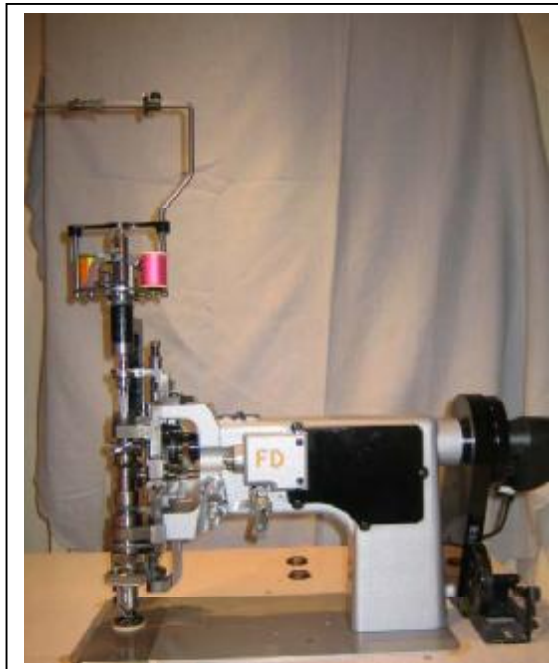


CORNELY FD

OPERATING MANUAL English



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CHAPTER 1 : PRESENTATION

The machine CORNELLY FD is a lockstitch machine which can sew strings of sequins on fabrics and optionnally ribbons, braids, cords in various sizes for which special guides can be choosen in the spare parts catalogue.(See at the end of this manual). It also can sew strings of bead as well, thanks to its zig-zag device.

The machine can work with :

- a. 1 Fixed needle for sewing most application of the machine CORNELLY FD
- b. Movable 1 needle for sewing the zig-zag stitch
- c. 2 Fixed needles for sewing the Nervure stitch

The famous CORNELLY FD universal motion system enables the operator to embroider delicate designs by turning the crank located under the machine in the direction wished on the embroidery. It is unnecessary to hold or turn the fabric by hand as the pressure foot moves it for you in the right direction. The machine crank system is fitted with a clutch motor so that stopping at once is possible when one releases the crank.

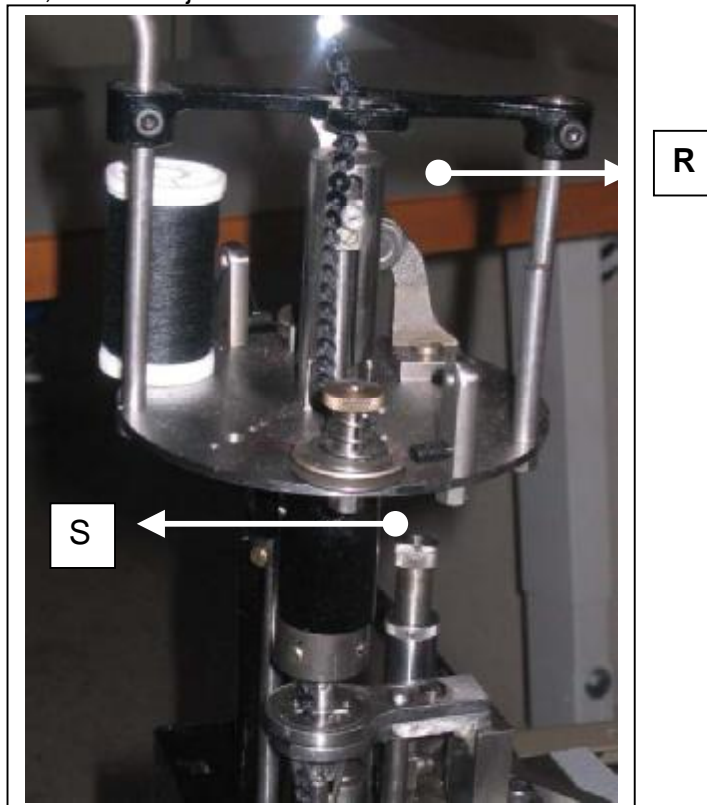
CHAPTER 2 : INSTALLATION

Put the machine on its table and the belt on the smaller pulley slot. Fit the upper spoolholder on the top of the revolving upper plate so that the slot R (Fig. 1) is on the same side as the hole S.

Tighten the 2 small nuts.

For a better comfort, use an adjustable table or chair in order to sit with the back straight.

Fig.1



CHAPTER 3 : TRAINING

Before learning how to thread the machine as set the stitches and guides, the operator can get used to the handling of the machine by putting a piece of paper under the pressure foot and follow the design drawn first, which is the pattern of the next embroidery. To fit the paper, lift up the pressure foot with the small lever which is at the top left (Fig 2 n° 1 + 2)

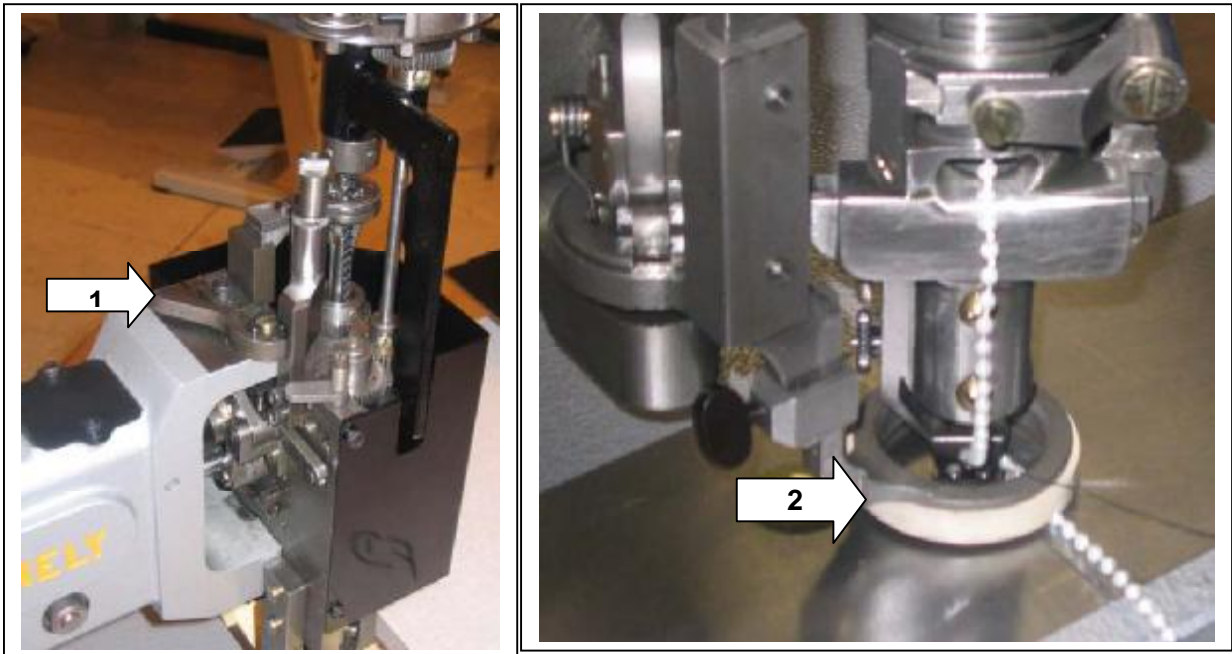


FIG. 2

CHAPTER 4 : OPERATING INSTRUCTION

This machine can work with :

1. **One movable needle (zig-zag)** : This means that you can sew different supplies at the same time. For example, Cords, Sequins, Pearls, Large Ribbons etc.
2. **One fixed needle** : This means that you can only sew straight on the Cord, Ribbon with a visible thread.
3. **Two fixed needles** : This means for sewing the Nervures.

1° WORKING WITH 1 MOVABLE NEEDLE (ZIG-ZAG).

If you are working with such a needle, you have to put your needle thread on bobbinholder A at the right side while the crank is place in forward position. You also can put this on the bobbinholder S. (Fig. 10)

If you are sewing the different supplies, the needle thread is put on bobbinholder A. If you are sewing Embroidery, the needle thread is put on bobbinholder S because you can adjust the pressure by the pressure screw.

