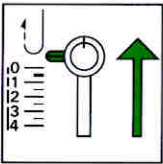


Forwards sewing

With the settings specified, the machine sews forwards with the stitch length selected. The stitch length is selected according to the sewing work and material to be sewn.

Reverse sewing

Move and hold stitch length knob upwards above 0 until reverse sewing is completed. When the knob is released, the machine sews forwards again with the previously selected stitch length.

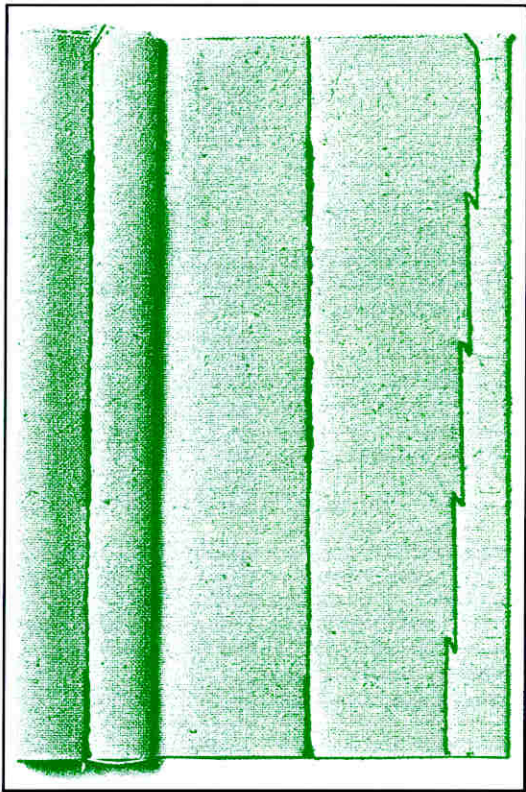


Securing the ends

Sew approx. 1 cm reverse and then forwards again at beginning and end of seam.

Securing thick seams

Stop machine when changing over from forwards to reverse sewing and vice-versa! The needle stop device ensures that the needle is always raised when stopped. It cannot therefore be bent by thick materials.



Five needle positions

The position of the stitch can be set at five positions right or left with the knob for setting the needle position.

The needle is at the centre for normal sewing

Application examples:

Blind hem page 24
Edge stitching page 25
Sewing in zips page 22



Zig-zag

Green stitch 0

Setting zig-zag

Presser foot:	000
Thread:	to suit material
Needle:	to suit thread
Stitch selection:	selector lever 0
	changeover lever 0
Stitch width:	1-4
Stitch length:	1-4
Needle position:	centre
Feed-dog:	sewing
Colour mark:	●

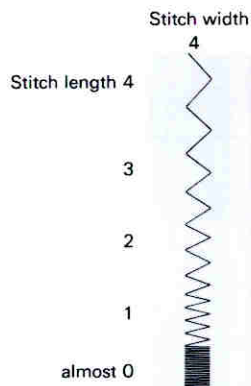
Zig-zag

Setting the width :

The **width** of the zig-zag stitch is set with the stitch width knob. It can be set fully variably up to 4 mm.

The stitch width can be altered while sewing or with the machine stationary.

But the needle must not be in the material when the machine is stationary!



Overcasting edges

Presser foot:	000
Thread:	darning thread, possibly sewing thread
Needle:	80-70
Stitch width:	2½-4
Stitch length:	1-4

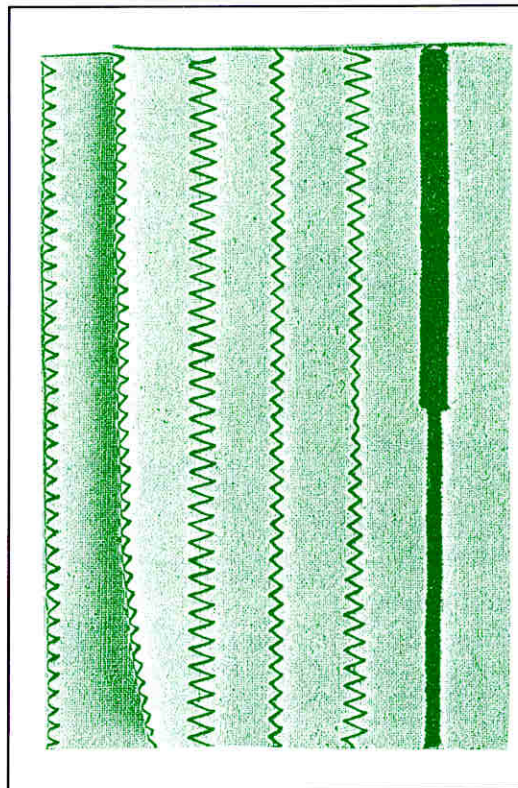
In general: zig-zag should not be too wide and

stitch length not too long, cut edge neatly first. Use

darning thread if possible, particularly for fine material.

Guide edge of material in **centre** of presser foot, so that the needle penetrates alternately in the material and then outside (Fig. 1).

If sewn on the edge, also guide on the edge (Fig. 2).



