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Dear Housewife,

At last you are the proud owner of the much longed for Sewing Machine.

The machine was explained to you in detail, and you are now looking forward with much pleasure to the great variety of work that can be performed on it.

Although everything is still quite clear to you, it is possible that in time some of the directions given to you for making the various adjustments may escape your memory – because, it is unlikely that you will immediately try your hand at all the different sewing work which your machine can do.

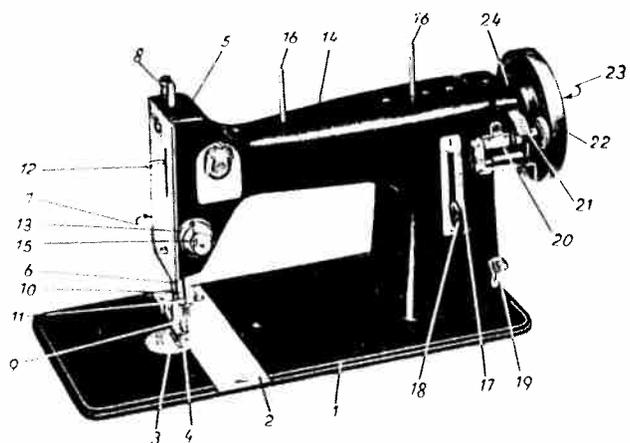
We have therefore prepared this informative Book of Instructions, and hope you will find it a useful guide. Before using your machine we advise you to glance briefly at the pages of this booklet, so that you will have a rough idea of its contents. This will help you when reverting later on to any one of the chapters.

It is a good plan to open out to the left page 1; the information given on that page should be read in conjunction with the contents of the book. The various parts named in the text are clearly marked and numbered in page 1. The illustrations shown on pages 2 and 3 are also provided for greater clarity and understanding of these instructions.

Moreover, your attention is drawn particularly to chapters 1, 2 and 5. After reading these you will have become thoroughly acquainted with the working principle of your sewing machine; you will look upon it as a living thing that has been placed under your care and protection.

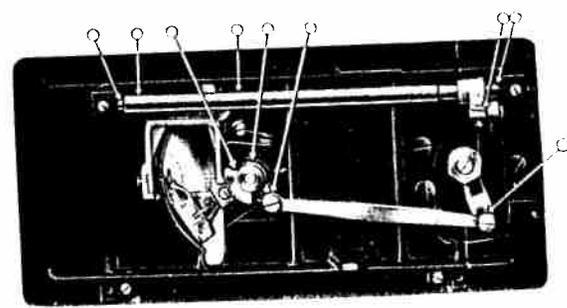
The more you understand your machine, and what you can do with it, the greater will be your appreciation of its scope.

The Sewing Machine Head (Front View)

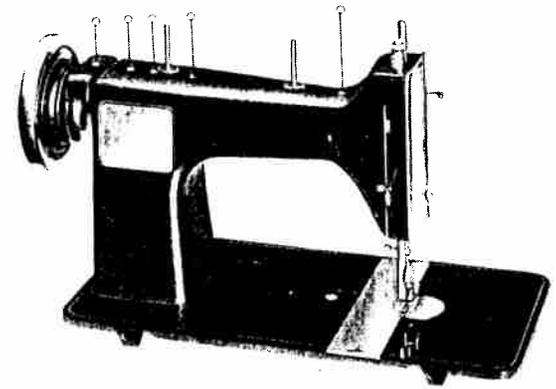


- | | |
|-----------------------------------|---|
| 1 Bedplate | 13 Regulator Spring |
| 2 Bedplate Slide | 14 Arm |
| 3 Needle Plate | 15 Upper Thread Tension |
| 4 Feed Dog | 16 Spool Pins |
| 5 Head | 17 Scale for setting to required
Stitch Length |
| 6 Presser Bar | 18 Stitch Regulating Lever |
| 7 Presser Bar Lifter | 19 Bobbin Winder Thread Tension |
| 8 Presser Bar Adjustment
Screw | 20 Winder |
| 9 Presser Foot | 21 Lever for Winder Action |
| 10 Needle Bar | 22 Balance Wheel |
| 11 Needle Clamp | 23 Stop Motion Screw |
| 12 Thread Take-Up Lever | 24 Belt Track |