As from bobbinholder A or S you have to follow the route as indicated in Chapter 5 « THREADING » (Fig 6 & 7 & 11).
The crank should always be placed in forward position.

Adjustment of the Zig-Zag.

For all the sewing with the movable needle you have to put the bobbinholder T in such a way that the bobbin is leftsided and the crank R is rightsided. (Fig. 3)
For this formation you have to unscrew the screw S and turn the holder T into the right direction. When the bobbin is standing on the correct position, you can fix the screw S again. (Fig. 3)

The bobbin has to put into the correct position when using movable needles (zig-zag). Depending from the supplies you are using, the bobbin should be adapted to the supplies. This position can be adjusted by screwing or unscrewing the screw B. (Fig. 4)

The more you put this screw downwards to the lever the more distance you can have between the zig-zag. The less you fix this screw upwards towards the lever, the less distance you have between the zig-zag. (Fig. 4)

The amplitude of the zig-zag can be adjusted by the lever.

To obtain a correct zig-zag, you have to combine both : the lever and the screw.

You only have the correct zig-zag when by testing the movement of the needles manually you can see that the needles will sew between each pearl and on each side of the pearl. You have to move slowly the flying wheel to observe this stitching. An incorrect regulation can cause the breakage of the needles.

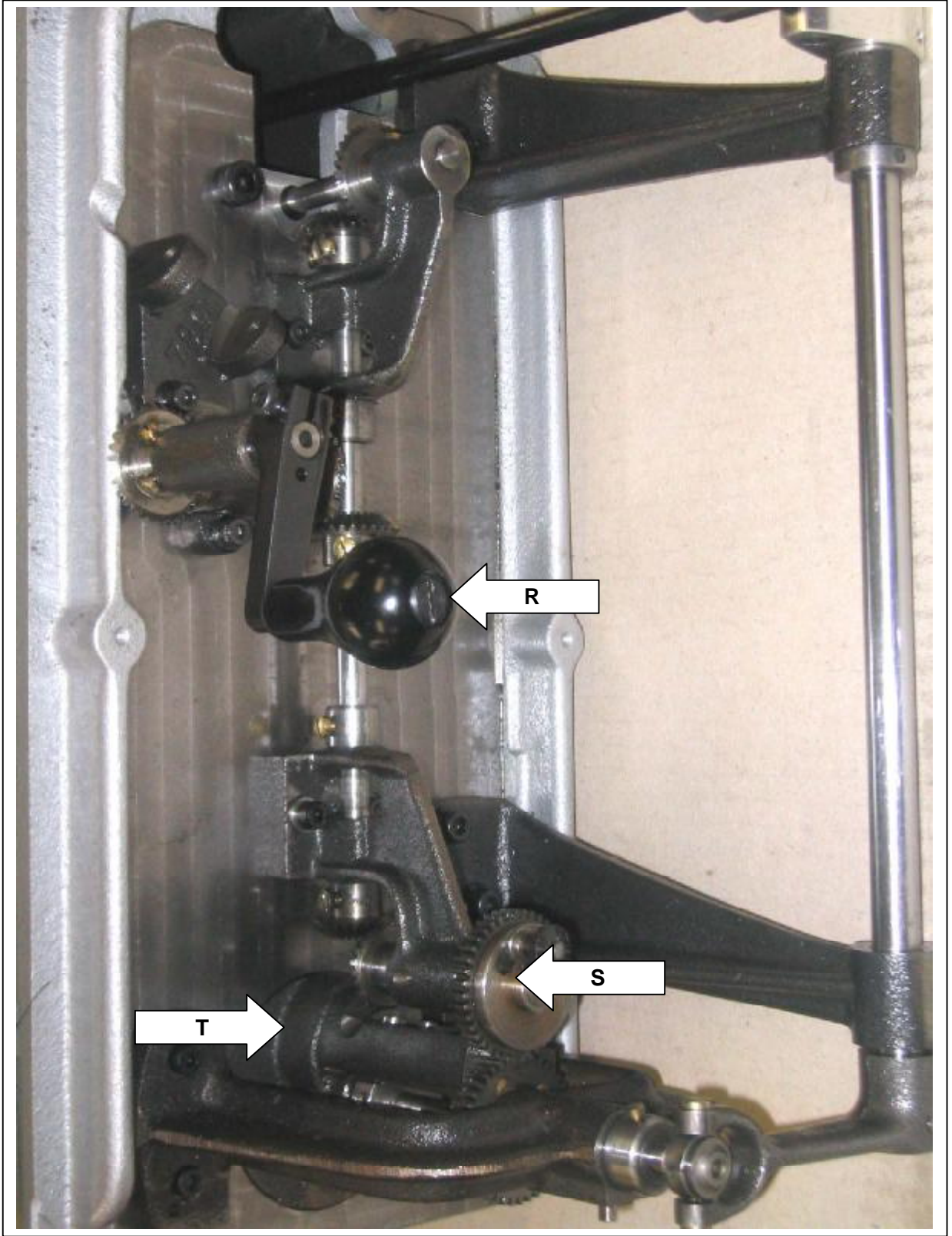


FIG. 3

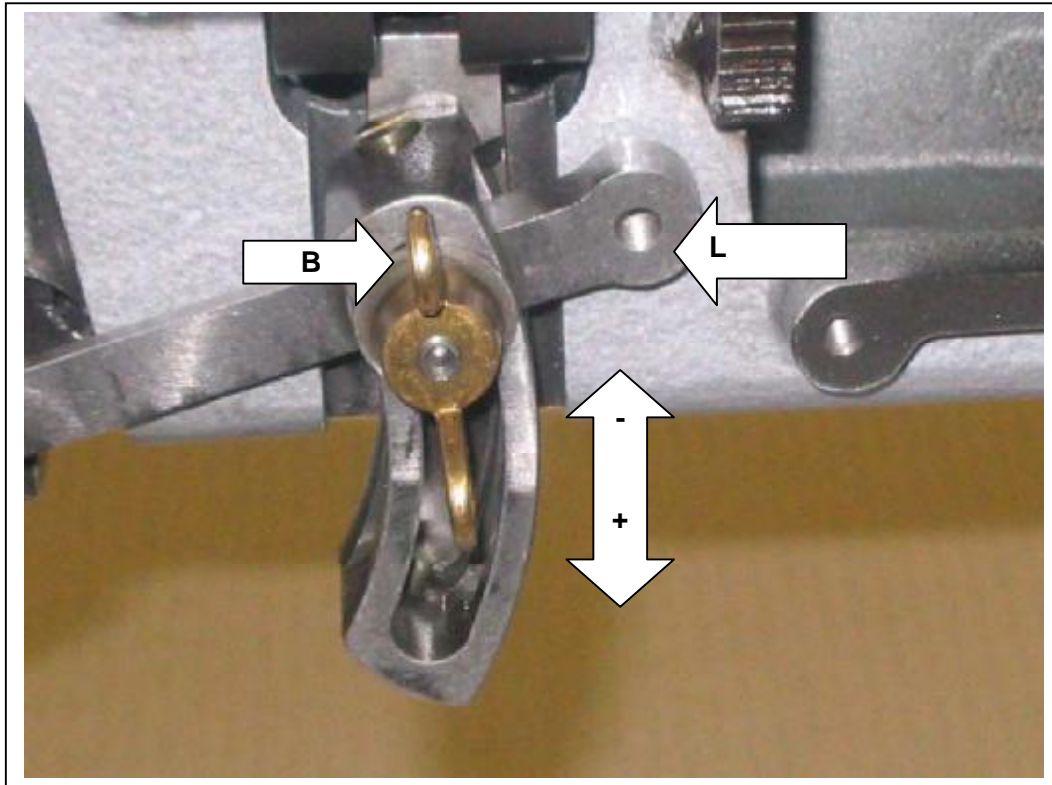


FIG. 4

2° WORKING WITH 1 FIXED NEEDLE.

If you are working with 1 fixed needle, you have to remove the bobbinholder T in forwards position and the crank R at the right position. (Fig. 3) Unscrew the screw B and put this upwards to avoid that the needle can move and will be fixed on this way. (Fig. 4)

If you are working with 1 straight stitch, you always put the screw on the lever L (Fig. 4) (zig-zag system) in upper and in dead position. (NO ZIG-ZAG)

3° WORKING WITH 2 FIXED NEEDLES.