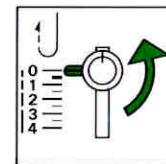
Satin stitch = close zig-zag

Presser foot:	030 embroidery foot
Thread:	embroidery thread 30
Needle:	80
Stitch width:	1½-4
Stitch length:	almost 0

Set stitch length for very close zig-zag:

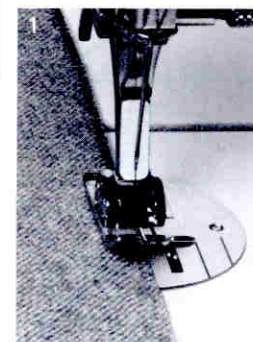
Turn stitch length knob to the right until it locks.

Mark on knob is on top. Stitch length is then 0.



By turning half a revolution to the **left** — mark is underneath — the **basic setting** of stitch length is obtained.

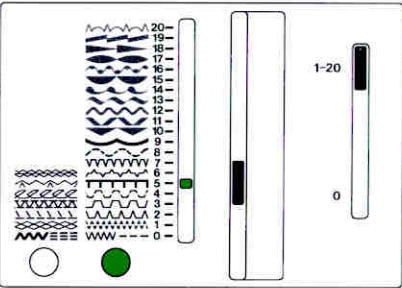
Adjust stitch density from basic setting to suit material. Turn a little to the left for thicker material, a little to the right for finer material. Sew a sample.



Selecting the Green Stitches

Stitches 1 ... 20

Presser foot: 000
Thread: to suit the material
Needle: to suit the thread

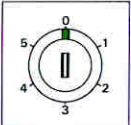


Stitch: selector lever 1 ... 20
selection: changeover lever 1 – 20

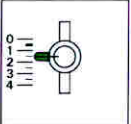
Stitch width: 1–4
Needle position: centre



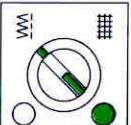
Buttonhole: 0



Stitch length: 1–4



Feed-dog: sewing



Colour mark: ●
14

- Press selector lever to right to disengage and set to desired stitch 1 ... 20.
- Set changeover lever to 1–20.
- Set knob for colour mark to green.

See page 17 for application examples of green stitches 1 ... 20.

Universal stitch 3

Stitch selection:	selector lever	3
	changeover lever	1–20
Stitch width:	4	
Stitch length:	2	

Scallop stitch 9

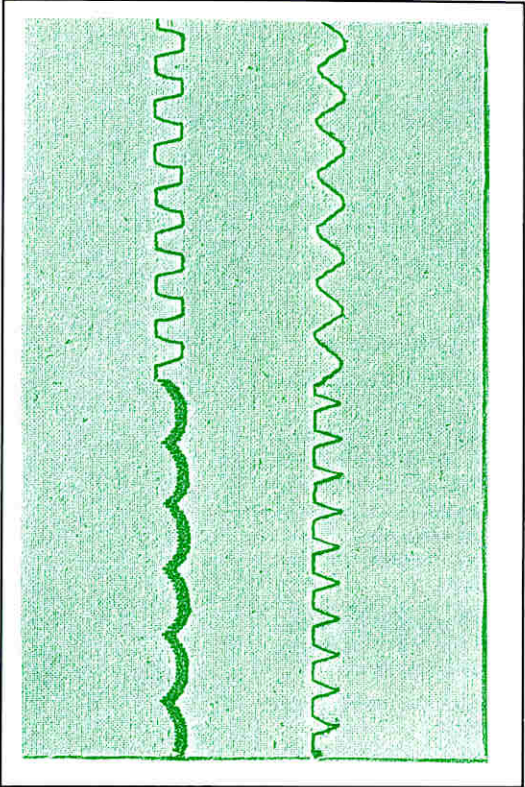
Stitch selection:	selector lever	9
	changeover lever	1–20
Stitch width:	4	
Stitch length:	¼	

Running stitch 8

Stitch selection:	selector lever	8
	changeover lever	1–20
Stitch width:	4	
Stitch length:	1 ½	

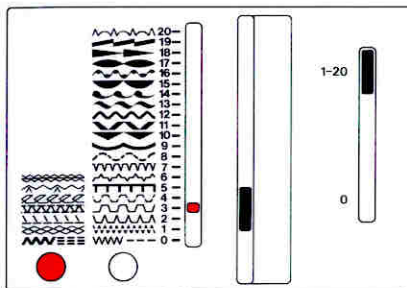
Vari-overlock 7

Stitch selection:	selector lever	7
	changeover lever	1–20
Stitch width:	4	
Stitch length:	1–1 ½	
Needle position:	right	



Selecting the Red Stitches

Presser foot: 560
Thread: to suit the material
Needle: to suit the thread



Stitch selection: selector lever
changeover lever

Stitch width: 4

Needle position: centre

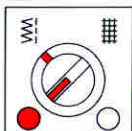
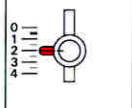
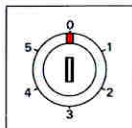
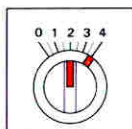
Buttonhole: 0

Stitch length: 2-3

Feed-dog: sewing

Colour mark: ●

Stitches 1 ... 6	Stitches 0
1 ... 6	0
1 - 20	0



Stitches 1 ... 6

Stitches 0

Stitches 0

Stitch width 0 produces the triple straightstitch.

