AG DE KONINGK

Special sewing machines and systems

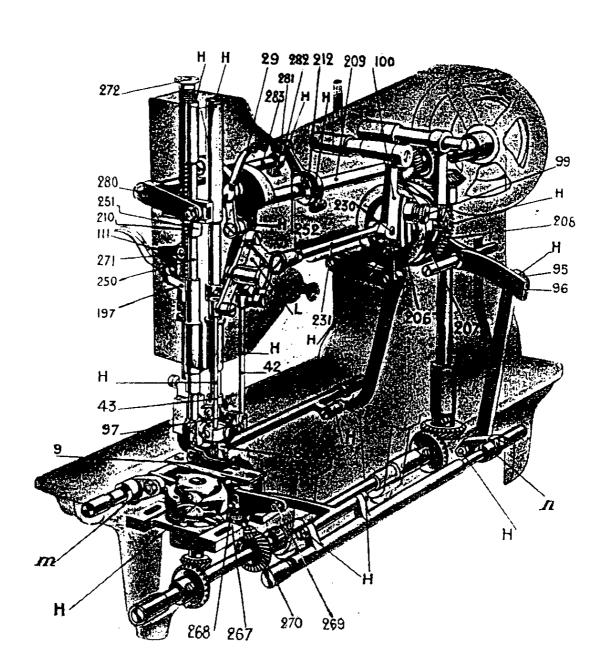


Fig. 1

OF THE HEMSTITCH MACHINE CORNELY TYPE - 10

1.GENERAL DESCRIPTION

Hemstitch Machine, Type 10 produces a hemstitch known as a « ladder hemstitch ». It works with two needles and two rotary hooks, placed on each side of a puncher. The needles bind or tie the threads of the fabric separated by the puncher, overedging the two sides of the hemstitch simultaneously.

In addition, a front piercer facilitates the work of the puncher by also separating the threads of the material before they reach the puncher and the needles.

The front pierce is useless for drawn thread work.

The needles, which have an oscillating movement, make two successive stitches in the position where they are near the puncher then one stitch in the position away from the puncher.

The feeding of the material takes place between the two successive stitches in the inner position, by means of a feed mechanism composed of a feed surface and a presser foot, (Figs. 1, 2, 3 & 5 clearly indicate the different parts referred to), needles

1 & 2, hooks 3 & 4 with bobbin cases 5 & 6, puncher 7, front piercer 8, feed surface 9 and presser foot 10.

Machine 10-1 produces a 1½ mm hemstitch

- 10-2 produces a 2 mm -
- 10-3 produces a 21/2 mm -
- 10-4 produces a 3 mm -
- 10-5 produces a 31/2 mm -
- 10-6 produces a 4 mm -

In order to obtain a larger hemstitch following steps should be done:

- 1) prepare the fabric: with a CORNELY 15-(x-1) thread pulling machine
- 2) sew the picot hemstitch with the CORNELY 10-x. Where x can be 5 for a hemstitch of 5 mm, 6, 7, 8 or 9 mm. (The respective CORNELY 15 machines are 15-4, 15-5, 15-6, 15-7 and 15-8).
- 3) For the finish of very large hemstitches a small embroidery machine is used to embroider every bunch of grouped threads. For this work we advise to use the BARATTO 217/3 manual embroidery machine.

The combination of the three machines gives a stitch called JOUR VENISE.

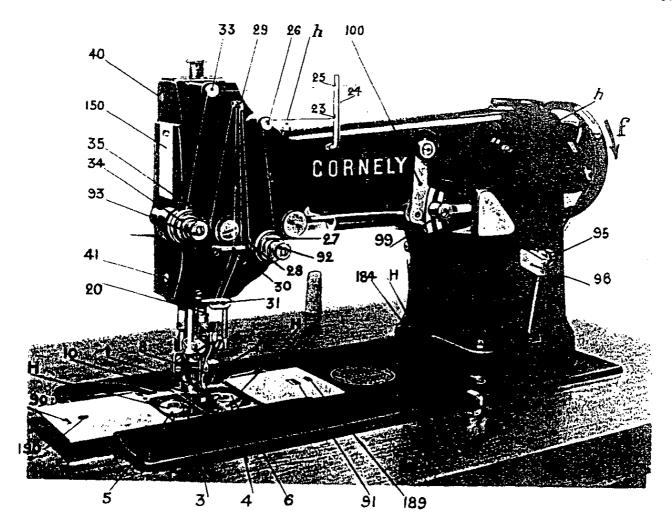


Fig. 2

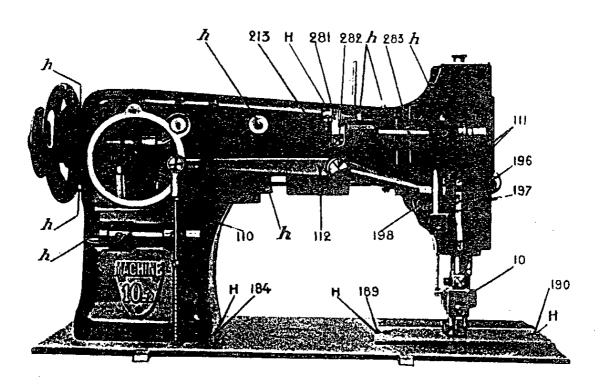


Fig. 3

2. SPEED

The normal speed of type 10 machines is from 2200 to 2500 stitches per minute according to the type of work. However the recommended speed is about 1800 stitches per minute, until the machine has been well run in.

3. LUBRICATION

It is indispensable to pay attention to the lubrication, which should be attended to at least twice a day, when the machine is running continuously. We only recommend the use of the best quality oil, and strongly advise our customers to use our special oil for high speed machines.

FOR EXAMPLE OIL TYPE: MULTINDUS 46.

The machine can be oiled in two different ways:

- By means of an ordinary oilcan (see parts marked H on Figs. 1,2,3,5,7,,8,9 & 21). These parts should frequently be oiled, taking care to first remove Slide Plate 150 from the side of the machine. It is a good plan to remove from time the cover from the front of the head, which is secured by two screws 40 & 41 (Fig. 2), in order to be certain that the essential parts belonging to the head have been properly oiled. In this particular mechanism , it is of the utmost importance to oil the Guide Bars of the needles, 42 and 43, which are plainly seen on Fig. 1. We also recommend the very careful oiling of the needle bar oscillating lever and connection marked L (Fig. 1) and the cavities filled with felt 180 & 181 (Figs 9 & 34) which ensure the lubrication of Shaft Supports 182 &183 (Fig. 8). These cavities can be reached without moving the closing slides, through holes 189 & 190 in the latter. Also the cavity (Figs 2 & 3), ensuring the lubrication of Shaft Support 185 (Fig. 8). Further, the cavities filled with felt 187 & 188 (Figs. 9 & 34), which, by means of their tubes 191 & 192 (Fig. 8), ensure the lubrication of the hook shafts.
- 2. By means of a special pressure pump which forces the oil into the nipples marked « h » (Figs. 2,3,5,7,8 & 25) This pump (Fig.4) is composed of a Reservoir R, on which is secured by means of nut « e » , a plunger "s" with a spring "r" ended by tube "t" carrying an oil hole. After filling the reservoir and tightening nut "e", the pump is ready for service. The pump tube has only to be applied to the oil nipples « h » referred to and the pump pressed two or three times . After use, the pump should be closed by fitting Cap C, bringing the oiling tube into the interior of the reservoir.

This system of pump lubrication should be attended to every day with great care.

In case where the machine is employed continuously, it may happen that the bobbin cases become heated as a result of friction. This is of no importance if well lubricated. From time to time, oil with the can the Hook grooves, in which the Bobbin Cases (Fig. 9) rotate. Just a drop is sufficient.

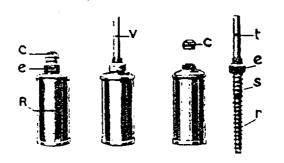


Fig. 4

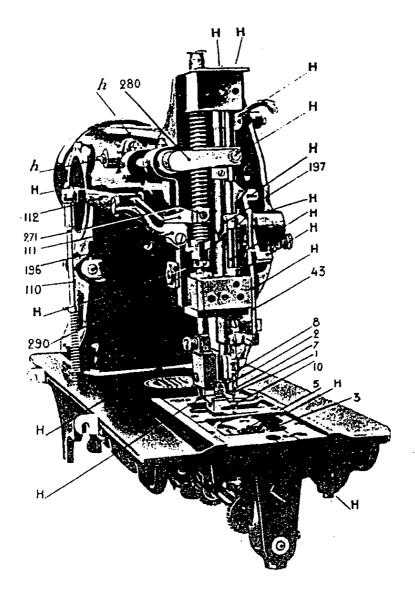
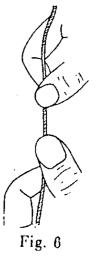


Fig. 5



4. NEEDLES

We recommend our special needles for Type 10 Machines. These **needles** are supplied in three sizes: **727F80, 727F90 & 727F100.** The size of the needles is determined by that of the thread, which must pass freely through the eye of the needle. Also by the type of work being done.

Nos. 727F90 Needles are recommended for work on medium heavy fabrics with all types of Cornely 10 machines.

5. THREADS

To avoid breaking of the cotton when the machine is running at high speed, we recommend the use of a good quality thread. If the thread employed is of poor quality, the manner in which it is twisted, may influence the running of a high speed machine.

The twist of the thread can be ascertained in the following manner: Take a piece of thread (Fig 6) and twist it between the thumb and the index finger of the right hand. If the thread tightens when the thumb is moved from right to left, the thread has a left twist. If it has the opposite effect, this is, if it loosens, the thread has a right twist. Most threads have a left hand twist.

The effects of the rotation of the hooks of the machine on the sewing thread is either to tighten or to loosen them. It all depends on the twist of the thread what effect the hook rotation will give. If the threads are of poor quality, They loose their strength when the strands are untwisted, and consequently they will break.

This is exactly what happens to the right hook (FIG 9) when a left twist cotton of poor quality is used. The same trouble is experienced with the left hook if the poor quality thread has a right hand twist.

For this reason, if a customer absolutely persists in working with an inferior quality thread, we can supply the machine, in which both hooks rotate in the same direction.

We strongly advise the use of a good thread, so that the machine can be used with the hooks rotating in contrary directions, giving a better and more symmetrical stitch.

