



NECCHI Società per Azioni - Pavia (Italy)

7713402-00



NECCHI 554

Instructions for the
use and maintenance



NECCHI 554

Dear Madam :

We at NECCHI would like to welcome you to our family of users throughout the world (and extend our sincere congratulations on your fortunate choice of sewing machines).

By bringing a NECCHI 554 into your home, you have acquired an accurate interpreter of your creative fancies; an obedient instrument to complement your skill in making new and always prettier clothes for your wardrobe; and a devoted servant for a variety of other home making chores.

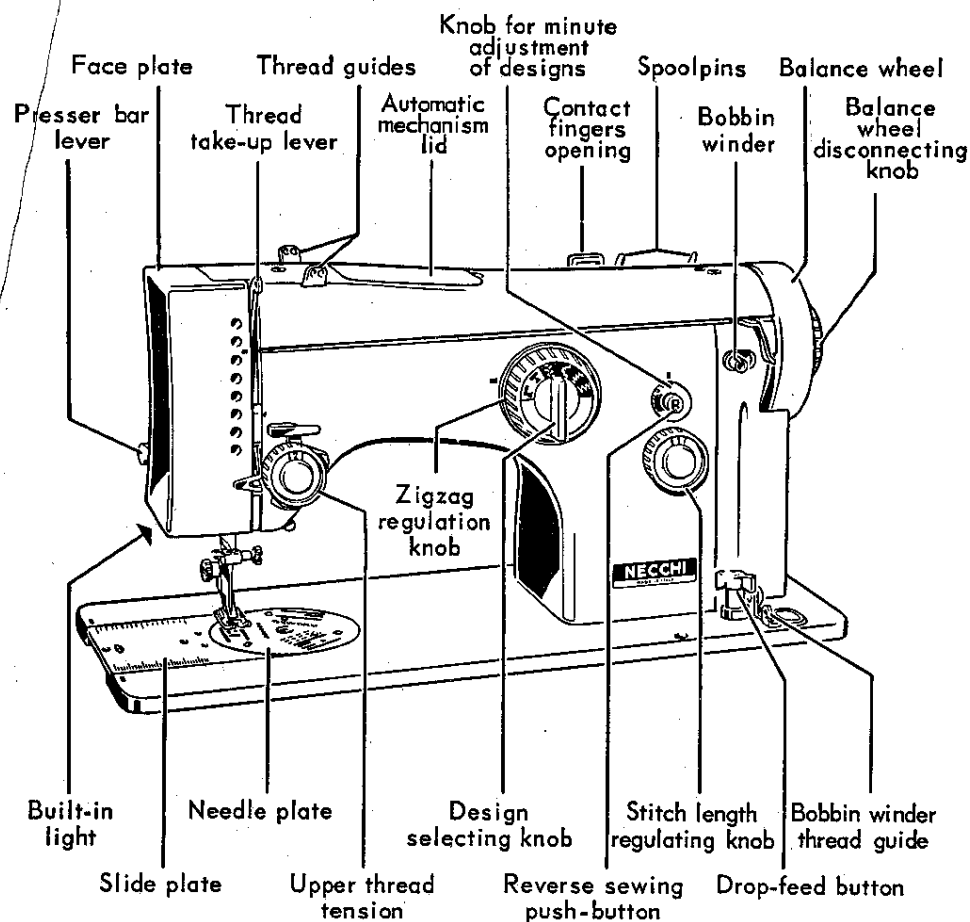
Our objective in designing the NECCHI 554 was to produce the most complete sewing machine available--and, we wanted to give you the ability to make the most elaborate and perfect stitches in the easiest way possible.

We have done this. Simple and yet complete--that is the NECCHI 554.

But like any other machine, you must get to know it, and discover all the little secrets, so that you may make it perform at its utmost capability.

To do so, we ask that you read carefully this instruction booklet. Should you still have some questions, please do not hesitate to call on your NECCHI dealer, or on the regional NECCHI sales representatives. Both will always be glad to assist you.

And now, let us wish you many happy sewing hours with your new NECCHI 554!



Jamproof OSCILLATING SHUTTLE, with particular silent movement due to the race plate in highly resisting plastic.

UPPER THREAD TENSION adjustable with easy to read graduation knob.

PRESSURE OF PRESSER FOOT adjustable with knob placed under face plate.

STITCH LENGTH REGULATION KNOB easy to turn, with clearly visible graduation.

REVERSE SEWING PUSH-BUTTON for sewing in reverse by pushing button R placed above stitch length regulation knob, which returns automatically.

DISCONNECTION OF BALANCE WHEEL for winding the bobbin, by rotating disconnecting knob.

BOBBIN WINDER placed frontally, with automatic stop.

Built-in NEEDLE THREADER. Simplifies remarkably the threading of the needle.

TWO-SPEED MOTOR adjustable with switch and foot-control.

BUILT-IN LIGHT placed under the face plate to illuminate only working area.

ZIGZAG REGULATION KNOB for regulation of zigzag width.

DOUBLE AUTOMATIC for ornamental designs, embroidery, darning, buttonholes etc.

DESIGN SELECTING KNOB coaxial with zigzag regulation knob, for positioning of the needle and dialing the different embroidery-stitches.

Circular NEEDLE PLATE for three different working positions.

KNOB FOR MINUTE ADJUSTMENT OF DESIGNS allows micrometrical adjustments of feed.

1. TO ENSURE PERFECT FUNCTIONING OF MACHINE

- Balance wheel must always be turned toward the operator.
- Do not operate machine with presser foot resting on feed dog unless there is cloth in between.
- Keep a small piece of cloth underneath presser foot whenever machine is not in use.
- Keep the machine clean, and do not forget to oil it periodically using NECCHI-OIL only.

2. TO CONNECT MACHINE TO WALL OUTLET

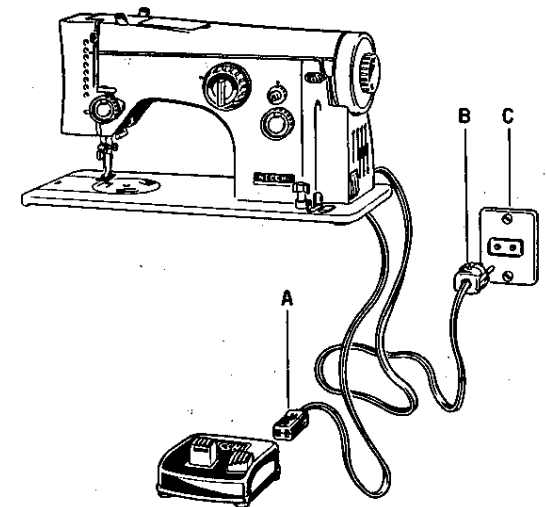
WARNING: Before connecting the machine to wall outlet, make sure that local mains voltage and frequency (which can be read on the plate of the meter) correspond to those indicated on the plate of the machine.

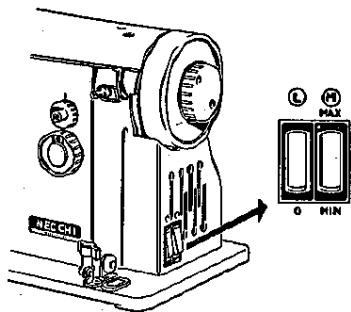
This point must be checked every time the machine is transferred from one house to another.

If the voltages are different, apply to a NECCHI dealer or an electrician.

If the voltages agree, connect the machine to wall outlet as follows:

- push tap A on 2-way receptacle of rheostat,
- insert the plug B into the socket of the wall outlet C.





3. TO START THE MACHINE

- The machine is provided with a double-switch to reduce the sewing speed without foot-control regulation. Pushing switch M from one extreme to the other means changing from high (MAX) to low (MIN) sewing-speed.
- Start machine by pressing on foot control. The sewing-speed can be varied according to the pressure upon the foot-control.

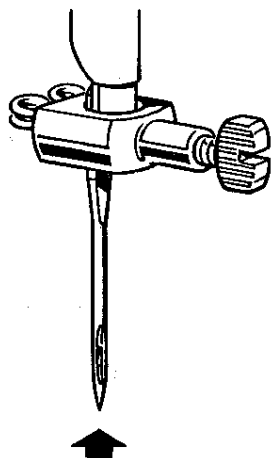
- In order to avoid the overheating of the foot-control, it is advisable to switch to MIN if low speed is desired during a longer sewing period.

4. LIGHTING

- The light is turned on and off by means of switch L situated beside the two-speed motor switch.

5. TO INSERT NEEDLE

- Bring needle bar to its highest position by turning balance wheel towards you.
- Loosen needle clamp screw.
- Insert needle into needle clamp in such a manner that the flat side of the shank is turned towards the right of the machine.
- Push needle up as far as it will go and tighten the screw with a screwdriver.



6. RECOMMENDED NEEDLE AND THREAD SIZES

ALWAYS USE NECCHI NEEDLES SYST. 705

The choice of the suitable needle and thread is most important for a correct sewing.

For very light fabrics it is advisable to use fine needles and very fine threads; for heavy fabrics, on the other hand, we recommend using strong needles and threads.

For the choice of the needle and thread, please refer to the following table:

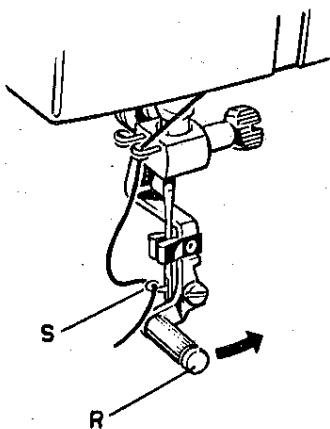
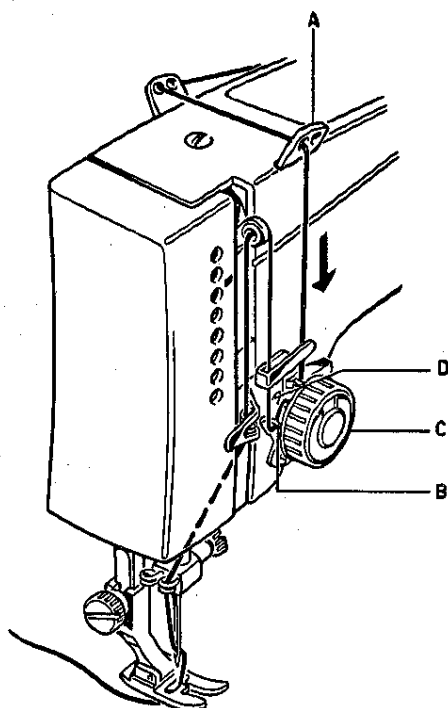
Types of fabric and classes of work	Sizes of thread		Sizes of needles
	Mercerized cotton	Silk	
Very thin fabrics like: muslin, chiffon, batiste, fine linen cambrics. For lingerie, infants' wear and delicate lace work.	80 to 150	0 and 000 Twist	70
Shirtings, sheetings, calicoes, silk and cotton, light weight woollens. For general household sewing and all classes of general work.	60 to 80	A & B Twist	80
Heavy calicoes and silk, light weight woollens, heavy cretonnes, muslin, brocades, and quilts. For men's work shirts, smocks and aprons, quilting and fabric furnishing.	40 to 60	C Twist	90
Bed ticking, upholstery and awning material, slip cover fabric, woollen goods, heavy woven coating, light weight canvas. For trousers, boys' clothing, work uniforms, awning and slip covers.	30 to 40	D Twist	100
Heavy tickings and woollens, heavy suiting and coating, canvas and sack-ing. For heavy clothing in general, such as heavy uniforms, coats, trousers, bedding supplies, bags, etc.	24 to 30	E Twist	110

7. TO THREAD MACHINE

- Raise presser foot by lifting presser bar lever.
- Turn the balance wheel towards you by hand, bringing the needle bar to its highest position.
- Thread the machine by following the scheme shown on the figure.