NERVURE STITCH :

The machine must be positioned with the needles up. You have to follow next procedure : Before starting you have **to block the movement of the needles (ZIG-ZAG system)** by unscrewing the screw B up and put this upwards to the lever. (Fig. 4)

TURN OFF the machine before changing the needle holder C.03075 with 2 needles. Then, put the crank backwards, you will see 2 screws without head C.02537 on the needle holder with one needle (C.03070). Unscrew the upper screw to pull the needle holder downwards. Take the needle holder C.03075 and put the 2 needles into this holder by unscrewing the lower screw C.02537. Replace this needle holder and fix the upper screw C.02537 again (Fig. 5)

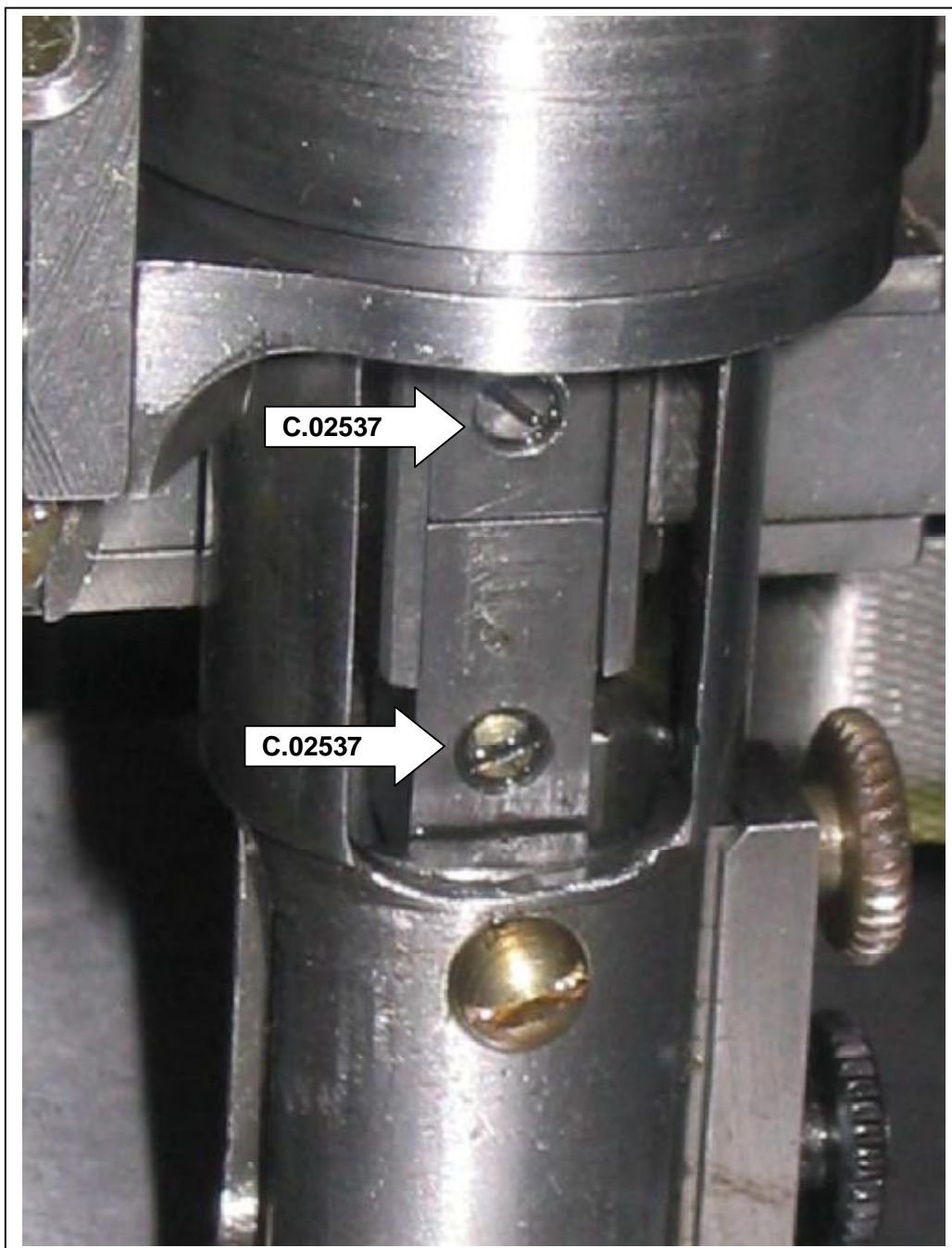


FIG. 5

Particular adjustment for the Nervure of 2 mm :

Needle Holder for 2 needles : C.03075/2.5 distance 2 mm.

Guide n° : C.3054-250

Needle Plate : C.03078/25

Feeddog : C.03044 with soft rubber.

Needle : C.1836.

CHAPTER 5 : THREADING

1. THREADING OF ONE NEEDLE :

1° If you are working with **one needle** you have to do the following :

Turn the crank opposite to the operator at twelve o'clock (compare the movement of the handle to a clock hand). The spool A on the upper revolving plate is on the right. (Fig 6)
Put a spool of strong cotton and thread as shown through the holes M, O, H, B, W. (Fig 6 & Fig 11) Use the tweezers to thread the small holes and the twisted wire threader to take the thread down the small thread tube (W). Before pushing the threader down the tube, pull 30 cm between the tension K and the hole W so that the thread does not break during the threading down the tube. Also lower the pressure foot to take the threader out to the right more easily. Before this, tighten the thread into the threader wire so that it does not escape during the operation. Then thread the needle from 6 to noon.
Check that no holes has been forgotten and that the thread is not twisted around the needle.

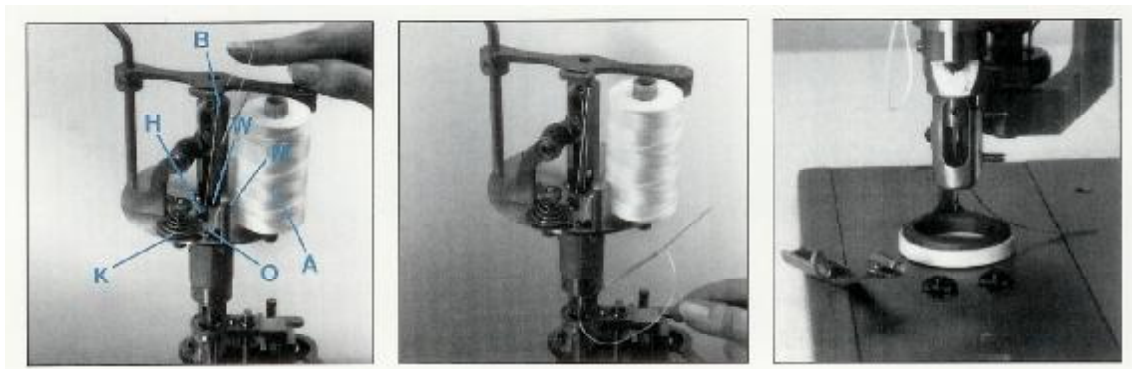


Fig.6

Fig.7

Fig.8

THREADING OF SUPPLIES : If you are working with different supplies, for example : sequins, you have to put those supplies on spool D (Fig. 10). From there those supplies will enter the central threading through the adapted guide to arrive finally on the tissue.

Turn the crank at noon so that the slot R is facing the operator. The sequin spool D is on the upper spool holder. (Fig 10)

The sequins string goes down the slot R and the hole S. (Fig 9)

Turn the handle at 6 o'clock, fit the sequins in the hole of the wire threader and get it down the hole H and I (Fig. 9), then in the guide. Set a slight tension on the spring of the spool holder.