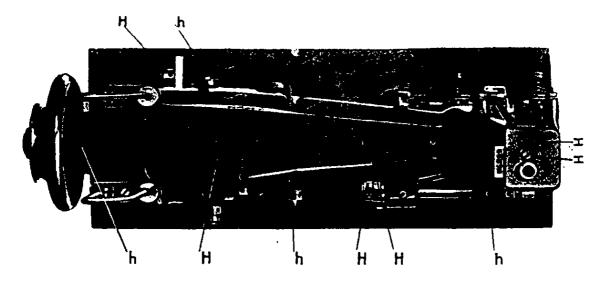


Fig. 7

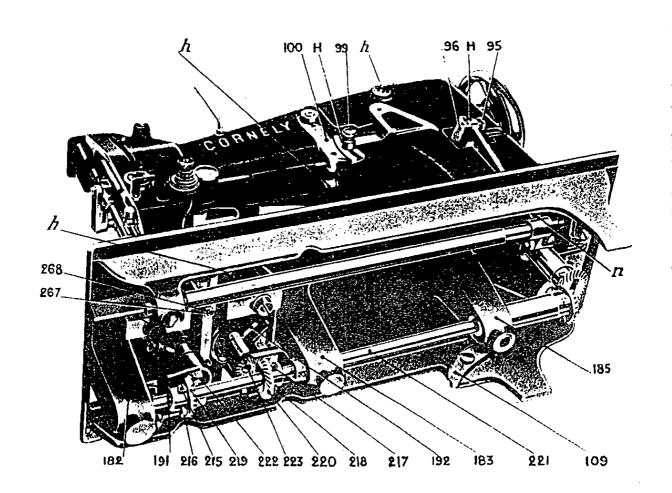


Fig. 8

6. CHANGING NEEDLES

Turn the wheel towards you in the direction of the arrow "f" (FIG 2), until the Needle bar 20 reaches its highest position, and the needles are at the largest distance from each other. Take the needle, holding the flat and the large groove towards, the shaft of needle bar 20 (when in position, the large grooves of the two needles should be facing each other). Push the needle as far as it will go in the Needle Bar and tighten well the two screws 21 & 22 (FIG 13) which fix the needles.

7. THREADING OF THE MACHINE CORNELY 10

a. Right hand needle

Take the thread from one of the Reelstands B or B' (Fig 2) Pass it through the lower hole 23 of the vertical Thread Guide 24. Then pass the thread through the right hand Check Tension 26, Bring it down and between the Tension Discs 27 from the right to the left, taking the thread once round before threading it through the hole of the Compensating Spring 28. Take it then from the right to the left in the right hand through the hole of the Take-Up 29. Pass the thread then through the hole of the Intermediary thread Guide 31. Turn the flying wheel counter clock-wise and bring the needle holder 20 in its lowest position. Take the thread and pass it through the "passe fil inférieur" 32 in Fig 13. Turn the flying wheel and put the needle bar in upper position. Keep the thread in your left hand and pass it through the hole of the right-hand needle from left to right, or in other words from the centre of the needle plate towards the right hand side.

b. Left hand needle

The same threading operation is valid as for the right hand needle. Pass the thread through: Upper Hole 25 of the Vertical Thread Guide 24 then through the Check Tension 33 and the Left hand Control Spring 34 (passing the thread from left to right) Then pass the thread through the hole of the Compensation Spring 35 from left to right, then through the left hand hole of the in Take Up 29, then through the hole of the Intermediary Thread Guide 31, finally through the Lower Thread Guide 32, after bringing the Needle Bar in its lowest position. Bring the needle bar again to its highest position and pass the thread through the eye of the left hand needle from right to left, that is to say, from the centre of the Needle Plate towards its left hand side.

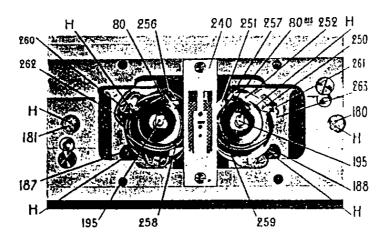


Fig. 9

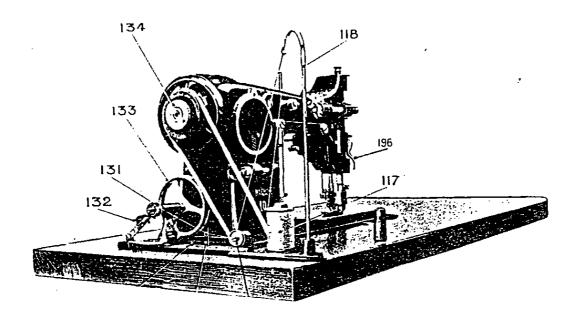


Fig. 10



Fig. 11

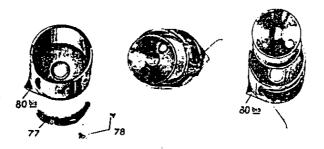


Fig. 12

8. REMOVING THE BOBBIN CASES

Remove the Slide Plates 90 and 91 (Fig 2) and the hooks will appear.

<u>Left and right hand Bobbin Cases</u>: Lift with the help of your finger nail the cap of the Bobbin Case, and take it by the lip 80. In this way the Bobbin Case and the Bobbin can be removed together. (Figs 9 & 12).

Winding the bobbins: And attachment is supplied with the machine to automatically wind up the bobbins while the machine is working. (Fig 10). I

To wind the bobbin, pass the thread coming from the Spool 117 through the Thread Guide 118, and through the tension 119 and thread guide 130. Wind a little bit of thread around the bobbin, after having fixed the latter on the end of the Bobbin Winder. Then press the Latch 132 forward. This will bring the pulley into contact with the belt of the machine. The thread will automatically be wound on the bobbin. When the bobbin is full, the latch will fall away from the belt, and further winding of the bobbin will be stopped. (A new bobbin can than be filled.)

The adjustment of the latch is done with the help of the screw on the upper part of its surface. So the more or less filling of the bobbin can be controlled. We strongly advise not to fill the bobbin more then 0.5 mm form the edge, otherwise their is a chance that the bobbin will get jammed in the bobbin case.

9. THREADING OF THE BOBBINS

Example: Threading of the left-hand Bobbin

Place the bobbin in the bobbin case, holding the thread in the right hand and the bobbin case in the left hand, with the thread in the position as shown in Fig 11. Pass the thread through the groove of the Bobbin Case, pull the thread, letting the bobbin turn so that the thread passes under the spring 77 of the bobbin Case, coming out through the notch on the Spring of the Case.

Threading of the right hand bobbin: same operation see Fig 12.

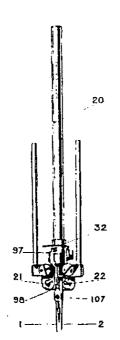


Fig. 13



Fig. 14



Fig. 15

8. REMOVING THE BOBBIN CASES

Remove the Slide Plates 90 and 91 (Fig 2) and the hooks will appear.

<u>Left and right hand Bobbin Cases</u>: Lift with the help of your finger nail the cap of the Bobbin Case, and take it by the lip 80. In this way the Bobbin Case and the Bobbin can be removed together. (Figs 9 & 12).

Winding the bobbins: And attachment is supplied with the machine to automatically wind up the bobbins while the machine is working. (Fig 10). I

To wind the bobbin, pass the thread coming from the Spool 117 through the Thread Guide 118, and through the tension 119 and thread guide 130. Wind a little bit of thread around the bobbin, after having fixed the latter on the end of the Bobbin Winder. Then press the Latch 132 forward. This will bring the pulley into contact with the belt of the machine. The thread will automatically be wound on the bobbin. When the bobbin is full, the latch will fall away from the belt, and further winding of the bobbin will be stopped. (A new bobbin can than be filled.)

The adjustment of the latch is done with the help of the screw on the upper part of its surface. So the more or less filling of the bobbin can be controlled. We strongly advise not to fill the bobbin more then 0.5 mm form the edge, otherwise their is a chance that the bobbin will get jammed in the bobbin case.

9. THREADING OF THE BOBBINS

Example: Threading of the left-hand Bobbin

Place the bobbin in the bobbin case, holding the thread in the right hand and the bobbin case in the left hand, with the thread in the position as shown in Fig 11. Pass the thread through the groove of the Bobbin Case, pull the thread, letting the bobbin turn so that the thread passes under the spring 77 of the bobbin Case, coming out through the notch on the Spring of the Case.

Threading of the right hand bobbin: same operation see Fig 12.

10. HOW TO REPLACE THE BOBBIN CASE

When threaded, replace the bobbin case cap complete with the bobbin in it, in the machine, pressing forward the little Finger of the Latch 195 (Fig 9) which closes the Bobbin Case.

11. STARTING TO SEW

With the Cover Plates 90 & 91 (Fig 2) still open, hold the ends of the needle threads lightly in the left hand, turning the wheel towards you until the needles have reached their lowest position and have ascended again to their highest position. Pull then the needle threads and the lower threads will be drawn up. Pull the lower threads through the Needle Plate and pass all four threads under the Presser Foot to the rear. Then close the Cover Plates. Place the fabric under the needles, lower the Presser Foot and start sewing, turning the wheel towards you. It is advised to pull the 4 threads while making the first points.

12. LENGTH OF STITCH

The length of the stitch should be adjusted in function of the type of fabric that is used.

A stitch which is too short, doesn't leave sufficient thread between the holes (hem stitches) and will tear apart the fabric.

To obtain the best results, it is advised to make samples on small pieces of fabric and adjust the length of stitch accordingly. Depending of the type of fabric the length of stitch and the tension on the threads will all influence the final result.

a. Change the length of stitch

Loosen Nut 95 of Quadrant Nut 96 situated at the right-hand side of the machine (Fig 1, 2, 8). Push the nut inwards to shorten the stitch, or pull it outwards to lengthen it. Re-tighten the nut. Turn the wheel towards you by hand to check whether the distance between the Puncher and the Front Piercer corresponds to the length of stitch obtained, that is to say whether the Front Piercer works at a distance from the Puncher representing exactly the distance separating the two stitches. If this is not the case, that is, if the Puncher doesn't fall exactly into the hole previously made by the Front Piercer, loosen Screw 97 (Fig 1 & 13) securing Support 98 of the Front Piercer and move this Support forwards, or backwards, until the Puncher falls into the hole previously made by the Front Piercer, then retighten the screw 97 of the Front Piercer Support.

13. ADJUSTMENT OF THE AMPLITUDE OF THE NEEDLE OSCILLATION

The needle oscillation of each machine is adjusted to a specific work for a specific fabric (we strongly advice to send your fabric on ordering) before leaving the factory.

This adjustment is a very delicate operation, therefore we strongly advice the technician who has not a lot of experience with the machine, not to change this adjustment if not necessary.

