



NECCHI

instructions

for the use and maintenance

of the

NECCHI *lycia*

524 automatic

and

522 zig-zag

Instruction booklet for the
use and maintenance of the

NECCHI LYCIA

524 automatic

and

522 zig-zag

The sewing machines which
solve all your sewing and
embroidery problems.

The simple and detailed in-
structions contained herein,
will help you to make per-
fectly, and with the utmost
ease, all your home sewing,
and to maintain your machine
always in good order, and in
perfect operating conditions.

At all Necchi shops, the «Nec-
chi Service» is available, at
any time, to give assistance,
advice and suggestions as to
the use of the LYCIA 524
automatic and 522 zig-zag.

NECCHI

is the world-wide best selling
Italian sewing machine.

NECCHI Società per Azioni - Pavia (Italy)

Symb. 9963570/GB - ind. 12 - 5-62 - M.P. - Pv. - Printed in Italy

Fig. 1

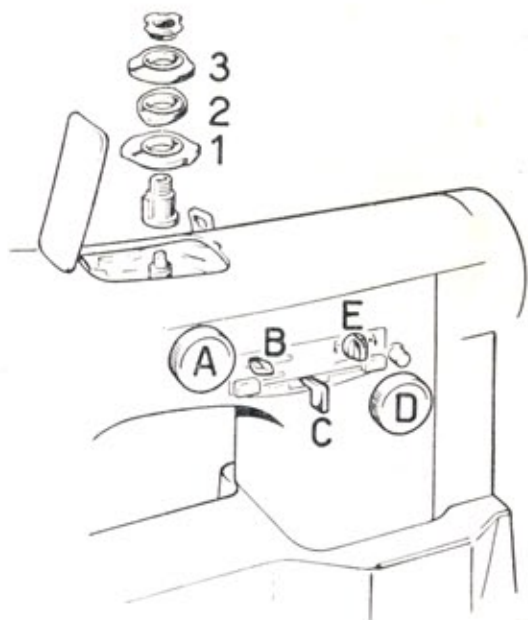


Fig. 1

NOTICE

This booklet is supplied with the automatic LYCIA 524 and with the LYCIA 522 zig-zag sewing machines, the latter being without the automatic device. In this second case, only the instructions contained in Chapters 1 and 2 apply.

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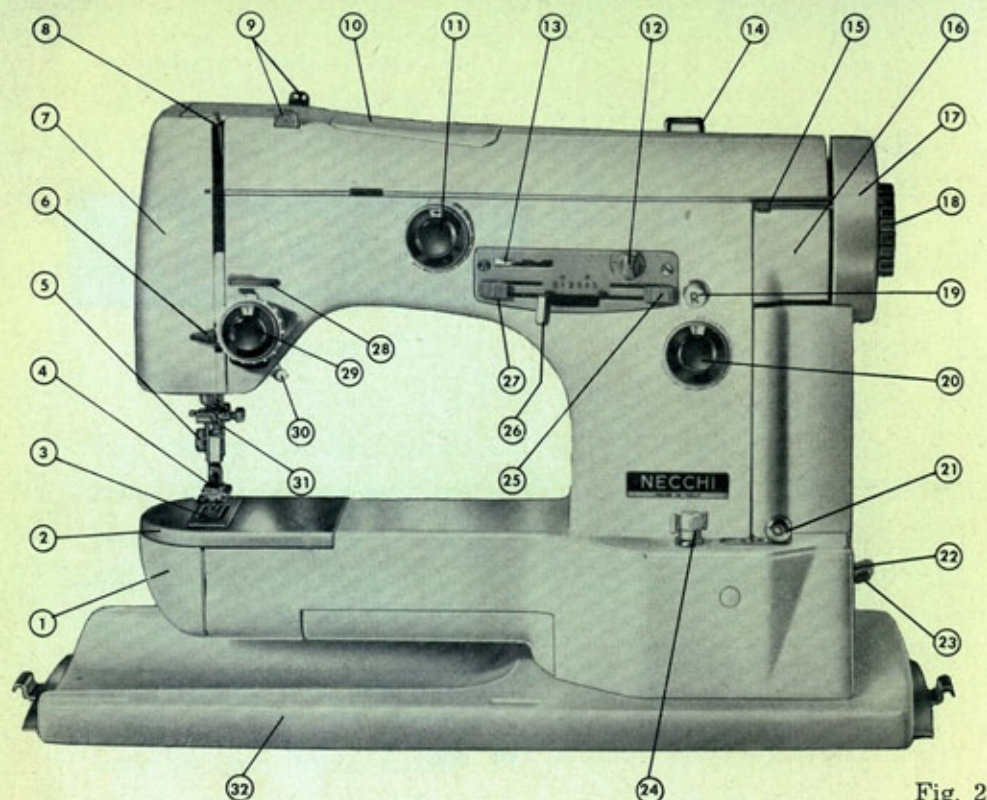


