



**CF 988**

**Spare parts  
& instruction manual**

# **Folding Machine**

## **Manual Book**

## Safety general rules

The non observance of the following safety rules may cause damages to the persons or to the machine

- 1 - The machine must be used by properly trained personnel after consulting the instructions manual for use and maintenance.
- 2 - The machine must be used only for the purpose for which it has been built.
- 3 - The machine use is not allowed without the proper protection devices.
- 4 - To carry out cleaning works or mechanical interventions and, in case you leave the working place, it is absolutely necessary to switch the machine off or remove the plug from the socket.
- 5 - Repairs, transformations or maintenance works must be carried out only by skilled or properly trained personnel in accordance with the manual instructions
- 6 - Any intervention on the electric equipment must be carried out by skilled or properly trained personnel.
- 7 - NO intervention on components or devices under tension is allowed.

**WARNING!** This machine works through an inverter which has already been adjusted by the builder to give good performances. Do not change any parameter without consulting the instructions manual for use and applying to the machine builder direct.

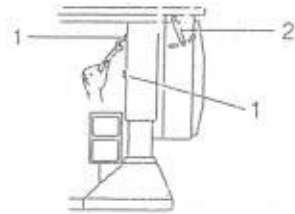
**WARNING!** The instructions manual for use and maintenance must always be kept in good conditions along with the machine since it is an integraling part of it, Besides the instructions for use, it contains also data pertinent to the user's safety.

**WARNING!** Use only thermo-cement specific for thermo-folding machines with a maximum fusion temperature of 180°C.



**WARNING! IT IS ABSOLUTELY FORBIDDEN TO ACTIVATE THE MACHINE HEIGHT ADJUSTMENT HANDLE (2) WITHOUT LOOSENING THE BLOCKING SCREWS (1) (Point 3)**

**WARNING! DO NOT USE ANY SOLVENT TO CLEAN THE GRAPHIC DISPLAY. USE A SOFT CLOTH.**



*Fig. 1*

THE BUILDER DECLINES ALL RESPONSIBILITY FOR DAMAGES TO THINGS OR PERSONS CAUSED BY A WRONG USE OR DIFFERENT FROM THE ONE FOR WHICH THE MACHINE HAS BEEN DESIGNED AND BUILT.

Any reproduction of this manual is strictly forbidden.

## A - Technical data

### A1 - Machine technical table

|                                |               |  |
|--------------------------------|---------------|--|
| Folding width                  | mm.           | 2.5 + 6 (on request: 6 + 9 and 9 + 12)   |
| Feeding speed                  | mm/s          | 0 + 180  |
| Step variation                 | mm            | 0.5 + 5  |
| Machine motor rotation speed   | rev/min       | 2200   |
| Machine net weight             | Kg.           | 181.5  |
| Motor features                 | W             | 370  |
|                                | round/<br>min | 1400   |
| Electric absorption            | kW            | 0.66   |
|                                | A             | 0.3  |
| Heat dissipated in the ambient | Kcal/h        | 570  |
| Daily average production       |               | strictly depending on the working model  |
| Noise                          | dBA           | 70 (taken at a height of 1 m and a distance of 1 m from the machine, with an ambient noise equal to 55dBA) |
| Electric protection            |               | IP33   |
| Machine standard connection    | V             | 220 Single phase   |

### A2 - Thermo-cement features

|                            |    |            |
|----------------------------|----|------------|
| Type                       |    | TD 203     |
| Use temperature            | °C | - 140      |
| Inflammability temperature | °C | fire-proof |

WARNING: keep the thermo-cement in a hermetic container; keep it dry and clean.

### A3 - Oil features

|      |  |                 |  |
|------|--|-----------------|--|
| Type |  | LR/150 Roll OIL | used inside the machine for lubrication, level and complete replacement (point G1)   |
| Type |  | SAE 40W-60W     | used for the daily lubrication of the external points subject to movement (point G1) |

## B - Machine description

### B1 - Machine description

This machine allows to fold every kind of material: leather or synthetic, by using a particular thermo-cement. It is also possible to carry out special workings such as the "French binding", the folding of flat insoles (2 mm.) and the application of the reinforcement adhesive band (mm. 4).

### B2 - Means suitable for the machine transport

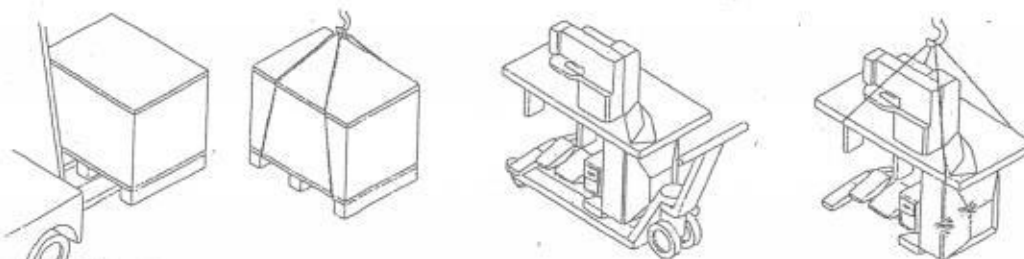


Fig. 2

B3 - Position of the label with the machine data and arrow indicating the rotation direction

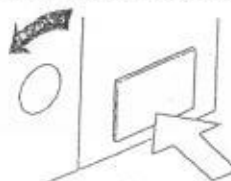


Fig. 3

### B4 - Working safety

This machine has been built according to the European provisions (CE regulation) which require safety standards both for the mechanical components and for the electric components. The thermo-cement container is protected against the overheating by a thermostatic tablet which intervenes by switching the machine off, in case the temperature exceeds 180° C.

WARNING! Do not remove the machine protections when it is working! They can be removed only during the maintenance or repair operations and only with the machine switched off by authorised personnel. The builder declines all responsibility for possible accidents caused by the non-observance of these safety rules!

**B5 - Danger areas**

**WARNING!** Danger of scalds due to the high temperature in the areas where the foot and the boiler are placed.

(A) = High tension      (A1) = High temperature area      (A2-A4) = Fingers crushing danger      A3 = Cutting danger

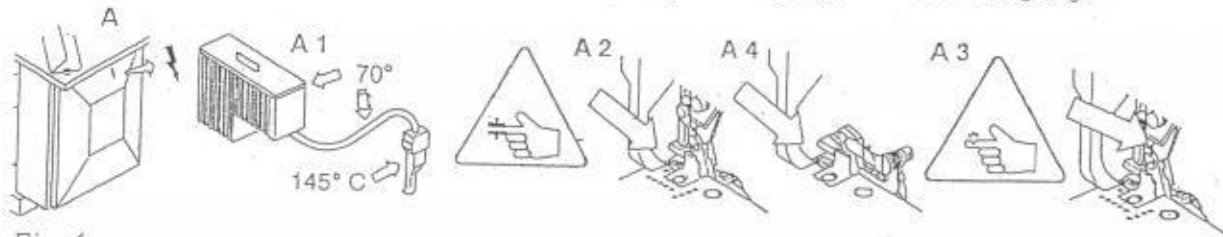


Fig. 4

**B6 - Machine protections**

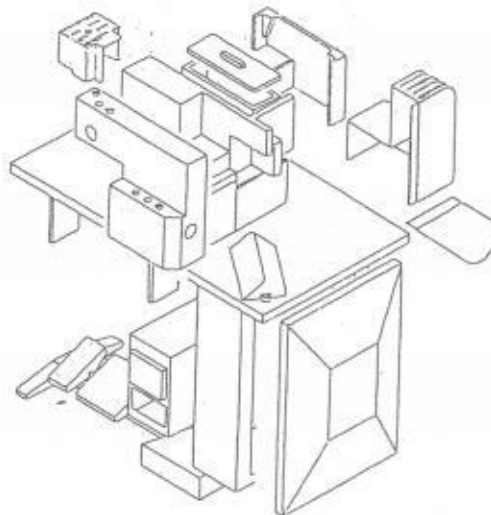


Fig. 5

**C - Machine equipment**

The machine is supplied along with the following equipment:

- Envelope with keys

**D - Installation**

**D1 - Machine installation**

Position the machine in a dry place, leaving a free space of 1 metre on each side. Use the knob 1 to make sure that the machine is levelled. Degrease the points of the machine protected by rust inhibitor oil with water soluble solvents. Dry carefully. Lubricate the areas indicated at point G1 by using SAE 40W - 60W oil.

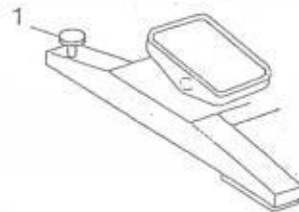


Fig. 6

**D2 - Machine dimensions and electric connections**

Inserire la spina nella presa di corrente. Before connecting the machine, make sure that the local voltage corresponds exactly to the one indicated on the "CE" label. Connect the power wire X to a 16A plug in accordance with the "CE" regulation (Picture 7). Insert the plug in the socket.

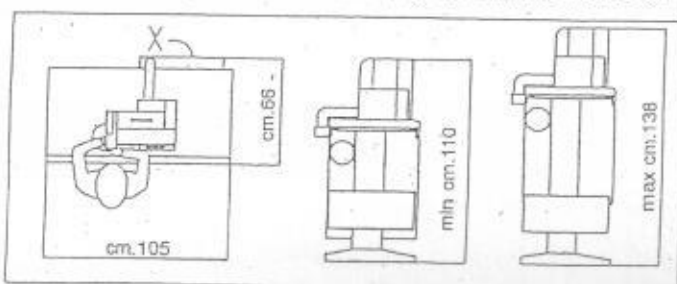


Fig. 7

### D3 - Machine height adjustment

This machine is equipped with an adjustment system which allows to change its height from a minimum of 110 mm. to a maximum of 138 mm. The adjustment is carried out through an extractable knob applied to the lifting pump proper pivot (Picture 8).

**WARNING! RELEASE THE SAFETY BOLTS (1) BY UNSCREWING THEM OF ONE TURN BEFORE USING THE KNOB (2)! ACTIVATING THE PUMP WITH THE BOLTS BLOCKED CAN CAUSE ITS DAMAGE!** After adjusting the machine height, block the bolts 1. Remove the knob and place it in the opening under the objects-holder box.

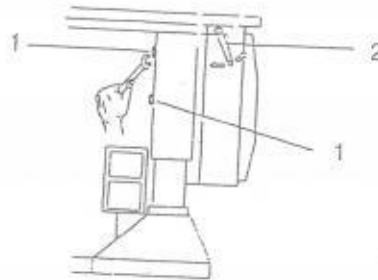


Fig. 8

### E - General adjustments

#### E1 - Thermo-cement loading

**WARNING! Use protective gloves when handling the thermo-cement!**

Load the thermo-cement into the proper container 1, checking the presence of the filler 2 (Picture 9).

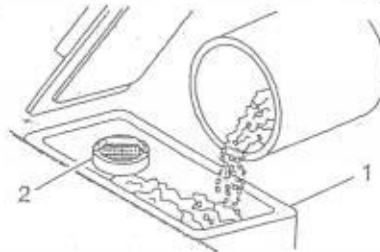


Fig. 9

#### E2 - Machine starting

Turn the general switch 1. The machine starts heating the thermo-cement which will reach the temperature of about 140° C in approx. 20 minutes. (Picture 10).

**WARNING! The machine will start operating only when the thermo-cement reaches the set value.**

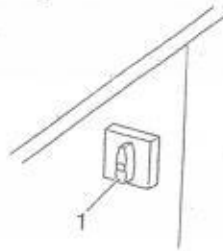


Fig. 10

#### E3 - Foot adjustment

The foot (1 - B) height adjustment is carried out by turning the knob (2 - B) and allows to change the distance X between the foot and the jaw (3 - B). **WARNING!** For a correct adjustment you must keep a distance X equal to the thickness of the material to process reduced of 0,2 - 0,3 mm. To check it, proceed as follows: start the machine (previous point) and through the pedal (1 - B1) let the foot down by exerting a light pressure till you hear a click. **DO NOT ACTIVATE THE MACHINE CONTROLS!** Pull the material gently by hand. It should give a light resistance to extraction but not excessive, since this would mean that the foot is too low. If the foot should be too high, the material will not give any resistance at all. A further horizontal adjustment of the foot in the direction indicated by the arrows (B2) is possible. This adjustment must be carried out when, although the distance X is correct, the foot is too near the lower guide (2 - B2), making it difficult to insert the material to process; turn the proper knob (3 - B2) clockwise or anticlockwise (Picture 11).

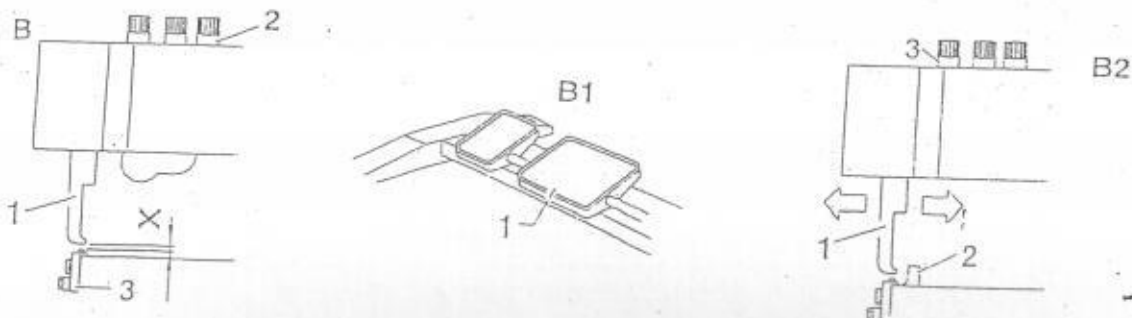


Fig. 11

### E3 - Foot adjustment

The foot (1 - B) height adjustment is carried out by turning the knob (2 - B) and allows to change the distance X between the foot and the jaw (3 - B).  
**WARNING!** For a correct adjustment you must keep a distance X equal to the thickness of the material to process reduced of 0,2 - 0,3 mm. To check it, proceed as follows: start the machine (previous point). Set in action the right toggle to lift up the foot; insert the material in the working area and release the toggle to let down the foot. **DO NOT ACTIVATE THE MACHINE CONTROLS!** Pull the material gently by hand. It should give a light resistance to extraction but not excessive, since this would mean that the foot is too low. If the foot should be too high, the material will not give any resistance at all. A further horizontal adjustment of the foot in the direction indicated by the arrows (B2) is possible. This adjustment must be carried out when, although the distance X is correct, the foot is too near the lower guide (2 - B2), making it difficult to insert the material to process; turn the proper knob (3 - B2) clockwise or anticlockwise.