The object of the adjustment is to obtain a padded effect on the edge of the hemstitch according to the class of material used. To increase the amount of throw, turn the wheel towards you until the needles reach their highest position and are at the greatest distance from each other, then loosen Nut 99 of Quadrant 100 (Figs 1, 2, & 8) situated on the Arm of the machine. Moye this Nut upwards and then retighten. To decrease the amount of throw, move the Nut downwards.

14. FITTING THE PUNCHER

Turn the flying wheel and bring the Needle Bar 20 in its highest position, with the needles widest apart. Fit the Puncher in the Puncher holder 105 (FIG 14), and check that the point comes exactly in the centre of the slot made for it in the Needle Plate. The height of the Puncher should be adjusted in such way that its tail is coming +/- 1mm out at the back of the puncher holder (Fig 23). Check by turning the flying wheel that the puncher is not touching the needle plate. Re-tighten the Puncher Holder Screw 106.

15. FITTING THE FRONT PIERCER

Place the Front Pierce in the hole of its Support 98 (Fig 13) with the lower bend of the Pierce directed towards the needles. Press it upwards as far as it will go. Check the position of the Front Pierce in relation to the Puncher as explained it the paragraph ... about the adjustment of the length of stitch. Retighten Screw 107 at the front of the Front Piercer Support.

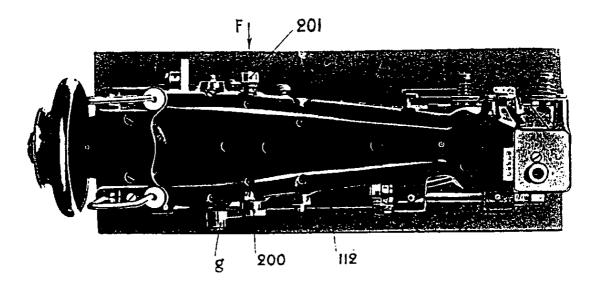


Fig. 19

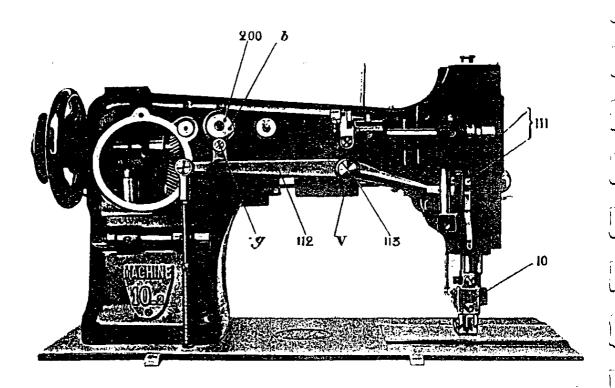


Fig. 20

16. KNEE LIFTER

This attachment N° 147 (Figs 10 & 16) is used instead of Lever 196 to lift the Foot, leaving the two hands to manipulate the work. It acts by means of the Shaft 108 (Fig 16) and the Stop Pin controlling lever 109 (Fig 8) This lever acts on Rod 110 (Figs 3 & 5) which is responsible for lifting the Foot by its action on the Stop Pin by means of the large Lever 112 (Figs 3 & 5). By lifting the Presser Foot, Levers 197 & 198 release the pressure on the Tensions 27 & 34 (Figs 2, 3, 5 & 21)

17. TENSIONS

- 1. Needle Threads: IMPORTANT Do not attempt to adjust tensions when the Presser Foot is lifted to release the work, the upper tensions then being released by the lifting levers. They are adjusted by means of the milled head screws 92 & 93 placed in front of Tensions 27 & 38 (Fig 2). The tensions should be light, just enough to make a perfect stitch. To release the tensions without lifting the Presser Foot from the work, press lever 197, which is placed in front of the Head Plate (Fig 1 & 5).
- 2. <u>Bobbin Cases</u>: The Bobbin Case Tension is adjusted by means of Screw 78, acting on Spring 77 of the bobbin case. The more the screw is tightened, the stronger the tension. The Bobbin Case tension should be stronger than that of the needle treads. The tension of the former can still be further strengthened by placing the Bobbin so that the tread unwinds in the contrary directions to that indicated in Fig 11 & 12.

18. HOW TO TURN AT RIGHT ANGLES OR A SHARP TURN

When the Puncher has entered the last hemstitch and the needles are still out of the fabric, turn the material at right angles taking the last hemstitch as turning point, continue sewing. There will be no additional hole made by the Front Piercer.

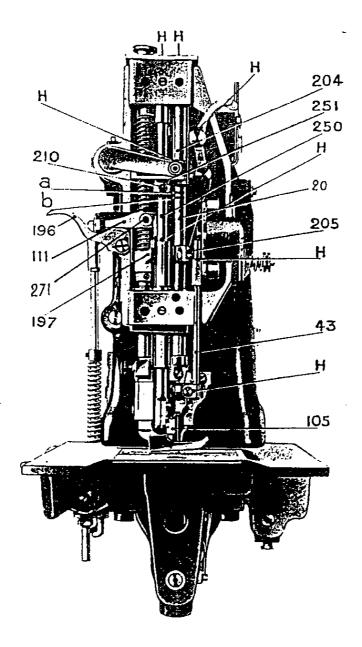


Fig. 21

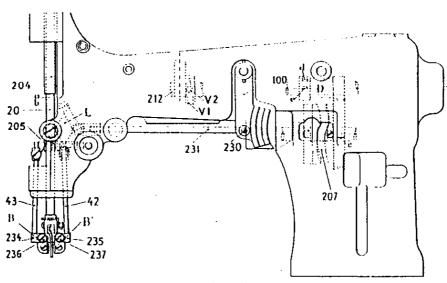


Fig. 22

PART TWO: ADVANCED MECHANICAL SETTINGS

SPECIAL INSTRUCTIONS FOR MECHANICS ONLY

1. HEIGHT OF THE NEEDLE BAR

The needle bar 20 carries two marks a & B (Fig 21 & 22). To adjust the height of the Needle bar, turn the wheel towards you until the Needle Bar reaches its lowest position. At this Bearing 204. To bring the Needle Bar to this mark loosen Screw 205 of the fastening coupling of the Bar and move the latter higher of lower until mark "a" is in the position described above. Take care, when making this adjustment, to check that the lower part of the Needle Bar is parallel to , or in alignment with the Main Shaft. IN other words, see that the needles are central in the needle hole of the Needle Plate. Tighten Screw 205.

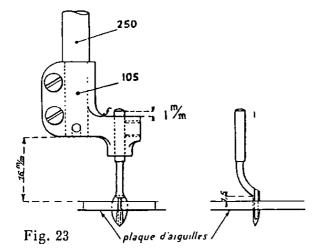
2. ADJUSTMENT OF A NEEDLE BAR NOT MARKED;

The needle bar can be adjusted without the use of marks "a" and "b" if, when the needles are pushed up as far as possible in the Needle Clamps, when the Needle Bar at its Lowest position. In this position the eyes of the needles should be exactly 4.20 mm below the points of the hooks in order to obtain the right settings.

3. ADJUSTMENT OF THE CAMS

The three Cams 206, 207 & 208 (Fig I) which control respectively the rise of the Feed dog, the oscillation of the needles and the forward movement of the Feed dog have a fixed position one to the other. It is therefore only necessary to adjust the position of these cams in relation with the Shaft 209, which drives the Needle Bar assembly. This adjustment is made in the following way. Loosen the two screws "d" and "e" of Pinion D, which drives the cam assembly (Fig 22) turn the flying wheel towards, you in the direction of the arrow "f" until the Needle Bar is at its lowest position. Keeping the wheel fixed in this position, turn the three cams together. When looking through the Cover Plate in C, two grub screws will be seen, which secure the cam to the pinion which carries it (Fig 22). The adjustment is then done by bringing one of these screws in a horizontal line "c" so that the lower part of the screw hole is at a tangent with the setting line. It is only necessary then to lighten screws "d" and "e" on their shaft.

It may happen that at the position where the three Cams 206, 207 and 208 have been placed, Pinion D is place in such a way that the screws "d" and "e" are somewhat difficult to reach in order to thirteen them properly. In this case, the best solution is to tighten these screws lightly, turn the wheel very carefully and then tighten the screws "e" and "d" properly. This can be a slightly difficult operation because during the rotation of the flying wheel it has absolutely to be avoided that the Pinion D slips on the shaft.



·

.

•

4. ADJUSTMENT OF THE PUNCHER

The puncher is fixed on its support 105 (Fig 23) the latter being fitted to the lower extremity of the Puncher Bar 250, supported by the coupling 251 (Fig 21). This Bar is driven from the Main Shaft by Eccentric 212, Connection 251, Connecting Link 282, Shaft 283 and finally Lever 280 which acts on Coupling 251 (Figs I and 21) This adjustment should be done in several steps, which as described in following paragraphs. :

4. 1 Adjustment of the Eccentric.

The eccentric 212 (Figs I & 22) is secured to the Main shaft by the two Screws V1 and V2, which can be reached through the small opening 213 at the rear of the Arm. (Fig 3). Turn the wheel in the direction of the arrow "f" this is towards you, to bring Lever 280 to its highest position. Then loosen the two screws V1 and V2, maintain the position of the Eccentric 212 by means of a screwdriver, turning the wheel at the same time in the direction of the arrow "f" until the cotton Take-up 29 (Fig 1) reaches its lowest position and is ready to ascend. When this result has been obtained, re-tighten screws V1 and V2. This adjustment is particularly delicate and difficult and great care should be taken when it is made.

4.2. Movement of Lever 280

This lever should be adjusted in such a manner that its downward movement is equal to its upward movement from the centre of the shaft. For this purpose the position of the shaft 283 should be adjusted in relation to the Connection Link 282 (Fig 3) In order to do this, loosen Screw 281 and by successive trials place Connecting Link in the position previously indicated and tighten Screw 281.

4.3. To adjust the Height of the Puncher

With lever 280 in its lowest position, loosen Screws 210 and move the Puncher Bar higher or Lover in Collar 251 (Fig 21) so that the lower extremity of the Puncher Bar is exactly 16 mm above the level of the Needle plate. Retighten the two Screws 210. Care must be taken that the clearance is between the end of the Puncher Bar and not the Puncher Holder (Fig 23).

4.4. To place the Puncher Bar in position

Place the Puncher in its support (Fig 14) Set the Puncher Bar by slightly loosening Screws 210 in order that the Puncher Bar can be turned so that the Puncher enters the centre of the slot in the Needle Plate. It must be understood that this setting of the Puncher Bar should be made without modifying the height of the Bar. Retighten the screws after the setting.

