

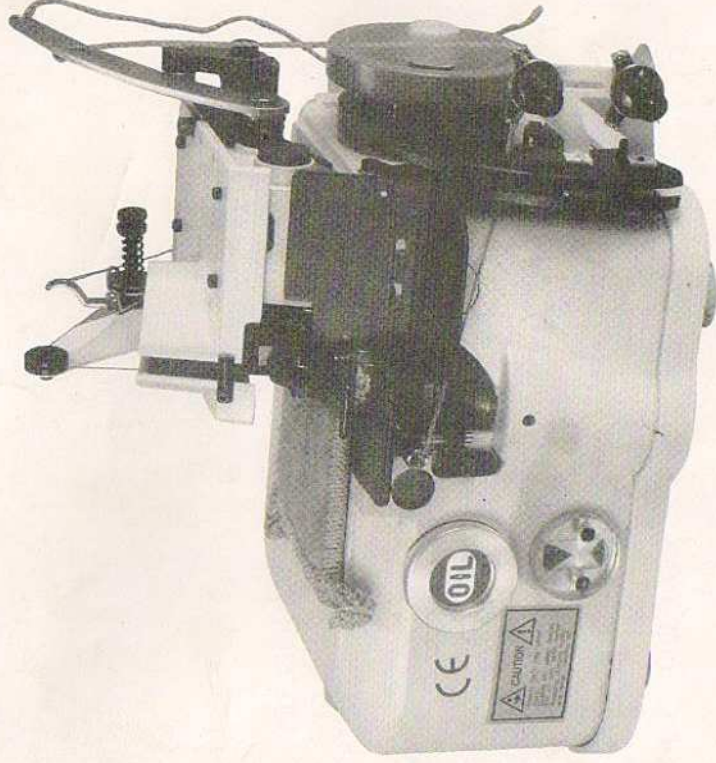
地毯包边机 OVEREDGING MACHINE

用途：一般地毯、毛毯、汽车地毯、小块地毯。

APPLICATIONS : Common Carpets, Blankets, Car Carpets, Small Carpets.

| | |
|-----------|--|
| CM-2502 | 1针2线地毯包边机 One Needle Two Thread Carpet Overedging Machine. |
| CM-2503 | 1针3线地毯包边机 One Needle Three Thread Carpet Overedging Machine. |
| CM-2502-K | 1针2线附切刀地毯包边机 One Needle Two Thread Carpet Overedging Machine with Trimmer. |
| CM-2503-K | 1针3线附切刀地毯包边机 One Needle Three Thread Carpet Overedging Machine with Trimmer. |
| CM-2501-K | 1针附切刀接布头机 One Needle One Thread Carpet Overedging on Abutted Seam Machine with Trimmer. |