After having passed thread between tension discs housing, hold thread with right hand thumb against thread guide A while pulling thread with your left hand slightly upwards so that it pulls up spring B and places itself astride of hook D.

Pass thread through needle eye from left to right leaving about 4 inches hanging free.

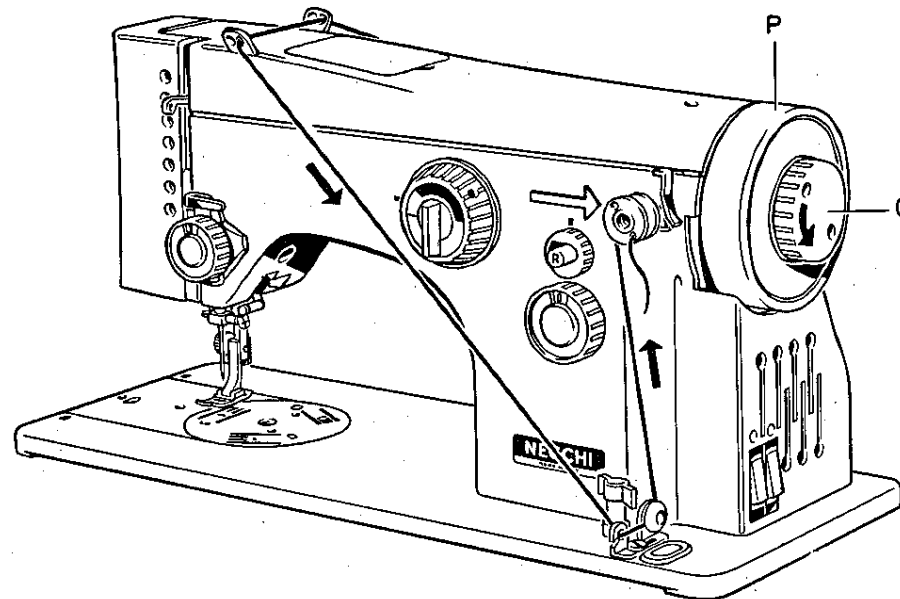


8. TO THREAD NEEDLE WITH THREADER

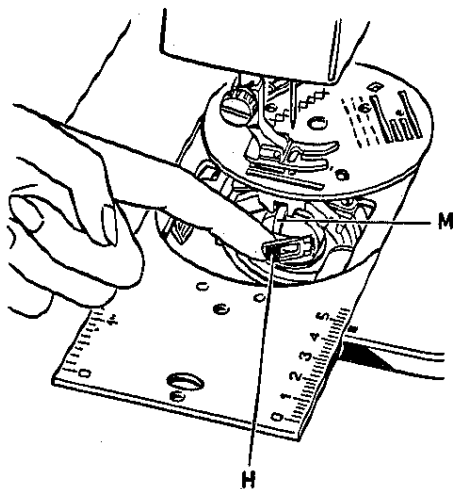
- Bring the needle to its highest position and the take-up lever in correspondence with mark line on face plate.
- Bring knob R downward until hook S will pass through the eye of the needle.

- Pass the thread on hook S and draw knob R away from the needle; the hook will drag the thread through the eye of the needle and the threader will be pulled upward by a spring.

9. TO WIND EMPTY BOBBIN



- Disconnect balance wheel P by holding it with the left hand and by turning knob Q in the direction of the arrow.
- Pass thread through points indicated in illustration and insert it from the inside to the outside into one of the two holes of the bobbin flange, leaving about 4 inches of thread hanging free.
- Insert bobbin on bobbin winder spindle taking care that the bobbin flange provided with holes is turned outwards.
- Push bobbin-winder spindle towards balance wheel and start the motor, while holding the ends of thread hanging free from bobbin flange in your fingers. After a few turns the thread in your hand will break.
- Bobbin will stop automatically when filled.
- Push bobbin-winder spindle to the left, remove bobbin, and reconnect balance wheel by fastening knob Q.

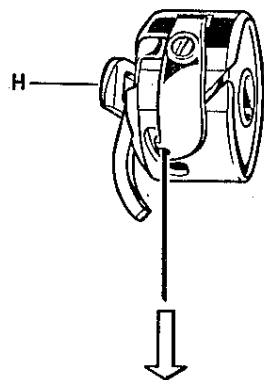
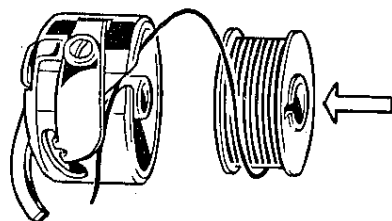


11. TO INSERT BOBBIN INTO BOBBIN CASE

- Insert bobbin into bobbin case in such a manner that the bobbin flange provided with holes must be turned toward the inside of the bobbin case.
- Insert thread into groove of bobbin case.
- Lift latch H so that bobbin is blocked and draw thread under tension spring as indicated, leaving about 4 inches of thread hanging out.

10. TO REMOVE BOBBIN CASE

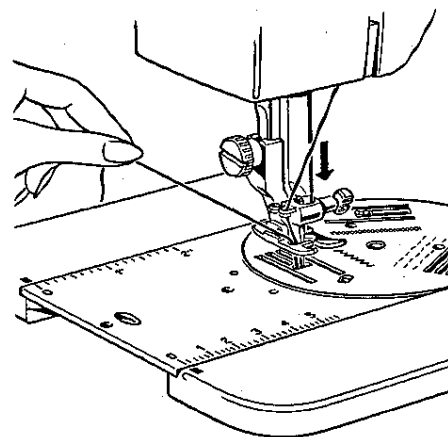
- Lift presser foot.
- Turn balance wheel by hand and bring needle bar to its highest point.
- Move slide plate to the left.
- Remove bobbin case by lifting latch H and pulling it to the left.
- The bobbin will drop out when the latch is released.



12. TO INSERT BOBBIN CASE INTO SHUTTLE

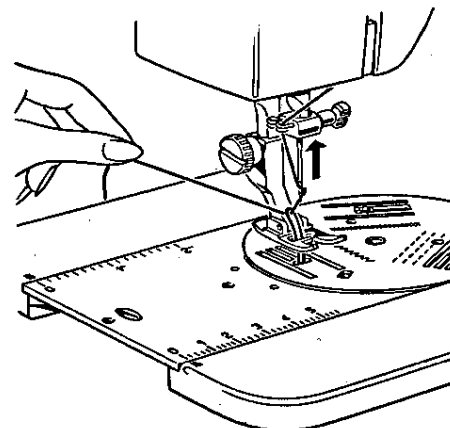
- By turning balance wheel by hand, bring needle bar to its highest point.
- Move slide plate to the left.
- Insert bobbin case by latch H on centre stud of shuttle. Finger M must go into notch of shuttle ring.
- Release latch H and press on bobbin case until a click is heard.
- Let about 4 inches of thread hanging out.

13. TO DRAW BOBBIN THREAD



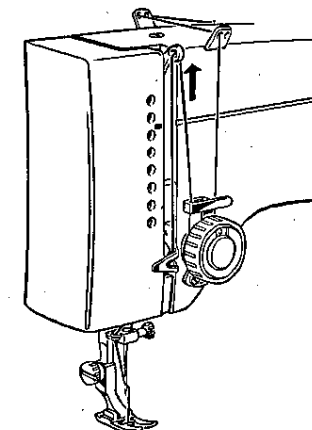
1

- Raise presser foot.
- Hold the thread coming out of the needle with your left hand, and turn balance wheel towards you with your right hand, in order that needle descends to its lowest position.



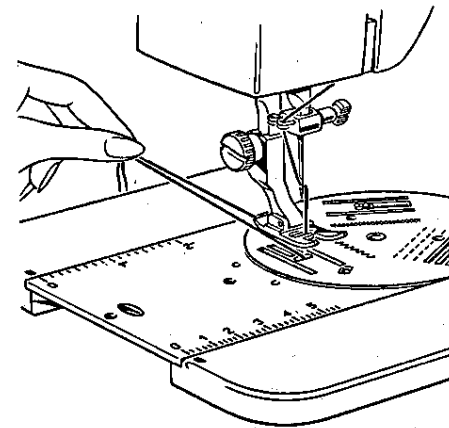
3

- Pull the thread held in your left hand until the lower thread comes out of the hole of the needle plate.



2

- Go on turning balance wheel until thread take-up lever reaches its highest position.

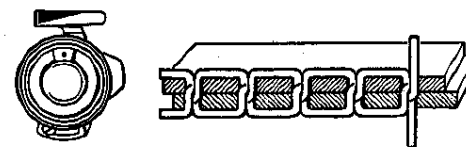
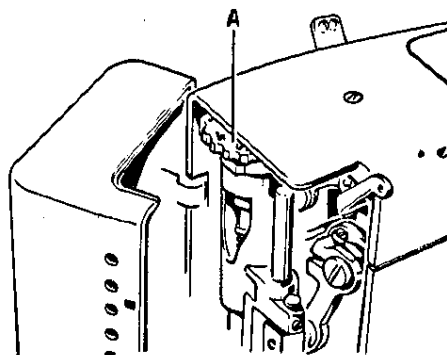


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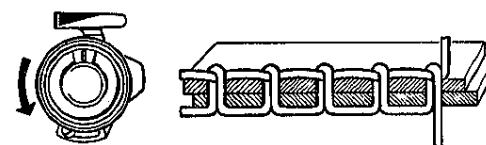
- Carry the ends of both threads underneath and behind the foot.

14. TO REGULATE PRESSURE OF PRESSER FOOT

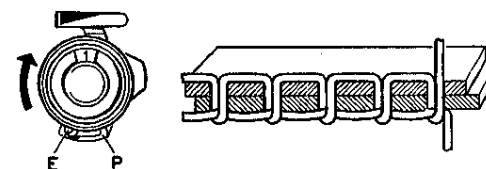
- The pressure of presser foot is regulated by turning roller A. The number visible towards face plate indicates pressure value. Normally the pressure adjusted on 4 or 5 is all right for ordinary sewing jobs.
- To increase the pressure, turn towards higher numbers.
- To decrease the pressure, turn towards lower numbers.



- If the needle and bobbin threads lock between the fabric layers: tensions are correctly adjusted.



- If the threads lock on right side of fabric, needle thread tension is too tight. Loosen it by turning the knob in the direction of the arrow.



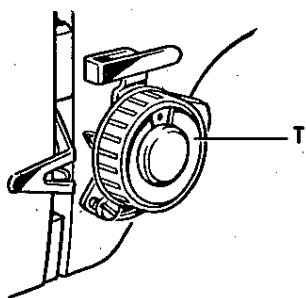
- If threads lock on wrong side of fabric, tension is too loose. Tighten it by turning knob in the direction of the arrow.

NOTE: When sewing on hard or thick fabrics, it is advisable to loosen screw E and slightly move small plate P in the direction of the arrow.

15. TO ADJUST TENSIONS

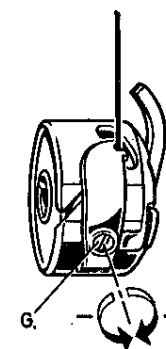
UPPER TENSION

- Adjust by turning button T. The normal value of the upper thread tension is indicated on the knob by a small red dot.
- Needle thread tension is increased by turning button towards higher numbers.
- It is loosened by turning in the opposite direction.