Stitch width 1-4 produces the triple zig-zag stitch.

See page 16 for application examples.

Triple straight stitch 0

Stitch selection:	selector lever	0
	changeover lever	0
Stitch width:		0
Stitch length:		2-4

Triple zig-zag 0

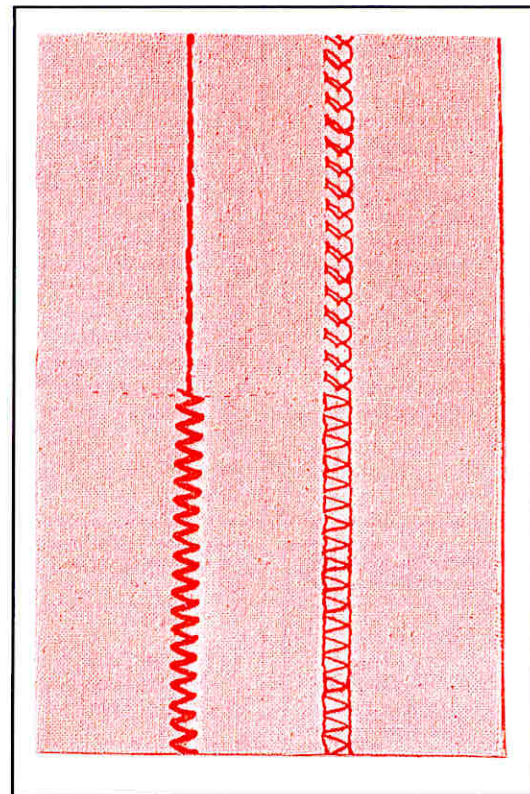
Stitch selection:	selector lever	0
	changeover lever	0
Stitch width:		4
Stitch length:		2-4

Jersey stitch 4

Stitch selection:	selector lever	4
	changeover lever	1-20
Stitch width:		4
Stitch length:		2

Double overlock 3

Stitch selection:	selector lever	3
	changeover lever	1-20
Stitch width:		4
Stitch length:		2



Applications of Red Stitches

0 Triple straightstitch



For:
corduroy materials, jeans materials, outerwear materials, deckchair covers, carpet borders, rucksacks, sleeping bags, etc.

hard-wearing seams for joining fabric pieces or stitching seams

0 Triple zig-zag



For:
jeans materials, corduroy, leather, decorative fabrics, light curtains, etc.

decorative seams and hems, sewing on tape, repairs etc. for sports-wear, woollen blankets, sleeping bags, rucksacks, deckchair covers, etc.

1 Honeycomb stitch



For:
many types of jersey and generally smooth fabrics

Visible seams and hems on T-shirts, sweaters, underwear, serviettes, tablecloths, craft work, etc.

2 Towelling stitch



Primarily for towelling materials, jeans fabrics, leather and other heavier materials

Flat joining seam, visible hem for beachwear, craft work

3 Double overlock



For:
knitted materials of all kinds and hand and machine-knitted items

Overlock seam = sewing and overcasting in one operation (hand and machine knitted goods)

4 Jersey stitch



For:
Cotton Jersey, blended and synthetic fibres

Decorative seams and hems, particularly in underwear and cotton sweaters, mending jersey, sewing on elastics, etc.

5 Edge stitch



For:
various kinds of material

Visible hems, sewing on lace and tapes of all kinds, decorative edging, craft work

6 Combi zig-zag



For:
knitted materials and textiles

Visible hems, covering seams, etc.

1 Sewn-out zig-zag  For most types of material Overcasting loosely woven fabrics Reinforcing and repairing edges Decorative seams	2 Blind stitch  For most types of material Blind hemstitch, shell edging on soft jerseys and fine materials Decorative seams	3 Universal stitch  For firmer knitted materials and fabrics, felt, leather, etc. Flat joining seam, visible hems, patchwork, mending jersey, sewing on elastics Decorative seams	4 Lycra stitch  Specially for lycra material Flat joining seams and hems Finishing of seams in foundation garments	5 Stretch stitch  For highly-elastic materials Highly-elastic, open seam for ski, riding-, climbing, hiking- and activity wear
6 Gathering stitch  For most types of material Gathering with cord, joining seam = cut edges pressed over and pushed together	7 Vari-overlock  Particularly for fine synthetic and silk jerseys, helanca and cotton and woollen jerseys Highly-elastic overlock seam and highly-elastic hem, particularly for sports underwear, pyjamas, T-shirts, sweaters, track-suits, etc.	8 Running stitch  For most types of material Darning with running stitch, mending material, reinforcing edges, etc.	9 Scallop stitch  Particularly for woven fabrics Edgings for tablecloths, serviettes, collars, cuffs, etc.	