The Sewing Machine Head (View of Underside)



The Sewing Machine Head (Rear View)



○ = Oiling Points

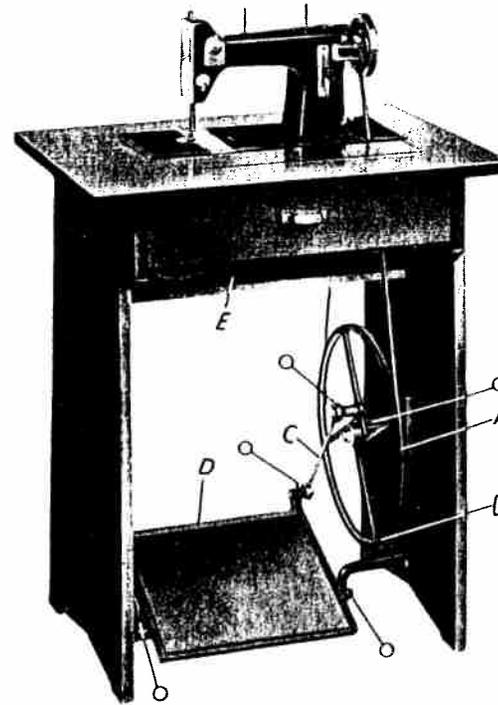
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The Standard Equipment of the machine includes:

- 1 Standard Presser Foot No. 552
 - 1 Edger No. 153 a
 - *1 Guide No. 535 a
 - *1 Thumb Screw No. 10 433
 - **2 Hemmers (No. GK 827 – narrow; and No. GK 824 – a little wider)
 - 1 Feller No. GK 823
 - *1 Quilting Guide No. 101; 1 Holder No. Z-1016
 - *1 Feed Cover Plate for Darning, No. GK 4465
 - 5 Bobbins No. 828
 - 1 Packet of assorted Machine Sewing Needles, System No. 705
 - 2 Screwdrivers
 - 1 Bottle Sewing Machine Oil
 - 1 Oil Can
 - 1 Threader No. 188
 - *1 Thread Take-Up Spring No. 761 (Spare)
 - 1 Book of Instructions
- * upon request and a additional charge
 ** Hemmer No. GK 827 – narrow, only upon request and at additional charge

The Sewing Machine Stand



- | | |
|------------------------------|---|
| A Band Wheel | D Treadle |
| B Bell Shifter | E Compartment for housing Machine Head when lowered |
| C Bandwheel Crank and Pitman | |

Important hints

Sewing Machine Oil and Needles are best purchased from a Sewing Machine Expert Dealer, or from the Suppliers of your machine. Never use just any kind of lubricating oil – if you do, it will gum the working parts of your machine.

The system number of the sewing needle to be used on the machine is 705; this number is stamped on the bedplate slide of your machine.

If it is necessary to have your machine repaired, please let only sewing machine experts do the work.

Relative Needle sizes and thread numbers:

Class of Work	Thread No.	Needle No.
Fine Linen and Cotton Goods	60-100	60-70
Medium-Weight Linen and Cotton Goods	40-60	70-90
Heavy Woollen Goods, Fine Leather, Corsets	30-40	90-110

Before sewing exceptionally heavy or very fine texture materials, try out the needle and thread on a remnant. For the under thread (bobbin thread) preferably use a slightly softer and finer thread than for the upper thread. For the under thread (bobbin thread) preferably use a silk; for work of this kind the upper and under thread should be alike.

We recommend that for darning, cotton No. 50 be used for the upper and under thread, together with needle No. 60-70.

The Treadle Mechanism

Lift the sewing head from its compartment, and place the open belt over the balance wheel. Draw both ends of the belt through the holes in the bedplate and compartment. The belt end at the back must then be taken between the pitman and the bandwheel, and be brought to the front where both ends are then hooked together, and firmly joined by means of flattening the metal connection with the aid of pliers. Next, place the belt under the belt shifter, turn the bandwheel over towards you, and let the belt mount the wheel. When wishing to drop the Sewing Machine Head out of the way turn the bandwheel over towards you, and, at the same time, press the belt to the right so that it will come off the wheel.