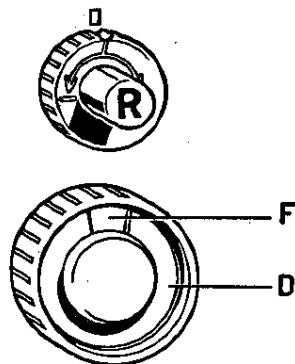
BOBBIN THREAD TENSION

- The lower tension is increased by tightening screw G, it is decreased by loosening same.
- Lower tension should be adjusted carefully since small rotations of screw G may considerably vary tension value.



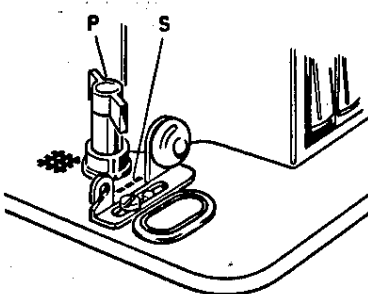
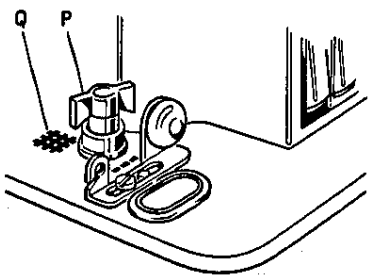
16. TO REGULATE STITCH LENGTH

- Turn button D: the stitch length expressed in mm. is visible through small window F.
- The stitch length normally required for satin stitch is indicated by a red square mark.



17. TO SEW IN REVERSE

- For reverse sewing press the push-button marked R. The machine returns to straight sewing as soon as you cease pressing this button.
- Reverse sewing is used in general for reinforcing beginning or end of seams.



18. TO DROP FEED DOG

- The feed dog must be dropped for hoop embroidery, darning and sewing on buttons.
- Turn button P so that one of its prongs faces the square mark Q.
- Push button P down; it will remain in this position.
- To raise feed dog, turn button P so that one of its prongs faces the opposite alignment mark S. When rotating the balance wheel, feed dog will come up by itself.

NOTE: The feed dog can be dropped from time to time, by pushing button P down. By letting it come up, feed dog will resume its working.

19. THREE POSITION NEEDLE-PLATE

- The needle plate can be fitted in 3 different positions which are used as follows:

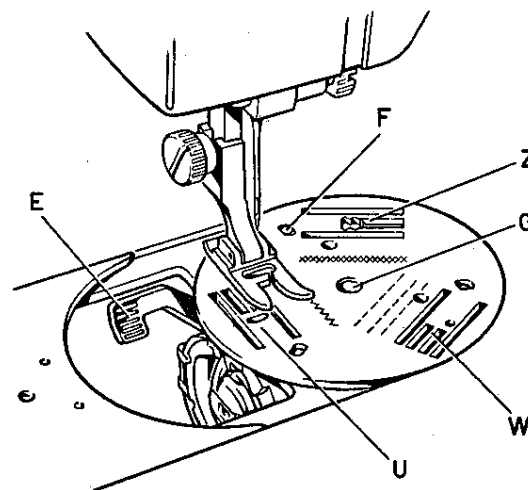
U: for straight and zigzag sewing.

W: for straight stitch on light fabrics (nylon, silk) with the needle position lever B in left notch and the presser foot for straight stitch.

Z: for twin needle sewing.

To fit needle plate in each one of the 3 positions:

- Drop feed dog, bring needle to its highest position and move slide plate to the left.



- Press lever E and the needle plate will lift itself.

- Turn the needle plate around until the desired position is under needle.

Make sure that locating pin F enters the corresponding hole in the plate.

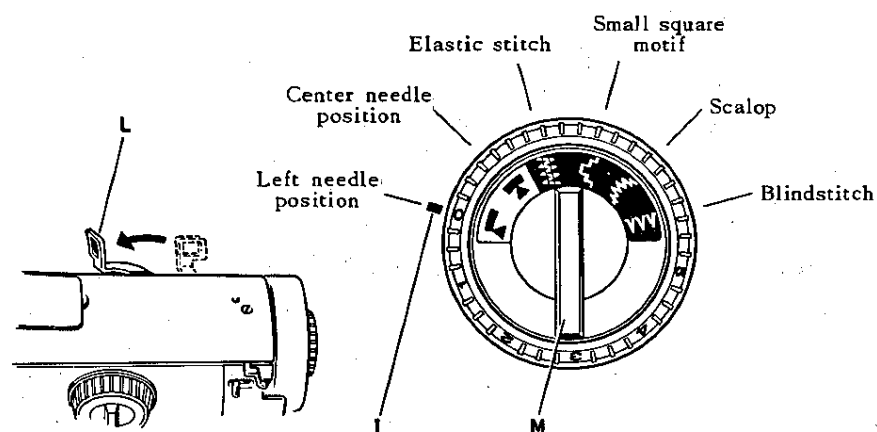
- Press central pin G. The plate will block itself automatically.
- Raise feed dog.

20. DESIGN SELECTING KNOB

To obtain automatically the desired embroidery motif, simply set the design selecting knob on the chosen design.

The black marks on golden background indicate the positions for executing straight and zigzag stitches.

The white marks on black background indicate the positions for obtaining special stitches or embroideries by means of the built-in cams.

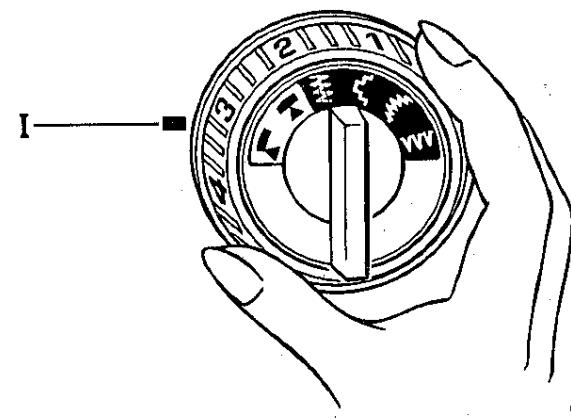


- Move lever L to the left, as indicated by arrow.
- Rotate dial M of selection knob until selected pattern corresponds with mark I on machine.
- Move lever L back to its working position so that it is flat on the machine arm.

WARNING: DO NOT FORGET THIS LAST POINT. CHECK BEFORE YOU START TO SEW.

21. ZIGZAG REGULATION KNOB

For zigzag width regulation from 0 to 5 mm, zigzag regulation knob rotates around design selecting knob.



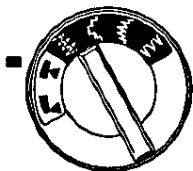
The numbers of zigzag width are marked on knob itself and should stay in correspondence with mark I on machine, this applies also for design selecting knob.

The zigzag regulation knob remains in given position until further rotations are made.

22. STRAIGHT STITCHING

Zigzag regulation knob: on zero (turn to extreme left).

Stitch length regulating knob: on desired length (normal sewing on 2).

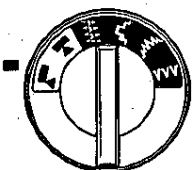


a) For normal sewing:

Needle plate: position U (see para. 19).

Presser foot: use metal foot for zigzag sewing (262313).

Selecting knob: position as shown in figure (centre needle position).



b) For light fabrics:

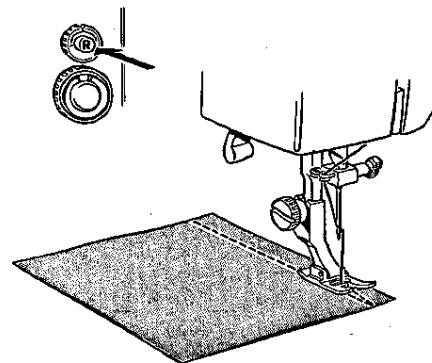
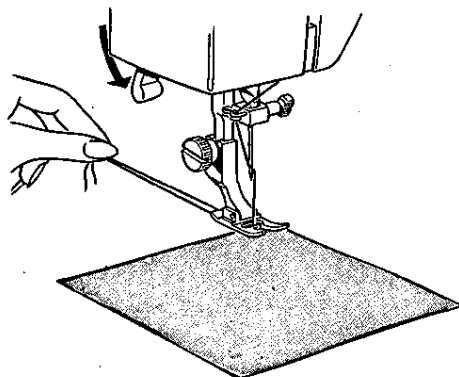
Needle plate: position W (see para. 19).

Selecting knob: position as shown in figure (left needle position).

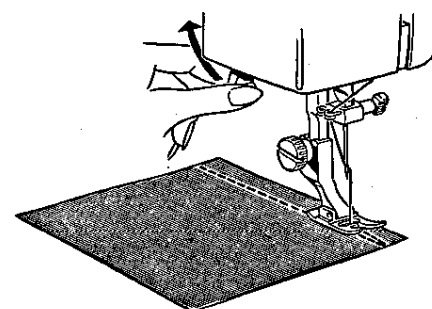
Presser foot: use metal foot for straight sewing (9560093).

WARNING – When using presser foot for straight sewing and needle plate in position W selecting knob must be in the above given position (on the left) and the zigzag regulation knob on zero.

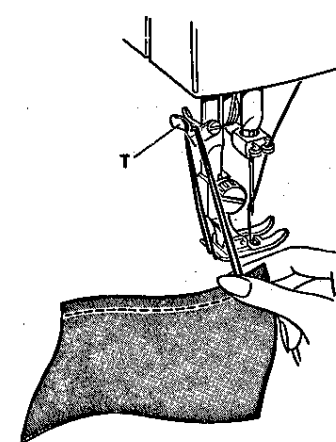
- Insert fabric underneath presser foot in the desired position and lower presser foot.
- Holding the two threads for a few stitches, start sewing.



- At the beginning and at the end of the seam, push the button for reverse sewing and execute a few back-stitches for reinforcement.



- Raise presser foot.
- Bring take-up lever to its highest position by turning balance wheel by hand toward you.
- Remove the fabric.

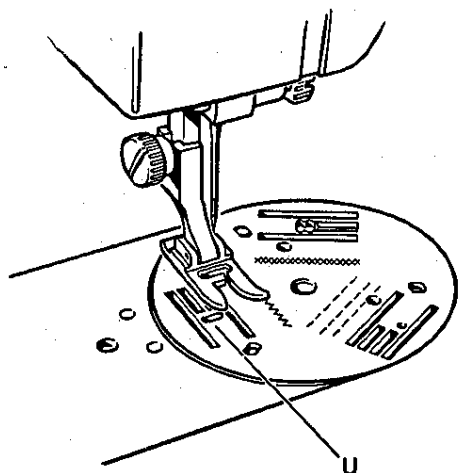


- It is easy to remove the fabric because, when presser foot is raised and take-up lever is in its highest position, the threads are running free.
- They can be cut with thread-cutter T provided on rear of presser bar.

N.B. - Do not try to help feeding by pulling fabric. The machine automatically feeds the fabric without assistance, at a speed corresponding to the stitch length you have chosen. You just have to guide the fabric slightly.

23. BASTING

Set stitch regulation knob for the maximum stitch length and loosen upper thread tension, by turning to lower numbers; proceed as for normal straight stitching. This makes it possible to effect long and loose stitches which can be easily unraveled.



24. ZIGZAG SEWING

Needle plate: in position U.

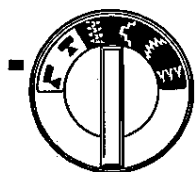
Presser foot: use metal foot for zigzag stitch (262313) or transparent foot for embroidery (9550865).

Stitch regulating knob: set for desired length of stitch.