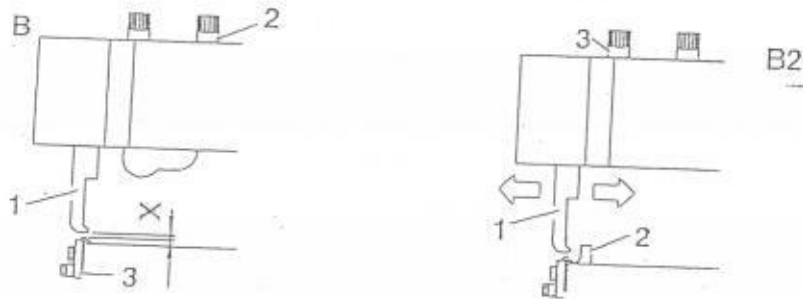


Fig. 12

### E4 - Finger adjustment

The finger 1 adjustment (Picture 13) is made through the adjustment cylinder 2 which allows to bring it nearer the foot or farther, thus changing the dimension X of the material passage. **WARNING!** It is advisable that this passage X is about 0,2 mm higher than the thickness of the material to process. If it should be too low, the finger 1 will tend to pull the material and mark it. If it should be too high, the pre-fold given by the finger will be insufficient and the fold will be irregular.

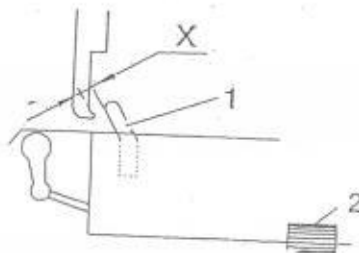


Fig. 13

### E5 - Upper guide adjustment

The guide 1 adjustment allows to increase the space X between the guide and the lower guide 2. Also in this case it is advisable that the space kept is about 0,2 mm higher than the thickness of the material to process. This can be carried out through the knob 3 by using a sample of material to make sure that the passage is sufficiently large (Picture 14).

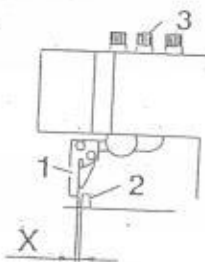


Fig. 14

### E6 - Lower guide adjustment

Loosen the screw 1 and the guide 2 in such a way that the rear outline is on the same line as the base (line x-x). Tighten the screw 1 (Picture 15).

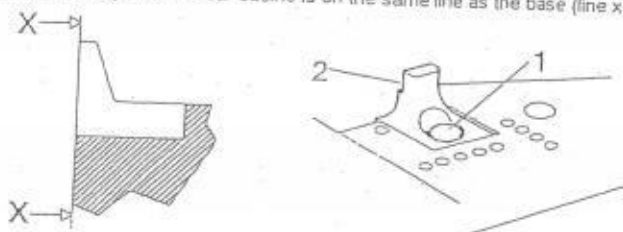


Fig. 15

### E7 - Folding height adjustment

This adjustment must be carried out every time the folding height must be changed. It is necessary to loosen the screw 1 and move the plate 2 vertically; downwards to decrease the folding height, upwards to increase it (Picture 16).

N.B.: the machine is usually supplied by the builder equipped with a lower guide 3 suitable for folding workings varying from a height of 2,5 mm up to a maximum of 6 mm. For wider folding workings it is necessary to replace the guide with another allowing to carry out folding workings from a minimum of 6 mm up to a maximum of 9 mm (it will also be necessary to adjust the upper plate for the new working conditions). For special workings with heights exceeding 9 mm, apply to the re-seller or the builder.

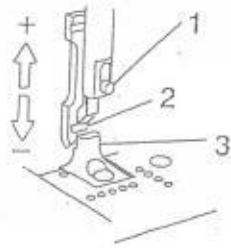


Fig. 16

F - Instructions for use

F1 - Control panel description

- 1 Key for page change
- 2 Function keys combined to the display
- 3 Key for cursor sliding: up - down
- 4 Key for parameter value increase/decrease

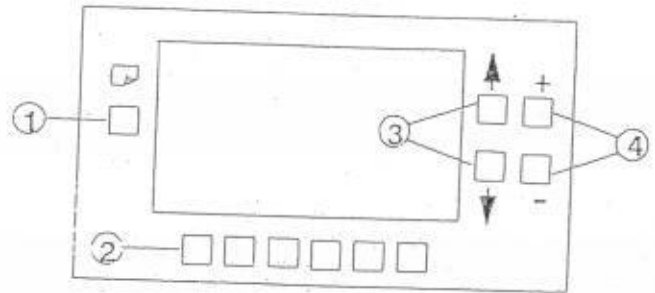


Fig. 17

F2 - Graphic display description and planning of working data: page 1

Pre-set parameters, panel keys and pertinent function

(For any difficulty in use, re-set the data, suitably prepared by the builder, shown in picture 18)

- 1 Cursor
- 2 Key for manual/automatic transport selection. Press to change selection (black background).
- 3-4 Thermo-cement increase/decrease key (displayed on the bar).
- 5 snip activation/deactivation key. Activated if in black
- 6 Key to activate/deactivate the automatic device to keep the folding width steady during the internal curves execution. Activated if in black
- 7 Key to activate/deactivate the thermo-cement supply. Activated if in black
- 8 OK: thermo-cement supply activated

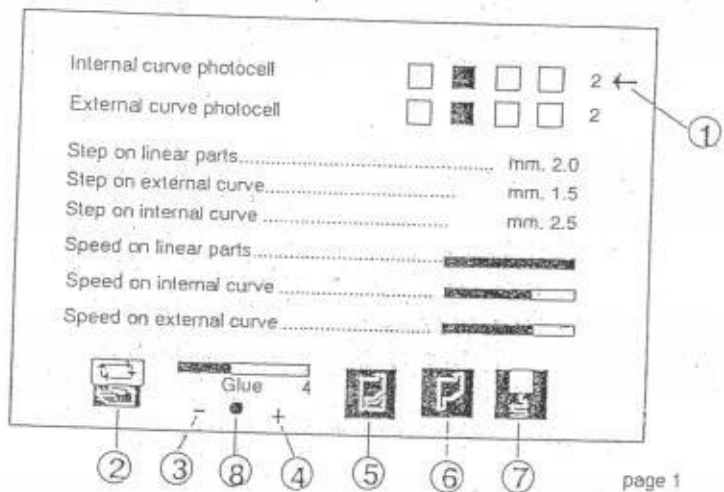


Fig. 18

To set the working parameters position the cursor with the up/down arrow , then increase or decrease the parameter value through the "+" and "-" keys (Picture 17). By pressing at the same time the "+" and "-" keys the parameter value is zeroed.

- The following parameters are shown on the main page, page 1:

- Internal curve photocell: through this parameter it is possible to select one of the four photocells which detect the presence of an internal curve, and consequently the insertion of the snip, if activated. If no photocell is selected, the internal curve is never signalled.
- External curve photocell: through this parameter it is possible to select one of the four photocells which detect the presence of an external curve. If no photocell is selected, the external curve is never signalled.
- Step on linear part: feeding step on linear part (5 mm max)
- Step on external curve: feeding step on external curve (5 mm max)
- Step on internal curve: feeding step on internal curve (5 mm max)
- Speed on linear part: visualisation of the transport motor speed adjustment on a linear part
- Speed on external curve: visualisation of the transport motor speed adjustment on an external curve
- Speed on internal curve: visualisation of the transport motor speed adjustment on an internal curve

F3 - Graphic display description and planning of working data: page 2

By pressing key 1 for page change (Picture 17) it is possible to move to page 2 of working parameters.

Parameters shown on this page are as follows:

- Boiler temperature: on this line the temperature pointed out by the thermocouple and the boiler set temperature are displayed in centigrade degrees. Use key 3 and 4 on the control panel to set the temperature (Picture 17)
- Foot temperature: on this line the temperature pointed out by the thermocouple and the foot set temperature are displayed in centigrade degrees



- Glue delay: it allows to set the delay for thermoplastic supply
- Foot lifting adjustment: by means of this parameter it is possible to program the foot intermediate position to suit to material feeding
- Number of carvings on internal curve (for special versions): through this parameter it is possible to plan the number of carvings the snip has to execute when the photocells detect an internal curve
- Carvings delay on internal curve (for special versions): this parameter must be set when programming the number of carvings in the internal curve. It allows to delay the carvings execution and consequently to centre them in the curve to be folded
- Password for parameters setting (to be used by authorised personnel only): the code number to enter the machine parameters setting
- Do not change the set parameters! If necessary, please get in contact with the builder!

|   | Read | Set   |
|---|------|-------|
| Boiler temperature..... °C                | 150  | 150 ← |
| Foot temperature..... °C                  | 150  | 150   |
| Thermo-cement delay ..... sec             |      | 0     |
| Regolazione alza piedino.....             |      | +100  |
| Foot lifting adjustment.....              |      | 5     |
| Number of carvings on internal curve..... |      | 7     |
| Carvings delay on internal curve.....     |      | 0     |

page 2

Fig. 19

**SPECIAL PAGES**

**ATTENTION:** do not modify the parameters in these pages!

Get in contact with the builder or authorised personnel.

Set the value 1 in "Password for parameters setting" by using the cursor control keys and the "+" and "-" keys on the panel. The "page change" key allows to enter page 3 (Picture 20):

| GENERAL PARAMETERS  |     |
|---|-----|
| LANGUAGE SELECTION 0=IT, 1= ENG, 2=FR, 3=SP, 4=POR, 5=TED |     |
| PHOTODIODES SENSITIVITY(max. 100)                         | 100 |
| LINEAR PART DOSAGE 0-100%                                 | 30  |
| EXTERNAL PART DOSAGE 0-100%                               | 20  |
| INTERNAL PART DOSAGE 0-100%                               | 30  |
| PRESSURE TRANSPORT FOOT                                   | 0   |
| ZERO SEARCH SPEED   | 150 |

page 3

Fig. 20

Through "page change" key it is possible to enter page 4 (Picture 21):

| IN                | OUT         |
|-------------------|-------------|
| 76543210          | 76543210    |
| 00 00001100       | 00 00000000 |
| 01 00000000       | 01 00000000 |
| 02 10000000       | 02 00000000 |
| 03 00001111       |             |
| 04 00101111       |             |
| Step: +40         |             |
| Snip: +0          |             |
| Foot: +200        |             |
| Valve: +0         |             |
| Room temperature: |             |

page 4

Fig. 21

By means of the "page change" key go back to page 2 and enter the value "0" in "Password for parameters setting".

- Set the delay time in the thermo-cement supply; if you want the thermo-cement to be supplied at the beginning of the working, set the value 0.
- Foot lifting adjustment for upper back seams: it is a parameter pre-set by the builder which can be easily changed according to one's working needs. It allows to adjust the exclusion height that the foot must reach to carry out the seam leap during the working. Either in the automatic function or in the manual function the command is given by the right toggle 2 (point F4, Picture 34).
- Select through key 2 (Picture 17) the automatic or manual feeding function, determining the machine use mode.

Special functions:

- Number of carvings on internal curves: by setting the value 0, the number of cuts carried out is connected to the material curve width which darkens the cutting photocell selected; the cuts are then carried out from the beginning of the curve till the end of it. By setting higher values (ex. 4 - 5 etc.) the machine carries out only the programmed quantity, starting in the moment when the selected photocell is darkened by the material.
- Cuts delay on internal curve: it allows to set a delay time in the programmed cuts execution so that they can be executed in the curve tract desired.

F7 - Photocells

- A Thermo-cement photocell (glue)
- B Internal curve snip photocells: 1 large curve, 2-3 medium curve, 4 small curve
- C External curve and step photocells: 1 large curve, 2 medium-large curve, 3 medium curve, 4 small curve.

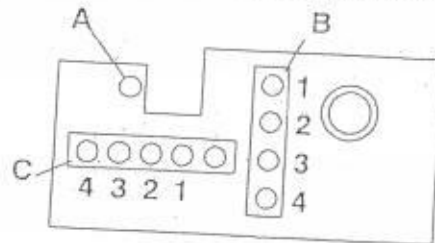


Fig. 25

Fig. 22

By means of the "page change" key go back to page 2 and enter the value "0" in "Password for parameters setting".

F4 - Toggles and pedals for the machine "manual" use

- 1 Toggle for thermo-cement opening/closing.
- 2 Foot lifting toggle.
- 3 snip insertion (if pressed towards A) and step variation pedal (if pressed towards D).
- 4 Foot for machine rotation speed variation. It carries out two functions: by pressing lightly till you hear a click, you have the foot lowering by further pressing, you can change the machine rotation speed.

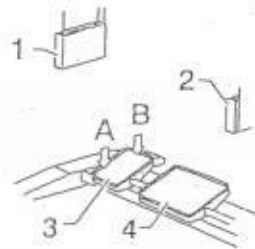


Fig. 23

F5 - Speed adjustment

- 1 Potentiometer for speed adjustment on linear part
- 2 Potentiometer for speed adjustment on internal curve
- 3 Potentiometer for speed adjustment on external curve.