使用说明书、零件图册
OPERATION MANUAL、PARTS BOOK



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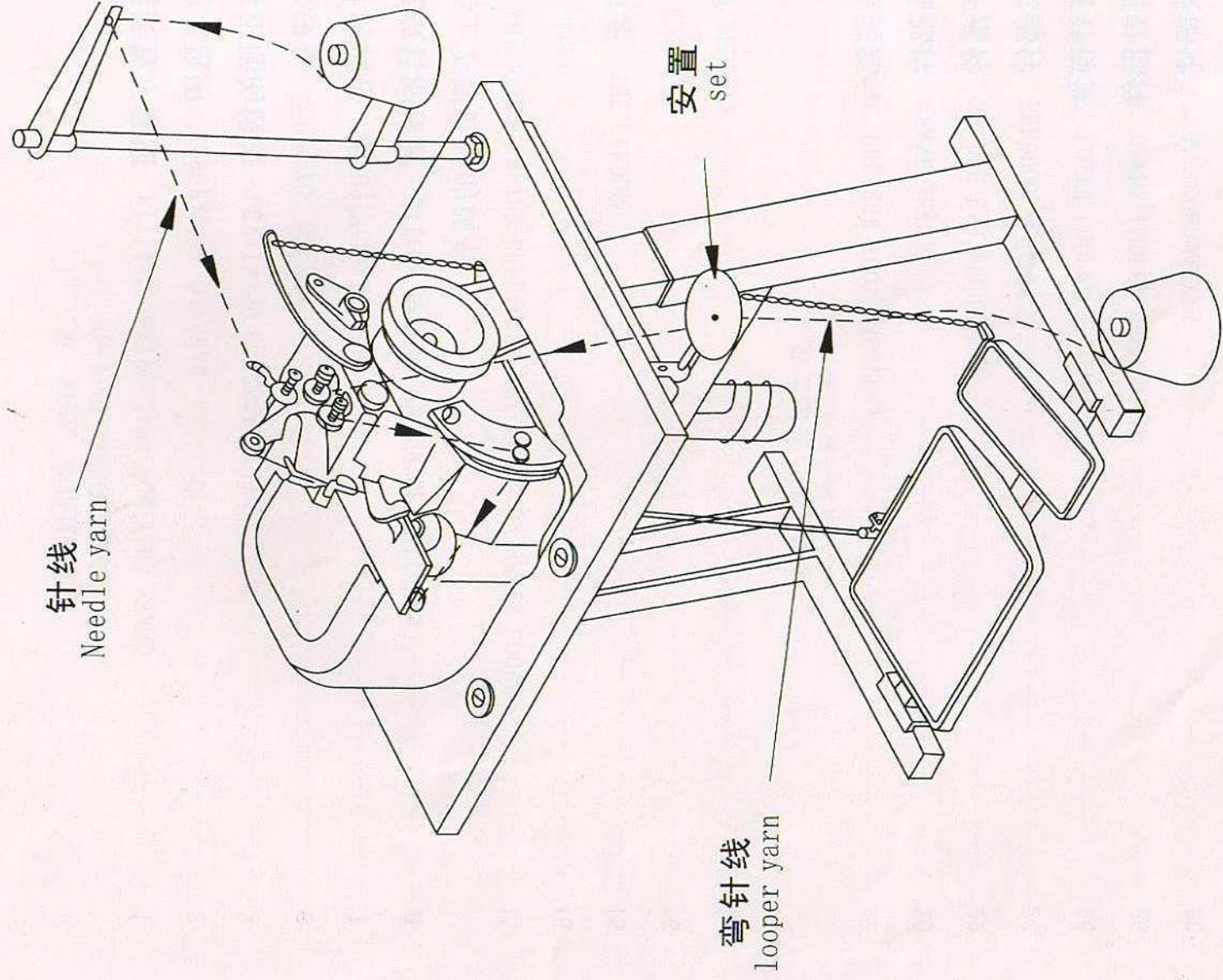
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线架装置示意图