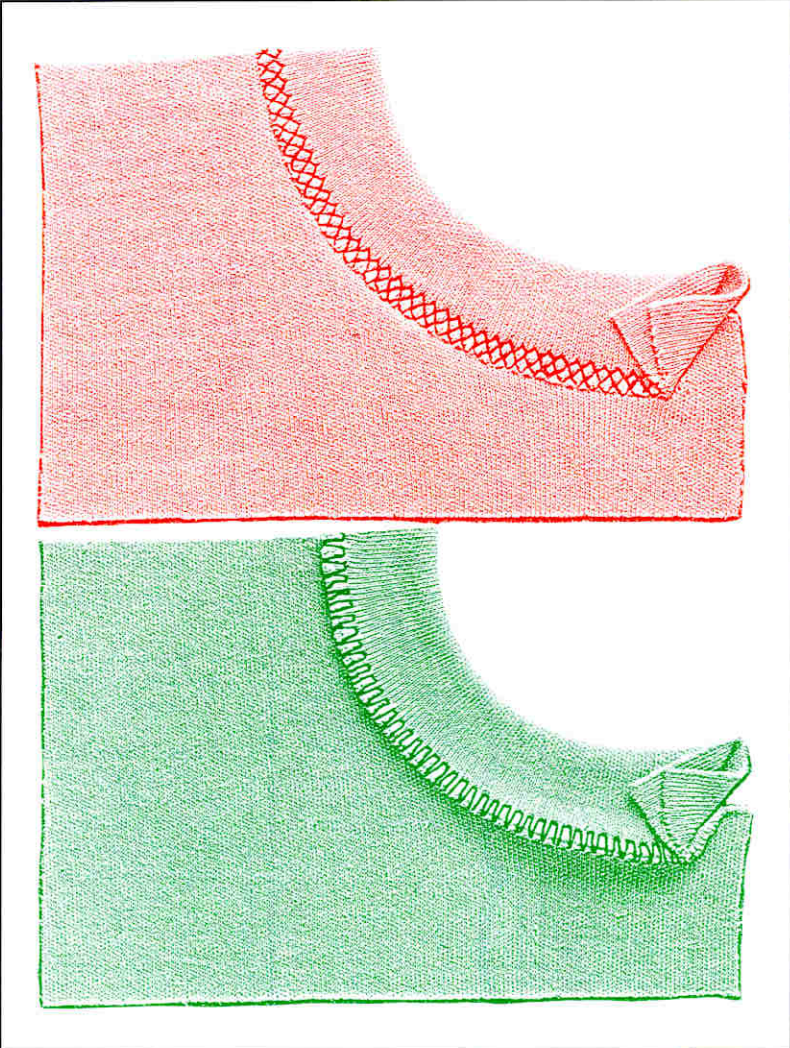
Sewing Knitted Fabrics

e.g. jersey

The following generally applies when sewing knitted materials:

1. Use a perfect needle! Even a slightly blunt needle damages the knit and holes appear after a short time.
2. Use fine sewing thread, particularly for the fine jerseys. Coarse thread can also damage the knit.
3. Use darning thread for basting. Darning thread, when sewn over, can be more easily removed than the much thicker and shorter-fibre basting thread.
4. Press seams immediately after sewing. This simplifies subsequent work considerably.
5. Sew a sample to test the stretchiness of the stitch. The chosen stitch should be as elastic as the material since the elasticity of modern textiles varies considerably, the basic settings of the practical stitches can be altered if necessary.

For highly-elastic materials try making the stitch length slightly shorter and stitch width slightly wider. This provides the seam with more thread and it is made more elastic.



Rib-trim with decorative seam

Particularly for cotton jersey. (Pyjamas, T-shirts, sports underwear, lingerie)

Presser foot:	560
Thread:	sewing thread
Needle:	80
Stitch selection:	selector lever 1 changeover lever 1-20
Stitch width:	4
Stitch length:	2
Needle position:	centre
Feed-dog:	sewing
Colour mark:	●

Press cut strip in half lengthways. **Pin** or baste on **right side** of neckline (basting device, stitch length approx. 1).

Then sew on with honey-comb stitch. Guide work so that needle stitches exactly to the edge of trim. Cut off surplus material on back.

Rib-trim with overlock seam

For all kinds of jersey.

Presser foot:	470
Thread:	sewing thread
Needle:	80
Stitch selection:	selector lever 7 changeover lever 1-20
Stitch width:	4
Stitch length:	1 approx.
Needle position:	right
Feed-dog:	sewing
Colour mark:	●

Press cut strip in half lengthwise. **Pin** to neckline on **right side**, cut edges of trim level with

edge of neckline. Guide cut edge along pin of overlock foot when sewing.