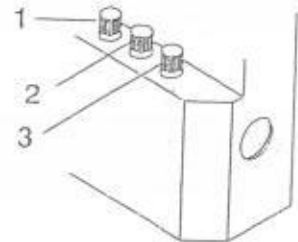


Fig. 24

F6 - Machine use

- 1 - Check the quantity of thermo-cement and fill the tank if necessary (point E1).
  - 2 - Turn on the machine (point D2). Let the thermo-cement heat for a sufficient time and then carry out the suitable adjustments to prepare the machine for the material to process (points E3, E4, E5, E7)
  - 3 - Set the working parameters on the control panel as follows:
    - \* Decide which photocell you intend to use so that the machine slows down automatically in the internal curves (from 1 for small curves to 4 for large curves). If you set number 0, the photocells are excluded and the machine does not slow down automatically. For the settings use keys 3 and 4 on the panel (point F2, Picture 17).
    - \* Decide which photocell you intend to use so that the machine slows down automatically in the external curves (from 1 for small curves to 5 for large curves). If you set number 0, the photocells are excluded and the machine does not slow down automatically. For the settings use keys 3 and 4 on the panel (point F2, Picture 17).
    - \* Set the step length in the linear parts, in the internal curves and in the external curves.
    - \* Set the speed in the linear parts, in the internal curves and in the external curves by using the potentiometers 1, 2, 3 (point F5, Picture 35). The speeds can be changed also during the working, for a better adjustment. (The speed settings also act as maximum limit, therefore, in the machine manual use, the maximum speed is the one set through the potentiometers 1, 2, 3).
    - \* Check that the opening for the thermo-cement supply is in automatic mode (black background) to allow the machine to supply the thermo-cement in the moment when the photocell is darkened by the material to process. When the photocell is lighted again, the thermo-cement supply will stop. (By deactivating the photocell, white background, the thermo-cement supply can be made only by using the toggle 1 (point F4, Picture 34).
    - \* Press the keys 3 and 4 on the control panel to increase or decrease the quantity of thermo-cement supplied.
- (NOTE: the builder inserts some programming parameters which allow the machine to change automatically the quantity on the linear parts, on the internal curves and on the external curves, so that the thermo-cement applied on the upper is always in the right quantity).
- \* Press the key 5 to activate the snip in the internal curves. In the automatic mode the cut starts when the photocell selected for the internal curves is darkened. In the manual mode the cut starts when you press the pedal 3 (point F4, Picture 34). If the snip function is excluded, the machine does not cut automatically.
  - \* Press the key 6 to activate the device to keep the folding width steady during the internal curves execution. In the automatic mode the device will lift in the moment when the internal curve photocell is darkened. In the manual mode the device will lift in the moment when the snip insertion pedal is activated.
  - \* Press the push-button 1 on the control panel to enter the programming second page.

The boiler and foot temperature parameters are already set by the builder on the ground of the features of the standard supplied thermo-cement. Some possible modifications for the change of the thermo-cement with a different melting point must be carried out by the builder or properly trained personnel.

## G - Maintenance

### G1 - Periodical maintenance

Clean every day the whole machine from the working residues; thermo-cement clots on the foot and in the working area. Lubricate also all the points indicated in the pictures. Check every month the level of the oil in the machine which must tally with the reference notch in the proper indicator (C - Picture 26) - if the level is low, see point G3. Every 12 months replace completely the oil in the machine (see point G3).

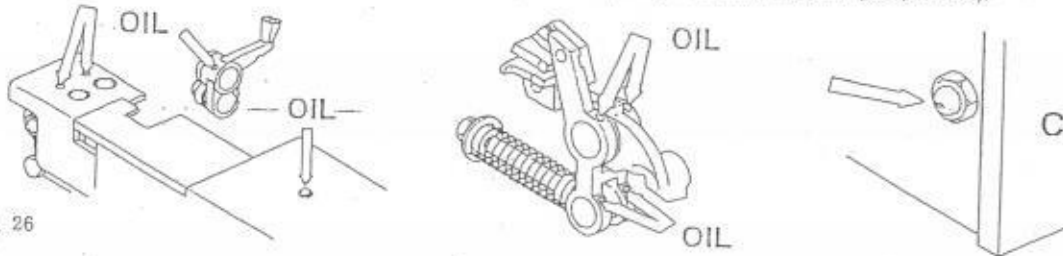


Fig. 26

### G2 - Motor belt tension

At intervals check the tension of the motor belt which can be reached by simply disassembling the belt cover protection. To tighten it, proceed as follows: loosen the motor fastening nut 1. Push the motor downwards so that the belt is in tension and, by keeping the motor in this position, tighten the nut again. Reassemble the protection. Picture 27

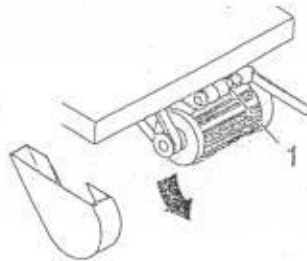


Fig. 27

### G3 - Lubrication

The internal mechanisms are in oil bath. For the filling up and the complete replacement use SAE 40W - 60W oil. To extract the oil from the machine proceed as follows: disassemble the protection 1 in the arrow direction.

**PAY ATTENTION TO THE ELECTRIC CABLES OF THE PHOTOCELLS LIGHTING GROUP FITTED ON PROTECTION 4!**

The filling plug 2 is positioned in the upper part. The drain plug 3 is positioned in the lower part of the machine, under the table. After emptying, reposition the lower plug and pour about Kg. 0,36 of oil. Check the level in the proper indicator (point G1). Reposition the upper plug. Reassemble the protection. Picture 28

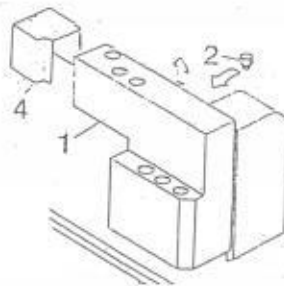


Fig. 28

### G4 - Thermo-cement filter replacement

The thermo-cement filter is very important for the machine good working. It must be replaced when it is too encrusted. Proceed as follows:

**WARNING! SCALDS DANGER! USE PROTECTIVE GLOVES!**

Change the boiler temperature setting it to 100°C by using the keys 3 and 4 on the control panel (point F1). Wait for the thermo-cement to be rather solid and extract it completely from the container by means of a tool. The old filter 1, being completely plunged into the thermo-cement, will be then automatically removed. Fit a new filter paying attention since the boiler temperature is always high. Fill the boiler with new thermo-cement (point E1). Change the boiler temperature setting it again to 140°C (or to the temperature set before replacing the filter). When the right temperature is reached, carry out some samples. Picture 29

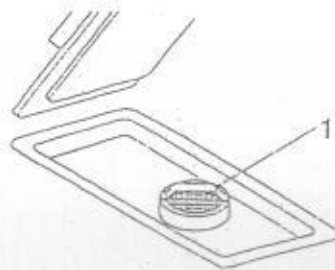


Fig. 29

## H - Worn parts replacement

### H1 - Snip guide unit replacement

**WARNING!** Cut danger. Turn the machine off and remove the electric plug from the socket.

Remove the screw 1 and disassemble the whole snip guide unit 2. Reassemble the new unit and block it against the stop 4, then tighten the screw 1. Check the snip opening/closing. If it is not correct refer to point I3. Adjust the guide height according to the material thickness (see point E5).

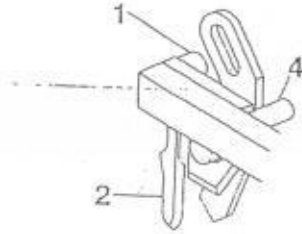


Fig. 30

### H1 - Snip guide unit replacement

**WARNING!** Cut danger. Turn the machine off and remove the electric plug from the socket.

Remove the screw 1 and disassemble the whole snip guide unit 2. Reassemble the new unit and block it against the stop 4, then tighten the screw 1. Adjust the plate 3. Check the snip opening/closing. If it is not correct refer to point I3. Adjust the guide height according to the material thickness (see point E5) (Picture 14).

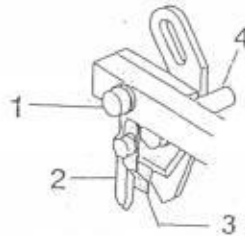


Fig. 31

### H2 - Foot replacement

**WARNING!** Turn the machine off and remove the electric plug from the socket.

Wait for the foot to cool. Loosen the nut 1 and disconnect the glue feeding pipe 2. Be careful not to bend it! It is sufficient it is no longer connected to the foot. Loosen the dowel 3 and take out the probe 4 taking care not to damage it. Loosen the dowel 5 and extract the heater plug 6. Be careful not to damage it. Loosen the dowel 7 mounted on the piece 8 on the part where the wire passage slot has been made. Loosen the screws 9 and disassemble the piece 10, letting the wire 11 come out of the slot. Loosen the screw 12 and disassemble the foot 13. Assemble the new one taking care that the point skims the lower guide 14. Disassemble the snip 15 from the old foot and reassemble it on the new one. Reassemble everything proceeding in the opposite direction. **Warning!** Do not thoroughly tighten the dowels 3 and 5 as this could damage the probe and the plug. Check the foot height and adjust it if necessary according to the thickness of the material to process (point E3) Picture 32

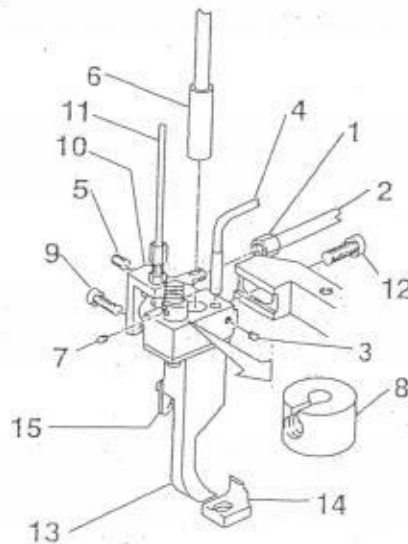


Fig. 32

### H3 - Finger replacement

**WARNING!** Turn the machine off and remove the electric plug from the socket.

Loosen the screw 1 and disassemble the piece 2. Reassemble the new guide and check the position by means of the knob 3. (Picture 33)

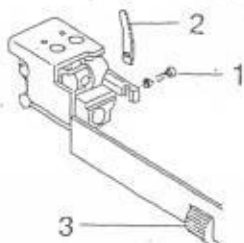


Fig. 33

### H4 - Jaw replacement

**WARNING!** Turn the machine off and remove the electric plug from the socket.

Loosen the dowel 4. Disassemble the piece 1 and the whole jaw unit 2. Assemble the new unit. Check the coupling clearance between the piece 1 and the jaw 2. Thoroughly tighten the dowel 4, taking care that the spring 3 is positioned in the reference notch on the jaw 2. Check and, if necessary, adjust the jaw height, as explained at point I2. (Picture 34)

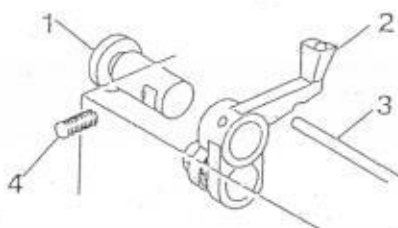


Fig. 34

### H5 - Hammers replacement

**WARNING!** Turn the machine off and remove the electric plug from the socket.

Loosen the screws 1 and 2 and replace the hammers 3 and 4. Check and, if necessary, adjust the hammers pressure (point I1).

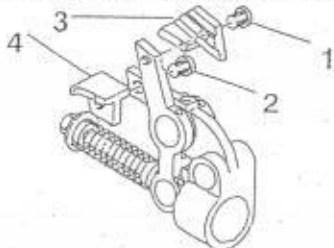


Fig. 35

### H6 - Motor belt replacement

**WARNING!** Turn the machine off and remove the electric plug from the socket.

Disassemble the back protection 2 and the belt cover protection 3. Replace the belt 1. Adjust the belt tension (point G2). Reassemble the protections proceeding in the opposite direction (Picture 37)

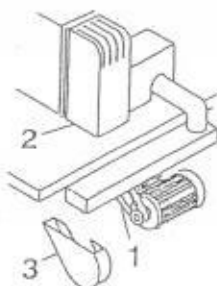


Fig. 36

### H7 - Lower guide replacement

**WARNING!** Turn the machine off and remove the electric plug from the socket.

Loosen the screw 1, replace the guide 2 and adjust it, as indicated at point E6. When assembling a guide with a height different from the previous one, it is necessary to adjust the height of the upper reference plate, as explained at point E7 (Picture 37)

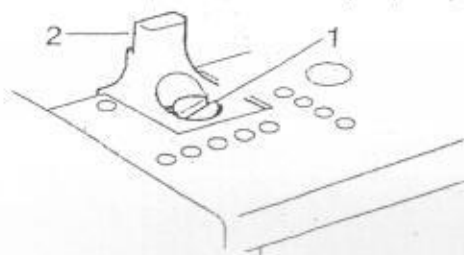


Fig. 37

#### H8 - Photocells plate replacement

**WARNING!** Turn the machine off and remove the electric plug from the socket. Wait until the machine is completely cool.

Remove the working table (see point L5). Disassemble the lower guide 1. Remove the screw 2 which fastens the photocells plate 3 and disassemble it by making it slide in the arrow direction. Reassemble the new plate proceeding in the opposite direction, taking particular care when inserting the electric pins. Block with the screw 2. Reassemble the lower guide 1 following the instructions given at point E6. Reassemble the working table (Picture 38)

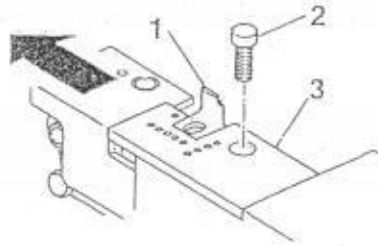


Fig. 38

#### H9 - Foot lifting wire replacement

**WARNING!** Turn the machine off and remove the electric plug from the socket. Wait until the machine is completely cool.