FITTING INSTRUCTION FOR YARN STAND



穿线示意图

THREADING DIAGRAM

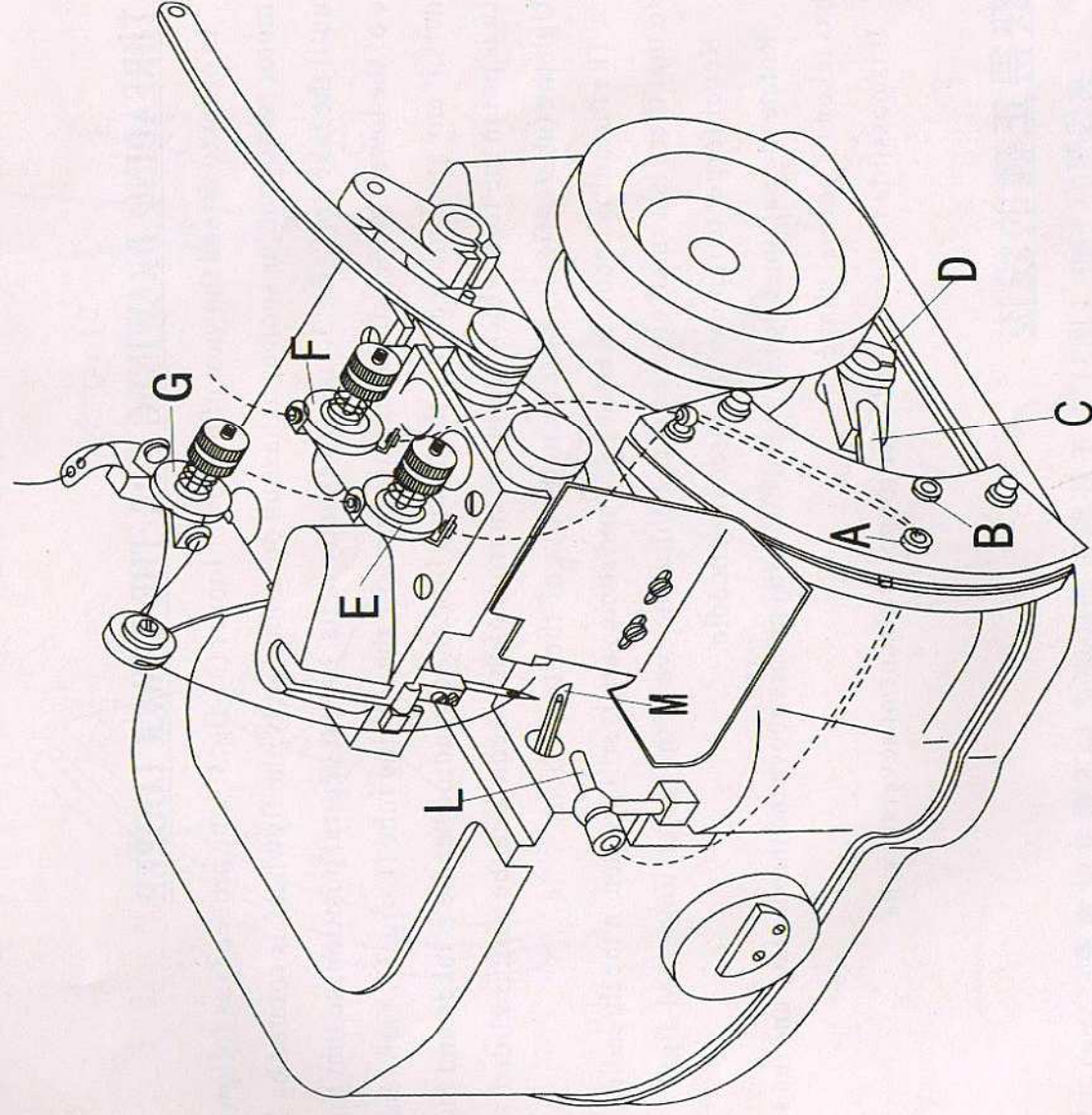


Fig:3

下弯针穿线图

下弯针 (M-图3) 的穿线操作如下：马达完全停止后，用手转动飞轮，直至下弯针正好位于最低的中立位置，这样下弯针的针眼正好对着导管 (C-图3)，如果有剩线，请从导管拿掉，再取下穿线针，把线放到针前的叉上，然后线滑过导管 (L-图3) 正好到下弯针的针眼。

穿线针拿回后，仍会有一些线被压在导管里，这样在下弯针（M-图3）针眼后形成一个小线环，拿掉穿线针，用手转动几次直到线出现在针板上方，而且针脚形状正常。

下弯针一次穿一根或几根线都可以。

THREADING DRAWING FOR THE LOWER LOOPER

In order to thread the yarn of the lower looper (M-fig:3.) one proceeds as follows:the motor is stopped, as soon as it has run out completely, the flywheel is rotated by hand until the take up (C-fig:3.) is very exactly in its lowest neutral position, so that the eye of the lower looper stands exactly opposite the leading tube (L-fig:3). Yarn remains, if any are removed from the leading tube, the threading needle is taken and the yarn is put in the fork, which is situated in front of the needle, and the yarn is glided through the tube (L-fig:3.) Exactly to the eye of the lower hook.