Treadling

When practising treadling, leave the machine unthreaded, and, so long as there is no material under the presser foot, the presser bar must be kept in the lifted position, otherwise the teeth of the feed dog will get blunted. Place both feet, side by side, on the treadle. With your right hand turn the balance wheel over towards you, and start treadling with an even rhythm. An even pressure should be exerted alternately by your toes and heels in order to obtain steady running of the machine.

Setting the Needle

Raise the needle bar to its highest, lower the presser bar, and take the needle between thumb and forefinger of your left hand, making sure that the flat on the shank of the needle is to the right, and the long groove to the left. Now insert the needle into the needle clamp, as far up as it will go. Finally, with your right hand tighten the thumb screw on the needle clamp.

Attaching the Presser Foot



Fig. 1

For all normal sewing work use the standard presser foot No. 552, (Fig. 1). Raise the needle to its highest point, and lift the presser bar lifter. Take the presser foot with your right hand and from below push it on to the presser bar, against the screw. First tighten the screw with your left hand, and then use a screw-driver for final tightening.

Upper Threading

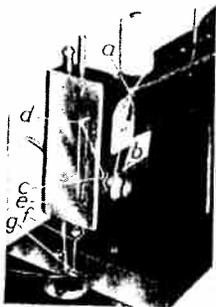


Fig. 2

Place a reel of cotton on the spool pin (Fig. 2), and draw the thread through guide *a*, then down and to the left between the tension discs *b*, then under the regulator spring *c* and up, then from front to back through the thread take-up lever *d*, down and behind thread guide *e*, through the eyelet *f* on needle clamp, and finally from left to right through the eye of the needle *g*.

Under Threading

Removing the Shuttle and Bobbin: Pull out the bedplate slide to the front, as far as it will go. Turn the balance wheel over towards you until the shuttle is right in front of you. Press to the right the small latch fitted to the shuttle carrier (Fig. 3), thus releasing the shuttle and

allowing it to rise slightly. In this raised position the shuttle can easily be taken out. Turn the shuttle up-side-down, and let the bobbin fall into your hand.

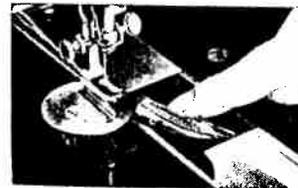


Fig. 3

Before winding the thread on to the bobbin the sewing mechanism must be put out of action. This is done by holding the balance wheel with your left hand and loosening the stop motion screw, which is fitted in the centre of the balance wheel, with your right hand, by turning the screw outwards, as far as it will go. Next draw the thread from the reel mounted on spool pin through guide *a* - see Fig. 4, through the winder thread tension *b*, and then insert the end of the thread through one of the small holes in the shoulder of the bobbin. When inserting the bobbin into the bobbin winder, make sure that the small centre on bobbin plate is on the left. The left winder bearing can be pressed outwards by

means of lever *n*, to enable easy insertion of the bobbin. As soon as the bobbin has been correctly positioned the bearing is drawn inwards by the action of a spring, thus firmly retaining the bobbin in position. Now press lever *n*, to bring the winder into contact with the balance wheel, and set the latter into motion by turning it towards you, and commence treadling. The winder stops automatically as soon as the bobbin is fully loaded. Finally the stop motion screw must be retightened in order to restore the connection with the stitch-forming mechanism.

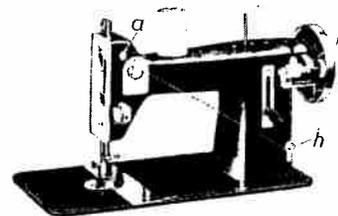


Fig. 4



Fig. 5

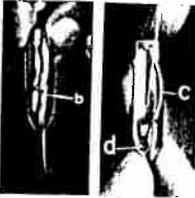


Fig. 6

Fig. 7

Threading the Shuttle

Take the shuttle, point down, into your left hand and with your right hand insert the bobbin, also with its point down, from above into the shuttle, so that the thread left-off is from left to right (Fig. 5). Draw the thread through the slot *a*, which is near the edge of the shuttle, and then to the delivery hole *b* near the point of the shuttle – see Fig. 6. From there take the thread under the spring *c*, and up again, as shown in Fig. 7. The shuttle is properly threaded if the thread can be drawn out freely.