Disassemble the front protections as indicated at point G3. Loosen the nut 1 which blocks the wire 2. Remove the wire from the foot holder lever 3. Assemble the new wire and block it taking care that the pin 4 is in vertical position, against the stopping screw. Reassemble the protections proceeding in the opposite direction (Picture 39)

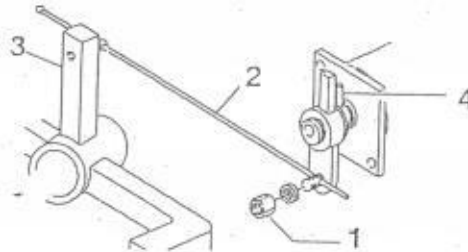


Fig. 39

#### H10 - Foot valve wire replacement

**WARNING!** This operation must be carried out by authorised personnel since it can only be executed with the machine in operation! Scalds danger!

Disassemble the front protections as indicated at point G3. Loosen the screw 1. Loosen the dowel 3 mounted on the piece 4, on the part where the wire passage slot has been made. Detach the piece 2 to which the wire 6 is attached. Loosen the terminal 5 and extract the wire. Reassemble the new wire. Before tightening the terminal 5, reassemble all the pieces 3, 2, 1, proceeding in the opposite direction and taking care that the position pin 10 is against the position stop (see Picture 40). Press the key 2 on the control panel (point F2) to activate the machine for the manual mode use. The thermo-cement supply from the foot will be carried out through the toggle (1 point F4). Press the toggle. Pull the wire 6 so that it is in tension and block through the terminal 5. The little piston 4 will be against the foot 9. By pressing the toggle again, the little piston 4 will rise. Check that it has risen 2 - 2,5 mm maximum to assure the regular operation. If it should rise less than 1,5 mm, you will have some thermo-cement drops on the foot 9 during the pieces working. In this case loosen the nut 7, unscrew the piece 8 of one turn and block the nut 7. Check and, if necessary, repeat the operation unscrewing the pivot of another turn. Bring the machine back to the automatic use mode by pressing the key 2 point F2 (Picture 40)

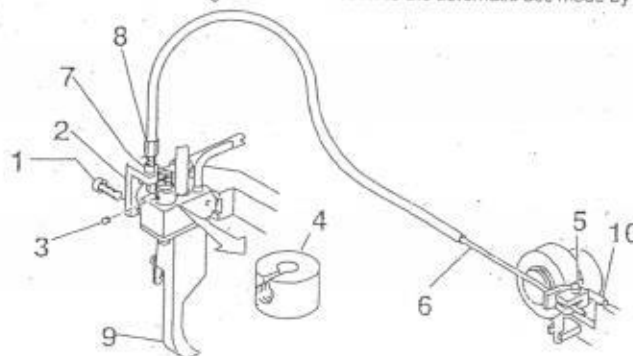


Fig. 40

## I - Essential adjustments

#### I1 - Hammers adjustment

**WARNING!** Turn the machine off and remove the electric plug from the socket.

A wrong pressure of the hammers (1 and 2 - D) on the material may cause some troubles: if it is excessive the material will be marked and the machine will be very noisy, subjecting the mechanical elements to a greater stress. If it is insufficient the folding will not be carried out well with consequent feeding problems. It is then necessary to check the pressure proceeding as follows: assemble the hand-wheel (1 - D1) supplied along with the machine on the control pulley by fixing it through its screws (2 - D1). Activate the hand-wheel by hand and bring the hammer 1 as much as possible near the hammer 2. Use a paper sheet of about 0,2 mm thickness and insert it between the two hammers.

If the paper is not stopped by the hammers, it is necessary to increase the pressure: loosen the nut 4 and turn the nut 5 clockwise (the hammers will approach one another).

If the paper does not go through the hammers, it is necessary to decrease the pressure: turn the nut 5 anti-clockwise (the hammers will move further apart).

Tighten the nut 4. Disassemble the hand-wheel and the fastening screws (Picture «

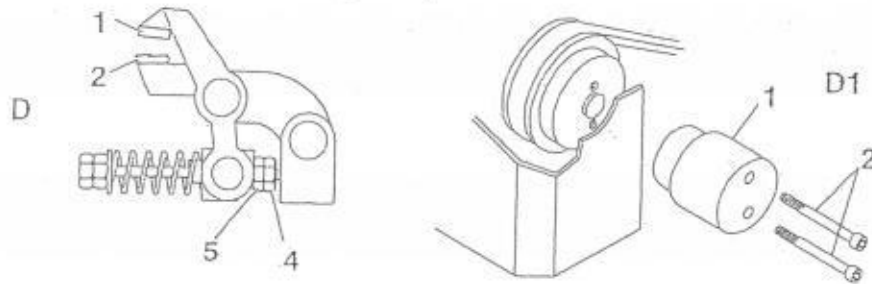


Fig. 41

### 12 - Jaw adjustment

**WARNING!** Turn the machine off and remove the electric plug from the socket.

Assemble the hand-wheel supplied along with the machine on the control pulley, by fastening it through its screws (1 - E) and turn it until the jaw (2 - E1) is positioned at the maximum height. Check that the distance "X" is about 0,5 mm. Otherwise loosen the nut 3 and by means of a screwdriver make the eccentric 4 turn slowly.

**WARNING!** It is a very precise adjustment, therefore a minimum adjustment is sufficient.

Check the jaw height obtained. Block the nut 3 and turn the hand-wheel 1 by hand. Check again the size "X". If necessary repeat the operation. At the end of the adjustment, disassemble the hand-wheel (Picture «

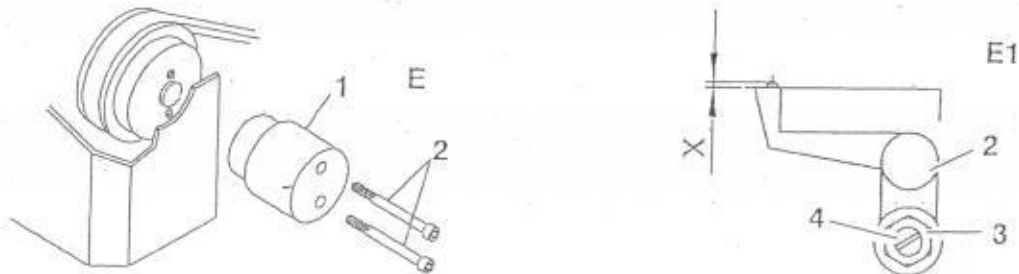


Fig. 42

### 13 - Snip adjustment

**WARNING!** Turn the machine off and remove the electric plug from the socket.

**WARNING!** Cut danger.

Cut length change: loosen the screw (1 - F) and move the snip (2 - F) as follows: upwards to decrease the cutting length, downwards to increase it. Block the screw 1.

Cutting phase correction: activate the machine by hand through the proper hand-wheel and check the cutting cycle. The snip cutting edge (2 - F) (see arrow) must disappear completely behind the guide (3 - F) and then open at the most. Otherwise it is necessary to correct the snip phase proceeding as follows:

- Loosen the screws which fasten the front protection (Picture F1).

**WARNING!** THE PROTECTION IS CONNECTED TO THE PHOTOCELLS LIGHTING APPARATUS.

- Turn the toothed belt by hand (4 - F2), anti-clockwise, and at the same time the machine devices, through the proper key until the snip is activated.

- Always by turning the key, make the snip close till the maximum point. Check how the cutting edge is as to the guide.

- If necessary, loosen the terminal (5 - F3) and turn the eccentric (6 - F3) so that the snip is completely closed. Block the terminal (5 - F3). Activate the pulley by hand and check that the adjustment carried out is correct.

- Reassemble the protection (Picture «

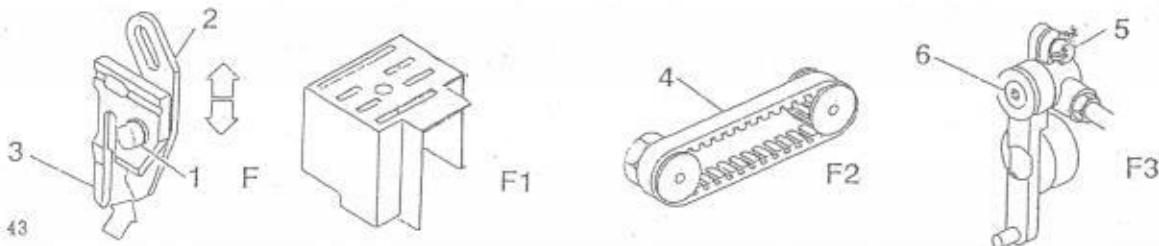


Fig. 43



## L - Special workings

### L1 - Cardboard and flat insoles folding (max. 2 mm.)

**WARNING!** Turn the machine off and remove the electric plug from the socket. Wait until the machine is completely cool.

Loosen the screw 1 which fastens the whole snip group 2 and remove it. Loosen the screw 3 which fastens the lower guide 4 and remove it. Assemble the insoles guide and adjust it, as indicated at point E6 (Picture 44)

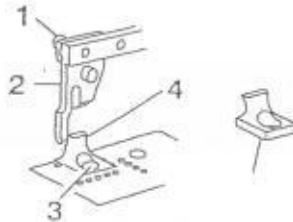


Fig. 44

### L2 - French binding folding

**WARNING!** Turn the machine off and remove the electric plug from the socket. Wait until the machine is completely cool.

Loosen the screw (1 - G) which fastens the whole snip group (2 - G) and remove it. Loosen the screw (3 - G) which fastens the lower guide (4 - G) and remove it. Assemble the French binding lower device and adjust it, as indicated at point E6. Assemble the upper guide (5 - G1) on the lever (7 - G1) and block it through the screw (8 - G1).

The guide height adjustment is always carried out as indicated at point E5. Check the finger position and, for its adjustment, follow the instructions indicated at point E4. Check the foot position and, for its adjustment, follow the instructions indicated at point E3. (Picture 45)

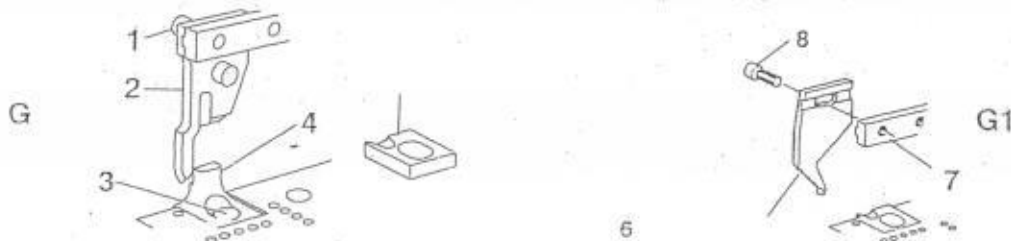


Fig. 45

### L3 - Use of the reinforcement thread

**WARNING!** Scalds danger! High temperature area.

Unscrew the washer 1, insert the reel of thread and screw it again. Insert one end of the thread in the proper guides and then thread it in the hole on the foot (see Picture 46). During the working the thread is automatically positioned inside the folding. After folding the piece, place the thread in the proper snip 2, fixed to the foot, to carry out the cut.

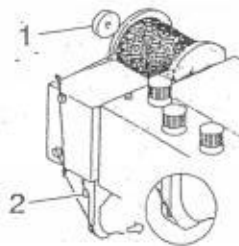


Fig. 46

### L4 - Use of the reinforcement adhesive tape

**WARNING!** Scalds danger! High temperature area.

Instead of the reinforcement thread, it is possible to use an adhesive tape, with a maximum width of 4 mm. It is necessary however to replace the standard foot assembled on the machine by a foot suitable for this use.

**WARNING!** Turn the machine off and remove the electric plug from the socket. Wait until the machine is completely cool.

Disassemble the foot proceeding as per point H2 and assemble the special foot for reinforcement tape. Assemble the reel of tape 2 on the proper support 1. During the working the tape will be positioned automatically inside the folding (Picture 47)



Fig. 47

#### L5 - Working table replacement

You generally work with a big working table but for special workings, "closed pieces", it must be replaced by a small table.

**WARNING!** Turn the machine off and remove the electric plug from the socket. Wait until the machine is completely cool.

Loosen the screws 1 and make slide the big working table 2 in the arrow direction. Position in the same way the small working table 3 and block it through the same screws. To re-assemble the big working table proceed in the opposite direction. (Picture 48)

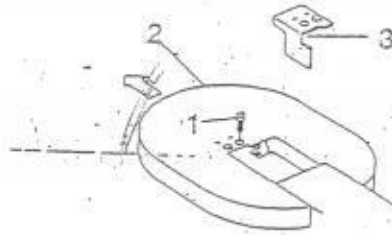


Fig. 48

#### M - Possible troubles and instructions for their elimination

##### M1 - Folding defects

Folding getting unstuck

Adjust the foot temperature since it is too high (point F3).

Sticking at intervals

Adjust the foot temperature since it is too low (point F3).

Excessive or insufficient riveting.

Wrong adjustment of the hammers (see point M1). If the hammers are worn out, it is necessary to replace them (see point E5).

Glue lack.

The thermo-cement temperature is too low. Check the set temperature (point F3).

One or more resistances may be burnt and it is necessary to replace them (contact the re-seller or the builder).

The pump does not turn owing to a wrong working caused by the driving motor or by the motor control card. In this case it is necessary to contact the re-seller or the builder.

Plugged foot or pipe. Clean the foot by using a 1mm Ø point and if necessary disassemble it by loosening the screws 1 (see picture) or contact the re-seller or the builder.

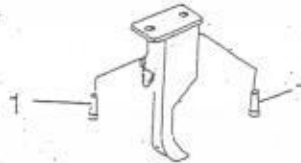


Fig. 49

##### M2 - Material sliding difficulty

The material does not slide or has some marks.

The foot is too low, it is necessary to raise it (see point E3).

The material escapes the guide.

The foot is too high, it is necessary to lower it (see point E3).

##### M3 - Cut defects

Cut too long or too short.