Hems with Practical Stitches

In general:

baste hem — mark desired width — sew — trim off surplus material. The «Hints for working with knitted materials» page 18 apply to all types of jersey

Visible hem with jersey stitch

Presser foot:	560
Thread:	sewing thread
Needle:	80
Stitch selection:	selector lever 4 changeover lever 1–20
Stitch width:	4
Stitch length:	2
Needle position:	centre
Feed-dog:	sewing
Colour mark:	●

Visible hem with vari-overlock

Presser foot:	470
Thread:	sewing thread
Needle:	80–70
Stitch selection:	selector lever 7 changeover lever 1–20
Stitch width:	4
Stitch length:	1 approx.
Needle position:	right
Feed-dog:	sewing
Colour mark:	●

Visible hem with triple zig-zag

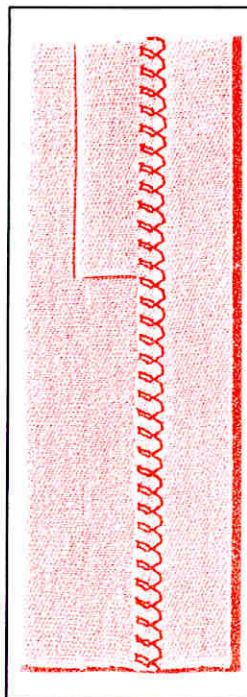
Presser foot:	560
Thread:	sewing thread
Needle:	80
Stitch selection:	selector lever 0 changeover lever 0
Stitch width:	4
Stitch length:	2
Needle position:	centre
Feed-dog:	sewing
Colour mark:	●

Visible hem with jersey stitch

Elastic visible hem for cotton jersey, fine wool, synthetics and blended fibres.

Pjamas, T-shirts, lingerie, sports underwear.

Pin or baste hem with basting device. Cut edge can also be sewn directly over the edge.



Visible hem with vari-overlock

Highly-elastic visible hem for all highly-elastic jerseys: terry cloth stretch / helanca / very soft cotton and woollen jerseys.

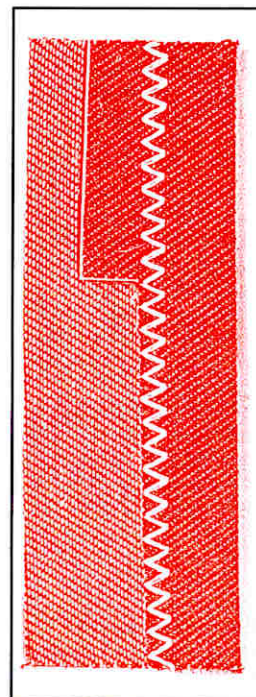
Pin or baste hem with basting device. Sew hem approx. 1 cm from raw edge. Cut off surplus material.



Visible hem with triple zig-zag

Hard wearing visible hem for firm fabrics, jeans, etc.

Pin or baste hem with basting device. Sew hem approx. 1 cm from raw edge. Cut off surplus material.



Seams with Practical Stitches

The choice of type of seam depends entirely on the article. The choice of practical stitch on the material used.

We distinguish between three types of seam:

Open seams:

are seams which are pressed open

- they lie flat and do not roll
- they allow the garment to be let out

Range of application: dresses, pants, skirts, jackets, coats, etc.

Overlock seams:

are seams which are sewn and overcast in one operation

- they are quickly made
- they are narrow, but do not allow the garment to be let out

Range of application: particularly knitted fabrics for sweaters, jackets, jersey blouses, linen, hand and machine-knitted garments.

Flat joining seams:

are seams where the cut edges are lapped and then sewn over

- they lie flat
- they are narrow and cannot be let out
- they do not roll up, edges are neat

Range of application: beachwear, leisure-wear, foundation garments, home-dressmaking articles.

Triple straightstitch seam

Hard-wearing seam for firm fabrics.

Zig-zag seam

Seam for normal elastic jersey in wool, synthetics or blended fibres, as well as for silk-, cotton- and woollen jersey.

Stretch seam

Highly-elastic seam for stretch materials, particularly for all kinds of sports-wear.

Triple straightstitch seam open seam

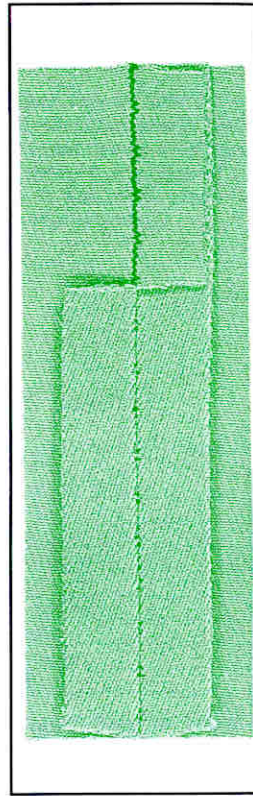
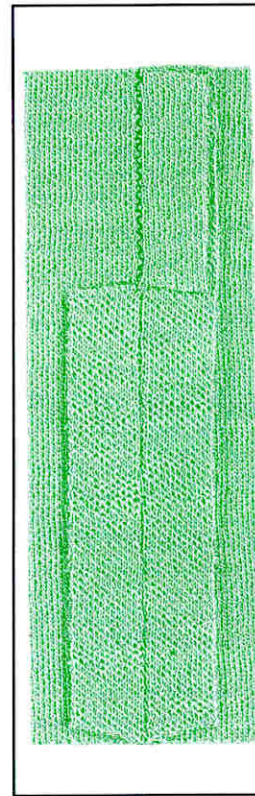
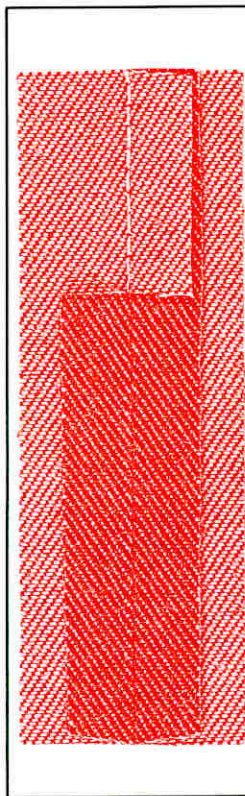
Presser foot:	560
Thread:	sewing thread
Needle:	80–90
Stitch selection:	selector lever 0 changeover lever 0
Stitch width:	0
Stitch length:	2–3
Needle position:	centre
Feed-dog:	sewing
Colour mark:	●