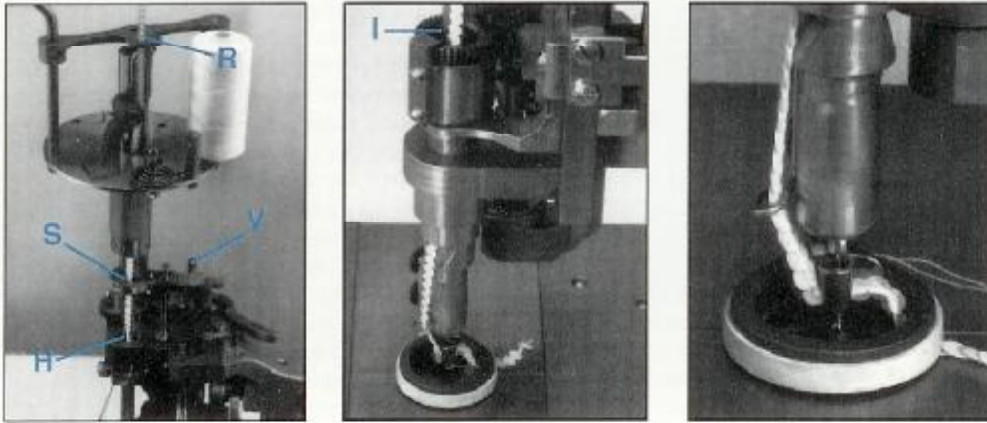


FIG. 9

THREADING OF THE NEEDLE THREAD : The spool holders can have 2 bobbins A and S (Fig. 10), two tighteners : B, two tensions : K and the eye holes O-M-H-W. (Fig. 6 & Fig. 11)

2. THREADING OF 2 NEEDLES :

If you are using **2 needles**, you have to use Bobbinholders A + S. (Fig 10)

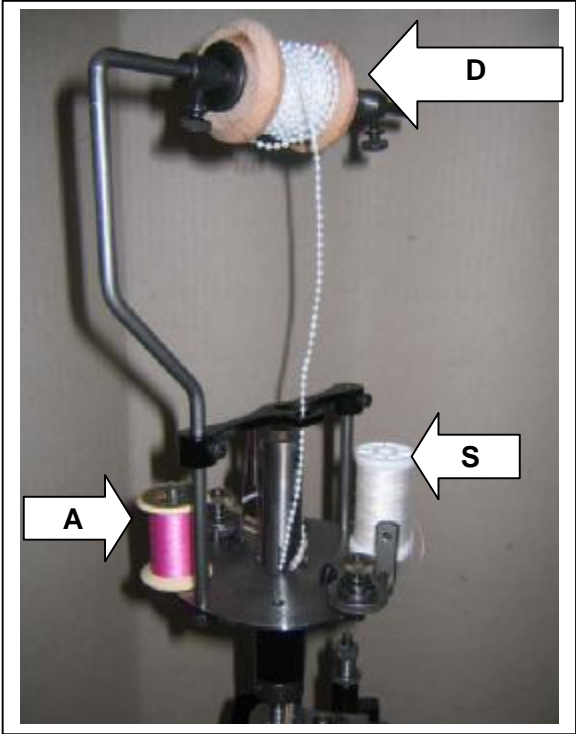


FIG. 10

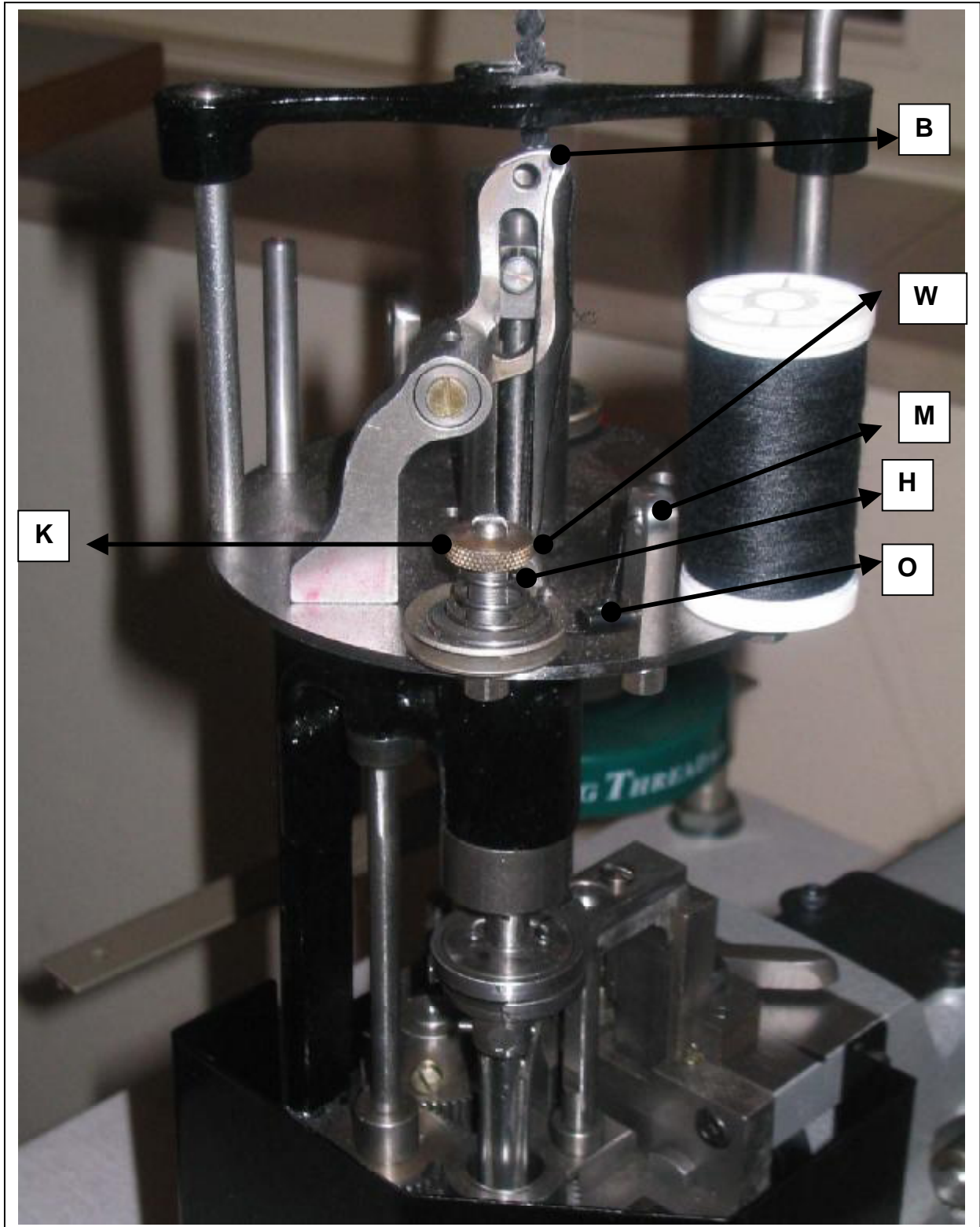


Fig. 11

3. THREADING OF THE SHUTTLE :

To take the shuttle off, turn the crank to noon, open the two plates under the pressure foot which should be lifted up. To free them, push the 2 buttons with the sharp end of the knife. (Fig. 12)

Take the shuttle off by using the knife to lift it.

Thread the shuttle as shown on the Fig. 13.

Close the small lock on the shuttle after threading it. To settle the tension use the screw under the shuttle, unscrew to loosen, screw to tighten. If more tension is needed, make the thread come from the left (return the bobbin which shall come unwound contrarily to a clock). One can also put a home made felt washer under the bobbin to restrain its movement when the machine stops.

Fig. 12

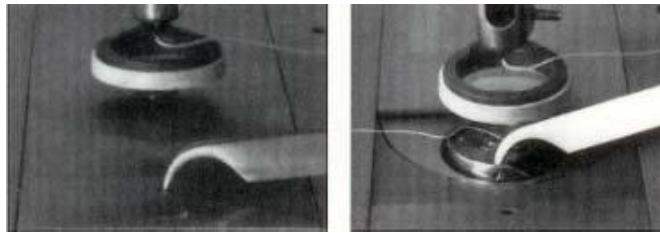


Fig. 13

Put the shuttle back with the hook towards the operator when the handle is at noon. The rod inside the curve of the hook.