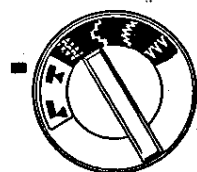
Zigzag regulating knob: set for desired zigzag width.

Selecting knob: in one of the two indicated positions.

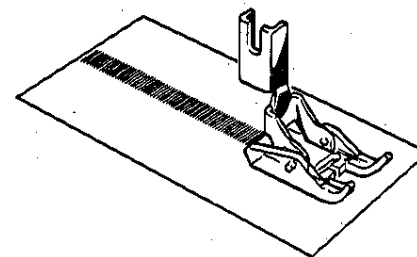
In the first position (left needle position), by adding zigzag width an asymmetrical design will show, in the second position a symmetrical design (see figure).



Left needle position



Centre needle position



SATIN STITCH

Presser foot: transparent foot for embroidery (9550865).

Tension: upper tension rather loose and lower rather tight. The upper thread must be visible on the wrong side of fabric.

Stitch length knob: near the red square mark so that the fabric is fed just enough to keep stitches close but not piled up.

Zigzag regulation knob: turn towards desired zigzag width.

Threads: it is advisable to use embroidery thread n. 30.

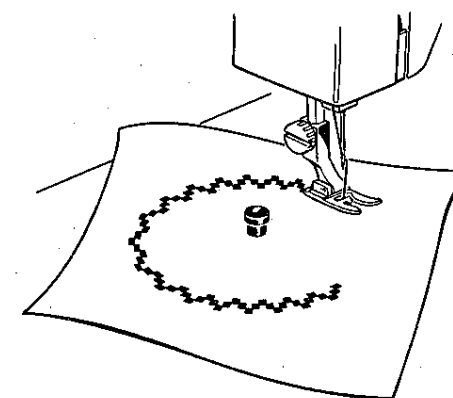
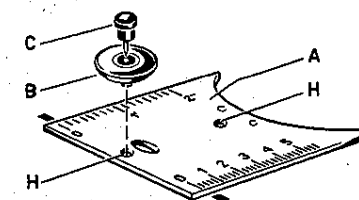
25. CIRCULAR SEWING

- Insert knob B in one of the holes H of slide plate A.
- Fix centre of fabric on knob B by means of pin C.
- Keep a finger on pin when sewing, so that the fabric revolving around the centre point of design does not slip or become detached.

By moving slide plate A, circles of various sizes can be obtained (see scales in cm. and inches on edges of slide plate).

Circular sewing should be done only with materials possessing a certain consistency.

With lighter materials, use an embroidery hoop or place a piece of tissue paper under fabric.



26. TWIN NEEDLE SEWING

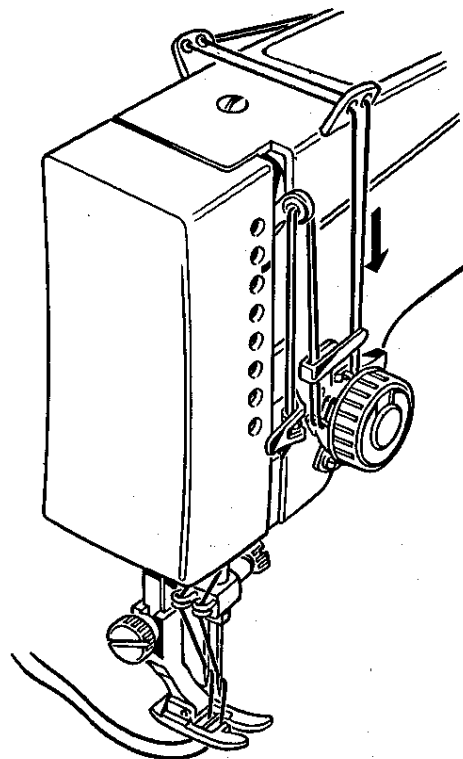
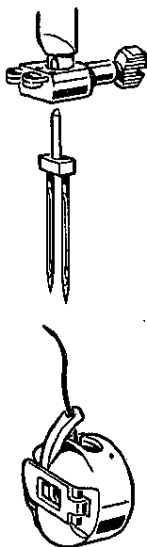
The twin needle makes it possible to sew with two threads of the same colour or of different colours.

The twin needle is to be inserted in the same manner as the normal one with the flat side of its shank toward the right.

Presser foot: for twin needle (9550835).

Needle plate: in position Z (para. 19).

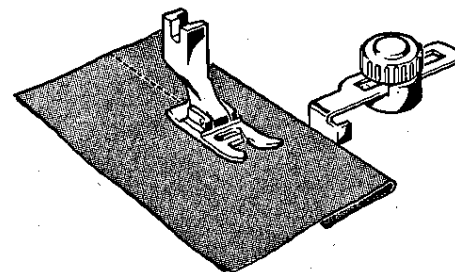
Lower thread: it must pass by the hole indicated in figure.



Thread must pass by points indicated in figure.

The tension device has three discs and one of the threads must pass before and the other behind the larger disc.

27. SEAMS PARALLEL TO EDGE OF FABRIC



The straight guide (9450305) is used for executing seams parallel to edge of fabric.

This guide is fitted on the machine at the desired distance from needle as shown in the figure, and it is fixed by tightening the knob.

28. RAISED STITCH APPLIQUE

Selecting knob: see figure (centre needle position).

Zigzag regulation knob: according to thickness of cord being used.

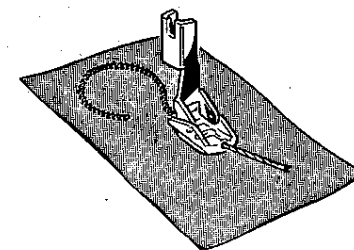
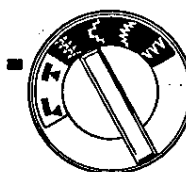
Stitch length knob: on red square mark.

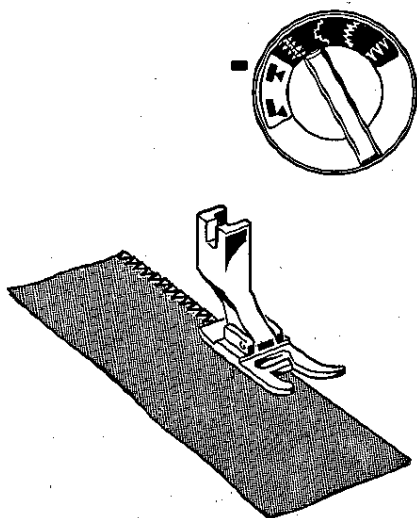
Upper tension: rather loose.

Presser foot: zigzag stitch cording foot (9200385).

Insert cord into the hole of cording foot, then guide it from front to back underneath presser foot.

Commence sewing and follow the design carefully.





29. OVERCASTING

Selecting knob: see figure (centre needle position).

Zigzag regulation knob: set for desired zigzag width.

Stitch length knob: set for desired stitch length.

Upper tension: normal.

Presser foot: use metal foot for zigzag sewing (262313).

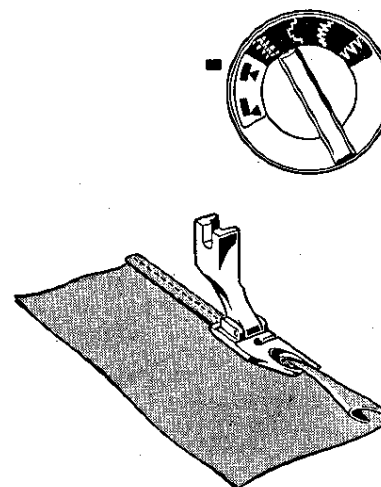
Needle must stitch into the fabric and out of its edge alternately.

30. HEMMING

Use the hemming foot 900125 for flat hems with straight stitch.

- Fold over edge of fabric about 1/8" for a length of about two inches, and insert the fold from beneath into the scroll of presser foot.
- Move fabric back and forth until hem forms itself into the scroll.

Lower presser foot and commence sewing, guiding fabric by hand in order to help its introduction in the scroll.



STRAIGHT STITCH HEM

Selecting knob: see figure (centre needle position).

Zigzag regulating knob: on zero.

Stitch length knob: between 3 and 4.

Presser foot: straight stitch hemming foot (see page 22).

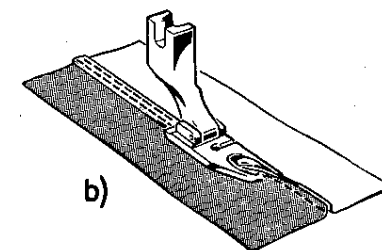
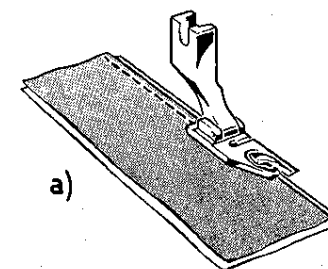
Upper tension: normal.

FLAT FELLED SEAMS

- Place a piece of fabric on top of the other so that their right sides face each other.

Right edge of bottom piece should protrude about 1/8" beyond right edge of top piece.

- Sew both pieces of fabric together, using the edge of hemming foot scroll as a guide (a).
- Open fabrics with their edges standing up.
- Insert edges in hemming foot scroll and sew as for normal straight stitch hem (b).



NOTE: for heavy fabrics it is advisable to use the felling foot symb. 9050025 which can be purchased in all NECCHI shops.

31. HEMSTITCH WITH DRAWN THREADS

Selecting knob: see figure (centre needle position).

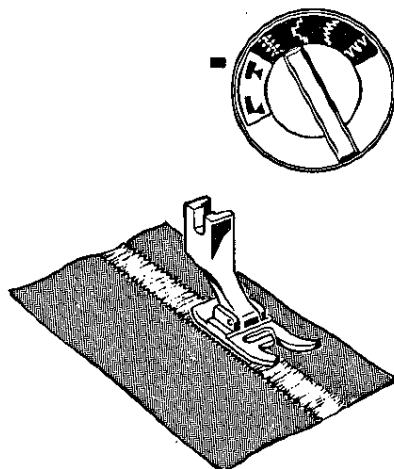
Zigzag regulation knob: between 1 and 2.

Stitch length knob: between 1 and 2.

Upper tension: normal.

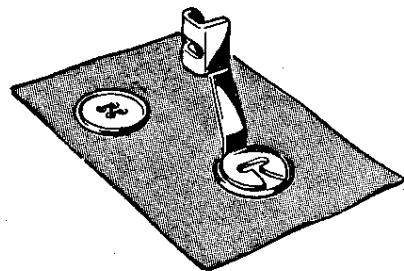
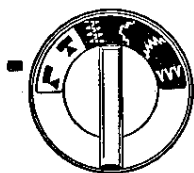
Presser foot: metal presser foot for zigzag sewing (262313).

- Draw desired number of threads from the fabric, to be hemstitched and commence sewing, making sure that the needle bites alternately close to the edge into the undrawn side of fabric and then into the space where the threads have been drawn. After stitching on one side of the drawn space has been finished, repeat same procedure on the other side.



32. SEWING ON BUTTONS

Selecting knob: see figure (left needle position).



Zigzag regulating knob: between 4 and 5 according to distance between holes of button.

Feed dog: to be dropped.

Presser foot: button sewing foot (9550075).

- While lowering presser foot, place the button on the fabric in order that its holes are in proper position for zigzag stitch.
- Turn balance wheel slowly, checking that needle goes through left hole, then through right hole of button; if needle does not clear button, change zigzag width.
- Run machine at medium speed making about 6 stitches.
- Bring zigzag regulating knob on zero and make a few straight stitches in the same hole to tie up zigzag stitches.