It is necessary to adjust the snip height: if the cut is too long, it is necessary to raise it; if the cut is too short, it is necessary to lower it (point I3).

The snip does not move.

It may be caused by the motor or by the motor control card. In this case it is necessary to contact an assistance centre.

Indented cut. The material does not slide.

Replace the snip since it is worn out (point H1). It cannot be sharpened since it is self-sharpening.

#### N - Consumption and wear material

##### N1 - Consumption material

| Code     | Q.ty | Name                 |
|----------|------|----------------------|
| 02003931 | 1    | Thermo-cement TD203  |
| 02L00344 | 1    | Reinforcement thread |

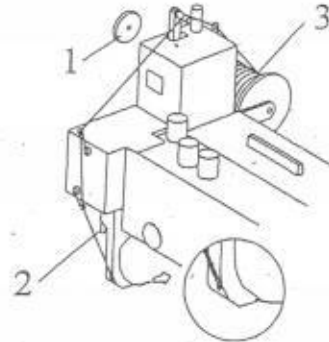
##### N2 - Wear pieces

| Code     | Q.ty | Name              |
|----------|------|-------------------|
| 02L04238 | 1    | Filler            |
| 02003856 | 1    | Set Z 39 - 10x991 |

### L3-Use of the reinforcement thread

**Warning !** Scalds danger! High temperature area.

Unscrew the washer 1, insert the reel of thread 3, screw it again. Insert one end of the thread in the proper guide and then thread it in the hole on the foot. During the working the thread is automatically positioned inside the folding. After folding the piece, place the thread in the proper snip, fixed to the foot, to carry out the cut.



### L4-Use of the reinforcement adhesive tape

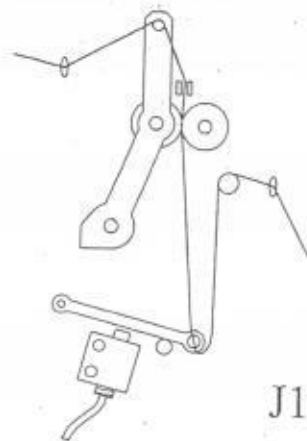
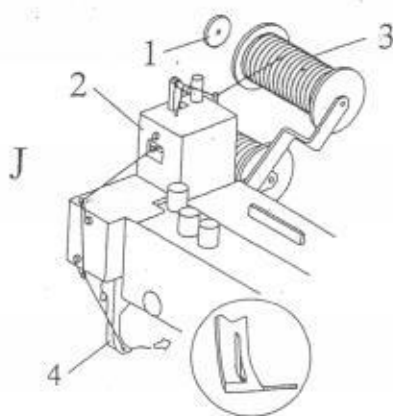
**Warning!** Scalds danger! High temperature area.

Instead of the reinforcement thread, it is possible to use an adhesive tape. It is necessary however to replace the standard foot assembled on the machinery by a foot suitable for this use.

**Warning!** Turn the machine off and remove the electric plug from the socket. Wait until the machine is completely cool.

Disassemble the foot proceeding as per point 2 and assemble the special foot for reinforcement tape. Assemble the reel of tape on the proper support. During the working the tape will be positioned automatically inside the folding.

After folding the piece, place the thread in the proper snip, fixed to the foot, to carry out the cut.



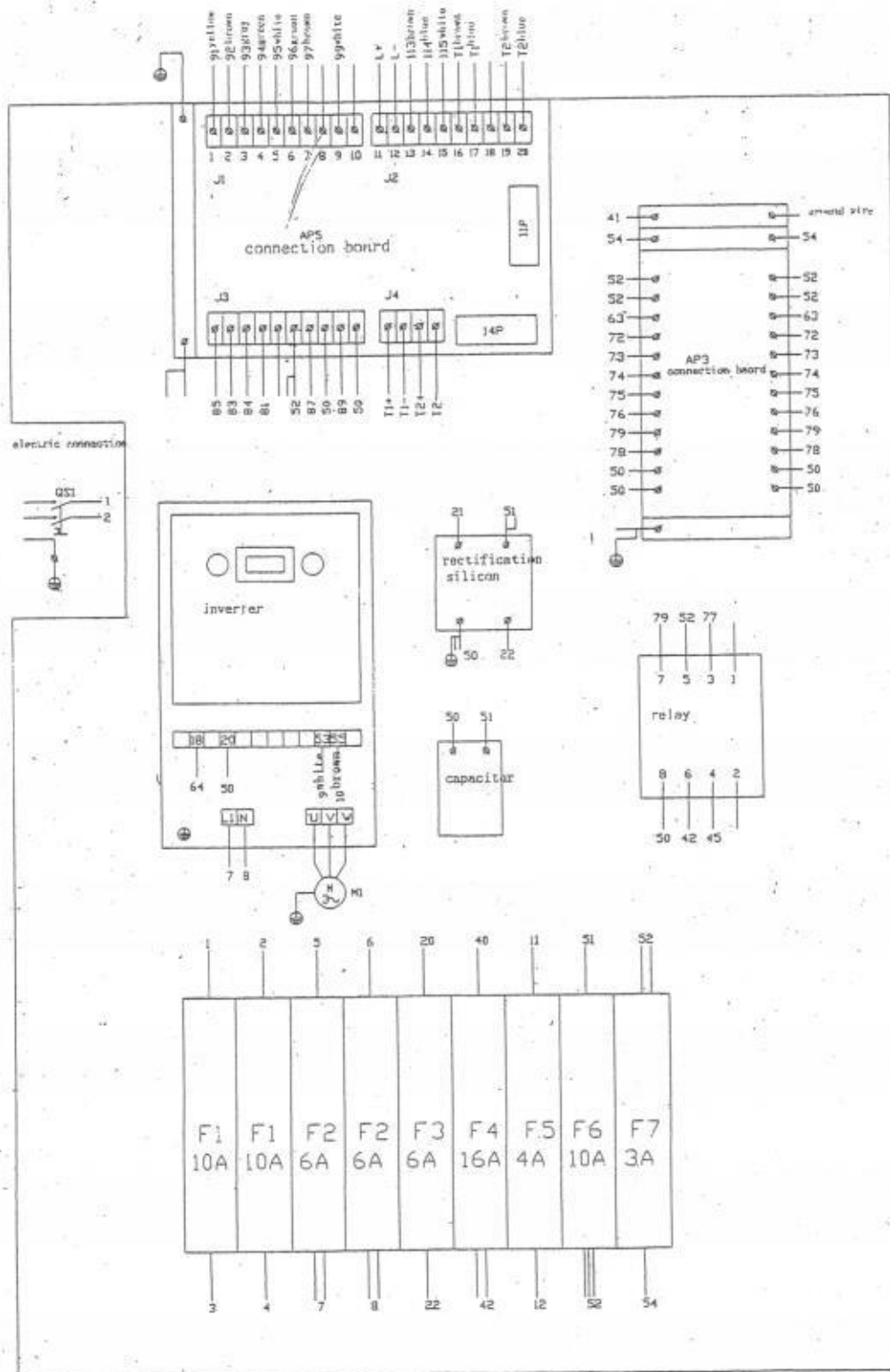
### L5-Working table replacement

You generally work with a big working table but for special workings, "closed piece", it must be replaced by a small table.

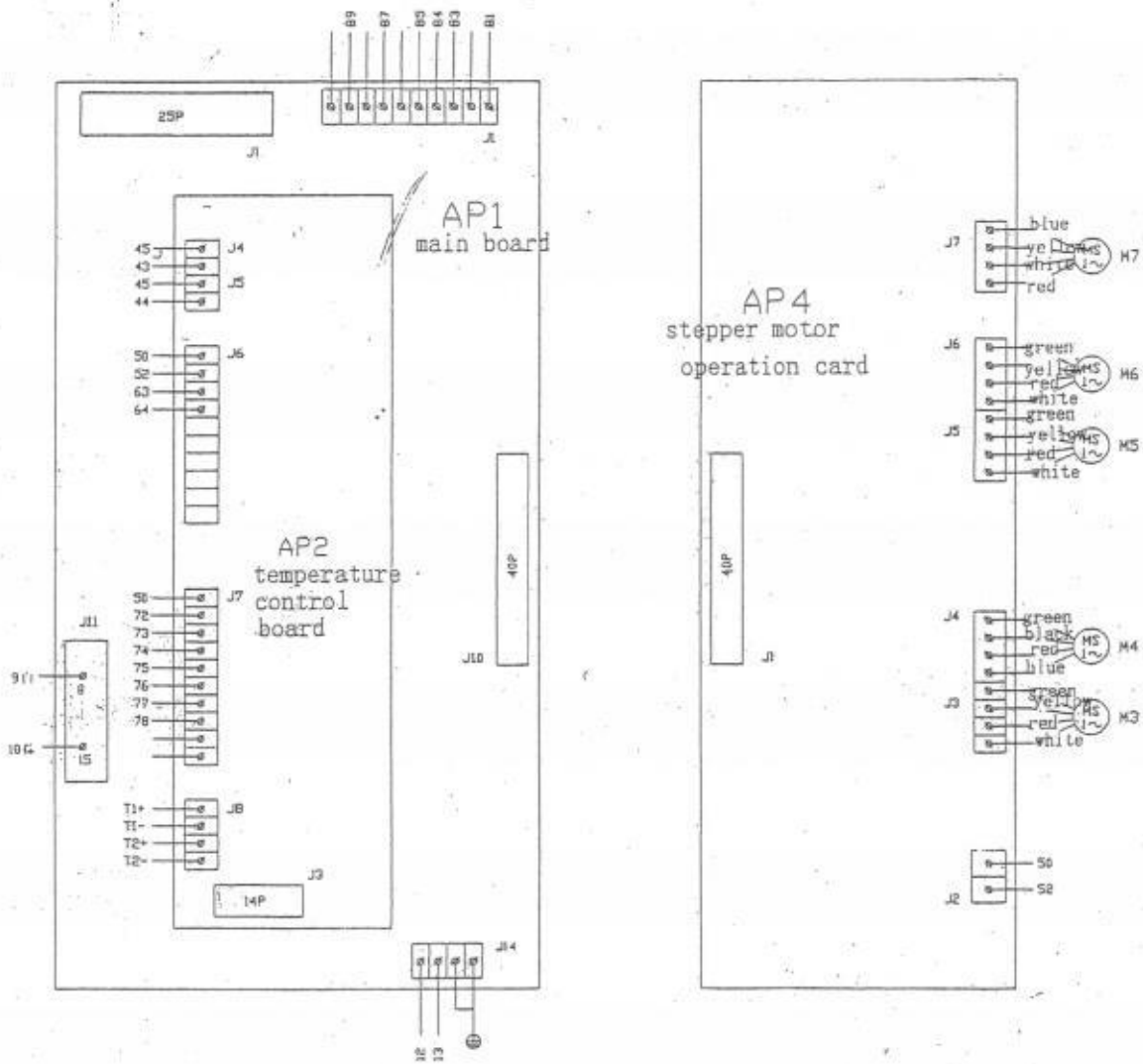
**Warning!** Turn the machine off and remove the electric plug from the socket. Wait until the machine is completely cool.

# APPENDIX I:

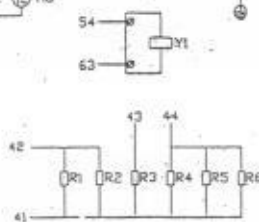
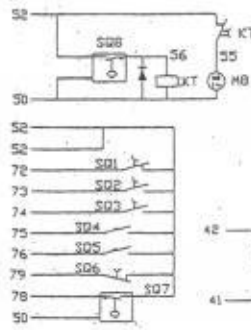
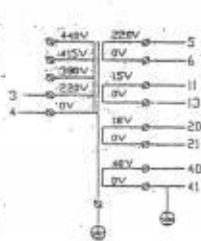
## Wiring diagram