4.5. Definite positioning of the Puncher

The Puncher should be fastened in its Support so that, at its lowest position, the bend elbow comes exactly 1 ½ mm above the level of the needle Plate (Fig 23) In this position, the tail end of the shank should extend about 1 mm above part "f of the Puncher holder. It is advisable to make sure that in its lowest position, the point of the Puncher does not touch the separating piece situated underneath the Needle Plate.

5.NEEDLES

Fitting the Needle: Before explaining the fitting of the needles, a short explanation will be given concerning the movement of the needles.

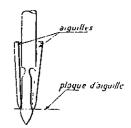


Fig. 24

5.1 The Oscillating Mechanism of the needles

Fig 1, 13, 15 & 22 give a clear insight in the movement of the needles. The movement is derived from Cam 207, and increased or decreased as required by quadrant 100. A rod 231, attached to the quadrant by Screw 230 transmits this movement through the Rocking Lever "L" which, in its turn, expands the Needle Rods 42 & 43, these latter are acting on the Needle Clamps 234 & 235, which are supported and are rocking on Studs 236 & 237, which are situated on the main needle bar head. The two needle clamps are adjustable along the slide holes "B" & "B" in the needle bar head and secured to the latter by Nuts 238 & 239 (Fig 15).

The parts necessary for the adjustment of the needles are screw 230, Needle clamp support nuts 236 & 237 on one hand, and the milled head Slide Screw 99 in Quadrant 100, on the other hand. These serve for all purposes of adjusting the amount of needle oscillation.

5.2. FITTING AND ADJUSTING THE NEEDLES.

The needles are fitted as explained on page 3 of the General Instructions. Their position is then adjusted, taking into consideration the two following essential points, which should be the result of these adjustments.

- 1. At the open position the needles should be vertical.
- 2. At the closed position, they should come into the two grooves of the Puncher, without touching it. (Fig 24) in order to obtain this adjustments, it is advisable to proceed in the following manner:

Start by fixing Button 99 in the position for which the exact amount of oscillation of the needles is wanted. It is recommended to place the button at the lowest position in the Quadrant 100 machine 10-1, in the middle of quadrant for machines 10-3, 10-4, 10-5 and 10-6.

The remainder of the adjustment consists in obtaining the two conditions referred to above by successive trials on the Needle Clamp Studs 236 & 237

and on Screw 230 in the following manner. Turn the wheel towards you (in the direction indicated by arrow "f") and bring the needles to their open positions making the first adjustment in this position by moving Clamps 234 &235 equally along the slide holes of the Needle bar. This open position is limited on the outside by the dimensions of the slot in the Needle Plate. The needles should be in an absolutely vertical position when they pierce the material.

In order to obtain this positioning, loosen Locking Nuts 238 & 239 (Fig 15), situated behind parts 234 &235. Re-tighten after adjustment. Continue to turn the wheel towards you, and bring the needles to their closed position. In this posițion make the first adjustment loosen screws 230 and move rod 231 sideways, to bring the needles to the two grooves of the Puncher as near as possible avoiding any contact with the moving parts. (Fig 24) Check that the screw 230 is well tightened after the adjustment.

After every change it is necessary to re-check the position of the needles in the OPEN POSITION see previous paragraphs, (by turning the flying wheel) and if necessary re-adjust it. Then go back to the CLOSED POSITION and so on until in both positions the good adjustments are obtained.

6. ADJUSTMENTS OF THE HOOKS

Remove the Needle Plate to be able to reach the parts for the following adjustments,

6.1 Adjustment for Distance

The points of the Hooks should not be set too far from the needles. In order to avoid missed stitches. Nor should they be set to near the needles, so that the points could get in contact with the needles. This could damage the hooks and lead to frequent needle breakage.

It is recommended therefore to try to find the minimum distance possible without any contact between the moving parts.

Loosen Gear Screws 215, 216,217 & 218 (Figs 8 & 25) and disengage Gears 219 &220 from gears 222 & 223, then loosen screws 224, 225, 226 & 227, which are securing the Hook holders 228 & 229 (Fig 25). Turn the wheel towards you to bring mark "b" of the needle bar to the lowest end of Bearing 204. (See Fig 21). Then bring the points of the Hooks close up to the needles, by moving the Hook Holders 228 & 229 until the point of each Hook is level with its corresponding needle without touching it. Re-tighten screws 224, 225, 226 & 227 which secure the Hook Holders.

6.2 Positioning of the hooks

The points of the Hooks should be brought up to the needles at the position in which the loop is ready to be taken. To obtain this result, bring the Needles Bar to its lowest position by turning the wheel towards you as before mentioned. The mark "a" on the Needle Bar should coincide with the lower

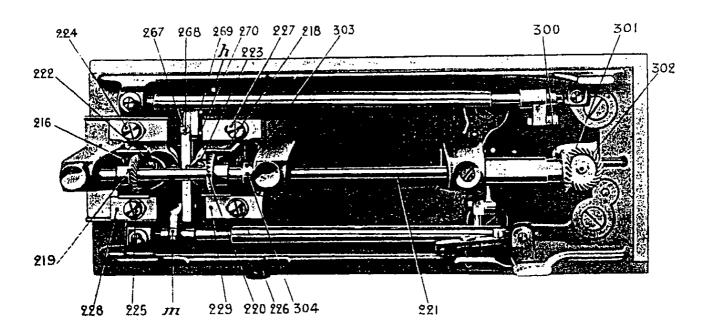
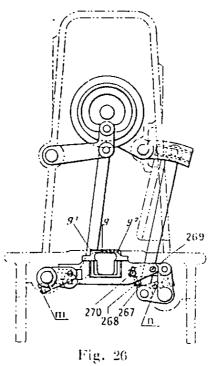


Fig. 25



line of the Bearing 204 (Fig 22). Continue turning the wheel towards you, causing the Needle Bar to ascend. Stop when the second mark "b" corresponds with the lower line of the earring 204. Then turn the Hooks by hand until their points are level with the needles. Now bring the two Gear Pinions 219 & 220 into contact with Gear Pinions 222 & 223 and well tighten Screws 215, 216, 217, 218.

NOTE: We recommend to verify that when mark "b" on the Needle Bar coincides with the lower part of Bearing 204, the points of the Hooks are exactly 1.6 mm above the eyes of the needles. As previously mentioned, this distance is 4.2 mm when mark "a" on the Needle Bar coincides with the lower part of Bearing 204.

7. ADJUSTMENT OF THE FEED DOG

When the hooks have been adjusted, it is necessary to proceed immediately with the adjustment of the position of the Feeddog in relation to them.

Adjustment of the position of the Feeddog in relation to the Hooks. It is important that the Feeddog should be set in such a way that it doesn't touch the point of the hooks in any of its positions.

To obtain this result, give the feeddog its longest possible movement by bringing Nut 95 forwards as far as it can go in quadrant 96 (Fig 8). Then turn the wheel towards you, and observe the movement of the feeddog in relation to the points of the hooks. To make the necessary adjustments loosen screw "n" (FIGS 1, 8 & 26) and change the position of the feeddog so that , at the end of its forward or backward position it doesn't come into close contact with the points of the hooks. Tighten screws "n" after this adjustment.

Replace the Needle plate and see, as a result of the preceding adjustment, if the Feed dog functions properly in the Needle Plate slot. Now attend to the final adjustment of the Feed dog. The elements to check are the rise of this Foot of the Feeddog and the slope.

The height of the foot of the Feed Dog should be adjusted in such a way that when it is in its highest position the teeth extend about 1 mm above the needle plate. If this is not the case proceed as follows: Turn the wheel towards you until the feed surface starts its upward movement. Loosen the Screw "m" of the small lever controlling the rise of the Feed surface (Figs I, 24 & 26) and raise the latter until the teeth are just above the level of the Needle plate (Fig 26) then tighten screw "m". In this position the Feed surface should be horizontal. If this is not the case, correct the inclination of the feed surface by loosening the Nuts 269 & 270 (Fig 26) and turning screw 267 secured by Locking Nut 268. (Figs I, 8, 25 & 26) Don't forget to retighten Nuts 269 & 270 and the Locking Nut 268 after the adjustment.

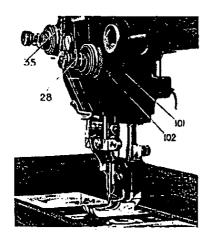


Fig. 27

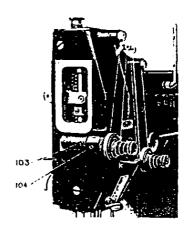


Fig. 28

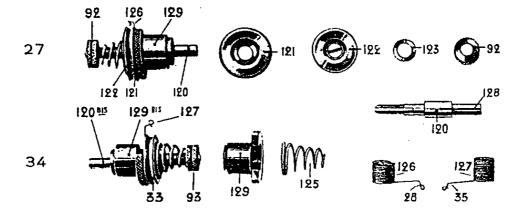


Fig. 29

8. ADJUSTMENT OF THE PRESSURE FOOT SHAFT

Remove the pressure foot to gain access to Lifter Lever 196 (Fig 21). Place this lever 196 in its horizontal position with the Lifter Block 111 resting upon it. In this position there should be exactly 36.50 mm between the lower extremity of the pressure foot shaft and the Needle plate.

If this is not the case, proceed as follows:

Loosen Screw 271 and move the Pressure foot shaft up or down in order to obtain the necessary 36.50 mm between the lower extremity of the shaft and the needle plate. Retighten the Screw 271. Replace the Pressure Foot at the extremity of the shaft. Take care that the feet of the Pressure foot are parallel to the surface of the Feed dog in the needle plate. (Fig 5 & 21).

9.THREAD-TENSION CONTROLLERS

Tensions 27 & 34 each comprise a Shaft 120 (Fig 29), on which are placed in the following order: two Tension Discs 121, separated by Roller 123 (on which the thread is sliding), followed by the Tension Release Washer 122, the Spring 125 and the Milled head Nut 92. Roller 123 rotates freely on Shaft 120 and the thread it carries passes between the two Tension Discs 121, which are pressed one against the other by Spring 125 and the Washer 122 causes the tension on the thread. In addition, the tension units 27 & 34 also have a system of thread control. This system is composed of a Spring 126 for tension 27, and 127 for Tension 34, terminating respectively in Thread guides 28 & 35. These springs are fitted on the smooth part of the shaft 120 and their angle end fits into Groove 128 of the Shaft. The amount of movement of these springs is determined by a recess cut into the shoulder of the Collar 129.

As indicated on Figs 27 & 28, the Tension 27 is secured to the machine by screw 101 on Shaft 120 and Screw 102 attached on the collar 129. Tension 34 is in the same way secured by Screws 103 & 104.

The function of the Thread controllers is to put pressure on the needle threads until the needles pierce through the fabric.