Fig. 2

NAME OF PARTS

- | | |
|---|---------------------------------------|
| 1 - Shutter | 16 - Bobbin winder cover |
| 2 - Closing plate | 17 - Balance wheel |
| 3 - Needle plate | 18 - Balance wheel disconnecting knob |
| 4 - Presser foot | 19 - Reverse sewing push-button |
| 5 - Presser foot thumb screw | 20 - Stitch length regulating knob |
| 6 - Upper tension thread guide | 21 - Bobbin winder thread guide |
| 7 - Face plate | 22 - Speed regulating switch |
| 8 - Thread take-up lever | 23 - Motor and light switch |
| 9 - Thread guides | 24 - Drop feed button |
| 10 - Automatic mechanism lid | 25 - Right push-button zig-zag stop |
| 11 - Design graduating knob | 26 - Zig-zag stitch lever |
| 12 - Knob for micrometric adjustment of designs | 27 - Left push-button zig-zag stop |
| 13 - Needle positioning lever | 28 - Guiding hook |
| 14 - Automatic cam stop motion lever | 29 - Upper thread tension |
| 15 - Bobbin winder upper thread guide | 30 - Button for automatic threader |
| | 31 - Needle clamp |
| | 32 - Machine base |

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Chapter 2

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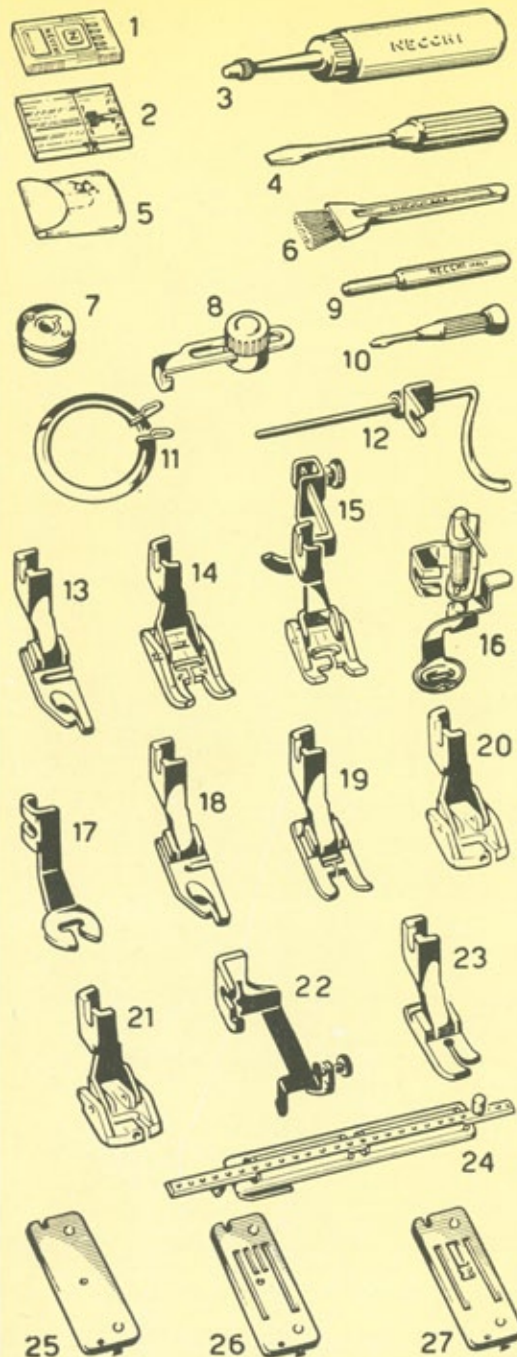
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LIST OF ACCESSORIES

- 1 Case with needles
- 2 Double needle
- 3 Oil feeder
- 4 Screwdriver (large)
- 5 Spare hooks for needle threader
- 6 Small brush
- 7 Bobbins (3)
- 8 Straight guide with screw
- 9 Buttonhole cutter
- 10 Screwdriver (small)
- 11 Darning and embroidery hoop
- 12 Quilter wire with clamp
- 13 Presser foot for shell hemming
- 14 Transparent zig-zag hinged foot
- 15 Transparent foot for making buttonholes automatically
- 16 Darning presser foot
- 17 Presser foot for sewing on buttons
- 18 Hemming presser foot
- 19 Presser foot for double needle
- 20 Cording presser foot
- 21 Foot for raised scallops (only for Automatic)
- 22 Guide for blindstitching
- 23 Straight stitch presser foot
- 24 Device for circular sewing
- 25 Needle plate for embroidery and darning
- 26 Needle plate for straight sewing
- 27 Needle plate for twin needle sewing.

Fig. 3

NOTICE: Parts nos. 8, 12, 13, 20 & 24 are supplied as special accessories, on request, against payment at all NECCHI Sales Organizations.

Chapter 1

GENERAL INSTRUCTIONS

NOTE: minor innovations to the sewing machine mechanisms against the description given in this book, may depend on continuous improvements in the production cycles.

1. TO INSURE PERFECT FUNCTIONING OF MACHINE

Always bear in mind the following rules:

- Balance wheel must always be turned towards the operator;
- Do not try to help feeding by pulling fabric, since this action would bend needle. The machine automatically feeds the fabric without assistance;
- 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. This will prevent damage to feed dog and presser foot;
- Always bring presser bar lever to its lowest position before starting to sew.