For sewing four-hole buttons, after stitching through the first two holes, raise slightly presser foot and place the other couple of holes under needle.

NOTE: The accessories used in the sewing jobs described below in para. 33, 34, 35, 36, 37, 38, 39, are not included in the accessory box and can be purchased through all NECCHI dealers.

33. QUILTING

Zigzag regulating knob: on zero.

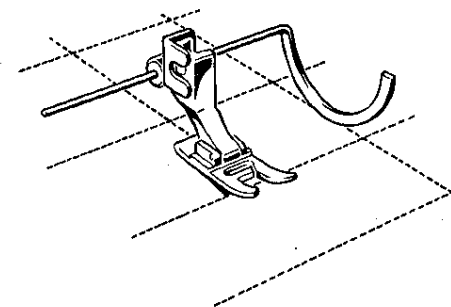
Stitch length knob: set for desired length.

Upper tension: normal.

Presser foot: use metal zigzag stitch foot (262313) and attach it to machine together with adjustable quilting guide (9400055 not included in accessory box).

Regulate position of quilting guide in accordance with the desired distance between two parallel lines of stitches.

Sew first left line, then move fabric toward the right so that guide bar is directly over first line.



34. NARROW ROLLED EDGE

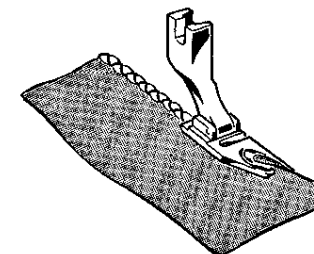
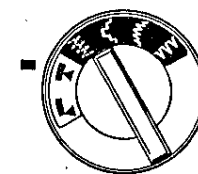
Selecting knob: see figure (centre needle position).

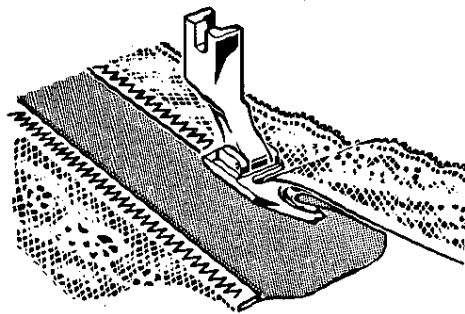
Zigzag regulating knob: between 2 and 3.

Stitch length knob: between 1 and 2.

Upper tension: normal.

Presser foot: zigzag hemming foot (9000485 - not included in accessory box).





35. HEMMING AND SEWING ON LACE

- Set machine as for narrow rolled edges.
 - After having made the first stitches, raise hemming foot and insert end of lace into slot of hemming foot.
- Needle must always stitch both through lace and hem.

36. EMBROIDERY AND MONOGRAM WITH HOOP

The hoop is used for perfect stretching of the fabric.

Selecting knob: see figure (centre needle position).

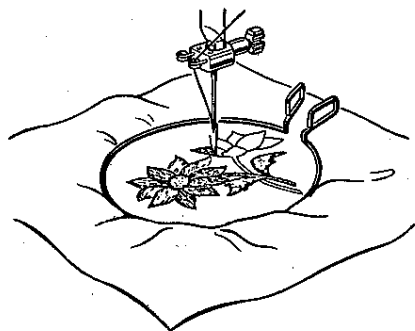
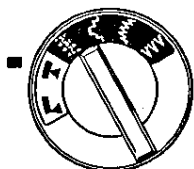
Zigzag regulating knob: on zero.

Stitch length knob: on zero.

Upper tension: rather loose.

Feed dog: to be dropped.

- Remove presser foot and lower the needle bar lever.
- Slightly pulling upper thread, turn balance wheel so that lower thread is pulled up to upper surface of fabric.
- Move hoop slowly, but only when needle is out of fabric and holding both threads for the first stitches.



37. TO ATTACH ZIPPERS

For attaching zippers, use the special foot (9200215).

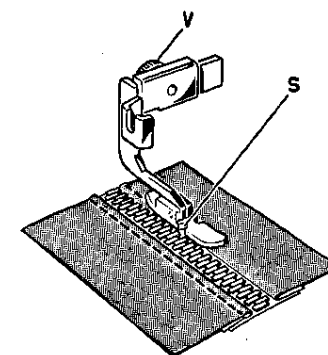
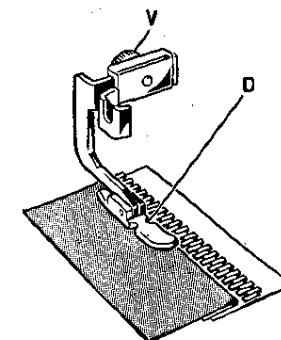
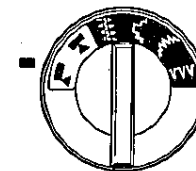
Selecting knob: see figure (left needle position).

Zigzag regulating knob: on zero.

Stitch length knob: set on desired stitch length.

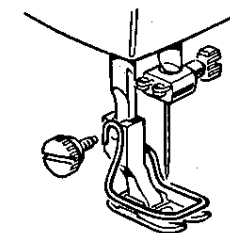
Needle plate: set on position U (see para. 19).

- Attach zipper-foot.
- By loosening screw V adjust presser foot sideways until needle enters in right cut-out D, fasten screw V.
- Place the zipper on the right of the needle. Place fabric with folded edge on zipper edge as shown in the figure; then execute the first seam.
- Again loosen screw V, adjust presser foot sideways until needle enters in left cut-out S, fasten screw V.
- Move fabric in order to have zipper on the left of the needle, place on zipper the other folded edge and execute the second seam.



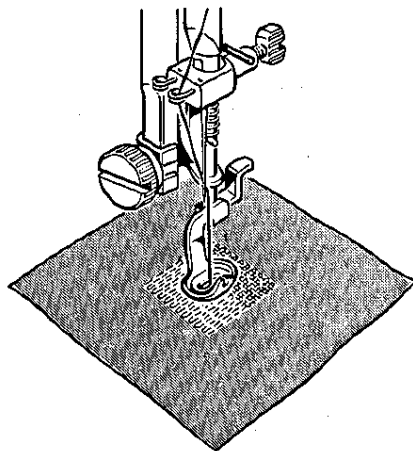
38. FINGER-GUARD

This accessory (9963120) prevents you from putting distractedly your fingers under the needle.



39. DARNING

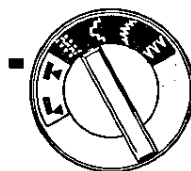
Darning is facilitated by the use of special foot (symb. 9350015) instead of normal presser foot.



A



B



Selecting knob: set as in the figure (needle at centre).

Zigzag regulating knob: on zero.

Tension: normal.

Feed dog: dropped.

- Start machine and move the fabric by hand from right to left and vice-versa alternately, so as to cover the whole area to be darned with a weft of a great density of stitches (fig. A).

- Then moving the fabric back and forth alternately add a second dense transversal weft of stitches (fig. B).

N.B. - It is essential to maintain the fabric firmly stretched under the presser foot when darning. If large tears are to be darned, it is advisable to use an embroidery hoop.

DARNING WITH WOOLLEN THREAD

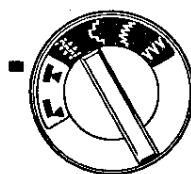
Woollen thread is useful for darning stretch fabrics and is essential for darning knitwear, such as stockings, socks, pullovers, etc.

Thread machine with normal darning thread.

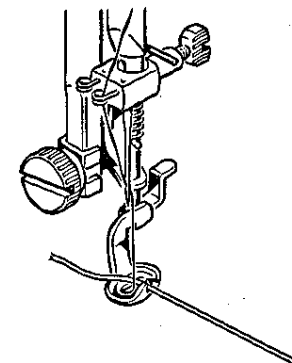
Selecting knob: see figure (centre needle position).

Zigzag regulating knob: set on fourth zigzag position.

Feed dog: dropped.

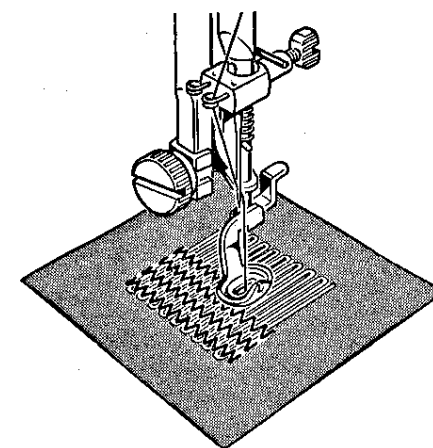
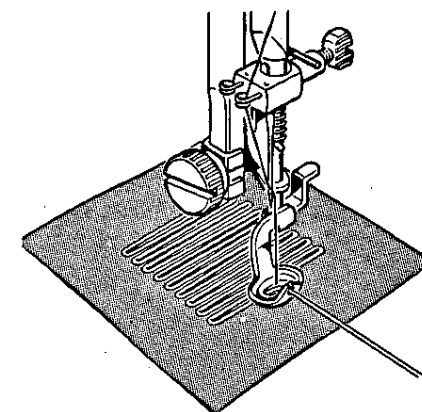


- Insert a woollen thread into the special hole of presser foot and fix it with a few stitches at the upper lefthand corner of the area to be darned.



- Start darning by moving fabric slowly from right to left and vice-versa.

- After having covered the area with woollen thread, reinforce with a few stitches and cut it.



- With normal thread, slowly execute a series of zigzag rows moving fabric slowly back and forth.

40. AUTOMATIC SEWING

The NECCHI 554 is provided with a mechanism of built-in cams to obtain automatically the desired embroidery motif, without adding anything.

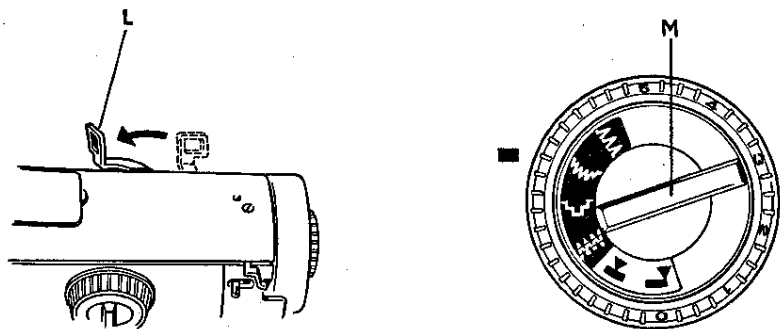
By turning the «design selecting knob» (see para. 20) the designs can be changed easily.

Thanks to its two automatic mechanisms which can work separately or together simultaneously, a large variety of ornamental motifs are obtained by adding additional cam-groups for easy and fast use.

The buttonhole-cam and automatic darning cam are among those additional external cam-groups.

TO USE THE BUILT-IN CAMS

- Move lever L to the left.
- Rotate design selecting knob M and put selected design (example: scallop) in correspondence with mark on machine.

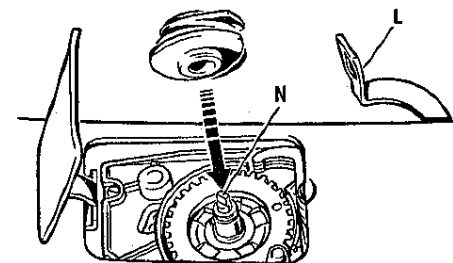


- Move lever L back to its working position so that it is flat on the machine arm.

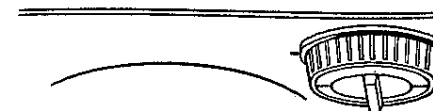
DO NOT FORGET THIS LAST POINT. CHECK ALWAYS BEFORE YOU START TO SEW.