To release or increase the tension on the needle threads: loosen Screws 101 & 103 and turn the Shafts 120 or 120 bis in the required direction, retighten then the Screws.

To adjust the position of the Collars 129 & 129bis

Check by turning the flying wheel if the Tension controller springs are resting on the shoulders of the recesses cut into the collars when the needle begins to pass through the fabric. If this is not the case loosen screws 102 and 104 and adjust the position of these collars. Retighten the screws after.



Fig. 30



Fig. 31

253



Fig. 32

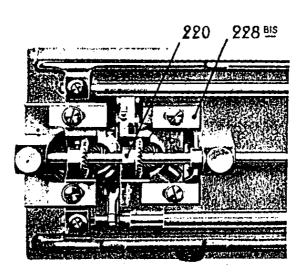


Fig. 33

10. HOW TO REMOVE THE HOOKS

Loosen screws 250 & 215 (Fig 9 & 30) which secure the Stop Plate 252 of the Bobbin Case and remove this Stop Plate. It is then easy to remove the Bobbin Case Base. The hook appears then as shown in Fig 30. Loosen and withdraw Screw 253 which passes through the centre of the hook. The latter can then be drawn upwards and removed from its shaft. (See Fig 32).

11. HOW TO ADJUST THE LOOP RELEASERS (STITCH FORMATION)

The loop releasers 256 shown in Fig 9 and represented alone in Fig 31 are making it possible that the thread is passing between the Retainer Gibs of the Bobbin Case and the recess in the Needle Plate. This is obtained through the action of the finger "d" (Fig 31) of the loop releasers 256.

When the machine is running correctly following actions should be seen:

With the machine threaded, ready for sewing and the bolts of the table open, turn the flying wheel towards you until the loops have been taken. The Gibs 258 & 259 of the Bobbin Case Base (Fig 9) are situated in the recess of the needle plate, but towards the rear of this recess, that is to say, the furthest away from you. Continue turning the flying wheel towards you, and you will see the Gibs move towards the frontal part of the recess, that is to say it comes towards you. They should have arrived in this position when the Hook has made about two-thirds of a turn after that the loop has been taken (this is when the thread starts to escape from the Bobbin case).

To verify the correctness of this adjustment, check if the Finger "d" of the looper releaser releases the beak of the Bobbin Case in time to enable the thread to pass into the recess of the Needle Plate.

If this movement is not correctly done by the machine, adjust the positions by loosening the Screws 260 & 261 (Fig 9) and moving the parts 262 & 263 of the Hook support. Retighten the screws firmly after adjustment.

12. ADJUSTMENT OF THE HOOK GUARDS

The function of the Hook Guards 264 (Fig. 30 & 31) is to prevent the points of the Hooks from coming into contact with the needles. The adjustment of these Guards consist in bending them outwardly as to give the greatest protection to the Hooks. However, they shouldn't be bend to much outwardly, because then they may come themselves in contact with the needles and bend or break them.

13. HOW TO CHANGE THE HOOK ROTATION DIRECTION

As explained on page 3 of the instruction manual (part I) it may be advisable, in cases where a thread of poor quality is used to change the direction of rotation of the hooks to avoid frequent breaking of the thread.

As most threads have a left twist (to check the twist of your thread proceed as described in page ...) the right hand hook should be changed. Figs 9 & 25 show the disposition of the Hooks before this modification, in other words, with the hooks rotating in opposite directions. Fig 33 & 34 show the disposition of the hooks after modification of the rotating direction of one of the hooks, in other words, with the hooks rotating in the same direction.

To modify the machine you need to order PART n° 6356 complete.

Proceed as follows to adapt the machine:

1. The

Remove the guards of the Pinions 301 & 302
Then loosen screws 300 securing Pinions301 & 303 securing collar 304
Loosen then parts 215, 216, 217 & 218 which fasten Pinions 219 & 220
Now the shaft 221 can be removed from the left (Figs 8 & 25).
Loosen Screws 226 & 227 and remove hook Support 229.
Fit in this place Hook Support 228bis as shown in Fig 33.
Replace all the parts on Hook Support 228bis.
Modify the direction of pinion 220 as shown in Fig 33
Replace the shaft 221 and thirteen Screws 300 and 303.
Now, time the Hooks, as explained in the appropriate paragraph of this instruction manual, taking care to tighten all the screws which have been loosened during this operation.

14. RECOMMENDED SPARE PARTS

Puncher: Part n°: 6039-x

x being the type of CORNELY 10 machine

For example: puncher 6039-3 fits the machine CORNELY 10-3

Front piercher: Part n°: 6069-(x-1)

x being the type of CORNELY 10 machine

For example: Front piercer 6069-2 fits machine 10-3

Needles: Part n°s: 727/F80, 727/F90, and 727/F100

727/F90 is the standard needle used for most types of work

Pressure Foot Body: 6033 and 6034

6033B and 6034B are for CORNELY 10-1 to 10-6

6422 and 6423

are for CORNELY 10-7 tol 10-9

Pressure Foot Shoe: 6035 and 6036

6035B and 6036B are for CORNELY 10-1 to 10-4 6316 and 6317 are for CORNELY 10-5 to 10-9

Feeddog:

Part n°: 6149 is suitable for machines 10-1, 10-2 & 10-3 Part n°: 6150 is suitable for machines 10-4, 10-5 & 10-6 Part n°: 6418 is suitable for machines 10-7, 10-8 & 10-9

Needle plates:

Part n°: 6227 is suitable for machines 10-1, 10-2, 10-3 & 10-4

Part n°: 6378 is suitable for machines 10-5 & 10-6

Part n°: 6417 is suitable for machines 10-7, 10-8 & 10-9

Hook assembly : Part n° 6217 :

Bobbin: Part nº 7568

The complete set: Part n° = T-10 pcs 1 year for Cornely 10-3

Contains: 100 Needles 727F90

20 Bobbin 7568 2 Hook assembly 6217

2 Needle plate+Needle guide SET 6227-3

2 Puncher 6039

5 Front piercer 6069

Feeddog 6149

2 Spring 6190 2

Spring 6191

HEMSTITCHING

Cornely

TYPE 10 SERIAL NR.....

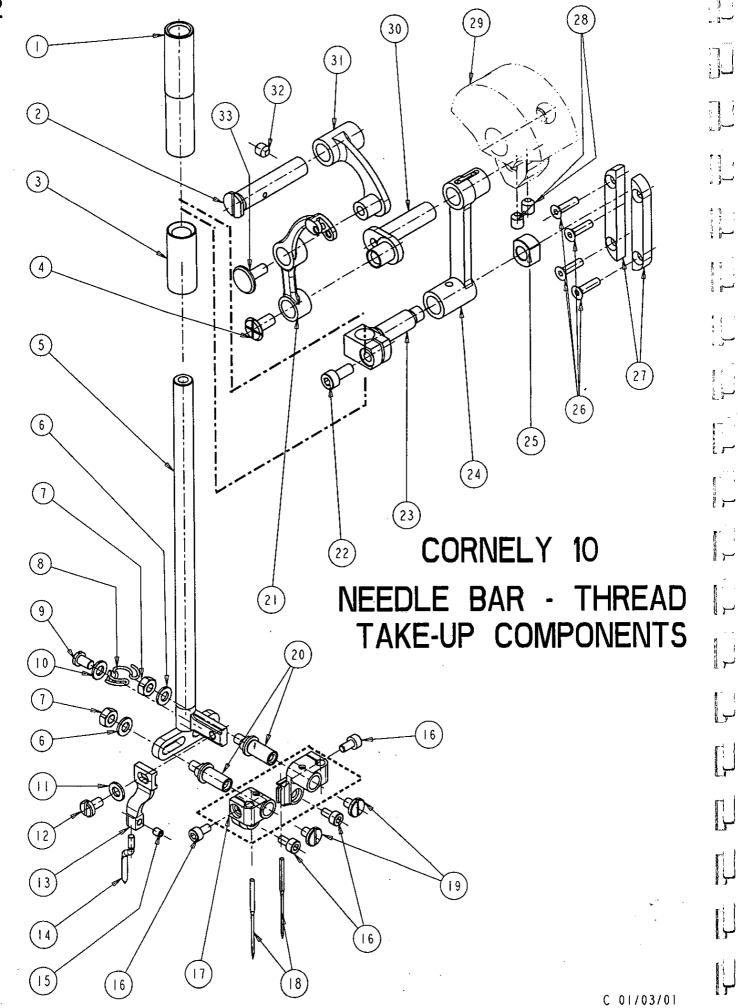
spare parts

NV. A. DE KONINCK Avenue Sleeckx 84 B-1030 BRUXELLES BELGIUM

Tel: ++32/2-216.31.40 Fax: ++32/2-242.41.89

MAIN SHAFT

Ref.No.	Parts No.	Description.
	<u></u>	
1	C06006VL	Screw
2	C06006	Plate for crank
3	C06006V	Screw
4	C06004	Main shaft
5	C13357V	Screw
6	SETC13357	Bushing
7	C13359	Bearing
8	C13355	Bushing
9	C07523V	Screw
10	C06096	Gear
11	C13363	Snap ring
12	C13353V	Screw
13	C13354V	Screw
14	SETC13356	Bushing
15	C13200V	Screw
16	C13200VL	Screw
17	C13206V	Screw
18	C13206	Pulley
19	C13200	Pulley holder
20	C13356V	Screw
21	C13354	Bushing
22	C13353	Pulley
23	C13361	Belt
24	C06096V	Screw
25	C07523	Eccentric
26	C06053	Puncher driving rod
27	C13355V	Screw
28	C13162	Counter-weight
29	C13162V	Screw