2. RECOMMENDED NEEDLE AND THREAD SIZES

NECCHI machines use Syst.
15 x 1 or Syst. 705 needles

Types of Fabrics and Classes of Work	Sizes of Thread		Sizes of Needles	
	Mercerized Cotton	Silk	Syst. 15x1	Syst. 705
Very thin fabrics like muslin, chiffon, batiste, fine linen cambrics. For lingerie, infants' wear and delicate lace work.	80 to 150	0 to 000 Twist	10	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	12	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	14	90
Bed tickings, 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	16	100
Heavy tickings and woollens, heavy woven suiting and coating, canvas and sacking. For heavy clothing in general, such as heavy uniforms, coats, trousers, bedding supplies, bags etc.	24 to 0	E Twist	18	110

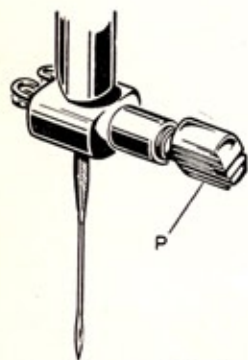


Fig. 4

3. TO INSERT NEEDLE

- Bring the needle bar to its highest position by turning the balance wheel toward you.
- Loosen screw « P », and insert the needle into the groove pushing it up as far as it will go.

IMPORTANT: flat side of needle shank must be turned towards the right.

4. TO THREAD MACHINE

Pass thread through points shown in Fig. 5. After having passed thread between tension discs housing « C », hold thread between the two thread guides « A » in the same time slightly pulling thread towards the right so that it pulls up spring « M » and places itself astride of hook « D ». The threading of spring « M » is automatically performed on the condition that tension regulating knob be at least on « 4 ». Pass thread through needle eye from left to right leaving about 4 inches hanging free.

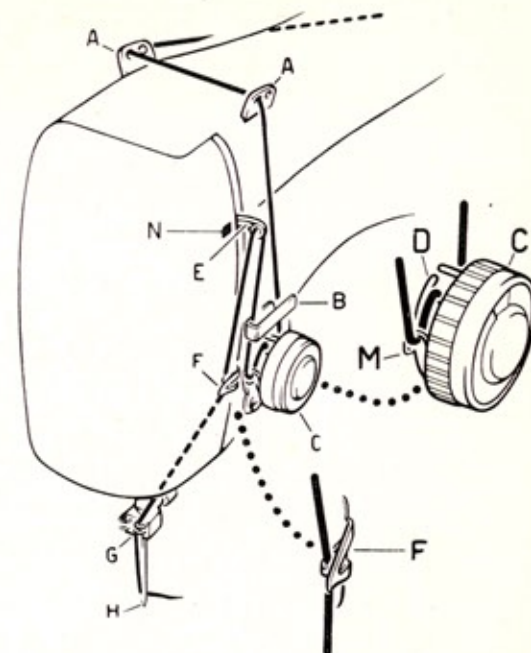


Fig. 5

5. TO THREAD NEEDLE WITH THREADER

The threading is carried out without any pre-arrangement of the control levers.

- Bring the needle to its highest position and the thread take-up lever « E » in correspondence with mark line « N » on front plate, as shown in Fig. 5;
- Bring knob « R » downward until hook « S » will pass through the eye of the needle (Fig. 6);
- Pass the thread on hook « S » and draw the threader 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.

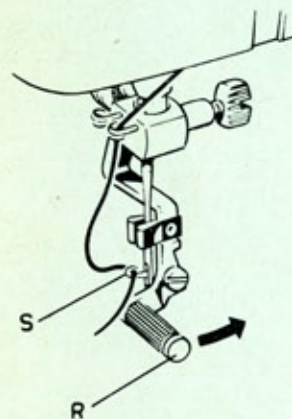


Fig. 6

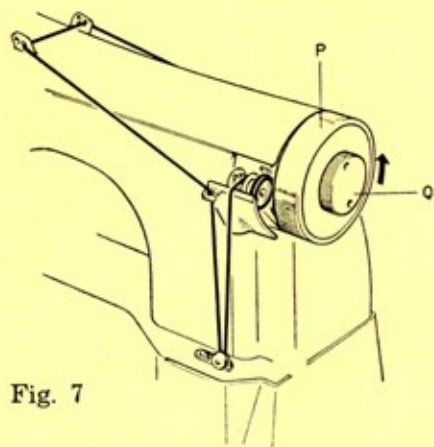


Fig. 7

- Open cover « F » (Fig. 8), bring lever « G » down and insert bobbin, with its flange provided with holes towards the left, on spindle « E ». Push spindle « E » towards the right and cover « F » will remain open.
- Hold with the left hand the end of the thread hanging from the hole and run machine: after a few turns the thread, held by the hand, will be automatically cut.
- When bobbin is full, the bobbin winder automatically stops and cover « F » snaps back into place.
- Open cover « F », press on lever « G » and remove filled bobbin.
- Then tighten the balance wheel knob « Q ».

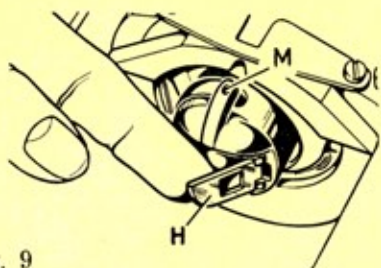


Fig. 9

6. TO WIND EMPTY BOBBIN

- Disconnect balance wheel « P » by turning knob « Q » in the direction of the arrow (Fig. 7).
- 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.