# Wiring diagram



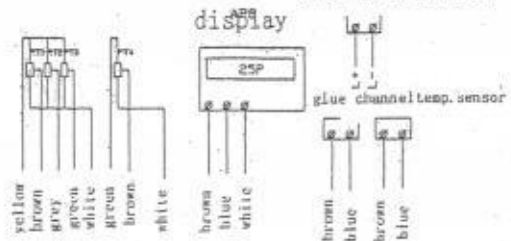
transformer



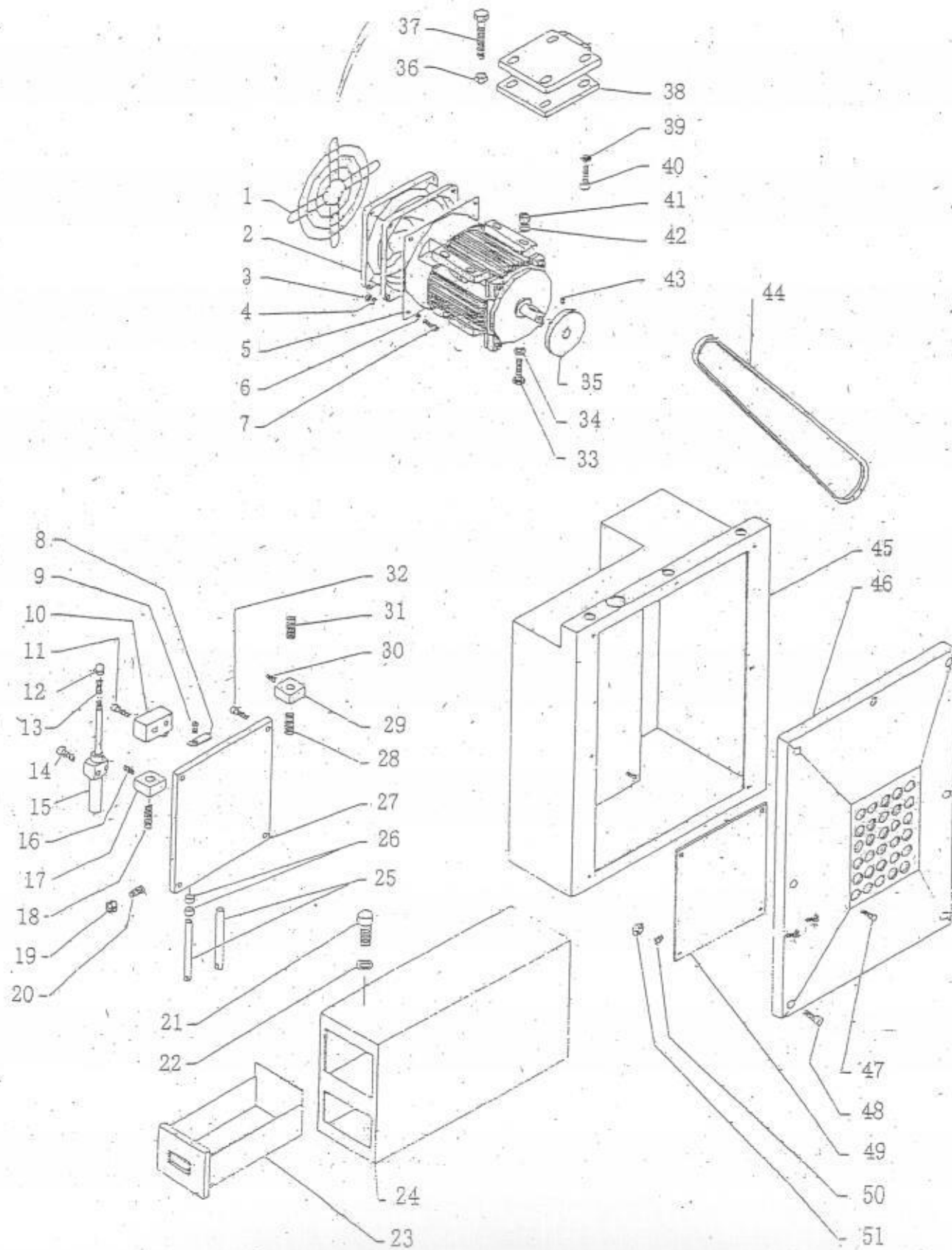
infrared receiver



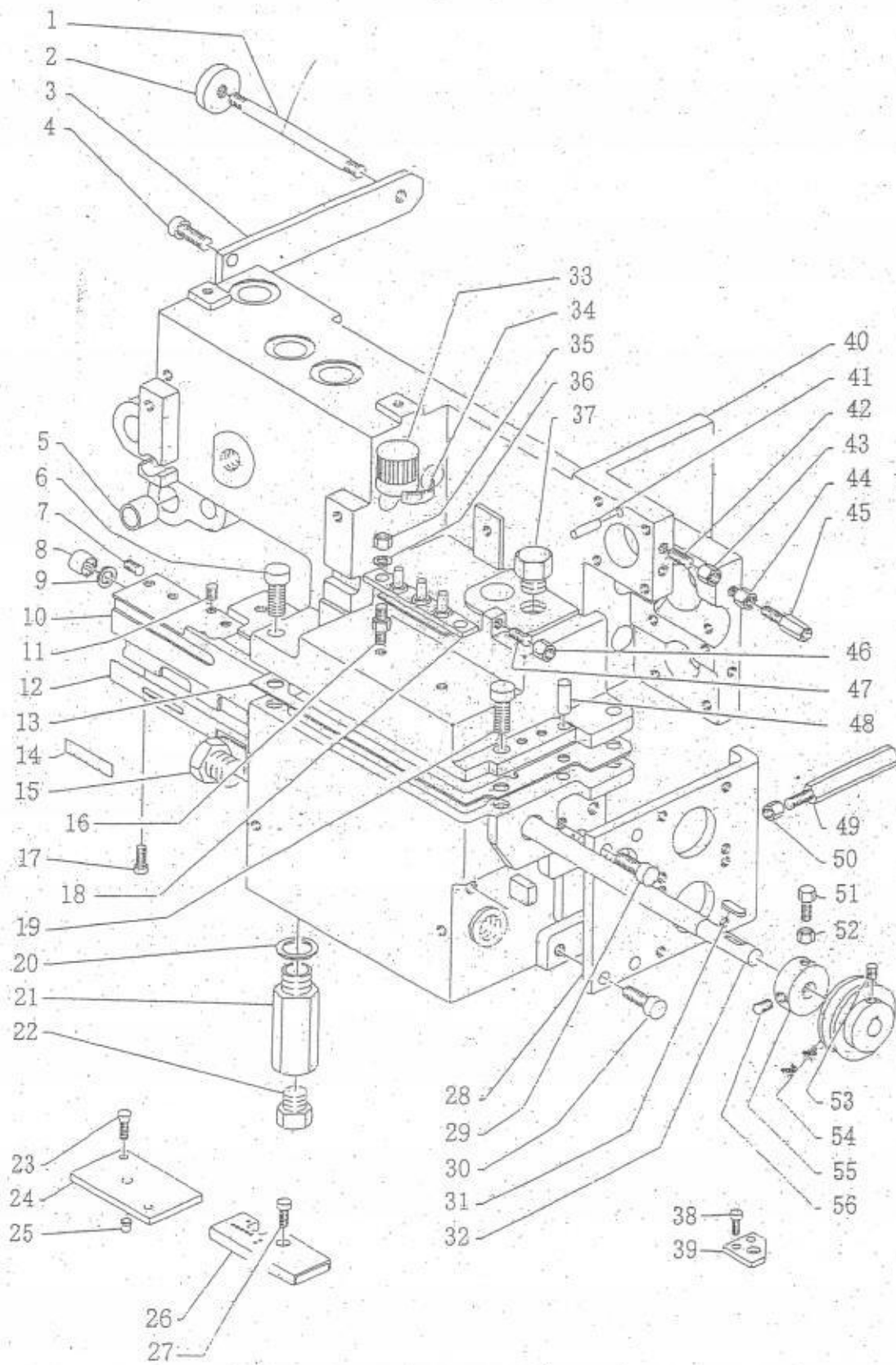
infrared transmitter



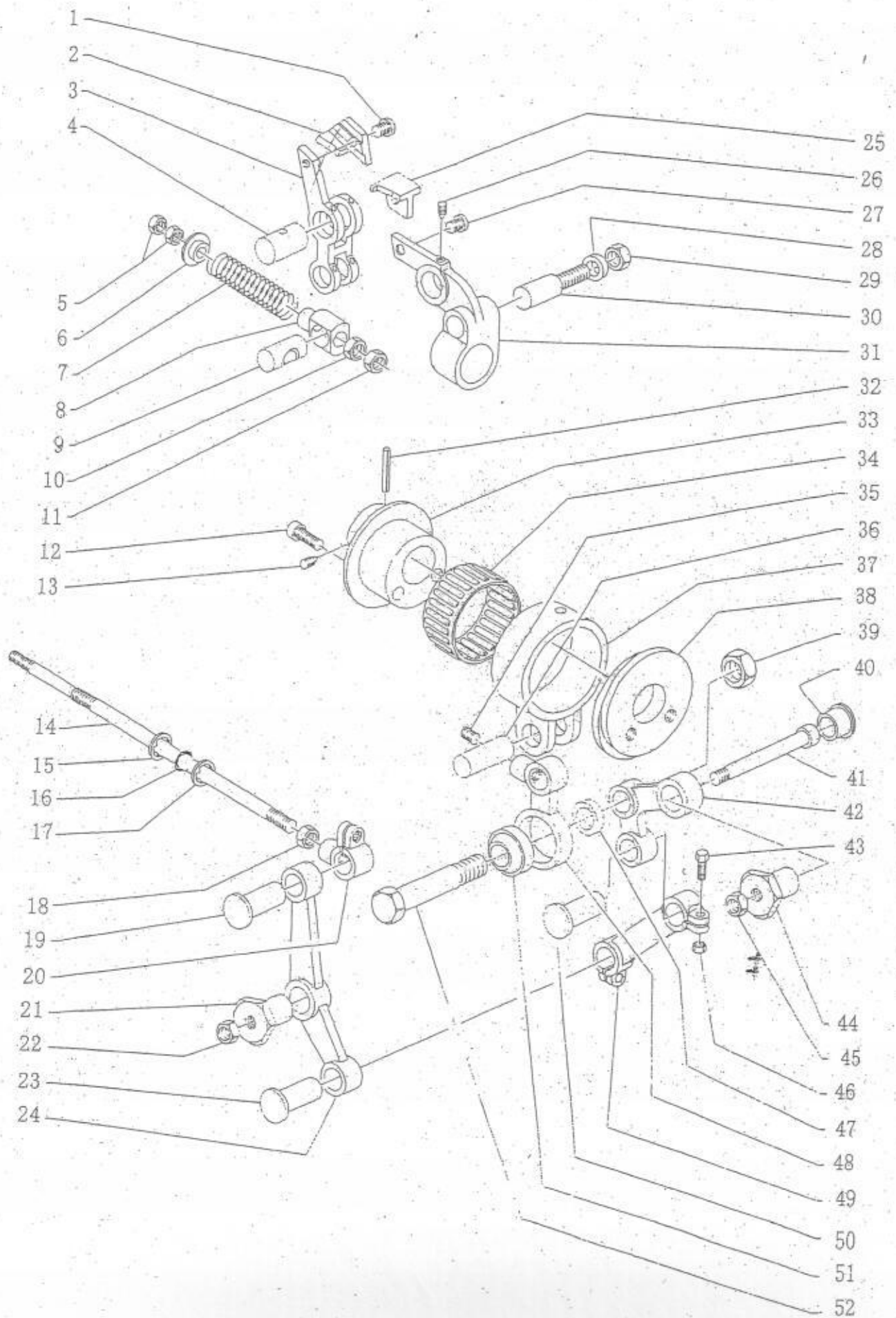
02, Motor



# 03. Machine Shell

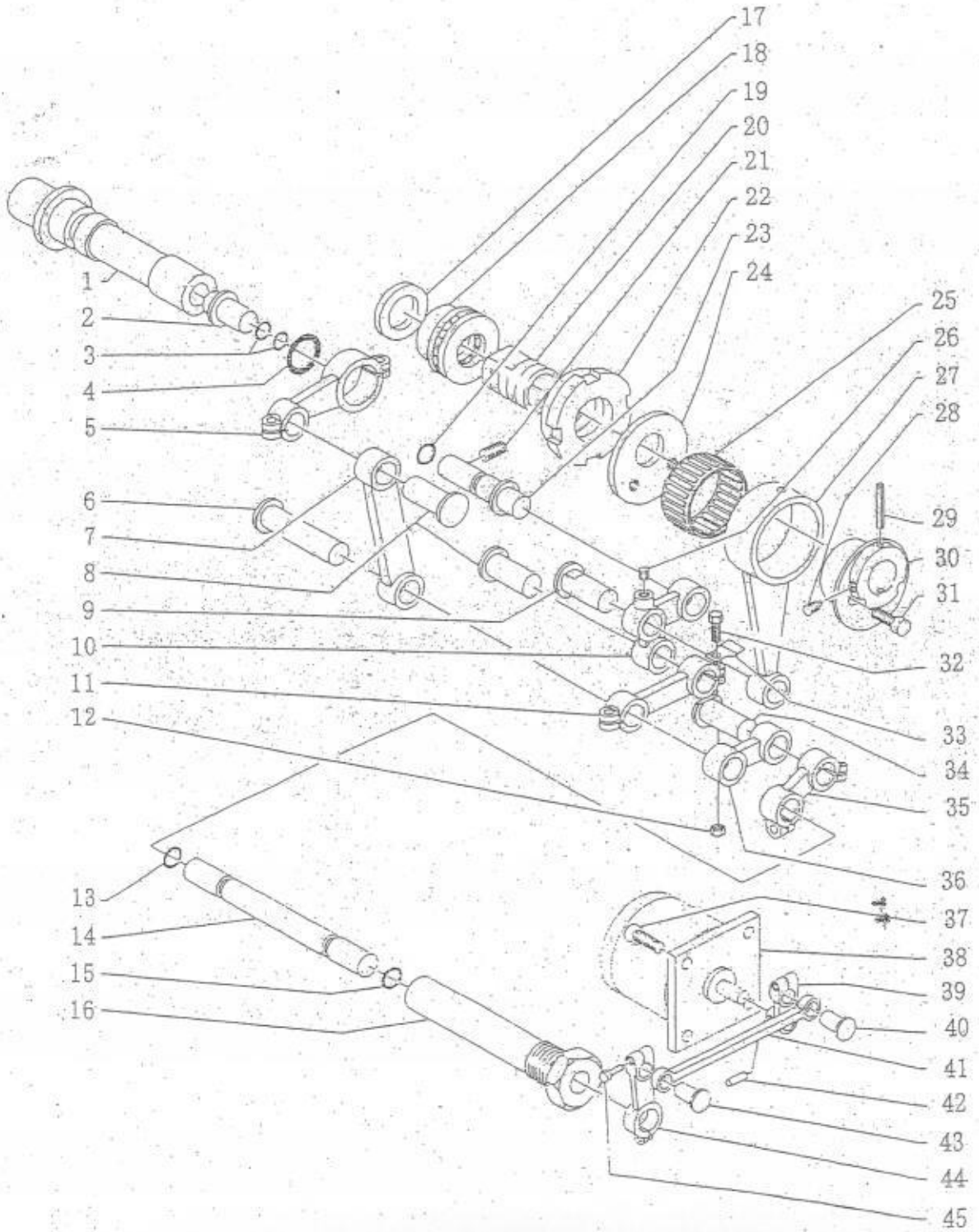


# 04、Hammer-Open/close

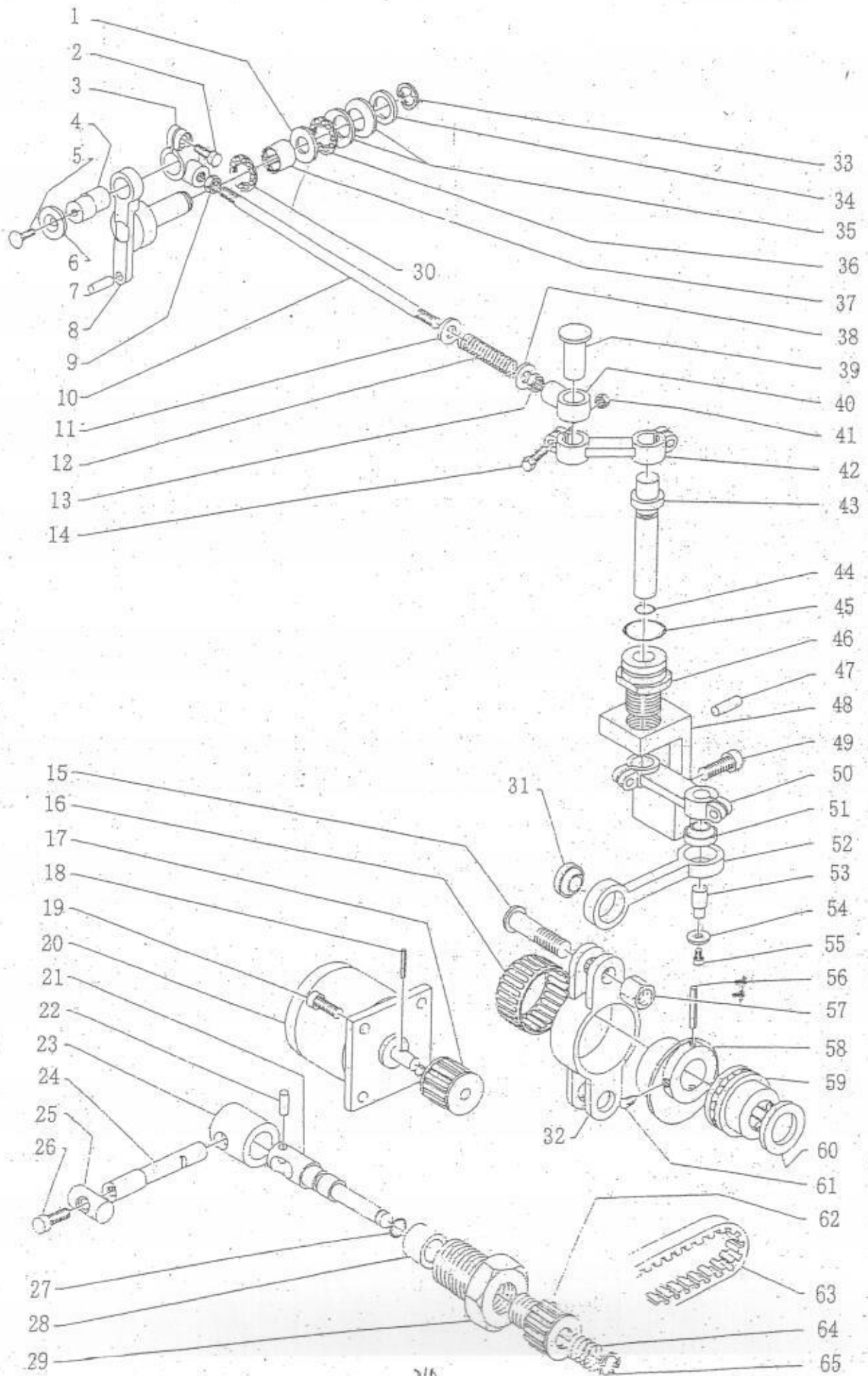




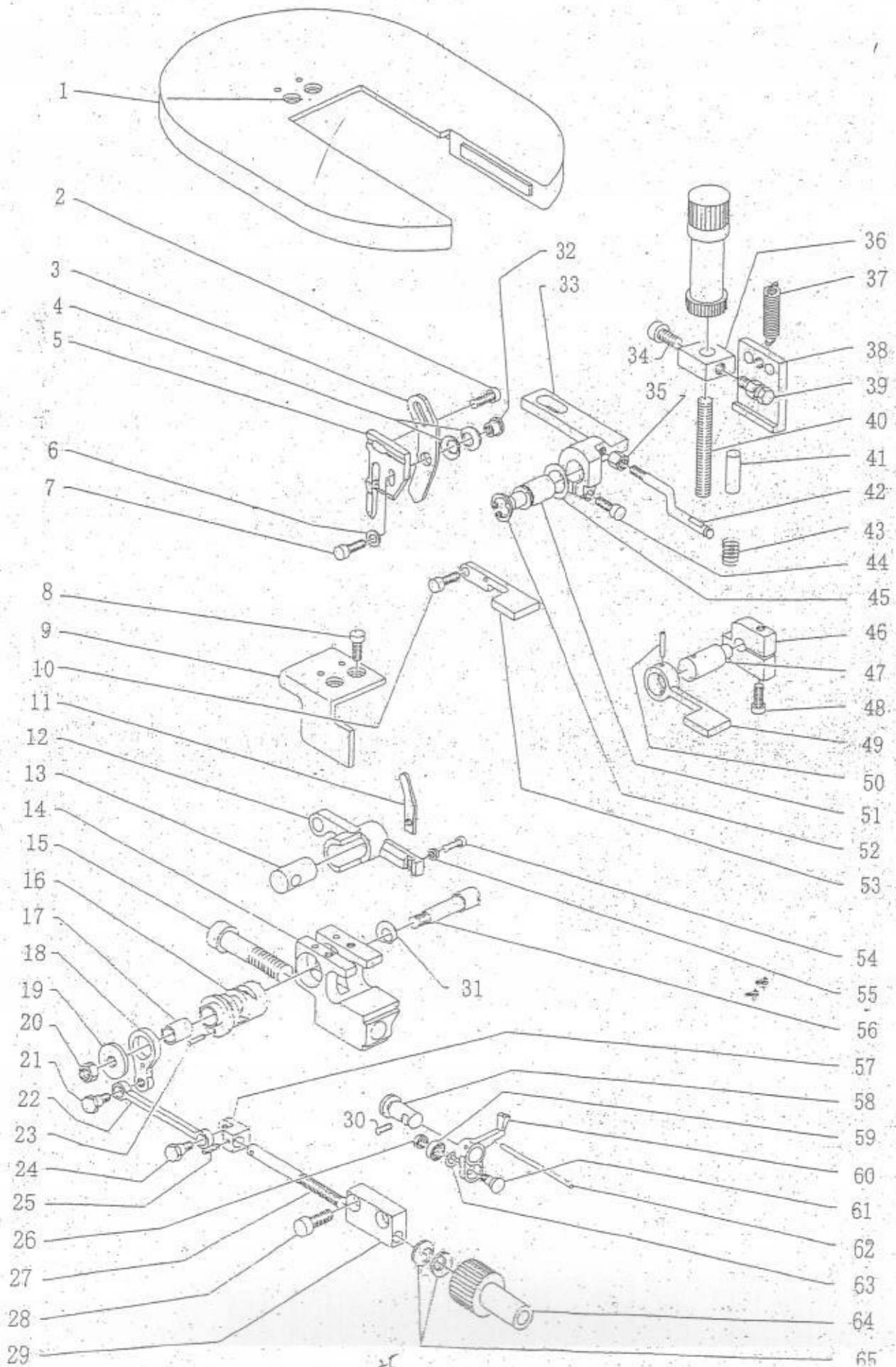
05、Hammer Swing Power Part



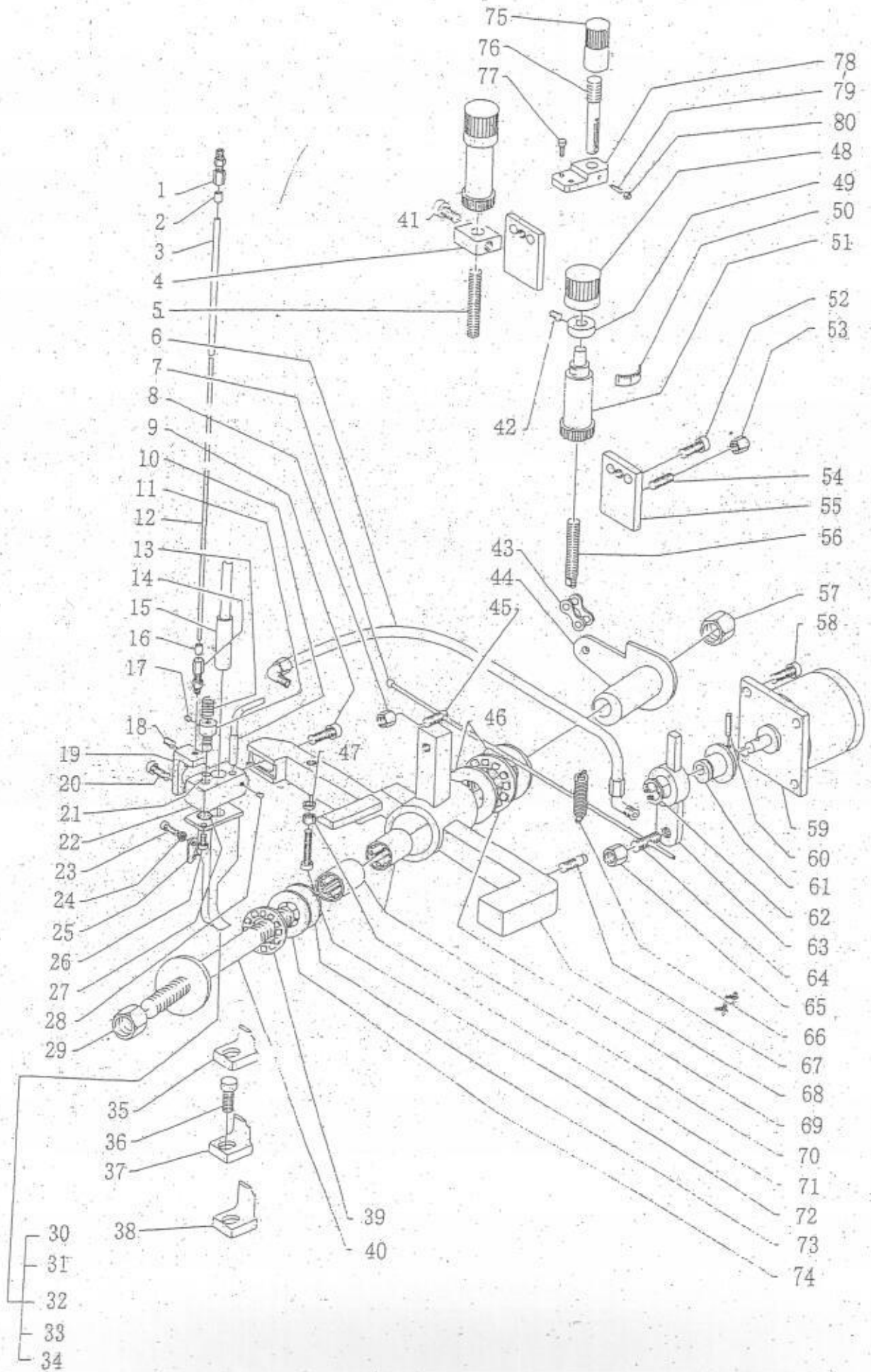
# 06、Snip Guide Power Part



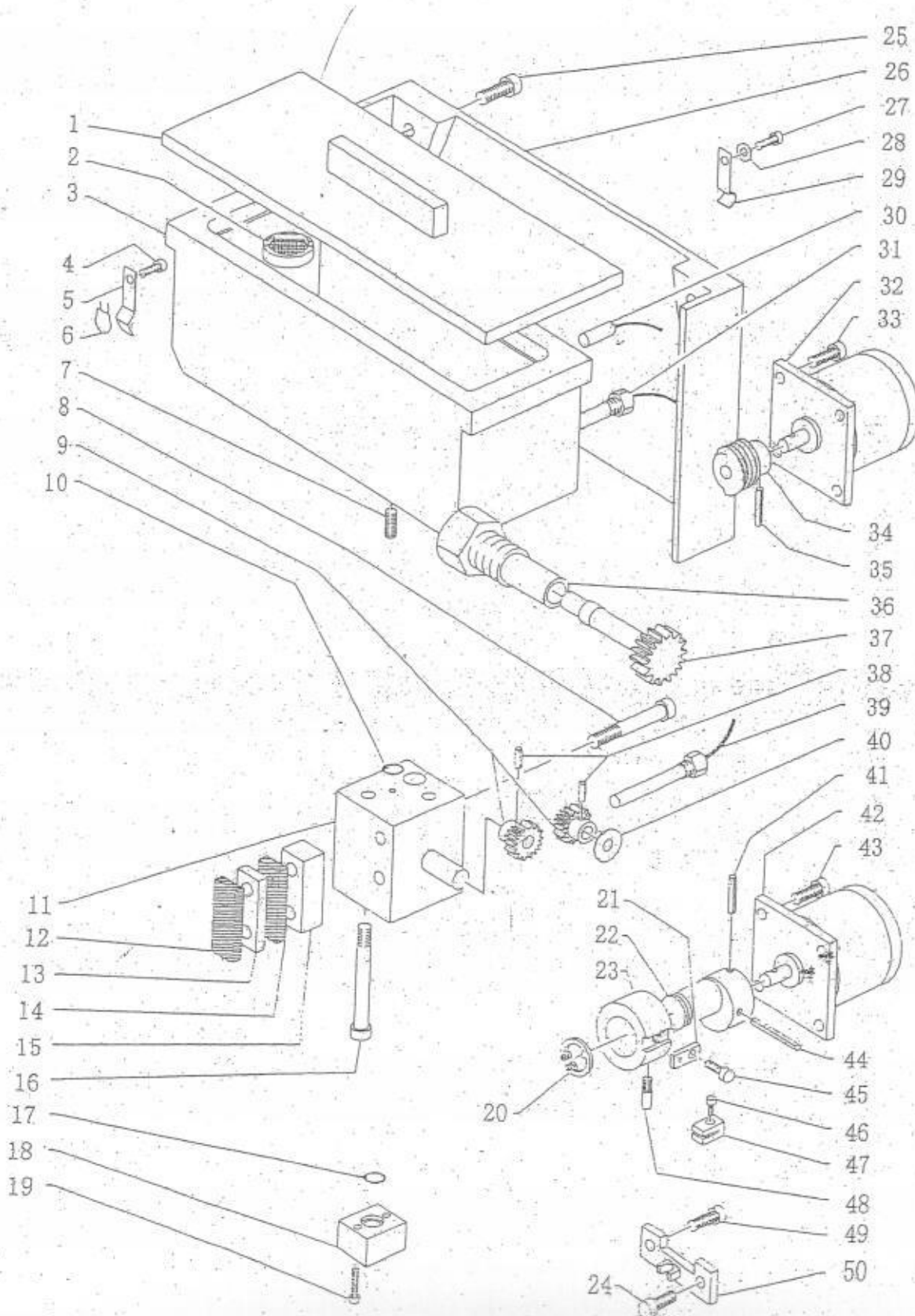
07: Working Table



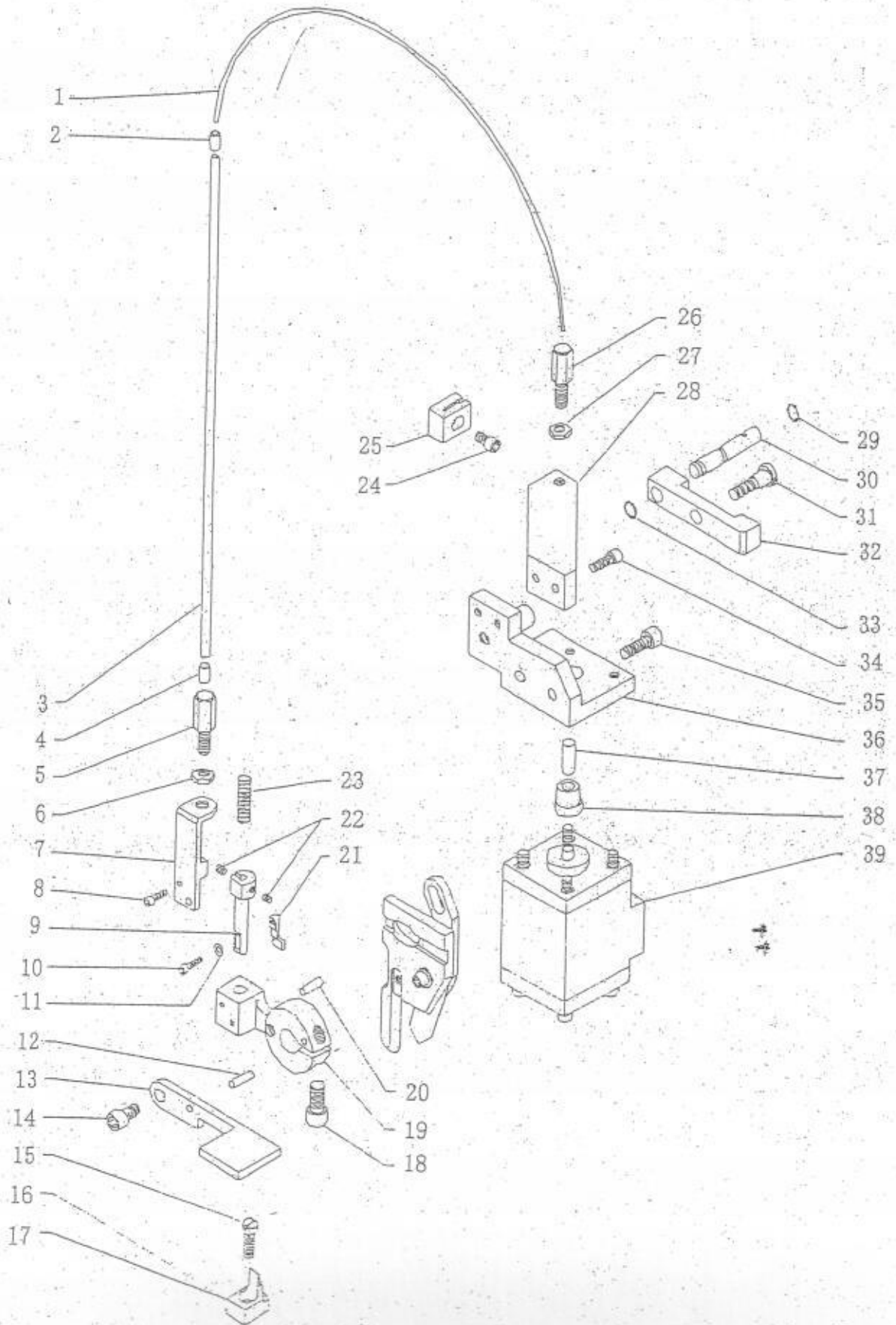
08, Thermo-cement Nib