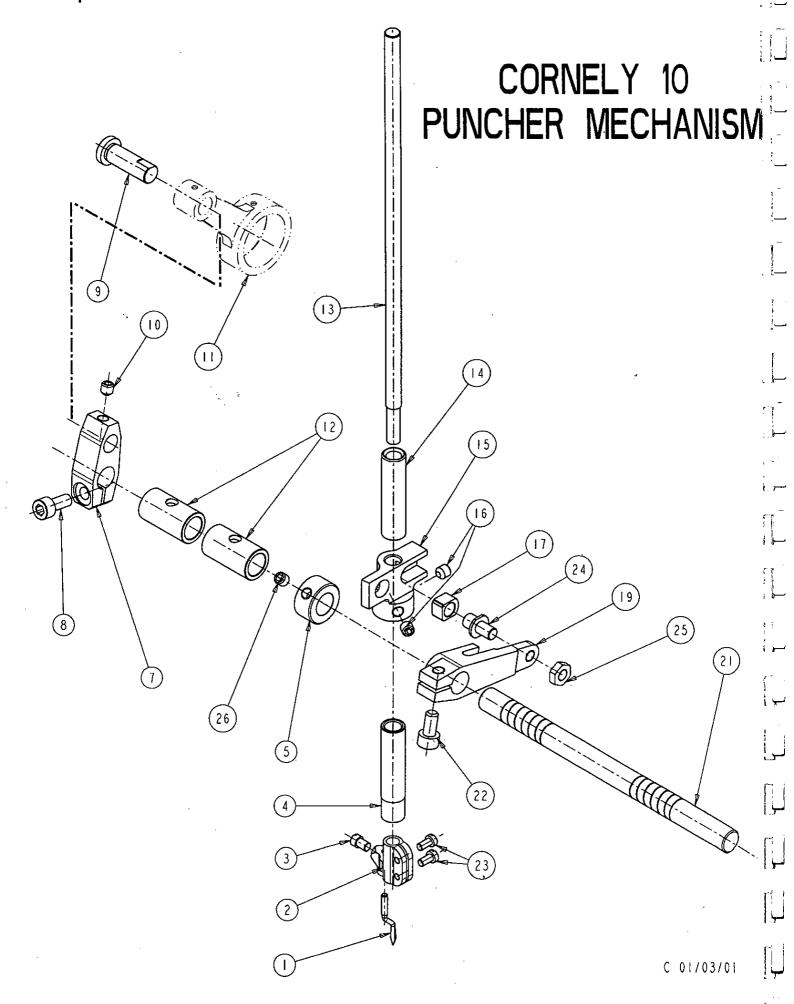


NEEDLE BAR + THREAD TAKE-UP COMP.

Ref.No.	Parts No.	Description.
1	C06062	Upper bushing models build.
2	C06013	Upper bushing needle holder
3	C06063	Take - up shaft
4	C06241	Lower bushing needle holder
5	C06060	Cap screw Bar for needle holder
6	C06246	Washer
7	C06067E	Nut
8	C06070	
9	C00070	Thread guide Screw
10	C06246	
11	c06246	Washer
12	C00240 C00869	Washer
13	C06068	Screw
14	C06068	Front piercer holder .
15	C06069	Front piercer
16	C06066V	Screw
17	SETC06065	Screw
18	727/F	Set holders for needles Needle
19	C06249	Screw
20	C06067	
21	C06008	Needle holder shaft
22	C06056V	Yarn take-up lever Screw
23	C06056	
24	C06055	Shaft for needle driving
25	C06057	Connecting rod Slide block
26	C06058V	·
27	C06058	Screw
28	C06006VC	Needle bar guide Screw
29	C06006	Plate for crank
30	C06007	Crank
31	C06011	Lever
32	C06013V	Screw
33	C06012	Pin
		1 111

NEEDLE MECHANISM

Ref.No.	Parts No.	Description.
	0000==14	_
1	C06077V	Screw
2	C06248	Screw
3	C06247	Fixing screw
4 5	C06074	Driving lever
6	C06072	Guiding nut
7	C06071	Shaft
8	C06073 C13155V	Driving lever
9	C06075	Screw
10	C06075	Rod for driving needle (right)
11	C06080 C06081V	Rod
12	C06081V	Screw Block washer
13	C06085	Lever sector
14	C06086	Shaft of sector lever
15	C06087	Bushing
16	C06088	Thrust collar
17	C06088V	Screw
18	C06095V	Screw
20	C06095	Regulator schaft
21	C06085VL	Screw
23	C06092	Screw
24	C06093	Shaft bushing
25	C00077	Roller
26	C06094BV	Screw
27	C06094B	Thrust ring
28	C06091	Lever
33	C06085V	Stop screw
34	C06084	Back-nut pin
35	C06084V	Screw
36	C06253	Washer
38	C06081	Shaft guide
39 40	C06076	Rod for driving needle (left)
41	C06248	Screw
42	C13155V C06077	Screw
43	C06252	Bushing guide
44	C06085VC	Screw
45	C06314	Screw
46	C13369	Lubricator
47	C13366	Big lever
48	C13366E	Roller shaft Nut
49	C13168	
50	C06085R	Hinge screw Washer
51	C06092E	Nut

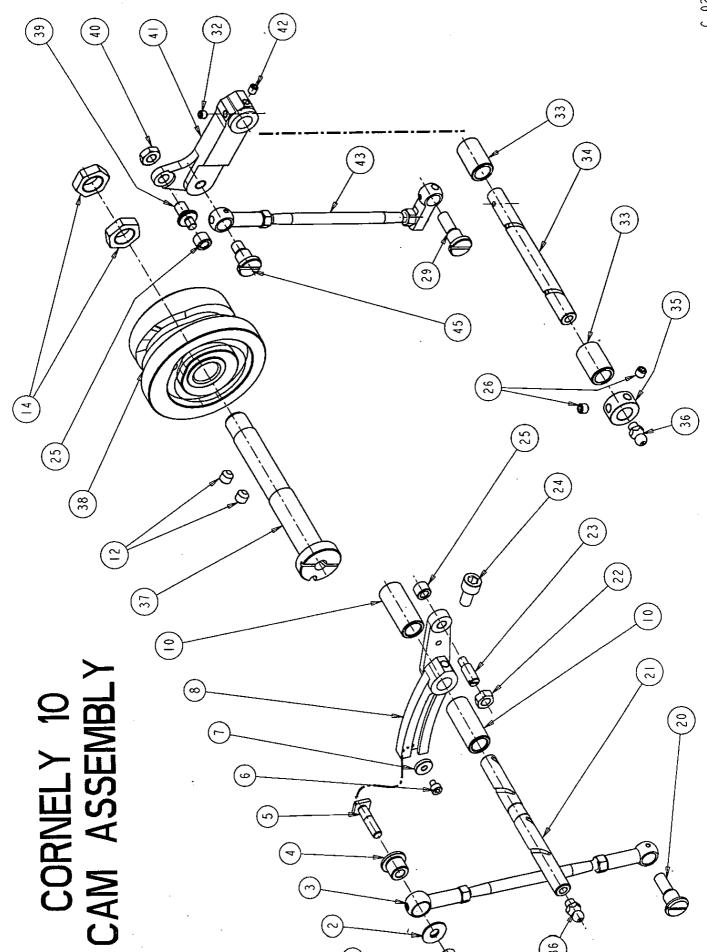


PUNCHER MECHANISME

Ref.No.	Parts No.	Description.
1	C06039	Puncher
2	C06043	Puncher holder
3	C03357	Screw
. 4	C06042	Bushing
5	C06047	Thrust collar
7	C06052	Lever of puncher
8	C06052V	Screw
9	C06165	Stud
10	C06052VC	Screw
11	C06053	Puncher driving rod
12	C06046	Bushing
13	C06038	Puncher bar
14	C06042	Bushing
15	C06044	Cage for driving bar
16	C06044V	Screw
17	C06051	
19	C06045B	Center bearing-plate Lever
21	C06045A	Lever Shaft
22	C06045BV	Screw
23	C02655	
24	C13373	Screw
25	C13373E	Shaft
26	C06047V	Nut
20	C00047 V	Screw

PRESSER FOOT MECHANISM

Ref.N	No.	Parts No.	Description.
	1	C00101	Screw
	2	C06031	Plate
	3	C06032	Cam rankl
	4	SETC06035B	Righthand shoe assembly Co 6030
	5	C06031V	
	6	SETC06036B	Lefthand shoe assembly
	7	C06246	Washer
	8	C00107	Hinge screw
	9	C06022	Lever
	10	C06021V	Screw
	11	C00101	Screw
	12	C06267	Hinge screw
	13	C01202	Nut
	14	C06163	Thrust collar
	16	C06162	Spring
	17	C06158	Joint
	18	C06164N	Lever
	20	C06165	Stud
	21	C06028	Gabe-hook body
	22	C06016N	Bushing
	23	C06849V	Screw
	24	C06023AV	Screw
	25	C06023A	Releaser
	27	C06014	Gabe-hook bar
	28	C06017	Spring
	29	C06015	Presser adjusting screw
	30	C060:18	Presser bare bracket
	31	C06849	Releaser
	32	C06021	Bracket guide
			Stop plate
		C06157	Lifting lever
		C06161	Swivel
			Screw
		C06163V	Screw
		C13168	Hinge screw
		C06018V	Screw
4	1 :	SETC06027	Gabe-hook assembly
			•



CAM ASSEMBLY

Ref.No.	Parts No.	Description.
	<u> </u>	
1	C06092E	Nut
2	C06253B	Washer
3	SETC13152	Connection rod complete
4	C06107	Shaft bushing
5	C06092	Screw
6	C06109V	Screw
7	C06109R	Washer
8	C06109	Driving rod
10	C06105	Bushing
12	C06100V	Screw
14	C06375	Nut
20	C06264	Hinge screw
21	C13166	Shaft
22	C06257	Nut
23	C06256	Screw
24	C06109VL	Screw
25	C00077	Roller
26	C06088V	Screw
29	C13368	Hinge screw
32	C06111V	Screw
33	C06087	Bushing
34	C06112	Lever shaft
35	C06088	Thrust collar
36	C06314	Lubricator
37	C13164	Regulator shaft
38	C13163	Cam assembly
39	C13366	Roller shaft
40	C13366E	Nut
41	C13365	Connection lever
42	C13365V	Screw
43	SETC06114	Driving rod
45	C13367	Hinge screw

....