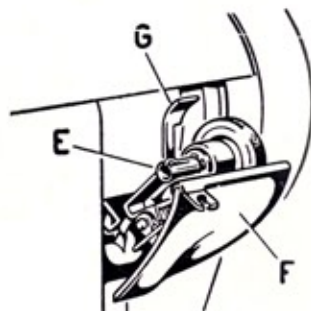


Fig. 8

7. TO REMOVE BOBBIN CASE

- Bring needle to its highest position.
- Open the shutter 1 (Fig. 2).
- Remove bobbin case by lifting latch « H » and pulling it to the left.

NOTE: The bobbin will drop out when latch is released.

8. TO INSERT BOBBIN INTO BOBBIN CASE

- Insert bobbin into bobbin case; thread must be wound around bobbin as indicated in Fig. 9a.
- The bobbin flange provided with holes must be turned toward the outside of the bobbin case, in order that the right direction of rotation should be insured.
- Insert thread into groove of bobbin case.
- Lift latch « H » so that bobbin is blocked and draw thread under tension spring as indicated by Fig. 9b.

Let about 4 inches of thread hanging out.

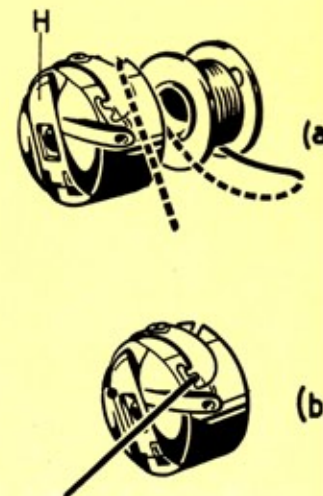


Fig. 9a - 9b

8a. TO INSERT BOBBIN CASE INTO SHUTTLE

- Bring needle to its highest position and open the shutter 1 (Fig. 2);
- Insert bobbin case by latch « H » (Fig. 9) and place it on center 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.

9. TO REGULATE PRESSURE OF PRESSER FOOT

- Open face plate.
- Turn knob « A » encased in the machine (Fig. 10): the number visible towards face plate indicates pressure value.

Normally the pressure adjusted on 4 or 5 is all right for ordinary sewing jobs.

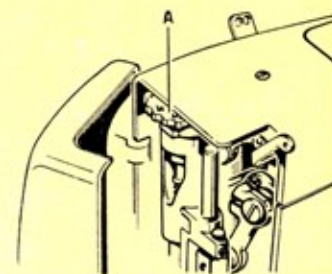


Fig. 10

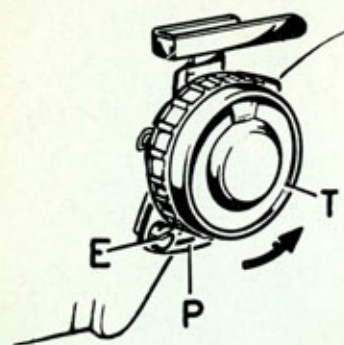


Fig. 11



Fig. 12



Fig. 13



Fig. 14



Fig. 15

10. TO ADJUST TENSIONS

The normal adjustment of the upper thread tension is indicated on the knob by a small red disc.

— To loosen the upper thread tension, turn button «T» (Fig. 11) in the direction of the arrow. By turning button «T» in the opposite direction the tension will be increased.

— The lower tension is increased by turning screw «G» to right (Fig. 12); it is decreased by turning same to left.

a) The upper and lower thread must lock in the centre of the fabric (Fig. 13), that is, their tension must be even. In this condition, two faults may occur:

1) Even tensions, too loose. The stitches are loose. It is then necessary to increase both tensions.

2) Even tensions, too tight. The fabric ruffles or the thread breaks. It is necessary to loosen both tensions.

b) If the upper tension is tighter than the lower, the upper thread will lie flat on top of fabric and the lower thread will be pulled to the upper surface (Fig. 14) and be visible there in small knots. Adjust tensions by tightening the lower tension and loosening the upper one.

c) If the lower tension is too tight, the lower thread will lie flat on the underside of the fabric (Fig. 15); therefore tighten the upper tension and loosen the lower.

NOTE: When sewing on hard or thick fabrics, it is advisable to loosen screw «E» (Fig. 11) and slightly move small plate «P» in the direction opposite to that of the arrow.

11. TO REGULATE STITCH LENGTH

— Turn knob «D» (Fig. 16); the stitch length expressed in mm. is visible through small window «F».

The normal stitch length is no. 2.

The stitch length normally required for satin stitch (see Para. 27) is indicated by a red square mark.

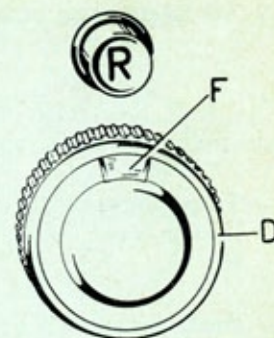


Fig. 16

To reverse direction of sewing

— Push button «R» completely (Fig. 16); the machine will sew in reverse with the stitch length already regulated by knob «D».

— The machine resumes sewing forward as soon as button «R» is left free.