Replacing the Shuttle

When returning the Shuttle to the machine make sure that the small spring is on top, and the point turned towards you.

Drawing the Under Thread through the Needle Plate

Hold the end of the upper thread, leaving the thread slack. Turn the balance wheel over towards you to let the needle travel down and up again to its highest point. In doing so it will loop the under thread and draw it up through the needle plate (Fig. 8). The end of the thread can then be drawn out fully, and, together with the upper thread, be placed under and behind the presser foot.



Fig. 8

General

For all normal sewing work use standard presser foot, No. 552. Move the thread take-up lever to its highest point. Place the material under the presser foot, lower the presser bar lifter, and start to sew. Do not pull the material, but only guide it. After you have practised sufficiently on some remnants, make a few stitch runs to test the stitch length and the thread tension, to ensure that they are satisfactory and suitable for the fabric to be sewn.

When sewing hard or thick parts of the material, or when stitching across seams, assist the needle by carefully turning the balance wheel with your hand. This will prevent the needle from bending or breaking. Before sewing the corner of a seam draw with a hand sewing needle a thread through the material, and then sew along one edge. Turn the corner (lift the presser bar before turning, and then lower it again), and continue to sew while holding both ends of the tacking thread. This way any stoppage which, otherwise, can easily occur will be prevented.

Adjusting the Length of Stitch

The machine has in front – on the right – a stitch regulating lever *a* (Fig. 9) to which is fitted a knob *b* with which the required stitch length can be set on the scale *c*. "0" on the scale indicates neutral position. You increase the stitch by turning the knob anti-clockwise and pushing the lever downwards. To decrease the length of stitch you must pull the lever up towards "0". After each setting you must slightly tighten the

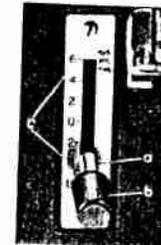


Fig. 9

knob by turning it in a clockwise direction. If you wish to do reverse sewing you must first push the lever passed "0" and right up to the top.

Regulating the Thread Tensions

The upper thread tension is regulated by turning the thumb nut of the thread tension discs. Clockwise turning will increase the tension; anti-clockwise adjustment will reduce it.

The under thread tension is regulated by turning the small screw *d* (Fig. 7) with the aid of a screwdriver. Here, too, the tension increases when adjusting clockwise, and decreases when adjusting anti-clockwise.



Fig. 10



Fig. 11



Fig. 12

Usually any incorrect tension will be experienced on the upper thread. Therefore, any necessary alteration should be carried out there first, but, should this not bring about an improvement, the under thread tension should be adjusted.

Satisfactory stitching can be obtained only if upper and under thread tensions are correct.

After you have sewn a few inches check the stitching on top and underneath. The tensions are satisfactory if both threads are drawn in equally and lock in the centre of the work (Fig. 10).

If however stitches loop on the underside of the work (Fig. 11) the upper thread is too slack, and must be given more tension by turning the thumb nut to the right, i. e. in a clockwise direction. If after adjusting the upper thread tension the loops continue to be formed on the underside of the material, it is possible that the under thread has been tensioned too severely, and you must slacken it off a little by turning the small screw *d* (Fig. 7) slightly to the left, i. e. in an anti-clockwise direction.

Loops forming on top of the material (Fig. 12) may be owing to excessive upper thread tension. Correct the tension by turning the thumb nut on tension discs to the left.

Only if none of the above-named adjustments corrects the stitch-forming, should the under thread be given more tension, by turning the screw *d* (Fig. 7) to the right.

Regulating the Pressure on Material

The presser bar is set at normal pressure which will be found satisfactory and ensure a steady feed when working on light and medium weight materials. Only when sewing exceptionally heavy or hard materials is greater pressure required. To increase the pressure the adjustment screw on top of the bar must be turned clockwise. Anti-clockwise adjustment reduces the pressure.