FEEDDOG MECHANISM+NEEDLE PLATE

Ref.No.	Parts No.	Description.
1	C06156V	Screw
2	C06156	
3	C06136 C06146V	Taper center Screw
4	C06146	Feed rock shaft crank
5	C06146 C06147B	Feed rock shaft
6	C06205VC	Screw
7	C06205	Feed bar crank
8	C06205V	Screw
9	C00203V C06148A	Feed bar base
10	C06148	Feed bar
13	C06087	Bushing
14	C00007 C01202	Nut
15	C01202 C06160	Feed bar shaft
16	C06153	Feed lifting crank
17	C06269	Screw
18	C06203	Feeddog
19	C06155	Screw
21	C06152	Feed lifting rock shaft
22	C06265	Nut
23	C06264	Hinge screw
24	C06149V	Screw
25	C06202	Slide plate
26	C06278	Screw
27	C06227	Needle plate
28	C06277	Screw of needle guide
29	C06228	Needle guide
30	C06281	Screw of needle guide
31	C06201	Slide plate
32	C06154	Slide block
33	C06153V	Screw
34	C06148E	Nut
35	C06148V	Screw
36	Have v	C. 13/34
31	t bus	c-13131V

HOOK MECHANISM

Ref.No.	Parts No.	Description
1	C06288B	Screw
2	C06287	Tension spring
3	C07568	Bobbin
4	C06288C	Screw
5	C06282	Screw
6	C06230	Needle guard washer
7	C06215V	Screw
8	C06355-6V	Screw
10	C06351V	Screw
11	SETC13350	Bushing
12	C06288A	Screw
13	C06213	Releaser
14	C06354	Shaft
15	C06214	Slide block
16	C06215	Position ring
17	C06355(6)	Hook holder
18	C06360V	Screw
19	C06360	Gear protection
20	C06352VC	Screw
22	C13350V	Screw
23	C06217	Hook assembly
24	C06088V	Screw
25	C06275	Washer
26	C06274	Screw
27	C13360	Shaft
28	C06349	Bushing
29	C13352V	Screw
30	C13361	Belt
31	C13363	Snap ring
32	C13351V	Screw
33	SETC13351	Bushing
34 25	C13352	Pulley
35 36	C06088	Thrust collar
36	C06223	Bobbin case
37 39	C06352V	Screw
38	C06351/6352	GEAR ASSEMBLY

CORNELY 10 FHREAD TENSION ASSEMBLY

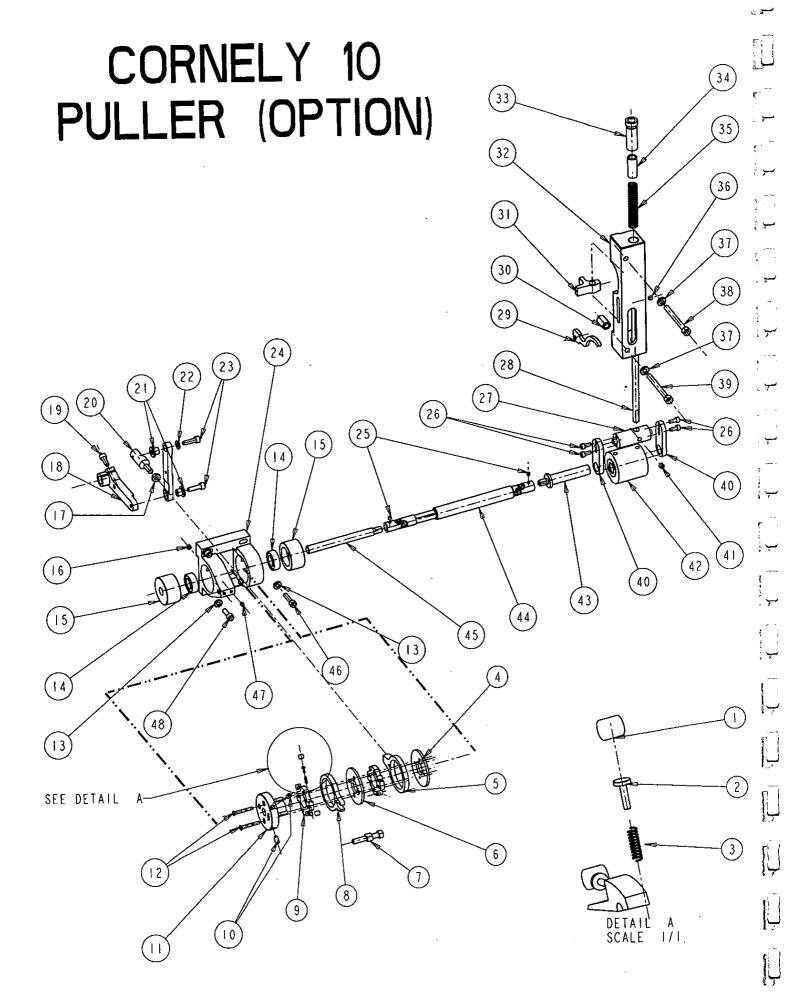
THREAD TENSION ASSEMBLY

Ref.No.	Parts No.	Description
	_	
1	C06286B	Thread guide
2.	C06285	Thread guide
3	C06189V	Screw
4	C06192	Tension release pin
5	C06183V	Screw
6	C13402	Closing plate
7	C06186	Spring
8	C06183V	Screw
9	C06185	Bushing
10	C06184	Ring
11	SETC13159	Thread guide
12	C13159V	Screw
13	C06190	Thread take-up spring .
14	C06195	Tension roller
15	C08130	Tension nut
16	C06197	Tension spring
17	C08128	Tension disc washer
18	C06194	Tension disc
19	C06188	Tension post
20	C06193	Tension release pin
21	C06285V	Screw
22	C06189	Thread tension post socket
23	C06183	Thread guide
24	C06191	Thread take-up spring

CORNELY 10 CLOSING OF THE HEAD

CLOSING OF THE HEAD

Ref.No.	Parts No.	Description
1	C13402V	Screw
2	C13402	Closing plate
3	C06574V	Screw
4	C06574	Cover
5	C06176V	Screw
6	C06176	Cover
7	C13201	Bushing
8	C13204	Belt guard
9	C13204V	Screw
10	C13203	Cover
11	C13203V	Screw
12	C13131V	Screw
13	C13131	Cover
14	C06079	Rod guard
15	C06199	Cover
16	C06199V	Screw
17	C06079V	Screw
18	C13130	Cover
19	C13130V	Screw
20	C06199R	Washer
21	C13203R	Washer
- -	0102001	vvasner



PULLER (OPTION)

Ref.No.	Parts No.	Description
Live	•	
1	Z21260	Roller
2	Z21270	Piston
3	Z21280	Spring
4	Z21211	Washer
5	Z23100	Rest
6	Z21200	Washer
7	Z23121	Wedge
8	Z21240	Rest
9	Z21190	Feed ring
10	C13103V	Screw
11	C13103	Feed frame
12	Z07710	Screw
13	C13102R	Washer
14	C13105	Bearing
15	C13104	Bearing holder .
16	C13104V	Screw
17	C13101E	Nut
18	C13100	Rod
19	C13100V	Screw
20	C13101	Rod
21	Z23250	Socket
22	Z23230R	Washer
23	Z23230V	Screw
24	C13102	Base
25	C13108V	Screw
26	C13111V	Screw
27	C13112	Shaft
28	C13125	Shaft
29	C13132	Lever
30	C13126	Bushing
31 32	C13120	Bar guide
33	C13123 C13122	Shaft holder
33 34	C13122 C13128	Presser regulating screw
35	C13126	Bushing
36	C13127 C13120V	Spring Screw
37	C13120V C13123R	Washer
38	C13123K	Screw
39	C13123V C13123VL	Screw
40	C13123VL C13111	Lever
41	C13111	Screw
42	C13112V C13113	Rubber Rol
43	C13113	Shaft
43 44	C13110	Telescoping joints
45	C13108	Shaft
46	C13107	Screw
47	C13102VC	Screw
48	C13102VC	Screw
70	010102V	

CORNELY 10 ACCESSOIRES			
PART NR	DESCRIPTION	NUMB	Z. T.
	TMESTED	1	*
10101	TWEEZER	1	*
10105	WRENCH DIN- 911- 5mm		*
10106	WRENCH DIN- 911- 4mm	1	
10107	WRENCH DIN- 911- 3mm	1 1	
10108	WRENCH DIN- 911- 2.5mm	1 1	*
10109	WRENCH DIN- 911- 2mm	1	*
10110	1 L OIL		*
B10030A	SMALL PEDAL	1 1	BATI
B10033	CHAINE	1	BATI
B10034	CHAINE-HOOK	2	BATI
BAZ11S	PUFFERS	- 2	BATI
C.01322	BENT TWEEZER	1	*
C.01325D	AXIS BOBBIN WINDER MAC 10	1	*
C.06327	CARTER	1	*
C.06327R	DOORVOERTULE TRP ZWART	1	*
C.06386	PUMP	1	*
C.0727F /0.9	NEEDLE 0.9mm	10	*
C.07568	BOBBIN	6	*
C.10501	BOBBIN CARRIER 3 THREADS	1	*
C13201	HOLDER BELT PROTECTION	2	MON
C13203	LID BELT PROTECTION	1	MON
C13204	BELT PROTECTION	1	MON
SET Z817520	HINGE ASSEMBLY	2	*
SET Z827800	BOBBIN ASSEMBLY	1	*
SET Z827840	STOP	1	*
Z27650	BURETTE	1	*
Z27690	SCREWDRIVER	1	*

22/04/02

INDEX

Needle Roller	2	
	1	40
	3	18
Roller	6	25
Screw	5	25
		1
		11
		8
		9
		18
		25
		25
		23
		3
		. 18
		4
* 		2
	···	29
		3
		28
		1
		30
		21
		31
		33
		2
· · · · · · · · · · · · · · · · · · ·		32
		27
Bushing		29
		22
		28
		30
		40
		32
		10
		9
		25
		24
		21
		2
		5
 		3
		13
	Screw Screw Screw Screw Nut Nut Nut Screw Screw Feeddog Main shaft Plate for crank Plate for crank Screw Screw Screw Screw Crank Yarn take-up lever Lever Pin Take - up shaft Screw Gabe-hook bar Presser adjusting screw Bushing Spring Presser bare bracket Screw Lever Releaser Screw Gabe-hook body Plate Screw Cam Puncher bar	Screw 5 Hinge screw 2 Screw 2 Nut 5 Nut 7 Screw 4 Screw 4 Feeddog 7 Main shaft 1 Plate for crank 1 Plate for crank 2 Screw 1 Screw 2 Screw 1 Crank 2 Yarn take-up lever 2 Lever 2 Pin 2 Take - up shaft 2 Screw 2 Gabe-hook bar 5 Presser adjusting screw 5 Bushing 5 Spring 5 Presser bare bracket 5 Screw 5 Bracket guide 5 Screw 5 Releaser 5 Screw 5 Gabe-hook body 5 Plate