TO USE EXTERNAL CAM-GROUPS

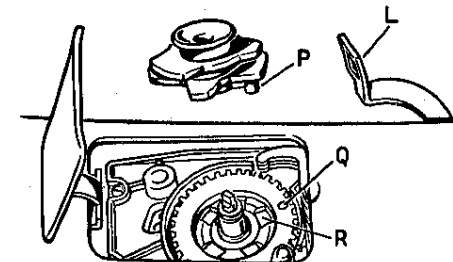
- Move lever L to the left.
- Open lid and slip cam group onto cam driving pin N.



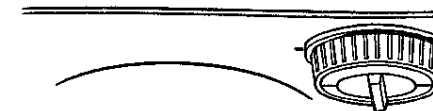
With rectangular cam opening, make sure that the end of driving pin N enters completely.



With circular cam opening, groups are to be placed in such a way that prong P of lower cam enters the slot R marked by a notch Q on the toothed crown.



- Move lever L back to its working position so that it is flat on the machine arm.



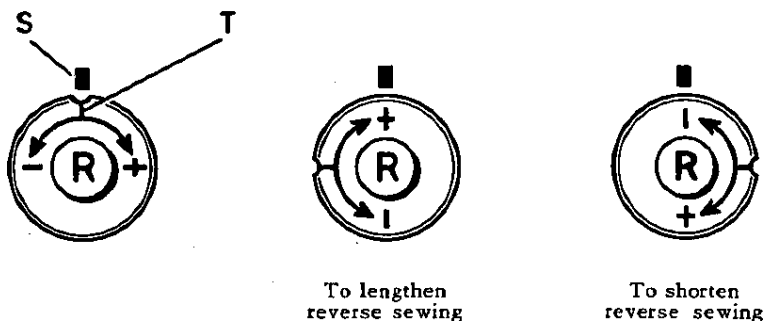
NOTE: After completed work remove cam-group from machine and put it in accessory-box.

KNOB FOR MINUTE ADJUSTMENT OF DESIGN

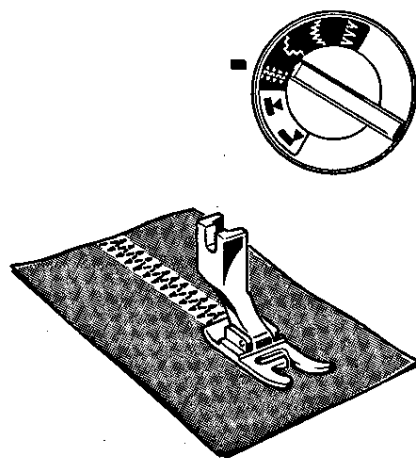
For some ornamental motives where the machine stitches alternatively forward and backward, slight rotations on the knob may be necessary to even stitches. (Turkish hemstitch, Paris stitch, etc.).

This adjustment knob is combined with the reverse sewing knob.

In normal position index T is in correspondence with square mark S.



To lengthen reverse stitch in respect to forward stitch, turn knob with sign + towards square mark; to shorten reverse stitch in respect to forward stitch, turn knob with sign - toward square mark.



41. STRETCH STITCH

The stretch stitch, which is a must for sewing on knitted fabric, is executed automatically.

Selecting knob: see figure.

Zigzag regulating knob: on zero.

Stitch length regulating knob: between 0,5 and 1.

Presser foot: metal zigzag presser foot (262313).

Needle plate: position U (see para. 19).

Tensions: normal.

42. SMOCK STITCH

For this type of work use light material like satin.

Set machine as for sewing with twin needle (para. 26).

Selecting knob: see figure.

Zigzag regulating knob: on zero.

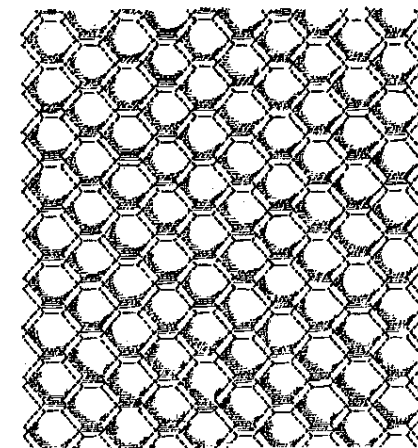
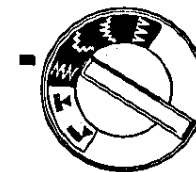
Stitch length regulating knob: on 0,5.

Upper thread tension: rather tight.

Thread: for embroidery no. 50.

Sew parallel lines of stitches so that the apexes of every line are always in correspondence with those of the preceding one.

If necessary correct direction of sewing, guiding the fabric by hand.



43. SMALL SQUARE ORNAMENTAL MOTIF

Selecting knob: see figure.

Zigzag regulating knob: 1,8.

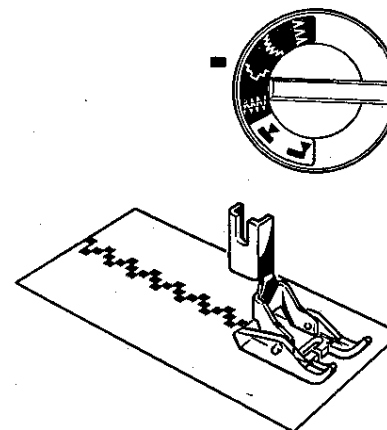
Stitch length regulating knob: on red square mark.

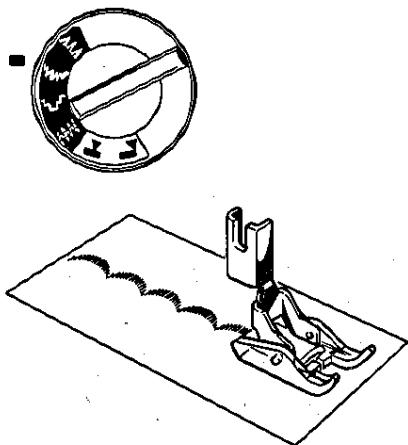
Needle plate: position U (see para. 19).

Presser foot: transparent for embroidery (9550865).

Tension: normal.

Threads: advisable to use embroidery thread no. 30.





45. BLINDSTITCH

Blindstitch, particularly used for hems, is executed automatically.

Selecting knob: see figure.

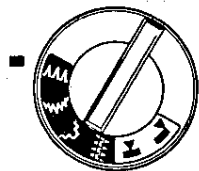
Zigzag regulating knob: on zero.

Stitch length regulating knob: set according to your requirements.

Needle plate: position U (see para. 19).

Presser foot: metal zigzag foot (262313) with guide for blindstitching (9450295).

Thread tension: normal.



44. SCALOP

Selecting knob: see figure.

Zigzag regulating knob: on zero.

Stitch length regulating knob: on red square mark.

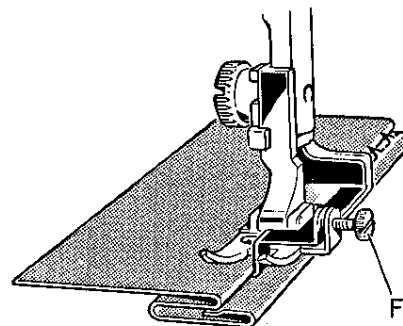
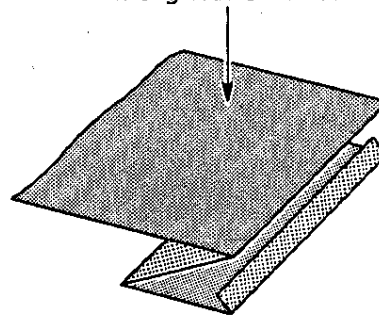
Needle plate: position U (see para. 19).

Presser foot: transparent for embroidery (9550865).

Thread tension: normal.

Threads: advisable to use embroidery thread no. 30.

Wrong side of fabric



- Fold the fabric as shown in the figure; the distance between the two folded edges must be of 2 to 3 mm. (about 1/8").

- Sew at medium speed so that the upper edge remains in contact with the guide. Screw F of the guide is used for regulating sewing so that stitch remains always invisible on right side of fabric.

46. SHELL STITCH

Selecting knob: see figure.

Zigzag regulating knob: on zero.

Stitch length regulating knob: from 1 to 2,5 according to the length of scallop desired.

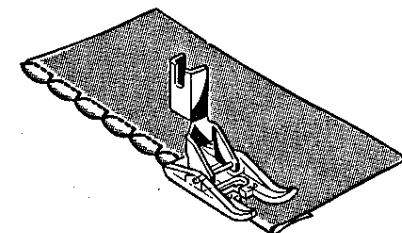
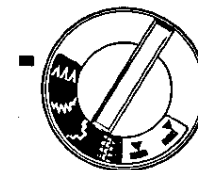
Needle plate: position U (see para. 19).

Presser foot: transparent for embroidery (9550865).

Upper thread tension: slightly tightened.

Lower thread tension: rather tight.

Place fabric so that the stitches on the left lock on the outer edge of hem. It is advisable to sew at low speed (MIN) and to guide fabric by hand.



47. TURKISH HEMSTITCH

Insert cam group XXXI.

Selecting knob: see figure (left needle position).

Zigzag regulation knob: on zero.

Stitch length regulating knob: on no. 4.

Upper thread tension: normal.

Lower thread tension: tighter than the upper one.

Needle: in order to obtain a perfect stitch, it is recommended to use a needle having a large diameter.

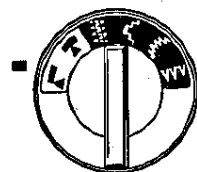
Needle plate: position U (see para. 19).

Presser foot: transparent for embroidery (9550865).

For this particular stitch it is advisable to use the lower speed, by setting switch in position MIN before starting the machine.

Knob for minute adjustment of design: normally, it should be slightly turned towards + or - until forward and reverse stitch meet exactly.

The position of the knob will be correct when, by trying on a scrap of fabric similar to the one in use, you will see that when the machine is running, the needle enters always exactly in the holes already made. This is very important.



48. PARIS STITCH

Insert cam group XXXIII.

Selecting knob: see figure (left needle position).

Zigzag regulation knob: on zero.

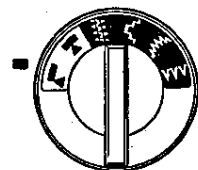
Stitch length knob: on no. 4.

Thread tensions: normal.

Needle: in order to obtain a perfect stitch, it is recommended to use a needle having a large diameter.

Needle plate: position U (see para. 19).

Presser foot: transparent for embroidery (9550865).



It is advisable to use the lower speed, set switch in position MIN.

Knob for minute adjustment of design: normally, it should be slightly turned towards + or - until forward and reverse stitch meet exactly.

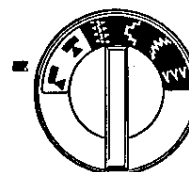
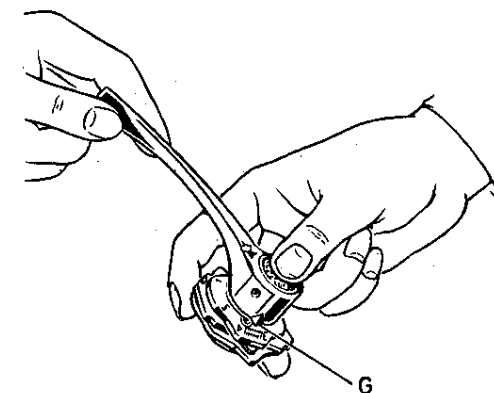
The position of the knob will be correct when, by trying on a scrap of fabric similar to the one in use, you will see that when the machine is running, the needle enters always exactly in the holes already made.