12. TO START SEWING

— Holding the thread hanging out of the needle eye, turn balance wheel to bring needle to its highest position.

— Draw the upper thread; the lower thread will be pulled up through the hole of needle plate. Place both threads behind and under presser foot.

Start sewing slowly, holding the threads for the first 4/5 stitches.

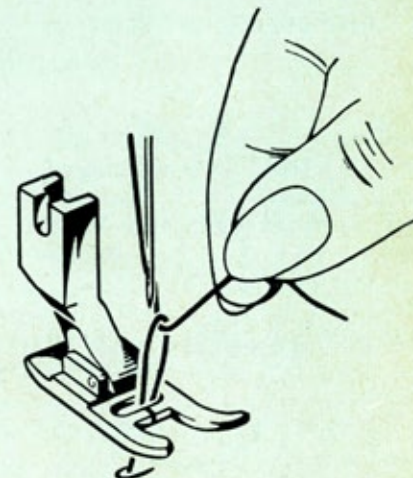


Fig. 17

13. 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» (Fig. 18).
- 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 mark «S» (Fig. 19). Feed dog will remain in the raised position.

NOTE: The feed dog can be dropped from time to time, by leaving one of the prongs of button «P» facing alignment mark «S».

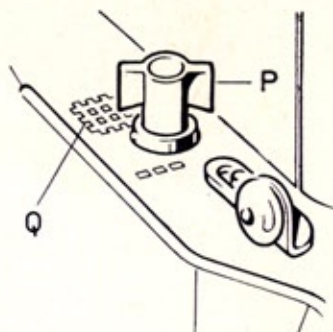


Fig. 18

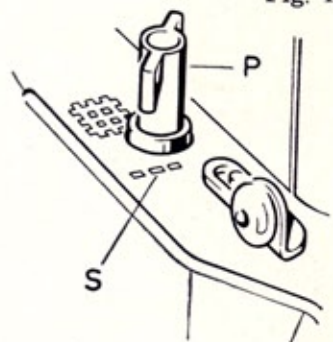


Fig. 19

14. TO REMOVE WORK FROM MACHINE

- Bring needle and thread take-up lever to their highest position and raise presser foot.
- Draw fabric away from presser foot and draw threads, keeping them taut, through thread-cutter «H» (Fig. 20).
- Cut threads and remove fabric.

The ends of both threads will be held by the thread cutter and the machine will be ready to perform another seam without requiring that the threads be held by the operator during the first 4 or 5 stitches.

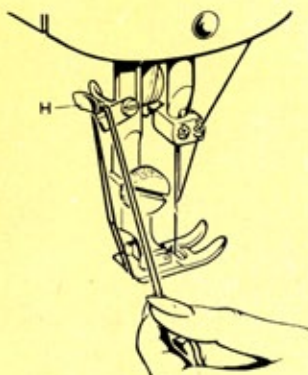


Fig. 20

15. TO CHANGE THE NEEDLE PLATE

To remove needle plate:

- Bring needle to its highest position.
- Insert the blade of the small screwdriver of accessory box into appropriate slot of closing plate «D», as shown in fig. 21, and levering on same lift and remove needle plate.

To insert needle plate:

- Set needle plate inclined so that appropriate back dowel gets into notch «A» (fig. 21), and leave it lifted from front part, that is towards you.
- Press now on front part until spring is released and hole «B» of needle plate gets onto relevant front dowel.

To remove plate «D», for oiling or cleaning, take off screws «C».

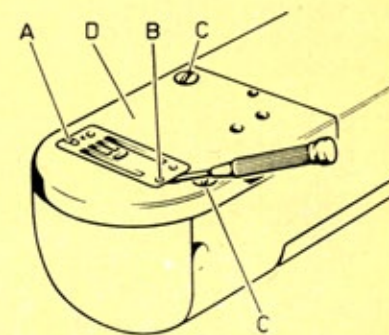


Fig. 21

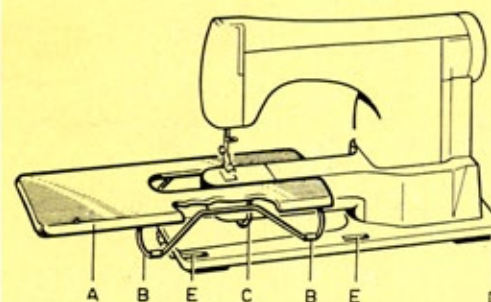


Fig. 22

16. TO APPLY SEWING BASE

The sewing base «A» makes it possible to transform the free-arm of the machine into a flat bed, thus allowing flat sewing.

- Prepare sewing base «A» so that the two side attachments «B» (Fig. 22) are slightly bent and collar «C» turned downwards;
- Place the sewing base «A» next to the machine base until it fits perfectly;
- Lower the two side attachments «B», inserting them into the appropriate grooves «E» in the machine base «D».

17. TO CONNECT MACHINE TO LOCAL ELECTRICITY SUPPLY

Before inserting machine plug in the supply current outlet, check that machine is provided with a voltage tap-changer as indicated in Fig. 23. To do so, it is necessary to remove the lower closing plate by removing its three screws and make certain that the small bridge « A » is inserted in the position corresponding to the mains' voltage.