The threading needle is taken back and some yarn is still pressed in the threading tube so that there is a small clew of yarn behind the eye of the lower looper (M-fig:3.) Never forget to remove the threading needle.

Rotate several times by hand until the yarn appears above the throat plate and the stitch has taken its normal shape.

It is possible to thread the lower looper with one or several yarns.

获得正确的线迹

夹线板G、E和F（图3）对于获得正确的线迹并不是非常重要。它们只是轻轻的控制着线，以便压线杆C（图11）能够牵出预定长度的线。这样，最好尽可能把夹线板的压力调得小一点。压线杆作摆动运动，当它向下摆动时，线就自由地滑过穿孔A，这样就给下弯针提供设定长度的线，如果将压线杆调整得当，那么，线的长度将正好足够围绕着地毯边缘，并符合针迹宽度（图4和图10-C2）。如果牵的线的长度不够（图5和图10-C1），那么针线的拉力和弯针线的拉力就不平衡了，结果针线将被从地毯背面牵出太远。如果压线杆拉出的线太长（图6和图10-C3），那么围绕着地毯边缘的线就会松弛，而不靠紧

获得正确线迹
OBTAINING CORRECT STITCH

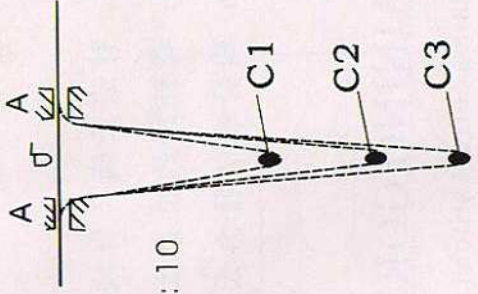


Fig: 10

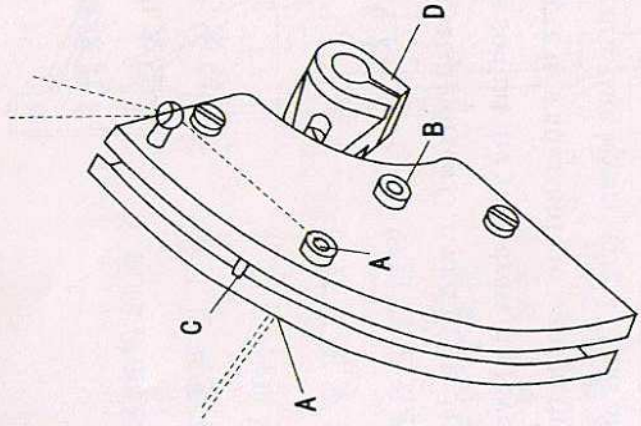


Fig: 11

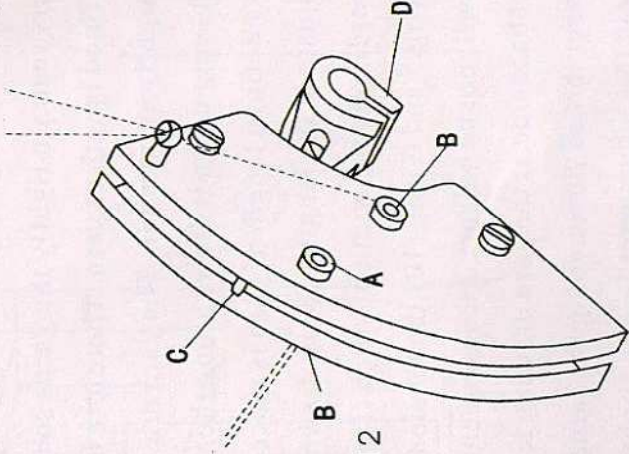


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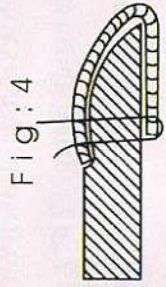


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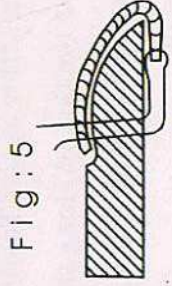