49. BUTTONHOLES

The special cam-group for buttonholes may be turned in respect of its handle in two different positions, one for buttonholes on heavy fabrics (marked by a large buttonhole) and the other for buttonholes on light fabrics (marked with a small buttonhole).

To change from one position to another:

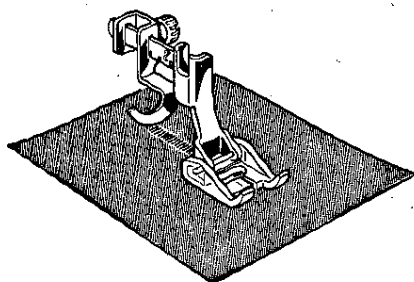
- Press cam-group as shown on figure.
 - Put index G in correspondence with the desired buttonhole.
- When it is in the correct position, a click will be heard and the cam-group will remain fixed.



Set machine as follows:

Selecting knob: see figure (left needle position).

Zigzag knob: on zero.



Stitch length regulation knob: on red square mark.

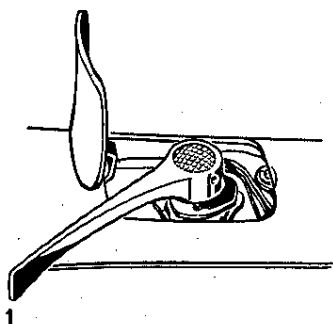
Upper thread tension: normal.

Needle plate: position U (see para. 19).

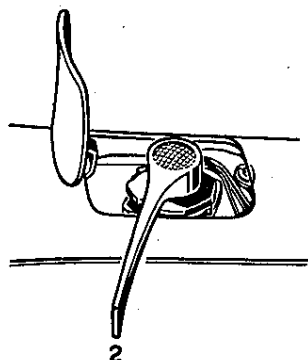
Presser foot: transparent provided with guide for buttonholes (9310273).

Needle: for light fabrics: no. 70, for heavy fabrics no. 90.

Thread: mercerized cotton no. 80 or no. 60, or embroidery thread no. 50.

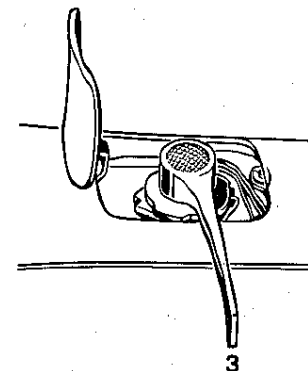


- Regulate position of guide of buttonhole-foot in accordance with the desired length of buttonhole.
- Insert cam-group into machine with needle in its highest position, bring handle in position 1 (handle completely on the left).
- Make upper bar tack with 6 or 7 stitches.

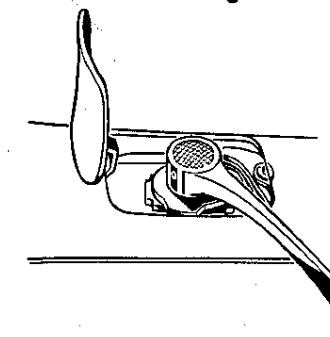


- Move handle to position 2 and make first row of stitches; stop when upper bar tack is in contact with presser foot guide.

- Move handle to position 3; machine will sew in reverse with straight stitches. Stop when needle reaches upper bar tack.



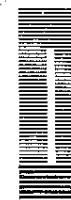
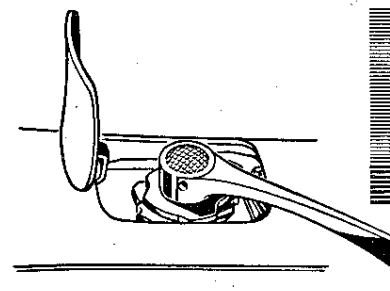
- Move handle to position 4 and make second row of stitches; stop when needle is out of fabric and when reaching the end of the first row of stitches.



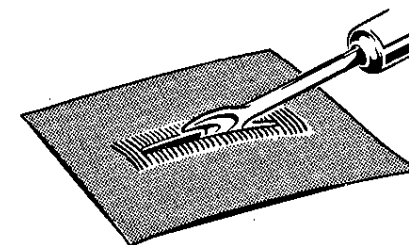
- Move handle to position 5 and make lower bar tack with 6 or 7 stitches. Buttonhole is then completed.

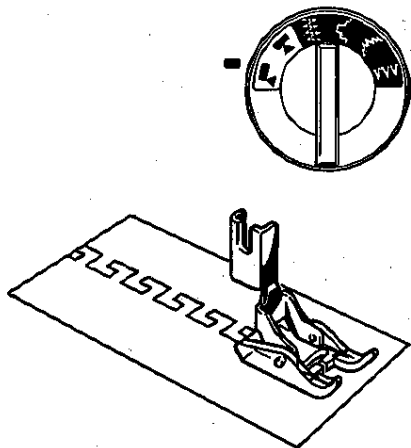
To lock stitches move handle back to position 3 and, holding slightly the fabric with left hand, sew a few stitches turning balance wheel by hand.

- Lift presser foot, remove work and cut the threads.



- Cut fabric between the two rows of stitches with NECCHI buttonhole cutter (9960454).





50. GREEK KEY

Insert cam group XXXVII.

Selecting knob: see figure (left needle position).

Zigzag knob: on zero.

Stitch length knob: on no. 4.

Needle plate: position U (see para. 19).

Presser foot: transparent for embroidery (9550865).

Thread: for embroidery no. 30 or no. 50.

Knob for minute adjustment of design: rotate towards left or right until equal forth-and backward movement of the fabric is obtained.

51. LOOP DESIGN

Insert cam group XXXVIII.

Selecting knob: see figure (left needle position).

Zigzag knob: on zero.

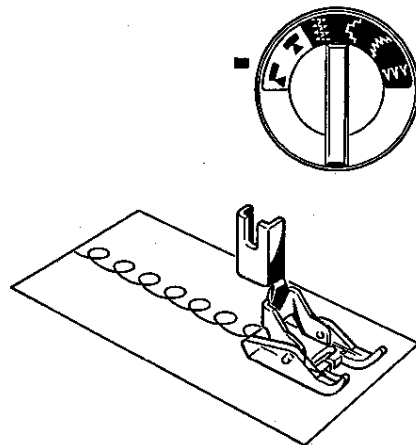
Stitch length knob: set on no. 4.

Needle plate: position U (see para. 19).

Presser foot: transparent for embroidery (9550865).

Thread: for embroidery no. 30 or no. 50.

Knob for minute adjustment of design: rotate towards left or right until equal forth-and backward movement of the fabric is obtained.



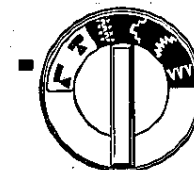
52. AUTOMATIC DARNING

Insert cam group XXXIX.

Selecting knob: see figure (left needle position).

Zigzag knob: on zero.

Stitch length knob: set on no. 4.



Knob for minute adjustment of design: rotate towards left or right until equal forth-and backward movement of the fabric is obtained.

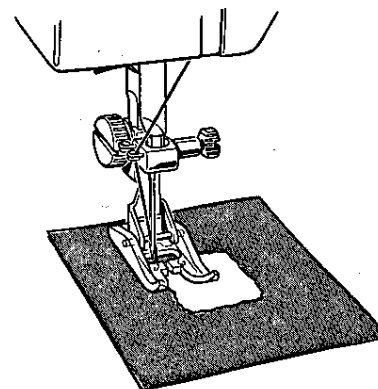
Needle plate: position U (see para. 19).

Presser foot: transparent for embroidery (9550865).

Try on a scrap of fabric similar to the one in use; stop the machine at the end of the reverse stitching with the needle outside the fabric.

Place darning-area under presser foot with needle in the upper left corner, as indicated in figure.

While sewing, pull fabric slightly towards left and make sure that forth-and backward stitches are slightly apart from each other.

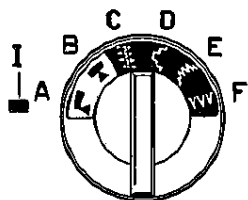


Stop when hole is covered.

Turn fabric by a right angle and repeat operation until hole is fully darned.

With some practice by moving the fabric towards left, perfect uniformity of darning can be obtained.

In the following table are indicated the ornamental motifs which can be obtained with the cam groups of the accessory box used singularly or simultaneously with built-in cams. By using simultaneously one external cam group and a built-in cam, so as to obtain the motifs shown on the charts, the prong of the cam group must be inserted into the slot R marked by a notch Q on the toothed crown (see pag. 31).



If the prong is inserted into another slot, a different motif will result.

The letter appearing in the first column shows the mark in the selector dial which must be put in correspondence with index I so as to obtain the motif indicated beside it.

	Selector knob	Cam group	Zigzag width	Feed regulation	Stitch length
	C	-	0		0,5
	D	-	1,8		0,5
	E	-	0		0,5
	F	-	0		1,5
	A	II	0		■ - 0,5
	A	XXXI	0		4
	A	XXXIII	0		4
	A	XXXVII	0		4
	A	XXXVIII	0		4
	A	XXXVIII	0		4

	B	XXXI	0		4
	A	XXXI	2		4
	B	XXXIII	2		4
	B	XXXIII	2		4
	B	XXXIII	0		4
	A	XXXVII	1		4
	B	XXXVII	0		4
	B	XXXVII	1		4
	B	XXXVIII	0		4
	B	XXXVIII	1		4
	C	XXXI	0		4
	C	XXXIII	1		4
	C	XXXVII	0		4
	C	XXXVIII	0		4
	D	XXXI	0		4
	D	XXXIII	0		4

	D	XXXVII	0		4
	D	XXXVIII	0		4
	D	XXXVIII	0		4
	E	XXXI	0		4
	E	XXXIII	0		4
	E	XXXVII	0		4
	E	XXXVII	0		4
	E	XXXVIII	0		4
	E	XXXVIII	5		4
	F	XXXI	0		4
	F	XXXIII	0		4
	F	XXXVII	0		4
	F	XXXVIII	0		4
	A	XXXIX	0		4

MAINTENANCE OF MACHINE

The sewing machine is a product of high-precision mechanics and, to make it last for a great many years in perfect condition, it requires a periodical maintenance which can be carried out by you.

Maintenance means especially cleaning and oiling.

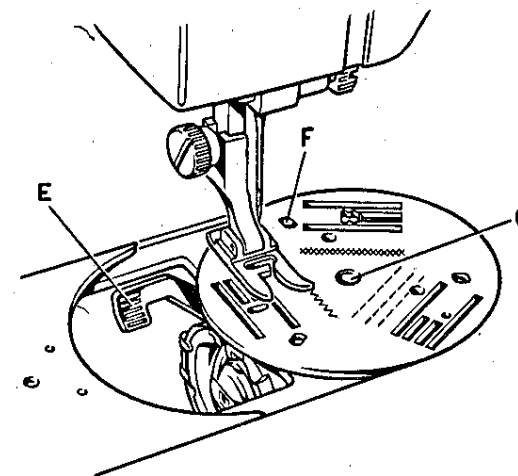
WARNING: Remove always plug from wall outlet whenever you are going to carry out the maintenance of your machine.