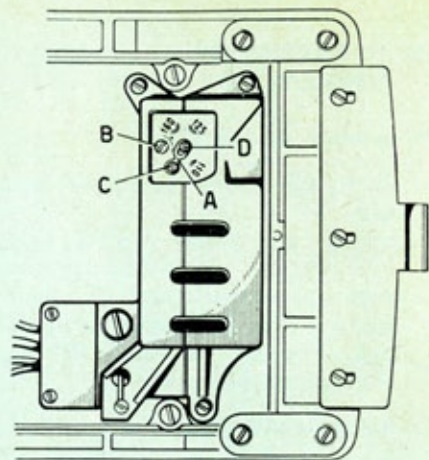


Fig. 23

If it is not, proceed as follows:

- Remove screw « B » and transparent cover plate.
- Remove screw « C » and loosen screw « D ».
- Turn small bridge « A » round so that its extremity faces the hole corresponding to the mains' voltage.
- Tighten screws « C » and « D » and replace transparent cover plate by means of screw « B ».

18. TO RUN MACHINE

- Connect machine to the mains'.
- Push switch « Z » (Fig. 24) downwards. The red signal light « R » (Fig. 25) will light up.
- Start machine by pressing on foot control.

If you wish to sew with the maximum speed, push switch « M » in position « MAX ». To reduce speed, push it in position « MIN ».

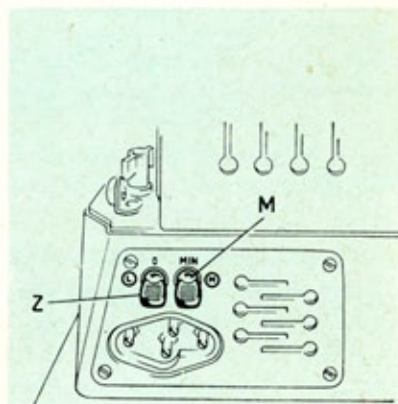


Fig. 24

19. LIGHTING

The light can be cut out by turning shade « S » (Fig. 25).

The red signal light « R » however will continue to glow.

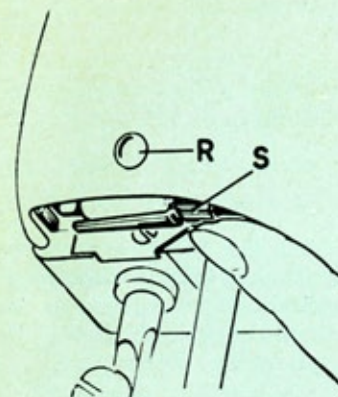


Fig. 25

20. TO REPLACE LIGHT BULB

- Open front plate.
- Remove light bulb « P » together with its shade from lamp holder « V » (Fig. 26).
- Remove light bulb from shade into which it is inserted by pressure.
- Insert new bulb into shade and insert it into lamp holder, by pressing slightly against wall portion « Q » to insure electric contact.

Use only NECCHI bulbs.

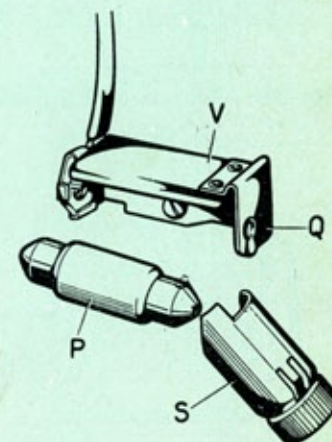


Fig. 26

21. MAINTENANCE OF MACHINE

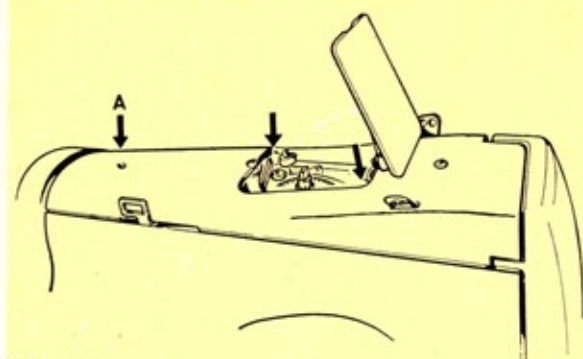


Fig. 27

a) Oiling

When the machine is new or when it is used after long periods of inactivity, it is advisable to lubricate it abundantly before use.

Oiling is indispensable in order to secure smoothness and a trouble-free running of the machine which, if used continuously, should be oiled every two days. The oiling points are indicated in Figs. 27, 28, 29, 30 & 31.

Let fall about ten drops of oil in hole « A » (Fig. 27).

From time to time also oil shuttle rim and shuttle race (see para. 21b).

Use Necchioil

or some good-quality, light sewing machine oil.