Removing the Work from the Machine

Move the needle to its highest point, raise the presser bar lifter, and draw the material to the back, clear of the needle. Now sever the threads, leaving them about 3" long at the back of the presser foot, and ready for the next sewing.

Edge Stitching

Foot No. Z-153 a (Edger). Guide No. 535 a. Thumb Screw No. 10 433 (Fig. 13).

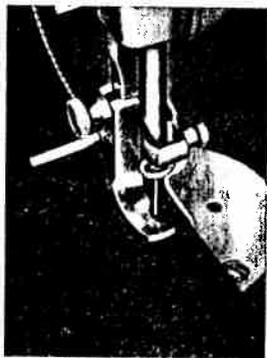


Fig. 13

With the guide you can set the distance from the edge of the material to the line of stitching which, when working on wide and long seams, is of great advantage. This foot is also very suitable for attaching zip fasteners, or for laying several stitch lines closely side by side; but, in either case, the guide must not be used, because it will be in the way.

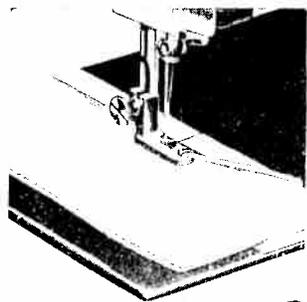


Fig. 14

Narrow Hems

No. GK 824 and No. GK 827 (Fig. 14).

Fold over to the wrong side the edge of the fabric, making a fold about $\frac{1}{8}$ " wide. At the commencement of the material insert a pin or attach a thread and with it draw the material into the curl of the hemmer where

it is automatically turned under twice. Lower the presser bar and commence to sew carefully. Allow the material to feed freely into the hemmer without, however, overfilling the curl. Foot GK 827 is very suitable for fine texture materials, but for heavier materials it is recommended that you use hemmer foot No. GK 824.

Felling

Foot No. GK 823 (Fig. 15)

Lay the two pieces of material one over the other, with the lower projecting about $\frac{1}{8}$ " to the right. Pin both pieces together at the commencement, and insert the material into the slotted mouth of the feller. The lower piece of cloth is sewn down flat over the upper piece. Next, open up the cloth and run the raised seam once more through the feller, sewing the edge down flat.

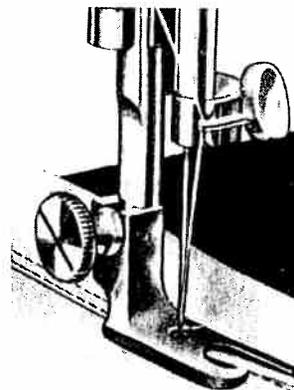


Fig. 15

Quilting

Standard Presser Foot No. 552; Quilting Guide No. 101; Holder No. Z-1016 (Fig. 16).

Padded material can be sewn effectively with the aid of quilting guide No. 101, which enables you to lay parallel

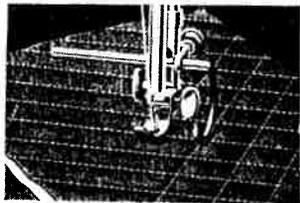


Fig. 16

rows of stitches in any desired direction, without previously marking the material. Fix the quilter guide support over the presser bar so that it is immediately above the foot and encircles it. Now push the straight guide rod from

right to left through the holes in the bow, and tighten the screws. Make your first row of stitches, then move the material to the right to give the required spacing between first and second stitch row. When making your second row of stitches let the guide glide over the first line of stitches, i. e. after you have adjusted the guide to give the desired spacing. The second row then acts as a guide for the third and fourth row, etc.

Feed Cover Plate
(Darning Plate) No. GK 4465
(Fig. 17).
Embroidery Hoop.
No Presser Foot.

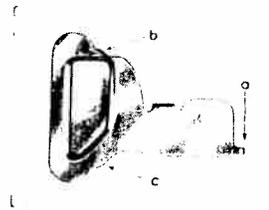


Fig. 17

Open the front and rear bedplate slides, take the darning plate in your right hand, and place it next to the slide with the small lug *a* inserted into the left hole in bedplate slide. Swivel the darning plate anti-clockwise until it covers the needle plate, and the small catches *b* and *c* clip over the plate. Then close both bedplate slides.