53. TO CLEAN THE MACHINE

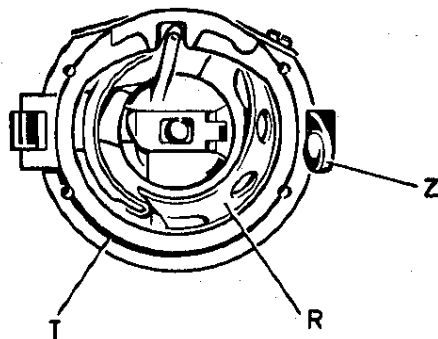
The parts of the machine which are to be kept particularly clean are the areas including needle plate, shuttle, feed-dog, and from time to time also the upper thread tension.

a) To clean feed-dog and needle plate housing

- Remove needle and presser foot.
- Open slide plate towards left.
- Press lever E completely and remove needle plate with central pin G.
- Carefully clean with a small brush feed-dog teeth and feed dog support as well as needle plate housing.

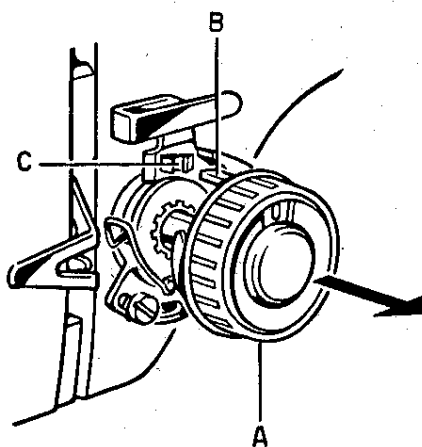


- Press lever E completely, in order to hook central pin G, and replace needle plate by turning it around until the desired position is under needle. Make sure that locating pin F enters the corresponding hole in the plate.
- Replace presser foot and needle, and close slide plate.



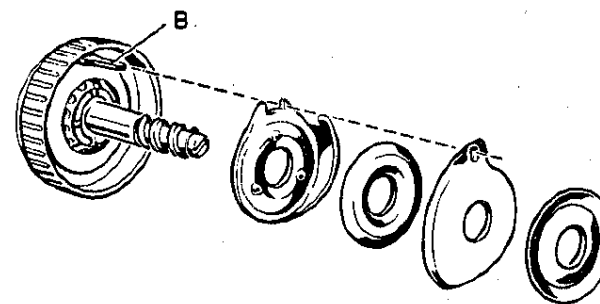
b) To clean the shuttle

- Bring needle to its highest position:
- Tilt machine back on its hinges.
- Extract bobbin case.
- Push spring Z sideways with thumb of right hand.
- Turn race plate T around its hinge.
- Extract shuttle R.
- Carefully clean with a small brush and put a drop of oil in the shuttle race. Also oil the rim of the shuttle.
- Replace shuttle.
- Fit race plate onto the three short studs on the shuttle race and press it until spring blocks it in its housing.
- Replace bobbin case and lower machine to working position.



c) To clean upper thread tension

- Place button A on O.
- Pull it out so that hook B comes out of hole C.
- Turn it anticlockwise, unscrewing it from machine.
- Disassemble parts and carefully clean all the surfaces of parts.



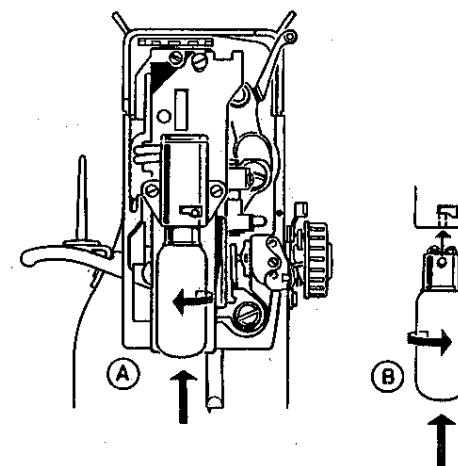
- Assemble parts exactly as shown in figure.

- Screw the device onto the machine (press slightly and turn it anticlockwise, when a click is heard, turn it in the opposite direction).

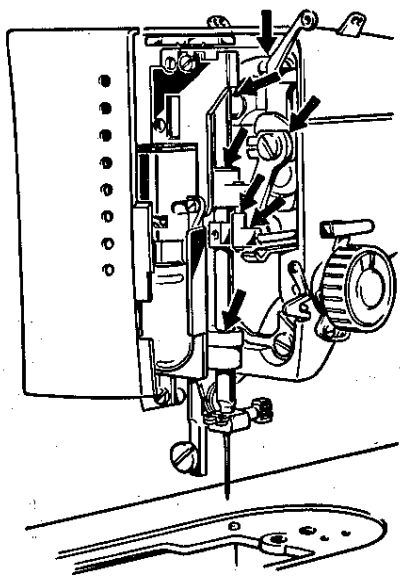
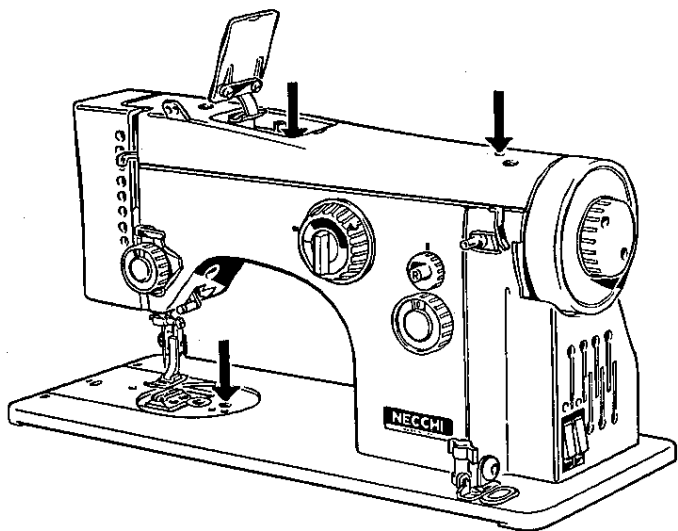
- When small hook B comes into contact with chrome plated plate, draw button toward you and turn it again, bringing small hook into hole C. By pulling the button towards you, turn it a little more so as to bring small hook B into hole C.

54. TO REPLACE LIGHT BULB

- Remove plug from wall outlet before changing light bulb, then open front plate.
- Hold the bulb, press it upward, turn it in the direction of the arrow, and take it out (fig. A).
- Hold the new bulb in the same manner, insert its socket into the lamp holder, making the prongs enter into the two grooves (fig. B).
- Push the light bulb upward.
- Turn it in the direction of the arrow.
- Then close front plate again.

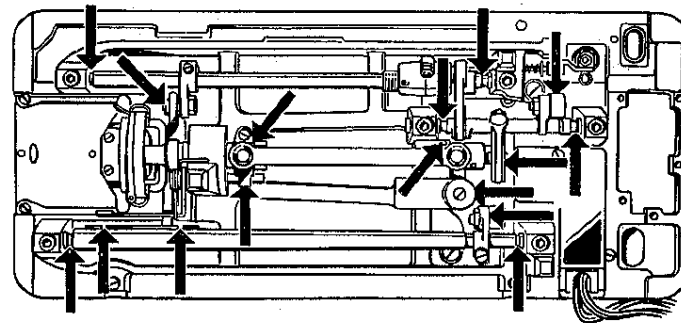


55. OILING



- Oiling makes the machine run smoother, faster and noiselessly and protects the moving parts from wear, provided the oil used is of a suitable type.
- Always use NECCHIOIL, especially created for the NECCHI sewing machines.
- You will find it at all NECCHI dealers. A few drops of NECCHIOIL into the holes shown in these figures after every cleaning are sufficient.

- Before putting the machine away for a long period clean and oil it; when to be used again repeat the lubrication.
- From time to time also oil shuttle rim and shuttle race.



56. CAUSES OF MINOR TROUBLES

Troubles	Possible causes
Upper thread breaks	<ul style="list-style-type: none"> a) Needle is inserted incorrectly; b) machine is improperly threaded; c) thread tension is too tight or too loose; d) thread is not suitable for fabric; e) needle is not suitable for thread; f) needle eye is rough or sharp; g) needle point is damaged; h) machine is started at full speed; i) sewing is started with thread take-up lever not in its highest position; l) shuttle is damaged due to being hit by needle; m) shuttle seat damaged;
Needle breaks	<ul style="list-style-type: none"> a) Fabric is pulled by hand: needle hits needle plate; b) needle is bent or blunt.

Lower thread breaks

- Thread tension is too tight;
- bobbin is not evenly filled or is too full;
- dirt or lint in bobbin case.

Imperfect stitches

- Insufficient pressure of foot on fabric;
- feed dog too low;
- fabric is pulled by hand;
- too short stitch;
- needle not suitable for thread.

Skip stitches

- Needle is inserted incorrectly;
- needle is bent or blunt;
- thread is too heavy for the size of needle;
- needle is of wrong size for thread in use.

Machine does not sew straight stitch

- Zigzag regulating knob is not set completely on zero;
- design selecting knob is not in correct position;
- cam group has not been removed from machine.

Heavy turning or jamming of machine

- Machine is not clean, or not lubricated, or lubricated with wrong type of oil;
- motor belt is too tight.

IMPORTANT: It is possible that, after considerable use, the mechanical parts of the machine will require adjustment. If by referring to the aforementioned causes of trouble, you cannot bring your machine into good condition, call for your NECCHI dealer. He will put the machine into perfect working order.

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KAROSTICH

Bereiten Sie die Maschine wie für Türkischen Hohlraum vor, setzen Sie die Kurvenscheibengruppe XLI anstelle der XXXI in die Automatic ein, und die Maschine führt den Karostich aus.

Wird zusammen mit der Kurvenscheibengruppe für Karostich eine der eingebauten Kurvenscheiben verwendet, so können die in der nachstehenden Tabelle aufgeführten Variationen angefertigt werden (siehe auch Gebrauchsanleitung Seite 42, 43, 44).

PUNTO CUADRO

Después de haber preparado la máquina como para el punto Turco y después de haber puesto en el automático el grupo de discos XLI en lugar del grupo XXXI, obrando de la misma manera se ejecuta el punto cuadro.

Usando simultáneamente el grupo de discos para el punto cuadro y uno de los discos incorporados se pueden ejecutar otras tantas variaciones según cuanto indicado en la tabla ilustrada a continuación (vean también el librito de instrucciones en las pág. 42-43-44).

I O O O O O O O O O O O O O O O O	A	XLI	O	(4
I O O O O O O O O O O O O O O O O	B	"	O	(4
wavy line pattern	C	"	O		4
x-y-x-y-x-y-x-	D	"	O	(4
X X X X X X X X X X X X X X X X	F	"	O	(4

PUNTO QUADRO

Preparata la macchina come per il punto Turco, dopo avere inserito nell'automatico il gruppo camme XLI in luogo del XXXI, operando nello stesso modo, si ottiene il punto quadro.

Usando simultaneamente il gruppo di camme per il punto quadro ed una delle camme incorporate, si possono ottenere altrettante variazioni come illustrato nella tabellina sotto riportata (vedi anche libretto istruzioni a pag. 42-43-44).

FOUR POINTS STITCH

In order to obtain the Four Points Stitch insert cam Group XLI, set the machine and proceed as for the Turkish Hemstitch (page 36 of the instruction booklet).

By using simultaneously cam group XLI (Four Points Stitch) and one of the built-in cams, you will obtain a number of variations as illustrated in the following table (see also the instruction booklet at pages 42-43-44).

POINT CARRE

Pour obtenir le point carré, il faut insérer le groupe de cames XLI, préparer la machine et procéder exactement de la façon indiquée pour le point Turc (page 36 du livret).

En employant le groupe de cames pour point carré (XLI) simultanément avec l'une ou l'autre des cames incorporées, on peut réaliser un nombre de variations, comme indiqué dans le tableau suivant (voir également le livret d'instructions aux pages 42-43-44).