Zig-zag seam open seam

Presser foot:	000
Thread:	sewing thread
Needle:	80
Stitch selection:	selector lever 0 changeover lever 0
Stitch width:	1
Stitch length:	1–1½
Needle position:	centre
Feed-dog:	sewing
Colour mark:	●

Stretch seam open seam

Presser foot:	000
Thread:	sewing thread
Needle:	80
Stitch selection:	selector lever 5 changeover lever 1–20
Stitch width:	1–1½
Stitch length:	½–1
Needle position:	centre
Feed-dog:	sewing
Colour mark:	●



Seams with Practical Stitches

Vari-overlock seam

Presser foot:	470
Thread:	sewing thread
Needle:	80–70
Stitch selection:	selector lever 7 changeover lever 1–20
Stitch width:	4
Stitch length:	approx. 1
Needle position:	right
Feed-dog:	sewing
Colour mark:	●

Double-overlock stitch seam

Presser foot:	560
Thread:	sewing thread
Needle:	80
Stitch selection:	selector lever 3 changeover lever 1–20
Stitch width:	4
Stitch length:	2–3
Needle position:	centre
Feed-dog:	sewing
Colour mark:	●

Flat joining seam

Presser foot:	560
Thread:	sewing thread
Needle:	80
Stitch selection:	selector lever 2 changeover lever 1–20
Stitch width:	4
Stitch length:	2
Needle position:	centre
Feed-dog:	sewing
Colour mark:	●

Flat joining seam

Presser foot:	000
Thread:	sewing thread
Needle:	80
Stitch selection:	selector lever 4 changeover lever 1–20
Stitch width:	4
Stitch length:	¾–1
Needle position:	centre
Feed-dog:	sewing
Colour mark:	●

Vari-overlock seam

Highly-elastic overlock seam for all **fine** jersey dresses, blouses, linen, sports underwear.

Double overlock stitch seam

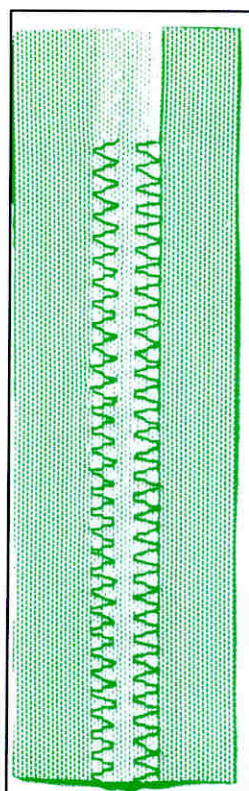
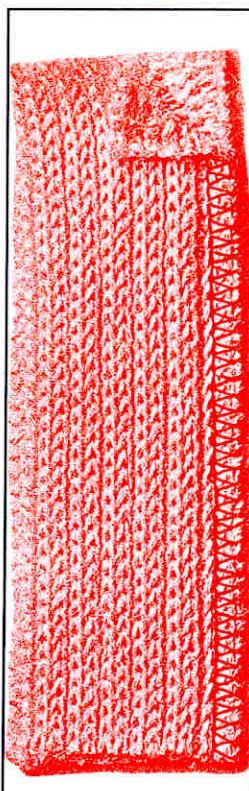
Elastic overlock seam for all coarse and large-meshed knitted goods and heavy jersey.

Flat joining seam

Visible seam for towel-lining, felt, leather, jeans fabric, leisure-wear, craftwork.

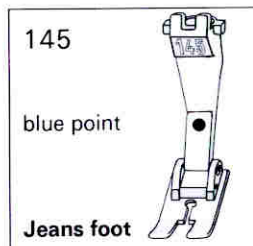
Flat joining seam

Elastic seam for lycra



Zip fastener
inserted flat

Presser foot:	007
Thread:	sewing thread
Needle:	80
Stitch selection:	selector lever 0 changeover lever 0
Stitch width:	0
Stitch length:	2 approx.
Needle position:	left / right
Feed-dog:	sewing
Colour mark:	●



Unusually thick or hard seams can be sewn without difficulty with the jeans foot. Select stitch length as required between 2 and 3.5 mm. Please ensure that **needle position «centre»** and **stitch width «0»** are set.