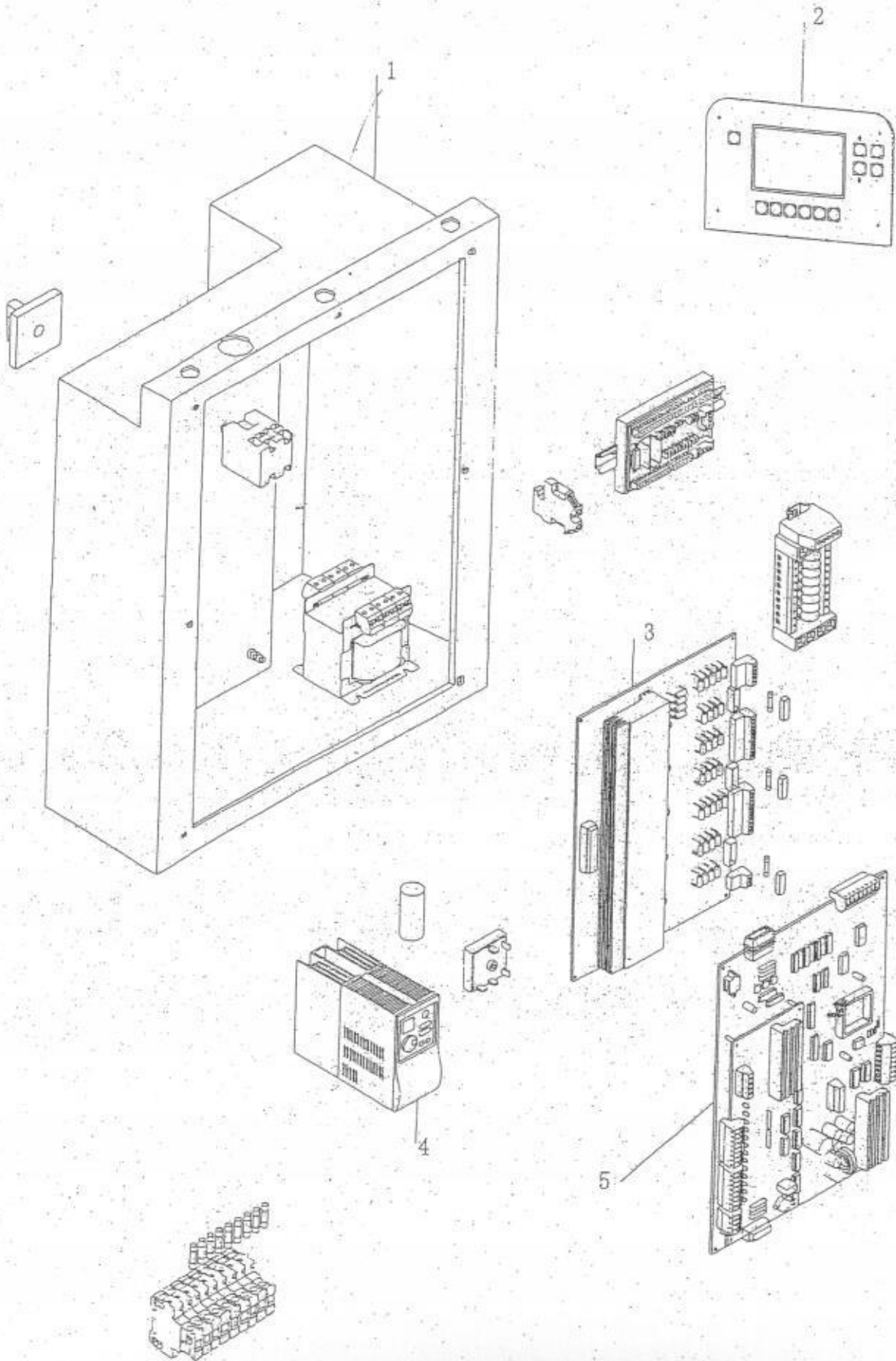
# 09. Thermo-cement Box



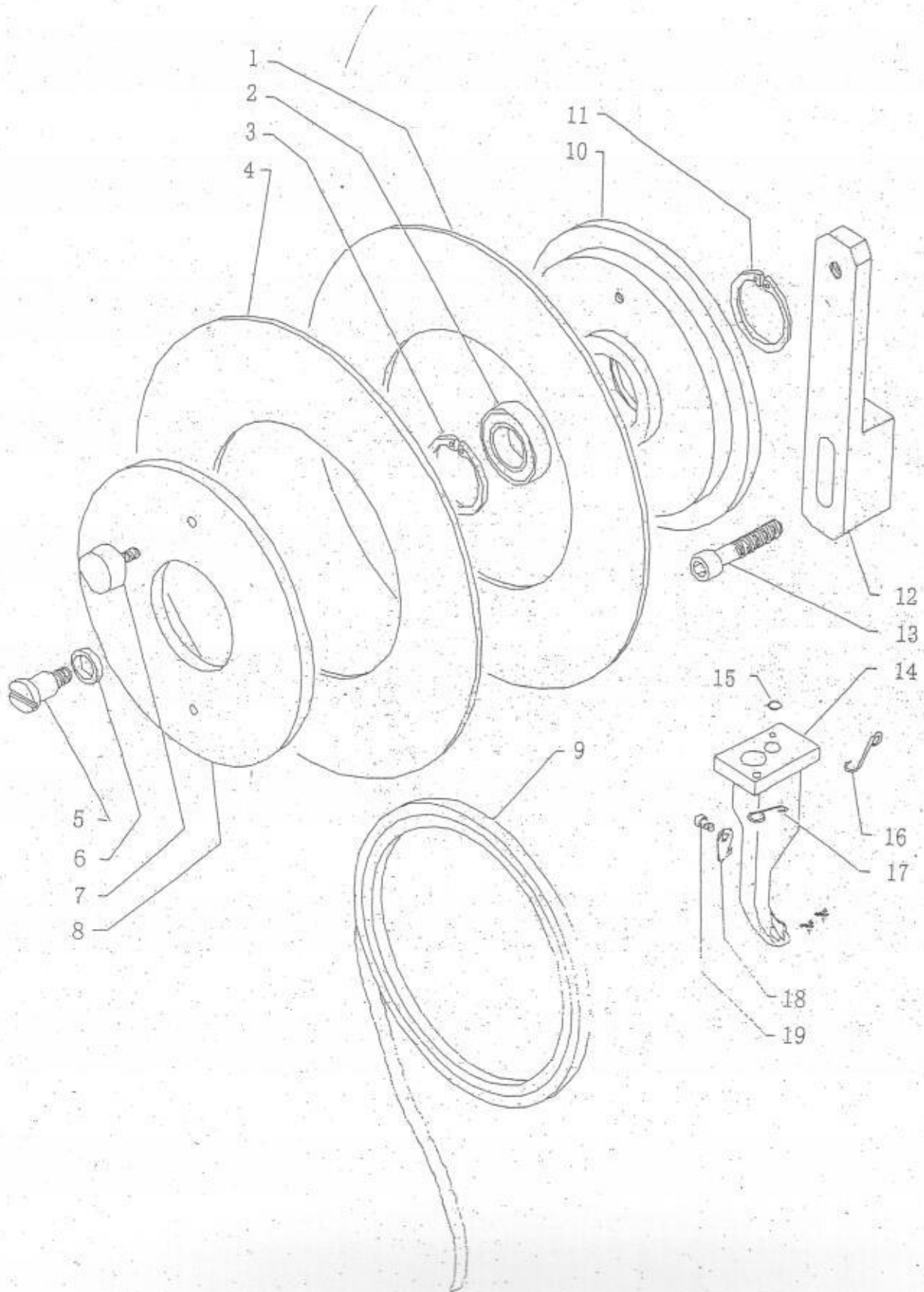
# 10、 Stop Block



# 12. Wiring



# 11. Reinforcement Adhesive Band





DELIVERY NOTE

| NO | DESCRIPTION          | MODEL   | QUANTITY |
|----|----------------------|---------|----------|
| 1  | Hexangular Wrench    |         | 1        |
| 2  | screwdriver          | 9502    | 1        |
| 3  | screwdriver          |         | 1        |
| 4  | wrench               | 6-7MM   | 1        |
| 5  | wrench               | 8-10MM  | 1        |
| 6  | wrench               | 12-14MM | 1        |
| 7  | wrench               | 13-15MM | 1        |
| 8  | wrench               | 17-19MM | 1        |
| 9  | Oil bottle           |         | 1        |
| 10 | Resistance           | 2A      | 1        |
| 11 | Resistance           | 4A      | 1        |
| 12 | Resistance           | 6A      | 3        |
| 13 | Resistance           | 10A     | 3        |
| 14 | Resistance           | 16A     | 1        |
| 15 | Thermo-cement        |         | 1        |
| 16 | small table          | F1-07-9 | 1        |
| 17 | Therno-cement hammer |         | 1        |
| 18 | Pincer               |         | 1        |
| 19 | Tool box             |         | 1        |
| 20 | Manual book          |         | 1        |

# 13. Reinforce Tape Equipment