Close the 2 plates leaving a small space to allow the thread to get out. (Fig. 13A)

Lower the pressure foot, hold the threads slightly tight towards oneself.

Have the handle at noon, pull it downwards during one turn of the pulley when pushing the threadle briefly. Then the shuttle thread has been caught and the buckle of the stitch has been formed. The thread is hanging out of the place (Fig. 13 B).

Lift the pressure foot and pull the threads with the knife. Lower the pressure foot and close the plates.

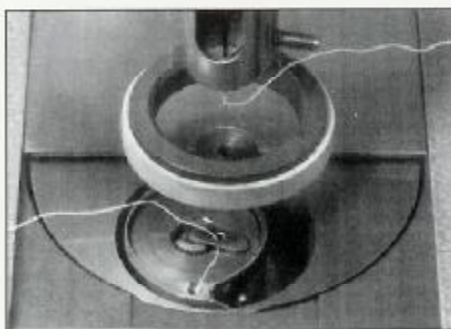


Fig.13 A

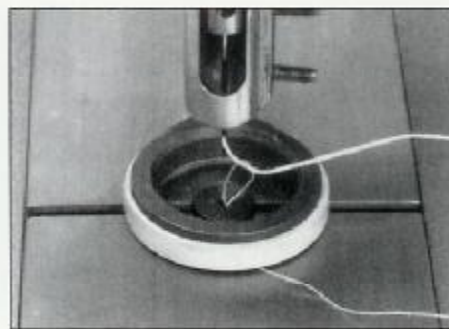


Fig. 13 B

CHAPTER 6 : SETTING OF THE GUIDE

To put the guide on, get the needle first inside the hole in the guide, then take it up on its 2 screws holders. Set it on its 2 screws and tighten the 2 nuts. Set the guide if needed by using the small screw C.00111 to balance it so that the needle is centered and shall not break on the edge of the guide. (Fig. 14)

Check by turning by hand the pulley with the handle downwards. Put the fabric under the pressure foot, pull the handle, push the treadle gently, now the machine is stitching.

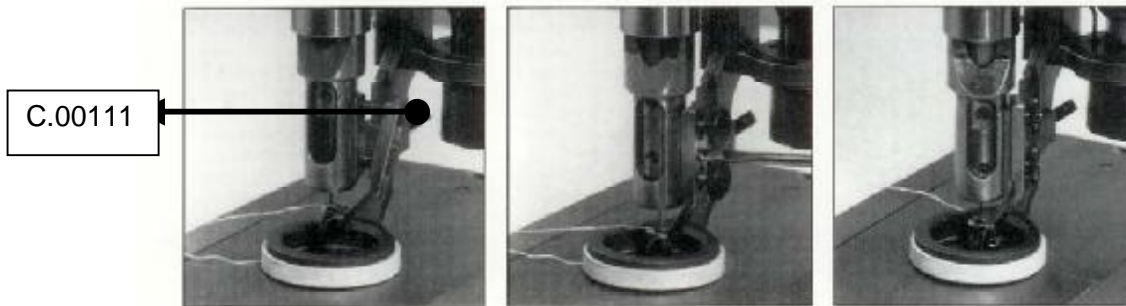


Fig.14

The size of the guide must be exactly adapted to the decorative thread to avoid missing stitches or erratic sewing. The ribbon for example should go through the guide freely without being too loose. Be careful to test the machine slowly by hand before starting in order to test that the needle does not break on to the guide. (See : « SETTING THE TENSION » Chapter 8)

For a cord or a ribbon, set the optional guide as for sequins. For a standing ribbon, set so that the sewing is made on the edge of the ribbon.

Putting Pearls thanks to the zig-zag system : the threading of the pearls and the installation of the guide is the same as for the sequins. If you want to put the pearls into the guide you have to put the machine on his dead point with the needles up (Fig. 15)

FIG. 15



CHAPTER 7 : SETTING OF THE STITCH

To change the length of the stitch, use the stitch length screw V : to unlock it, push the lever G with the wooden end of the knife. Unscrew to increase the stitch length. If needed, release the tension as well. (Fig. 16)

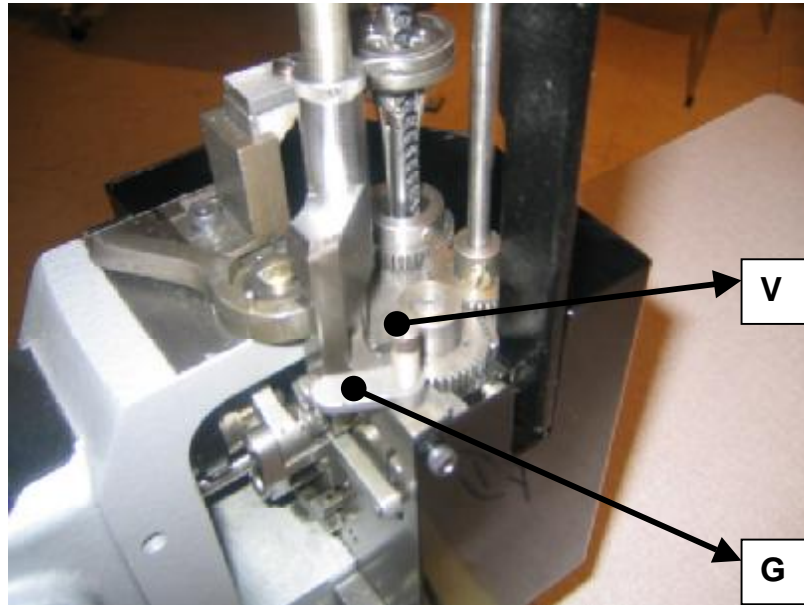


Fig. 16

CHAPTER 8 : SETTING OF THE TENSION

The tension of the upper thread is set with the screw K (see Chapter 5 « THREADING »). The tension of the shuttle is set with the screw under the shuttle for training. We advise working with threads of two different colors. If the lower thread seems to be pulled by the upper thread, tighten the shuttle tension or untighten the upper thread. The tension must be set so that the buckle of the two threads is made in the thickness of the fabric. This setting should be prepared before the sewing of spangles, ribbons or cords. The tension should be set for a regular speed of work. When the operator changes, it may be necessary to change the tensions of the threads. The best is to work at the same speed for a correct setting. (Fig. 17)



Fig. 17

CHAPTER 9 : LUBRICATION

We recommend you to oil your machine once a day and to take off the dust from the precious points marked in Fig. 18.