Parts No.	Description.	Page No.	Ref.No
	1	4	14
C06042	Bushing	4	4
06042	Bushing	4	2
06043	Puncher holder	4	15
C06044	Cage for driving bar	4	16
C06044V	Screw	4	21
C06045A	Lever Shaft	4	19
C06045B	Lever	4	22
C06045BV	Screw	4	12
C06046	Bushing	4	5
C06047	Thrust collar	4	26
C06047V	Screw	4	17
C06051	Center bearing-plate	4	7
C06052	Lever of puncher	4 4	8
C06052V	Screw		10
C06052VC	Screw	4	26
C06053	Puncher driving rod	1	
C06053	Puncher driving rod	4	<u> </u>
C06055	Connecting rod	2	24
C06056	Shaft for needle driving	2	23
C06056V	Screw	2	22
C06057	Slide block	2	25
C06058	Needle bar guide	2	27
C06058V	Screw	2	26
C06060	Bar for needle holder	2	5
C06062	Upper bushing needle holder	2	1
C06063	Lower bushing needle holder	2	3
C06066V	Screw	2	16
C06067	Needle holder shaft	2	20
C06067E	Nut	2	7
C06068	Front piercer holder	2	13
C06068V	Screw	2	15
C06069	Front piercer	2	14
C06070	Thread guide	2	8
C06071	Shaft	3	6 .
C06072	Guiding nut	3	5
C06073	Driving lever	3	7_
C06074	Driving lever	3	4
C06075	Rod for driving needle (right)	3	9
C06076	Rod for driving needle (left)	3	39
C06077	Bushing guide	3	42
C06077V	Screw	3	11_
C06079	Rod guard	10	14
C06079V	Screw	10	17
C06080	Rod	. 3	10
C06081	Shaft guide	3	38
C06081V	Screw	3	11

Parts No.	Description.	Page No.	Ref.No
C06082	Block washer	3	12
C06084	Back-nut pin	3	34
C06084V	Screw	3	35
C06085	Lever sector	3	13
C06085R	Washer	3	50
C06085V	Stop screw	3	33
C06085VL	Screw	3	21
C06086	Shaft of sector lever	3	14
C06087	Bushing	3	15
C06087	Bushing	6	33
C06087	Bushing	7	13
C06088	Thrust collar	3	16
C06088	Thrust collar	6	35
C06088	Thrust collar	8	35
C06088V	Screw	3	17
C06088V	Screw	6	26
C06088V	Screw	8	24
C06091	Lever	3	28
C06092	Screw	3	23
C06092	Screw	6	5
C06092E	Nut	3	51
C06092E	Nut	6	1
C06093	Shaft bushing	3	24
C06094B	Thrust ring	3	27
C06094BV	Screw	3	26
C06095	Regulator schaft	3	20
C06095V	Screw	3	18
C06096	Gear	1	10
C06096V	Screw	1	24
C06100V	Screw	6	12
C06105	Bushing	6	10
C06107	Shaft bushing	6	4
C06109	Driving rod	6	8
C06109R	Washer	6	7
C06109V	Screw	6	6
C06109VL	Screw	6	24
C06111V	Screw	6	32
C06112	Lever shaft	6	34
C06146	Feed rock shaft crank	7	4
C06146V	Screw	7	3
C06147B	Feed rock shaft	7	5
C06148	Feed bar	7	10
C06148A	Feed bar base	7	9
C06148E	Nut	7	34
C06148V	Screw	7	35
C06149V	Screw	7	24

Parts No.	Description.	Page No.	Ref.No
C064E2	Food lifting rook shoft	7	21
C06152 C06153	Feed lifting rock shaft Feed lifting crank	7	16
		7	33
C06153V	Screw	7	
C06154	Slide block	7	32
C06155	Screw		19
C06156	Taper center	7	2
C06156V	Screw	7	1
C06157	Lifting lever	5	34
C06158	Joint	5	17
C06159	Stop plate	5	33
C06160	Feed bar shaft	7	15
C06161	Swivel	5	35
C06162	Spring	5	16
C06163	Thrust collar	5	14
C06163V	Screw	5	38
C06164N	Lever	5	18
C06165	Stud	4	9
C06165	Stud	5	20
C06165V	Screw	5	37
C06176	Cover	10	6
C06176V	Screw	10	5
C06183	Thread guide	9	23
C06183V	Screw	9	5
C06183V	Screw	9	8
C06184	Ring	9	10
C06185	Bushing	9	9
C06186	Spring	9	7
C06188	Tension post	9	19
C06189	Thread tension post socket	9	22
C06189V	Screw	9	3
C06190	Thread take-up spring	9	13
C06191	Thread take-up spring	9	24
C06192	Tension release pin	9	4
C06193	Tension release pin	9	20
C06194	Tension disc	9	18
C06195	Tension roller	9	14
C06197	Tension spring	9	16
C06199	Cover	10	15
C06199R	Washer	10	20
C06199V	Screw	10	16
C06201	Slide plate	7	31
C06201	Slide plate	7	
C06202	Feed bar crank		25
-		7	7
C06205V	Screw	7	8
C06205VC	Screw	7	6
C06213	Releaser	8	13

Parts No.	Description.	Page No.	Ref.No
C06214	Slide block	8	15
C06215	Position ring	8	16
C06215V	Screw	8	7
C06217	Hook assembly	8	23
C06223	Bobbin case	8	36
C06227	Needle plate	7	27
C06228	Needle guide		29
C06230	Needle guard washer	8	6
C06241	Cap screw	2	4
C06246	Washer	2	6
C06246	Washer	2	10
c06246	Washer	2	11
C06246	Washer	5	7
C06247	Fixing screw	3	3
C06248	Screw	3	2
C06248	Screw	3	40
C06249	Screw	2	19
C06252	Screw	3	43
C06253	Washer	3	36
C06253B	Washer	6	2
C06256	Screw	6	23
C06257	Nut	6	22
C06264	Hinge screw	6	20
C06264	Hinge screw	7	23
C06265	Nut	7	22
C06267	Hinge screw	5	12
C06269	Screw	7	17
C06274	Screw	8	26
C06275	Washer	8	25
C06277	Screw of needle guide	7	28
C06278	Screw	7	26
C06281	Screw of needle guide	7	30
C06282	Screw	8	5
C06285	Thread guide	9	2
C06285V	Screw	9	21
C06286B	Thread guide	9	1
C06287	Tension spring	8	2
C06288A	Screw	8	12
C06288B	Screw	8	<u>; </u>
C06288C	Screw	8	4
C06314	Lubricator	6	36
C06314	Lubricator	3	45
C06349	Bushing	8	28
C06351/6352	GEAR ASSEMBLY	8	38
C06351V	Screw	8	10
C06352V	Screw	8	37

Parts No.	Description.	Page No.	Ref.No
000050\/0	10	8	20
C06352VC	Screw	8	14
C06354	Shaft	8	17
C06355-6	Hook holder	8	8
C06355-6V	Screw	8	19
C06360	Gear protection	8	18
C06360V	Screw	6	14
C06375	Nut	10	4
C06574	Cover	10	3
C06574V	Screw	5	31
C06849	Releaser	5	23
C06849V	Screw	1	25
C07523	Eccentric	1	9
C07523V	Screw		3
C07568	Bobbin	8	17
C08128	Tension disc washer	9 9	15
C08130	Tension nut		13
C13100	Rod	11	
C13100V	Screw	11	19
C13101	Rod	11	20
C13101E	Nut	11	17
C13102	Base	11	24
C13102R	Washer	11	13
C13102V	Screw	11	48
C13102VC	Screw	11	47
C13102VL	Screw	11	46
C13103	Feed frame	11	11
C13103V	Screw		10
C13104	Bearing holder	11	15
C13104V	Screw	11	16
C13105	Bearing	11	14
C13107	Shaft	11	45
C13108	Telescoping joints	11	44
C13108V	Screw	11	25
C13110	Shaft	11	43
C13111	Lever	11	40
C13111V	Screw	11	26
C13112	Shaft		27
C13112V	Screw		41
C13113	Rubber Rol		42
C13120	Bar guide	11	31
C13120V	Screw		36
C13122	Presser regulating screw	11	33
C13123	Shaft holder	11	32
C13123R	Washer	11	37
C13123V	Screw	11	38
C13123VL	Screw	11	39

Parts No.	Description.	Page N	lo. Ref.No
C13125	Shaft		-
C13126	Bushing		28
C13127	Spring		30
C13128	Bushing		35
C13130	Cover	11	34
C13130V	Screw		18
C13131	Cover		19
C13131V	Screw		13
C13132	Lever		12
C13155V	Screw		29
C13155V	Screw	3	8
C13159V	Screw	3	41
C13162	Counter-weight	9	12
C13162V	Screw	1	28
C13163	Cam assembly	1	29
C13164	Regulator shaft	6	38
C13166	Shaft	6	37
C13168	Hinge screw	6	21
C13168	Hinge screw	5	39
C13168	Hinge screw	3	49
C13200	Pulley holder	3	49
C13200V	Screw	1_	19
C13200VL	Screw	11	15
C13201	Bushing	1	16
C13203	Cover	10	7
C13203R	Washer		10
C13203V	Screw	10	21
C13204	Belt guard	10	11
C13204V	Screw	10	8
C13206	Pulley	10	9
C13206V	Screw	1111	18
C13350V	Screw	1	17
C13351V	Screw	8	22
213352	Pulley	8	32
213352V	Screw	8	34
13353	Pulley	8	29
13353V	Screw	1111	22
13354	Bushing	1111	12
13354V	Screw	11	21
13355	Bushing	111	13
13355V	Screw	1111	8
13356V	Screw	1	27
13357V	Screw	11	20
13359	Bearing	1	5
13360	Shaft	1	7
13361	Belt	8	27
	·	1	23

Parts No.	Description.	Page No.	Ref.No
042264	Belt	8	30
C13361 C13363		1	11
	Snap ring Snap ring	8	31
C13363	Connection lever	6	41
C13365	Screw	6	42
C13365V	Roller shaft	3	47
C13366 C13366	Roller shaft	6	39
	Nut	3	48
C13366E	Nut	6	40
C13366E	 	6	45
C13367	Hinge screw	6	29
C13368	Hinge screw	3	46
C13369	Big lever	3	46
C13369	Big lever	4	24
C13373	Shaft	4	25
C13373E	Nut	10	2
C13402	Closing plate	9	. 6
C13402	Closing plate	10	1
C13402V	Screw	5	41
SETC06027	Gabe-hook assembly	5	4
	Righthand shoe assembly	5	6
SETC06036B			17
SETC06065	Set holders for needles	6	
SETC06114	Driving rod		43
SETC13152	Connection rod complete	6	3_
SETC13159	Thread guide	9	11
SETC13350	Bushing	8	11_
SETC13351	Bushing	8	33
SETC13356	Bushing	1	14
SETC13357	Bushing	11	6
Z07710	Screw	11	12
Z21190	Feed ring	11	9
Z21200	Washer	11	6
Z21211	Washer	11	4
Z21240	Rest	11	8
Z21260	Roller	11	1
Z21270	Piston	11	2
Z21280	Spring	11	3
Z23100	Rest	11	5
Z23121	Wedge	11	7
Z23230R	Washer	11	22
Z23230V	Screw	11	23
Z23250	Socket	11	21
#REF!	#REF!	8	#REF
#REF!	#REF!	8	#REF