Move the stitch regulating lever to "0", and lower the presser bar lifter. Draw the part to be darned over the hoop, and place the work under the needle. Draw the under thread upwards through the material and hold the ends of both threads while you make the first few stitches. Start the line of stitches about 1/4" from the left edge of the hole. Work the machine fast and with an even rhythm, and, at the same time, move the hoop steadily to and fro under the needle, laying the stitches closely side by side across the hole, and about 1/4" beyond the right edge. At the start and finish of each stitch line make 1 or 2 cross-stitches, to ensure the lines are laid parallel.

Continue in the same manner across the first lines of stitching, until the hole is completely mended.

Rents and badly worn edges on collars and cuffs can be darned without the aid of the darning plate and without employing the darning hoop. For this class of work you can use the standard presser foot. This is possible because collars and cuffs are usually made of 2-3 layers of cloth. Set the stitch regulating lever for a short stitch, and place the stitch lines close together, moving the lever up and down to obtain alternately forward and reverse sewing.

To keep the machine at a high pitch of efficiency good care must be taken of it. Mere dusting of the machine surface will not suffice. Fluff, thread ends, and dust settle in the working mechanism where they combine with the lubricating oil, and gradually form into small lumps which interfere with the smooth running of the machine.

It is necessary therefore to give all parts specified hereafter a regular, thorough cleaning. Never use for cleaning metal instruments, such as scissors, screwdrivers or needles. If you do, you may accidentally damage the delicate stitch forming mechanism. It is best that you take a small wooden stick, point it, and wrap round the point a piece of soft, smooth material.

After you have wiped all parts clean, oil them. Use only best grade sewing machine oil which contains neither resin nor acid, and is crystal clear. A few drops at the right places will prove ample.

After oiling, treadle the machine rapidly for a minute or two, but first make sure that the needle is not threaded, and that the presser bar lifter is raised, to enable the oil to flow to every working part of the mechanism. After this short run let the machine stand idle for a short while, and, before working it again, carefully wipe away all superfluous oil.

If the machine has not been used for any length of time, or, if you have used it continuously thus rendering thorough cleaning necessary, first of all apply a few drops

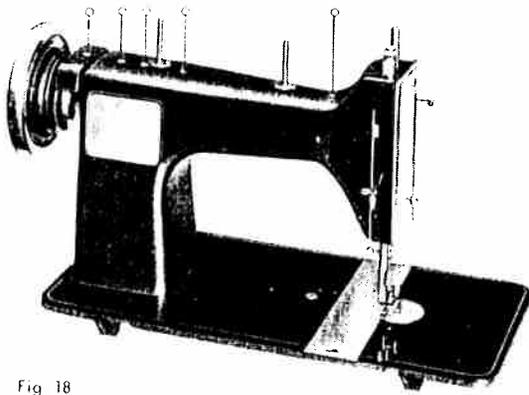


Fig 18

of paraffin to the lubrication points. Then work the machine rapidly (see above), wipe all parts, and apply a film of fresh oil.

All points marked thus "o" on the adjacent illustrations must be cleaned and oiled in proper sequence.

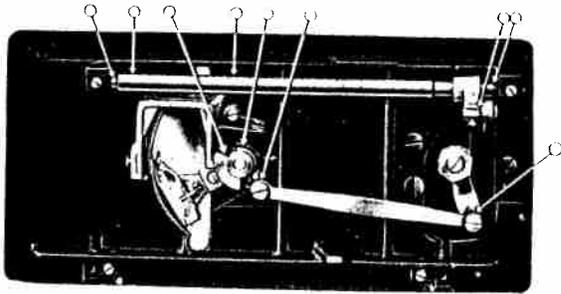


Fig 19

1. The Head (Fig. 18, page 18), after slackening off the retaining screw and removing the head cover plate.
2. The Arm (Fig. 18, page 18), after slackening off the screw and sliding the nickel-finished plate at the back upwards.
3. The Needle Plate (Fig. page 1), after slackening off the retaining screws and removing the plate.
4. The Shuttle Carrier (Fig. 19, page 18), after raising the needle bar to its highest, removing the shuttle, throwing the strap from the bandwheel, and tilting the head to the back.