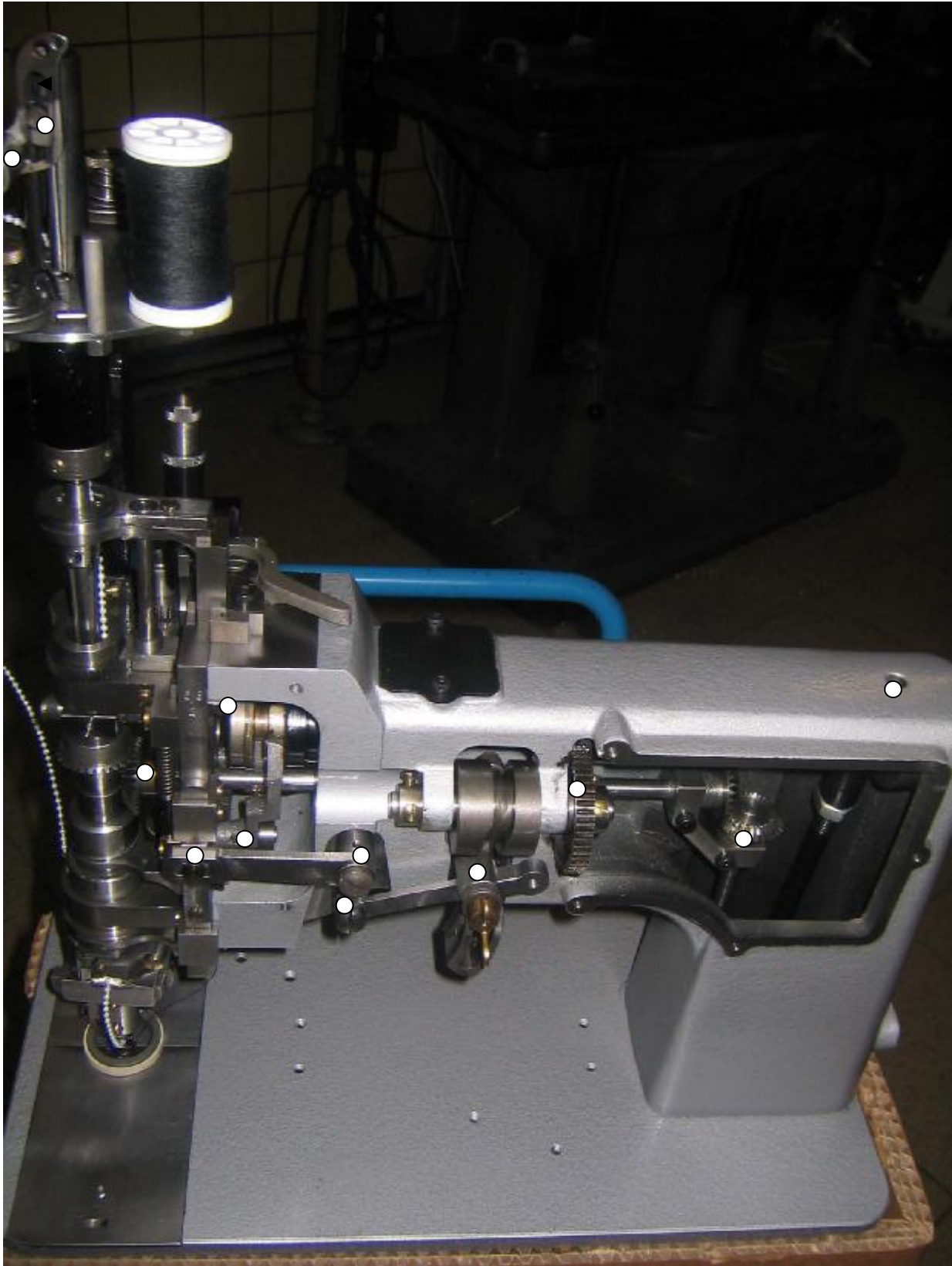


Fig. 18

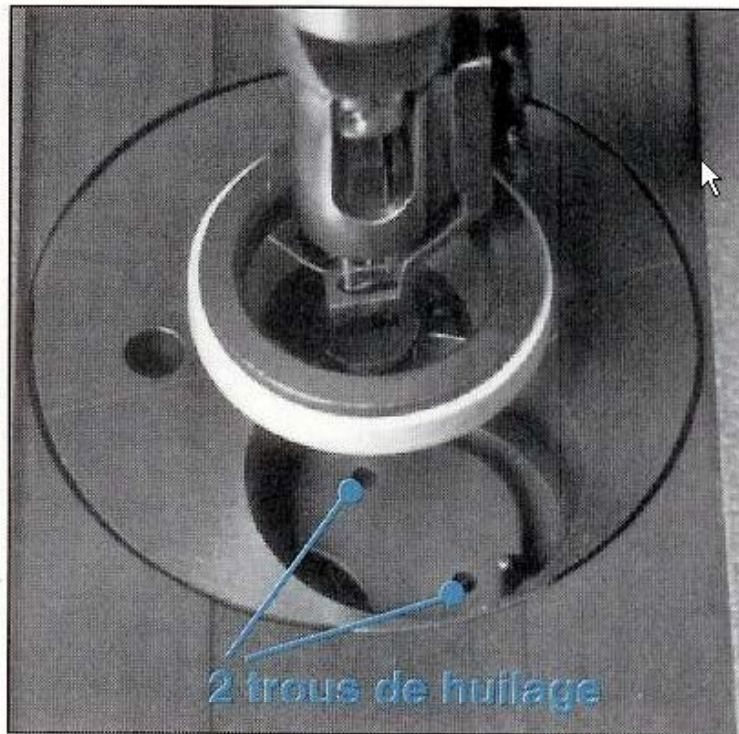


Fig.19

Very important is to oil also the points marked in Fig. 19 under the bobbinholder.

CHAPTER 10 : CHARACTERISTICS

Needle :

TYPE	Description
C.1836/070	Needle Nr 1 (0,70mm)
C.1836/080	Needle Nr 2 (0,80mm)
C.1836/090	Needle Nr 3 (0,90mm)
C.1836/100	Needle Nr 4 (1,00mm)
C.1836/110	Needle Nr 5 (1,10mm)

Feeddog and correspondant rubbers ::

FEEDDOG	RUBBER
C.03042	C.CA-38
C.03042D	C.CA-38
C.03043	C.CA-26
C.03043D	C.CA-26
C.03044	C.CA-20

Thread

Needle Thread:

- Coats Kette 12

Bobbin Thread :

- Florida 100 de B.S.T.

Oil

- ARAL VITAN G F 22
- BP ENERGOL HLP 22
- FINA HYDRAN 22
- MOBIL D.T.E. 22
- SHELL TELLUS C.22


INVISIBLE THREAD- FLAT RIBBON



GUIDE	GUIDE
<u>C.03046-125</u>	C.03046-450
<u>C.03046-150</u>	C.03046-475
<u>C.03046-175</u>	C.03046-500
<u>C.03046-200</u>	C.03046-525
<u>C.03046-225</u>	C.03046-550
C.03046-250	C.03046-575
C.03046-275	C.03046-600
C.03046-300	C.03046-650
C.03046-325	C.03046-675
C.03046-350	C.03046-700
C.03046-375	C.02650-750
C.03046-400	C.02650-800
C.03046-425	
NEEDLE- HOLDER	NEEDLE- PLATE
C.03074	C.03020




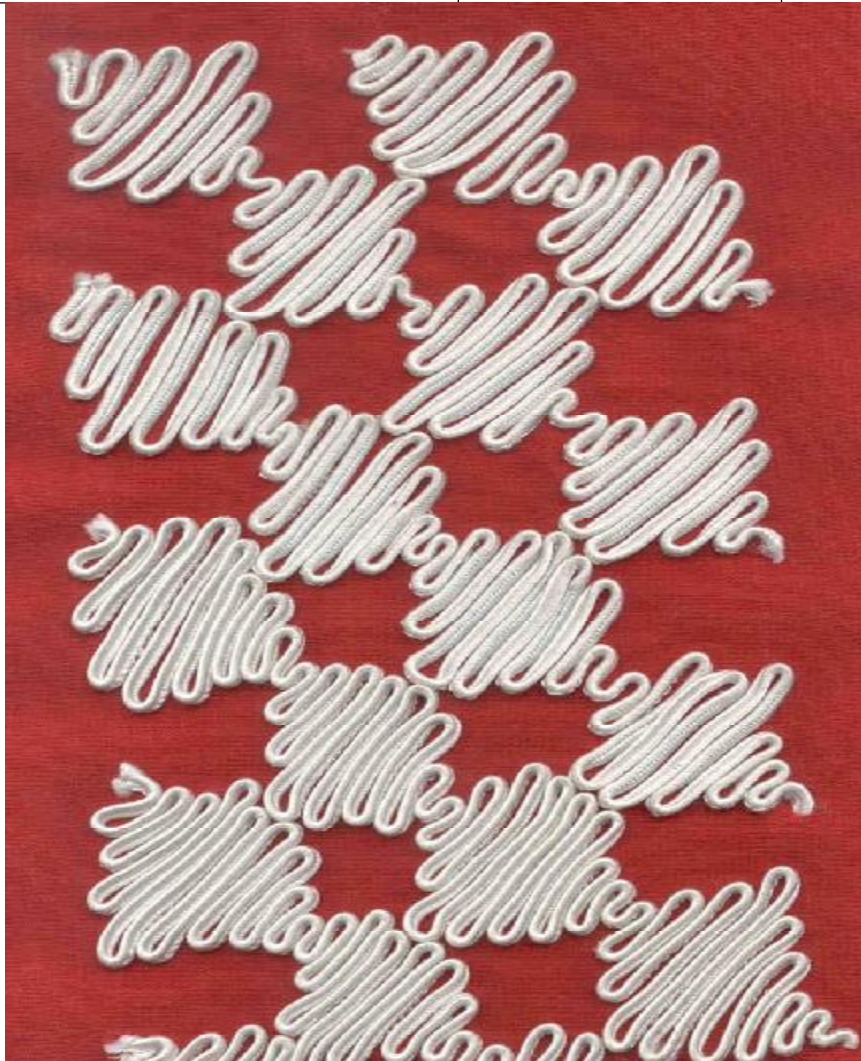
VISIBLE THREAD – CORD

	GUIDE	GUIDE
	<u>C.03047-125</u>	C.03047-325
	<u>C.03047-150</u>	C.03047-350
	<u>C.03047-175</u>	C.03047-375
	C.03047-200	C.03047-400
	C.03047-225	C.03047-450
	C.03047-250	C.03047-550
	C.03047-300	
	NEEDLE-HOLDER	NEEDLE-PLATE
	C.03074	C.03020