Use needle No. 100

Preparation:

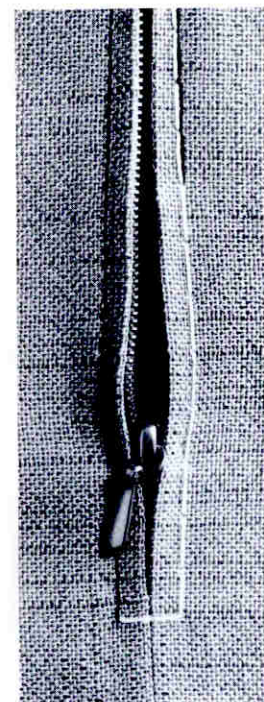
Baste entire seam with basting device. Mark length of zip and sew seam as far as zip opening. Unpick basting thread — **except along zip section**. Press entire seam, trim evenly and overcoat. Remove remaining basting thread. Baste-in zip so that the teeth are covered by the material. Sew-in zip, both sides from bottom to top, once with the needle position right and once with needle position left.

Plastic

Like synthetic fibres, plastic must be treated differently according to surface and graining when securing the edges. If the work does not slide properly it is often sufficient to lubricate the sewing area slightly with sewing machine oil (using a small cotton wad wrapped in absorbent material). Alternatively use presser foot with sliding rollers or Teflon base. Always sew plastic with long stitch length to prevent cutting.

Leather and imitation leather

It is, of course, also possible to sew leather. It may be necessary to use leather needles for hard leather. Sew a test piece first. Stitch length not too short. Try using the presser foot with sliding rollers or Teflon base.



Automatic Long Stitch / Basting Device

The switch for automatic long stitch has 3 positions.

 Automatic long stitch and basting device are disconnected. Machine sews normally.

 Automatic long stitch is switched on

 Basting device is switched on

Automatic long stitch

Penetrate needle; switch on automatic long stitch device. With the automatic long stitch switched on, the machine sews

every alternate stitch. Longest stitch: 8 mm. The long stitches can be sewn at all 5 needle positions.

Presser foot:	000
Thread:	sewing thread
Needle:	80
Stitch selection:	selector lever 0 changeover lever 0
Stitch width:	0
Stitch length:	2–4
Needle position:	all positions
Feed-dog:	sewing
Colour mark:	●

Decorative seams with buttonhole thread (cordonnet)

a) Buttonhole thread as upper thread

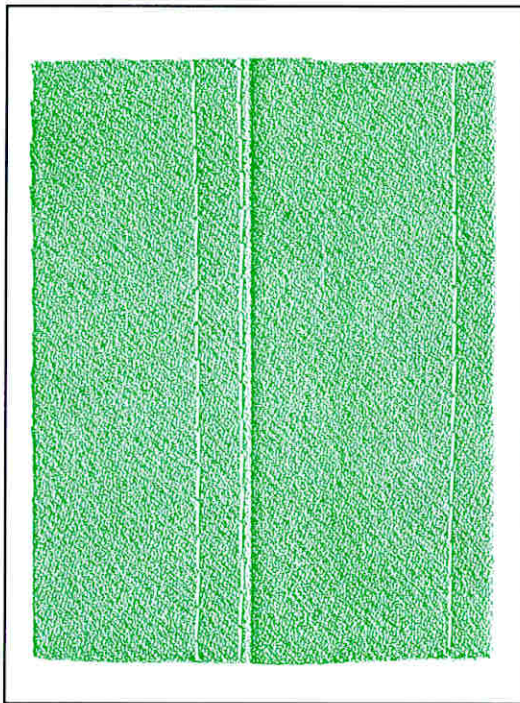
b) Buttonhole thread as lower thread.

General rule:
Needle No. 110 or 120

It is perfectly possible that a needle No. 100 will be satisfactory for certain types of material. Do a test piece of sewing.

If the thick needle is unsuitable for the material, the buttonhole thread must be sewn as lower thread. In this case, sewing must be on the back of the material. If the sewing line is not visible, e.g. when sewing on

pockets, it is first basted with darning thread. Use contrasting colour. The basting seam indicates the sewing line on the back and is easily removed at the end.



Basting device

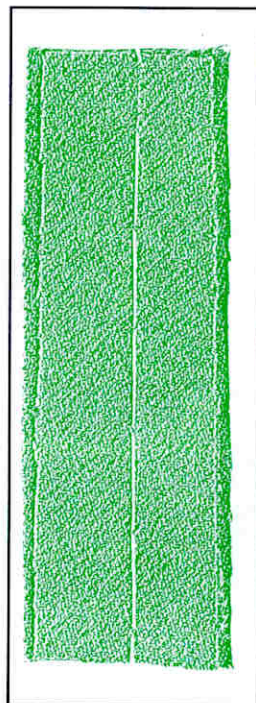
Presser foot:	000
Thread:	sewing thr. / basting thr.
Needle:	80
Stitch selection:	selector lever 0 changeover lever 0
Stitch width:	0
Stitch length:	1½–4
Needle position:	all positions
Feed-dog:	sewing
Colour mark:	●

With the basting device switched on, the machine sews every 6th stitch.