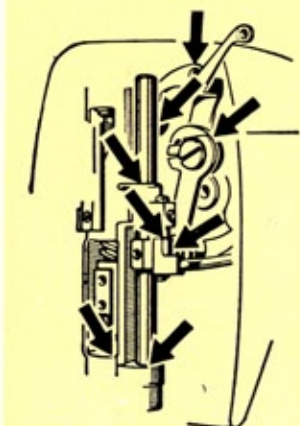


Fig. 28

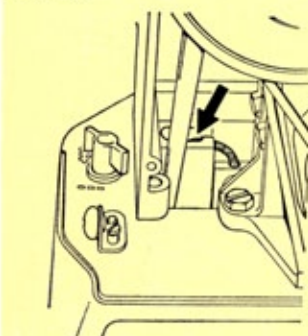


Fig. 29

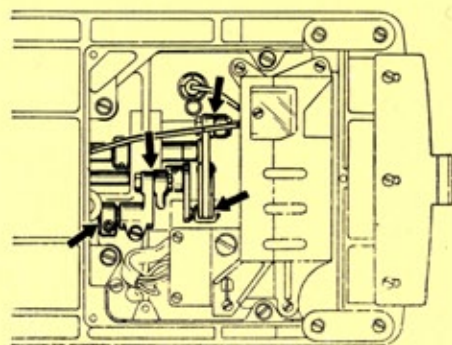


Fig. 30

b) To remove and replace the shuttle

If machine runs hard or jams slightly, this may be due to a piece of thread which has been caught in shuttle race.

To correct this condition, proceed as follows:

- Bring needle to its highest point and open shutter « A » (Fig. 31);
- Remove the bobbin case (see instructions para. 7);
- Draw springed latch « C » sideways; the shuttle race cover plate « D » will open by itself on its hinge and this will make it possible to extract the shuttle;

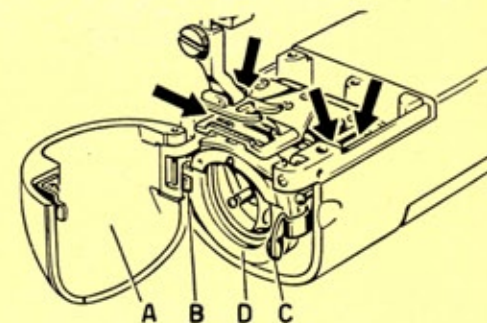


Fig. 31

- Carefully clean with the small brush and pour one drop of oil in the shuttle race. Oil the shuttle too but only on the rim;
- Reassemble shuttle;
- Insert shuttle race cover plate « D » onto the pins and push springed latch « C » until it blocks plate « D »;
- Insert bobbin case.

c) To clean feed dog and needle plate seat

- Open the shutter « A » (Fig. 31).
- Remove needle plate (see para. 15).
- Remove closing plate.
- Clean feed dog teeth and needle plate with the small brush.

d) **To disassemble and reassemble upper thread tension**

To disassemble tension:

- Place knob « A » (Fig. 32) on 0.
- Pull it out so that hook « B » comes out of hole « C ».
- Turn it anticlockwise, unscrewing it from machine.
- Disassemble parts as in Fig. 33.

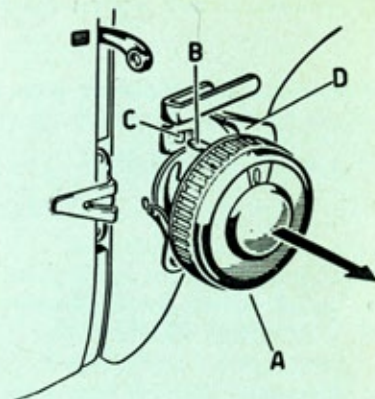


Fig. 32

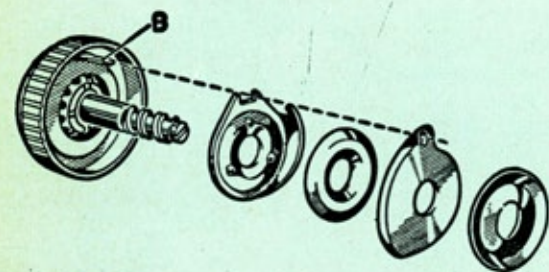


Fig. 33

Carefully clean all the surfaces of parts.

- Assemble parts exactly as shown in Fig. 33 and in such a way that the « 0 » mark will be visible on knob « A ».
- 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 knob toward you and turn it again, bringing small hook into hole « C ».

22. CAUSES OF MINOR DIFFICULTIES

Needle thread breaks

- Needle is inserted incorrectly
- Upper tension is too strong
- Machine is improperly threaded
- Thread is not suitable for fabric
- Thread has knots
- Needle eye is rough or sharp
- Needle is too fine
- Needle point is damaged, bent or blunt
- Needle plate hole is damaged
- Machine is started at full speed
- Sewing is started with thread take-up lever not in its highest position
- Bobbin case is damaged, due to being hit by needle
- Shuttle race is damaged

Needle breaks

- Fabric is pulled by hand in such a manner that needle hits needle plate
- Needle is bent or blunt

Lower thread breaks

- Lower thread tension is too tight
- Bobbin not evenly filled
- Bobbin is too full and does not rotate into bobbin case
- Dirt or lint in bobbin case

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

Uneven stitches

- Presser foot does not rest fully on fabric
- Pressure of presser foot is insufficient
- Feed dog is set too low
- Fabric is pulled by hand
- Stitch is too short
- Needle is too fine for thread in use.

Machine does not sew straight stitch

- Lever « C » (Fig. 1) is not set completely to the left.
- The cams have not been removed

Heavy turning or jamming of machine

- A loose piece of thread has been caught in shuttle race
 - Motor belt is too tight (adjust it by loosening the motor fastening screws)
 - Machine is not lubricated
 - Needle has blunt point
- In case you cannot adjust the trouble, call for a mechanic at your local NECCHI Dealer.