Do not forget to retighten all parts after you have attended to cleaning and oiling.

In addition to the above specified parts you must also oil all points marked thus "o" in the illustrations, including the bandwheel and the treadle, and wherever there is movement.

Please always remember: many faults can be remedied merely by cleaning and oiling the machine.

Machine works heavily

1. The driving strap is either too tight or too slack – lengthen or shorten the strap, or, if necessary, fit a new one to the machine.
2. Some of the working parts of the mechanism are dry – apply a few drops of oil to the parts concerned.
3. The machine is dirty – clean it.
4. The machine is gummed owing to the use of unsuitable oil – clean the machine with paraffin.

Machine is noisy

1. Some of the working parts are dry – oil the parts concerned.
2. Screws are loose – tighten them with the aid of a screw-driver.

The Upper Thread breaks

1. Inferior quality, knotty sewing thread breaks easily – use a better quality.
2. The needle is too fine for the thread or fabric used – use a thicker needle (see page 4: “Relative Needle Sizes and Thread Numbers”).
3. The Upper thread tension is too strong – loosen the tension (see page 10: “Regulating the Thread Tensions”).

4. The eye of the needle has a knife edge – change the needle.
5. Dirt and fluff are interfering with the free movement of the feed dog, causing intermittent feeding of the material – remove needle plate and thoroughly clean the feed.
6. The hole in needle plate has developed a rough edge and catches the thread – consult a sewing machine expert.

The Under Thread breaks

1. Inferior quality, knotty sewing thread breaks easily – use a better quality.
2. The tension of shuttle thread is too strong – loosen it (see page 10: “Regulating the Thread Tensions”).
3. The tension of shuttle thread is too weak – tighten the screw (see page 10: “Regulating the Thread Tensions”).
4. The hole in needle plate has developed a rough edge, and catches the thread – consult a sewing machine expert.

Stitches are skipped

1. The needle has been set either too high or too low, or it is bent or blunt – straighten it or use a new needle (see page 5: “Setting the Needle”).
2. The needle is either too thin or too thick for the thread used – change the needle or use a different thread to comply with the details given in the chart on page 4: (“Relative Needle Sizes and Thread Numbers”).

3. The thread curls owing to its being unsuitably spun and glossed for your purpose – change the thread.
4. The needle used is not of the system marked on the bedplate slide of your machine – obtain the correct needle from the suppliers of your machine.

The Needle breaks

1. The needle is wrongly inserted, or it is bent – change it (see page 5: "Setting the Needle").
2. The needle is too fine for the thread or fabric – use a thicker needle (see page 4: "Relative Needle Sizes and Thread Numbers").
3. The upper thread tension is too strong – loosen the tension (see page 10: "Regulating the Thread Tensions").

Faulty Feeding

1. Dirt and fluff are interfering with the free movement of the feed dog, causing intermittent feeding of the material – unscrew needle plate, and thoroughly clean the feed.
2. The stitch length is too small – correct the setting on stitch regulating lever.

The Material puckers

1. Both tensions are too tight – loosen them (see page 10: "Regulating the Thread Tensions").
2. The pressure exerted by the presser bar is too severe – reduce the pressure by turning the pressure adjustment screw anticlockwise.

3. The presser foot has been attached wrongly – reset it to its correct position; (see page 6: "Attaching the Presser Foot"). Tighten the retaining screw with the aid of a screwdriver.

Uneven Stitching

1. The thread is not uniformly spun, or it is too thick – use a different thread.
2. The tension is wrong – regulate the thread tension (see page 10: "Regulating the Thread Tensions").
3. Upper and under thread let-off are unequal owing to a dirty tension disc or clogged shuttle – clean the parts affected.
4. The needle is either blunt or bent – insert a new needle.
5. The shuttle has been threaded incorrectly – remove the bobbin from the shuttle and then replace the former, making sure that the thread is correctly positioned (see page 8: "Under Threading").

If you have any trouble with your sewing machine, in spite of the fact that you have carefully carried out the directions contained in this book, then please get in touch with the suppliers of your machine. They will always be glad to help you.