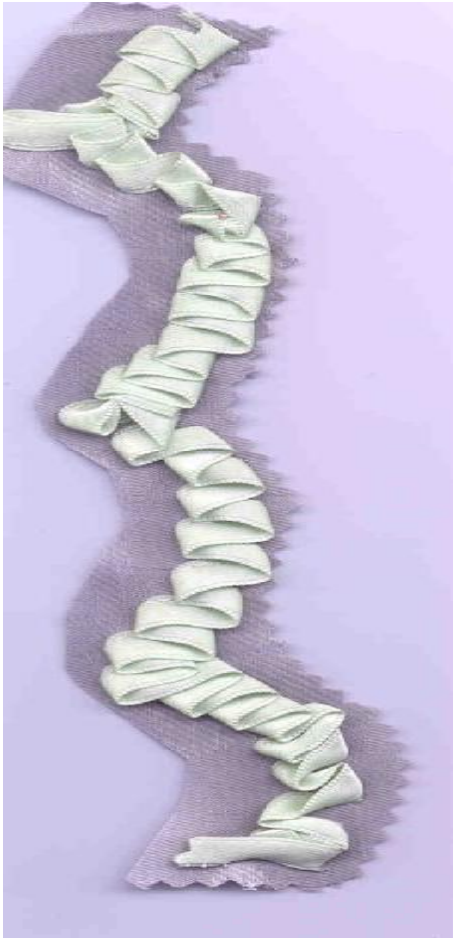
STANDING UP - CORD

	GUIDE	GUIDE
	<u>C.03048-125</u>	C.03048-300
	<u>C.03048-150</u>	C.03048-325
	<u>C.03048-175</u>	C.03048-350
	<u>C.03048-200</u>	C.03048-375
	<u>C.03048-250</u>	C.03048-400
	<u>C.03048-275</u>	
	NEEDLE-HOLDER	NEEDLE-PLATE
C.03074	C.03020	



SINGLE RIBBON SEWN ON BORDER

		
	GUIDE	GUIDE
	C.03048B-05	C.03048B-09
	C.03048B-06	C.03048B-10
	C.03048B-08	C.03048B-12
	NEEDLE-HOLDER	NEEDLE-PLATE
	C.03074	C.03020




VISIBLE TRHEAD SEWN MIDDLE NOT FLAT RIBBON



GUIDE	GUIDE
<u>C.03050-150</u>	C.03050-500
<u>C.03050-200</u>	C.03050-550
<u>C.03050-225</u>	C.03050-600
<u>C.03050-250</u>	C.03050-700
C.03050-300	C.03050-800
C.03050-400	
NEEDLE-HOLDER	NEEDLE-PLATE
C.03074	C.03020



VISIBLE THREAD ON RIBBON SEWN MIDDLE .

		
	GUIDE	GUIDE
	<u>C.03050B-105</u>	C.03050B-800
	<u>C.03050B-600</u>	C.03050B-150
	NEEDLE-HOLDER	NEEDLE-PLATE
	C.03074	C.03020=STRAIGHT C.03019=ZIG ZAG

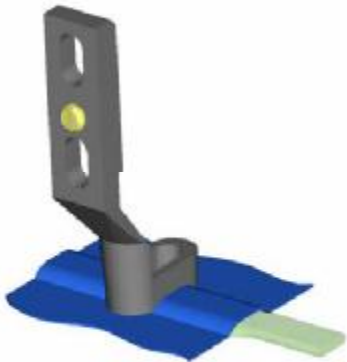


DOUBLE FLAT RIBBON

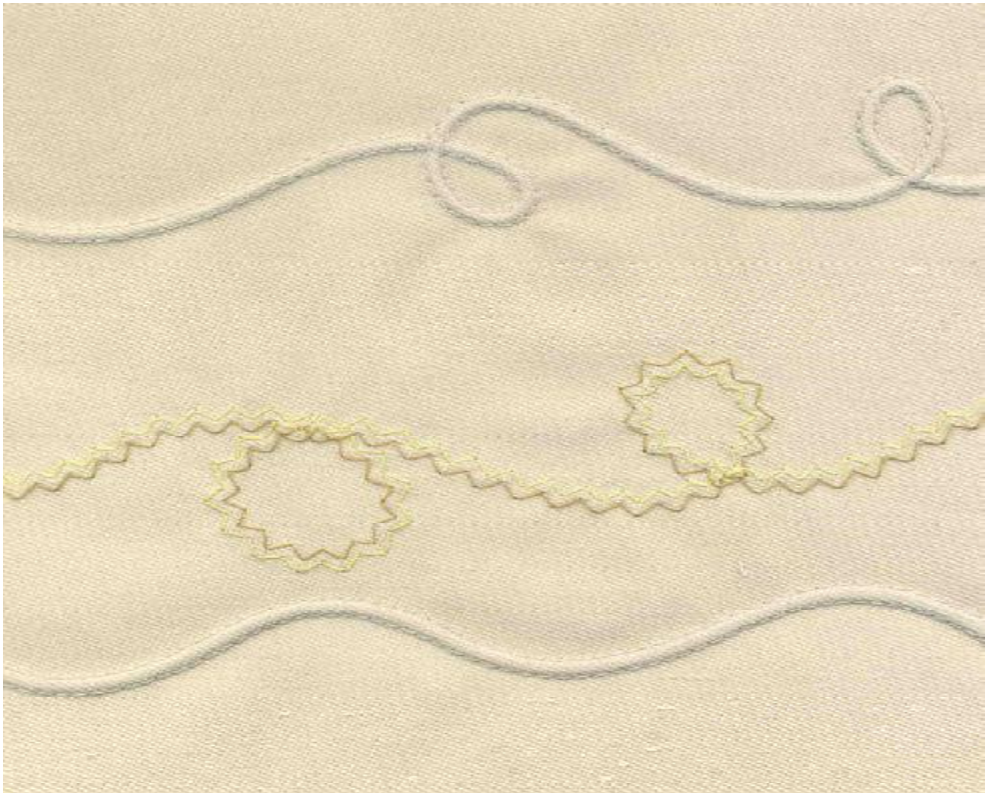
		
	GUIDE	GUIDE
	<u>C.03053B</u>	
	NEEDLE-HOLDER	NEEDLE-PLATE
	C.03074	C.03020




NERVURE : Double Needle



GUIDE	NEEDLE-HOLDER	NEEDLE-PLATE
<u>C.03054-250</u>	C.03075/2.5	C.03078/25
<u>C.03054-450</u>	<i>C.03075/4.5</i>	C.03078/45

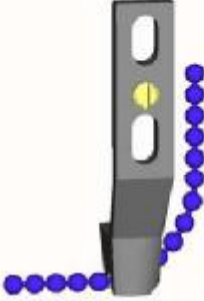


CORD : ZIG-ZAG.

		
	GUIDE	GUIDE
	<u>C.03055-007</u>	C.03055-175
	<i>C.03055-100</i>	C.03055-200
	C.03055-125	C.03055-250
	C.03055-150	
	NEEDLE-HOLDER	NEEDLE-PLATE
	C.03074	C.03019



PEARLS : ZIG-ZAG.