This produces long basting stitches (longest stitch 2.4 cm). Select desired basting stitch length with the normal stitch length control. The basting stitches can be sewn in all needle positions.

To secure beginning of seam sew several stitches, then penetrate needle into the material and switch on automatic long stitch device.

To secure end of seam switch off automatic long stitch device and sew several stitches.



Blind Hemming

Presser foot:	016
Thread:	sewing thr./darning thr.
Needle:	80-70
Stitch selection:	selector lever 2 changeover lever 1-20
Stitch width:	2½ approx.
Stitch length:	2-2½
Needle position:	right
Feed-dog:	sewing
Colour mark:	●

Important

As for sewing by hand, a fine material requires a fine needle and fine thread. This work is best sewn at a slow speed.

Preparation

The hem should be prepared as for sewing by hand: oversew raw edge, baste and press.

Placing the hem

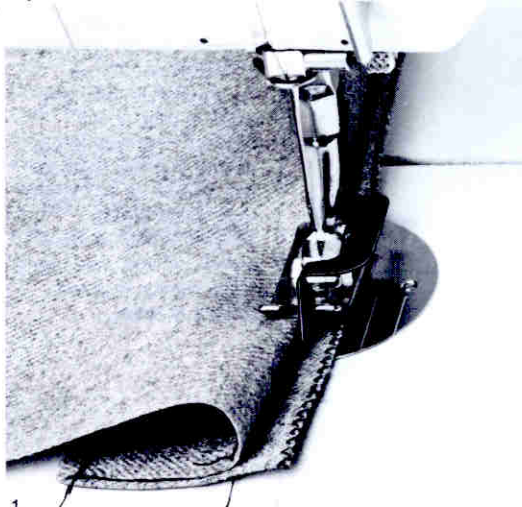
How the work is placed beneath the foot (see Fig. 1).

Trial sewing (on a material remnant or directly on hem) It is recommended to sew a trial piece owing to the varying material thicknesses; the needle should only prick the edge of the material, as when sewing by hand.

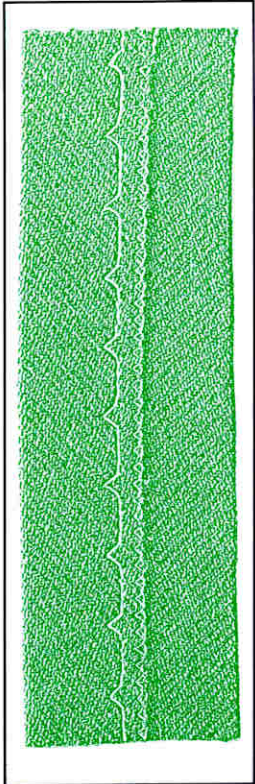
Basic setting is always stitch width 2½. The different thicknesses of ma-

terial may require a small adjustment.
Trial: Sew slowly, until the needle swings to the left side. Using the hand-wheel guide the needle until it just touches the fold and check that it just catches it. If necessary, adjust stitch width slight-

ly: making it narrower if needle is too far over fold and wider if it is missing the fold. Check the next left swinging stitch in the same way. Then sew approx. 10 cm and check again.

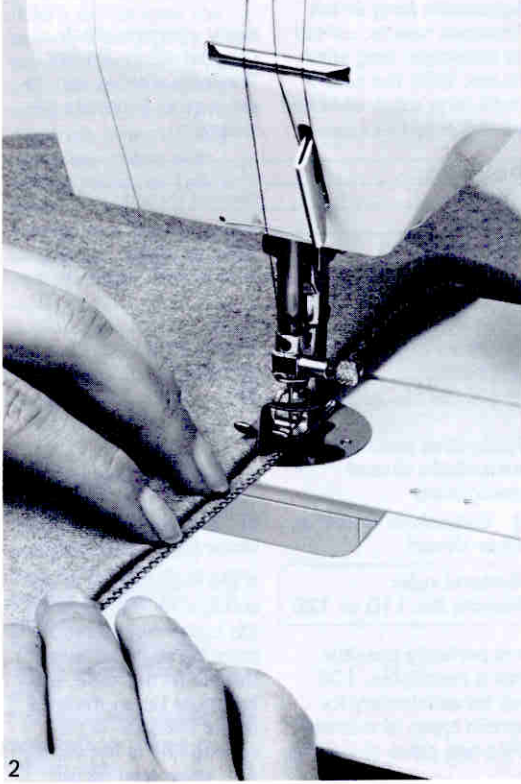


1



Guiding the work

Guide the hem into the foot as shown in Fig. 2.
Tip: Hold the work lightly ensuring the fold is always kept against the guide.



2