Light does not go on

- Line has no current (check fuses and master switch)
- Plug is not well inserted in its receptacle
- Filament of bulb is broken
- Voltage tap-changer and/or four-way plug are not well inserted

Light is too bright or too dim

- Control the position of the voltage tap-changer

Although light is on, motor fails to turn

- The four-way plug is not well inserted in its receptacle
- See the reasons mentioned under para. « Heavy turning or jamming of machine ».

In case you cannot find or adjust the trouble, call for a mechanic at your local NECCHI dealer.

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.

Motor turns too rapidly

- Check whether voltage tap-changer is correctly set

Motor turns too slowly

- A piece of thread is caught in shuttle race
- Motor belt is too tight
- Machine is not lubricated
- Check whether voltage tap-changer is correctly set

Overheating of motor, foot - control and/or bed plate

All electrical equipments heat up when running without causing damage. Excessive heating can only be due to overloading or heavy turning of machine. It can be eliminated by running machine more easily.

Chapter 2

SEWING WITHOUT THE AUTOMATIC MECHANISM

NOTE: To execute the sewing works described in this chapter, it is necessary to remove cams from machine and to stop the automatic mechanism (see para. 45 & 47).

23. STRAIGHT SEWING

Needle plate: for straight sewing (no. 26, Fig. 3).

Zig-zag stitch lever « C » (Fig. 1): on the left.

Stitch length knob « D »: set for desired stitch length. Normal length is on no. 2.

24. TACKING

After you have finished sewing, reinforce the seam by pressing button « R » (Fig. 16) thus making a few stitches in reverse.

25. BASTING

Proceed as for normal sewing, but set knob « D » (Fig. 1) for the maximum stitch length and loosen upper thread tension « T » (Fig. 11). This makes it possible to effect long and loose stitches which can be easily unraveled.

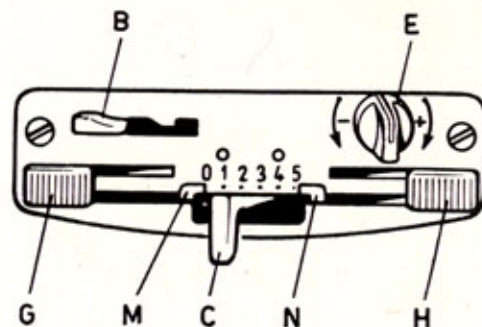


Fig. 34

26. ZIG-ZAG SEWING

Presser foot: use hinged foot for zig-zag stitch or transparent foot for embroidery.

Needle position lever « B »: set it according to the desired position of the sewing line (left, centre, right).

Zig-zag stitch lever « C »: set for desired zig-zag width; the small plates « M » and « N » which make it possible to limit the displacement of the zig-zag width lever, are to be set by shifting push-button zig-zag stops « G » and « H » (Fig. 34).

Stitch regulating knob « D »: set for desired length of stitch.

27. ZIG-ZAG EMBROIDERY

Fig. 35 shows a few motifs of zig-zag embroidering, but you can vary them at will.

Set machine as follows:

Presser foot: transparent foot for embroidery.

Tension: upper tension rather loose and lower rather tight.

The upper thread must be visible on the lower side of fabric.

Stitch length knob « D » (Fig. 1): near the red square mark so that the fabric is fed just enough to keep stitches close but not piled up.

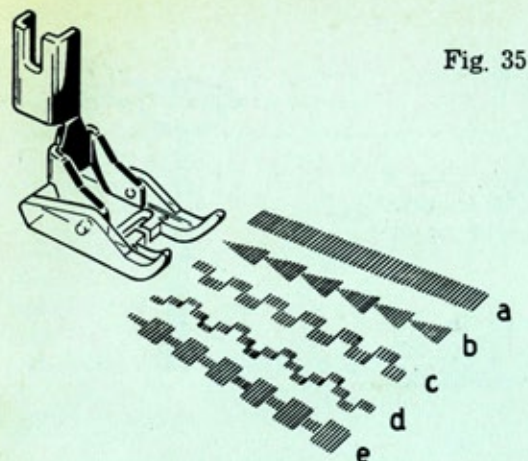


Fig. 35

Use embroidery thread no. 50.

The length of the designs b, c, d, e, naturally depends on the speed at which the levers « B » and « C » are operated.

a) (SATIN STITCH)

Lever « C » (Fig. 34): set for desired zig-zag width.

b)

Lever « B »: in centre notch. Small plate « M »: on 1. Slowly move lever « C » from 1 to 5 and flip it back quickly to 1.

c)

Lever « C »: on 2.5. Small plate « M »: on 2.5. Press down lever « B » and move it from left to right and viceversa without stopping in the centre notch. Make a certain number of stitches in each one of the two positions.

d)

Lever « C »: on 1.5. Small plate « M »: on 1.5. Move lever « B » rapidly from left notch to centre notch, then to right notch and viceversa.

e)

Lever « B »: in centre notch. Small plate « M »: on 1 and plate « N »: on 4. Bring lever « C » rapidly on 1 and 4 and viceversa.