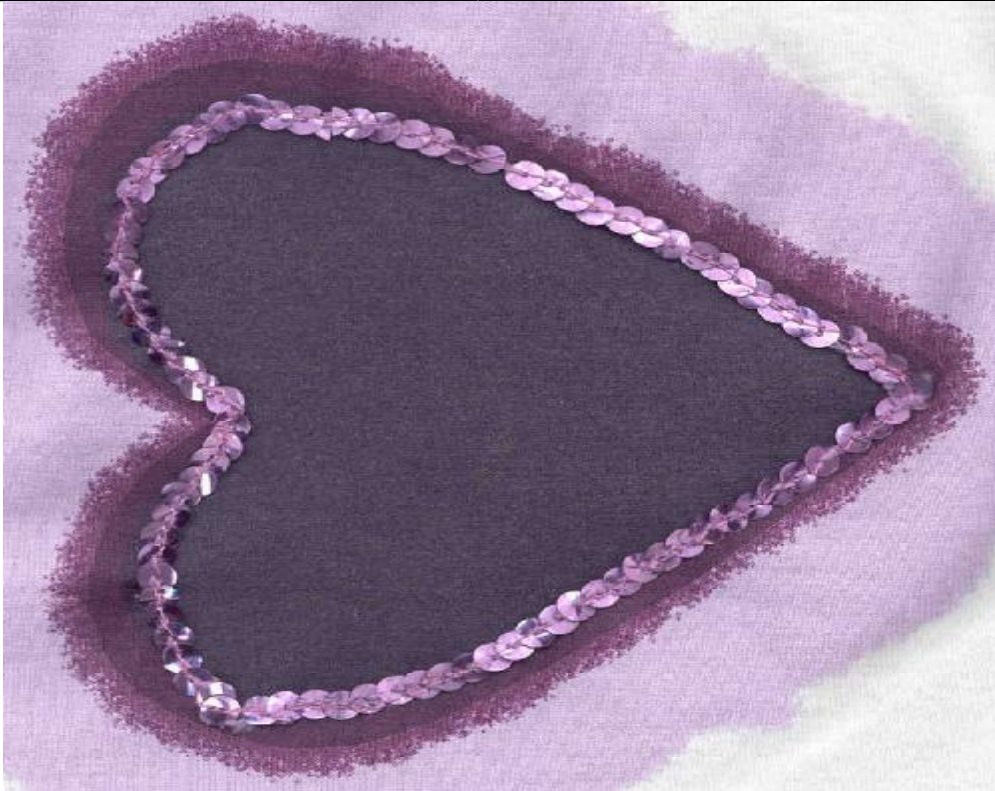
		
	GUIDE	GUIDE
	<u>C.03057/250</u>	C.03057/400
	C.03057/275	C.03057/500
	C.03057/300	C.03057/600
	C.03057/350	
	NEEDLE-HOLDER	NEEDLE-PLATE
	C.03074	C.03019








SEQUINS



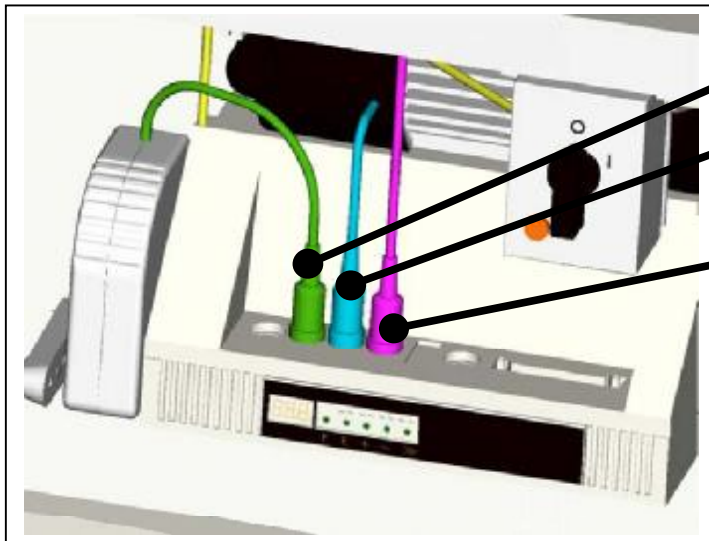
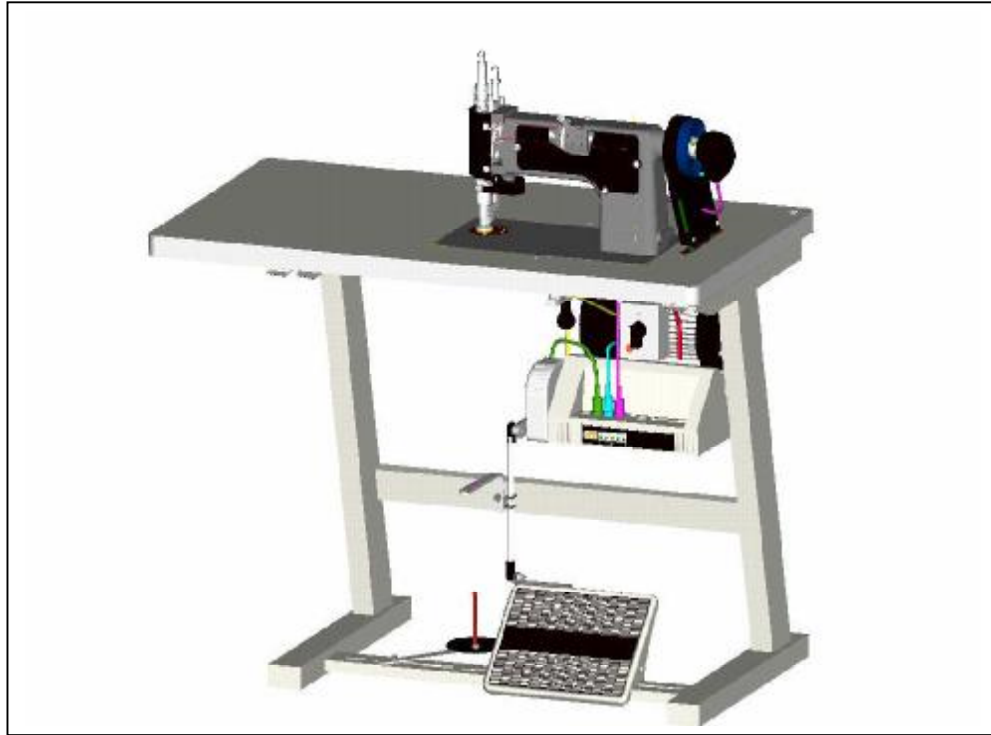
GUIDE	GUIDE
<u>C.03057B/3</u>	C.03057B/5
<u>C.03057B/4</u>	C.03057B/6
NEEDLE-HOLDER	NEEDLE-PLATE
C.03074	C.03020



NEEDLE PLATE		
C.03019	C.03020	C.03078
		
1 NEEDLE ZIG-ZAG	1 NEEDLE STRAIGHT	2 NEEDLES +ZIG-ZAG

NEEDLE HOLDER	
C.03074	C.03075
	

CHAPTER 12 : INSTALLATION OF EURAMOT MOTOR



- *ACTUATOR
- *COMMUTATION TRANSMITTER FOR DC MOTOR
- *POSITION TRANSMITTER

CHAPTER 13 : PARAMETER SETTINGS EFKA MOTOR

1. Push on P and put the switch on I. On the screen of the motor will appear COD
2. Push on >> : 1st led flashes
Push on + 1 : 1st led = 1
3. Push on >> : 2nd led flashes
Push on -2 : 2nd led = 9
4. Push on >> : 3rd led flashes
Push on E : = parameter 100
5. Push on >> : 1st led flashes
6. Push on >> : 2nd led flashes
Push on + : = 1
7. Push on >> : 3rd led flashes
Push on + : = 1 = parameter 111
8. Push on E : speed of the motor x 10 will appear on the screen
For examples : 500 speed = 5000 rpm/min will appear
50 speed = 500 rpm will appear
9. If you want to change the speed, push on + or -
10. Once the correct speed is obtained, push on E and P.
Push the pedal and the desired speed will appear on the screen
and is registered now.