Fig: 5

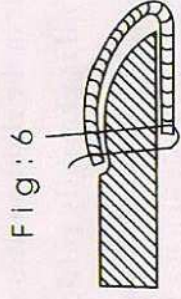


Fig: 6

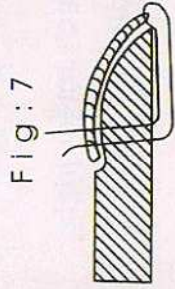


Fig: 7

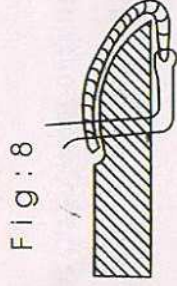


Fig: 8

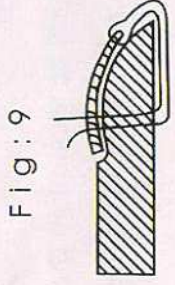


Fig: 9

它。为了进行调整，就要轻轻的松开压线杆的螺钉（图11），然后将压线杆转动到合适的位置后再上紧螺钉。为了得到如图7的设计线迹，一般沿着穿孔B（图12）穿线就足够了。按照不同的线质和材料，拉力调整可能需要做附加的调整。

图7：针迹正确，针线和弯针线平衡得很好；

图8：弯针线的拉力太弱或针线的拉力太强；

图9：弯针线的拉力太强或针线的拉力太弱；

OBTAINING CORRECT STITCH

To obtain a correct stitch (fig.4) tension regulating discs G,E and F(fig:3) are not very important. They only restrain lightly the yarns so that the yarn drawing lever C (fig,11) will draw a well defined length of yarn. Therefore it is advisable to tighten the tension regulating discs as slightly as possible. The yarn drawing lever C (fig:11) has an alternating movement, while moving down it draws along the yarn, which slips freely through the threading holes A. So a defined length of yarn is placed at the disposal of the upper looper. If the lever is well adjusted, the length of yarn drawn will exactly be sufficient to surround the carpet edge according to the width of stitch (fig.4 and C2 fig:10.) If length of yarn drawn is not sufficient (fig.5 and C1 fig:10), the tension of the needle thread and the tension of the looper thread will not be balanced, consequently the needle thread will be drawn too far out of the carpet backside. If the yarn drawing lever draws too much yarn (fig.6 and C3 fig:10), then the looper thread surrounding the carpet edge will be slack, instead of keeping close to it. To carry out this adjustment, loosen slightly screw D (fig:11) of the lever, then put lever in the right position and tighten screw again. To obtain a stitch design as shown on (fig.7), it is generally sufficient to drive the thread along the threading holes B (fig.12). According to the nature of yarn and material which are used, an additional adjustment of the tension discs might have to be carried out:

Fig.7: The stitch is correct and there is a good balance between the needle yarn and looper yarn.

Fig.8: The tension on the looper yarn is too low, or that on the needle yarn too high.

Fig.9: The tension on the looper yarn is too high, or that on the needle yarn too low.

切边装置

CM-2500包边机的两个刀片如果严格遵照以下说明，就可以使用3个月而不用磨。当刀片要被更换时，请注意不要把灰尘或绒等沾到刀和刀座的接触面。

更换刀片时，首先轻轻地松开锁紧螺钉C（图13），然后完全卸下上刀片的螺钉A而不必拿出外壳，下刀片的螺钉B必须完全卸下来，把新刀片正好放入原刀片的位置，然后再上紧螺钉B，然后把上刀片放回原来的位置，当顺时针转动螺钉C时，上刀片与下刀片接近，但相互间不能有压力产生。当重新磨刀时，刀片就会磨损一些金属，而刀片的高度就会降低，因此在每次磨刀后，上刀片必须降低一点，调整方法如下：拿开保护板，松开螺钉D，将刀座向下推。

注意：上刀片的刀锋必须位于针板F（图13）上3mm，下刀片（移动的刀片）可以保持其原来的位置，直到多次磨刀而导致它被缩短得必须进行更换。

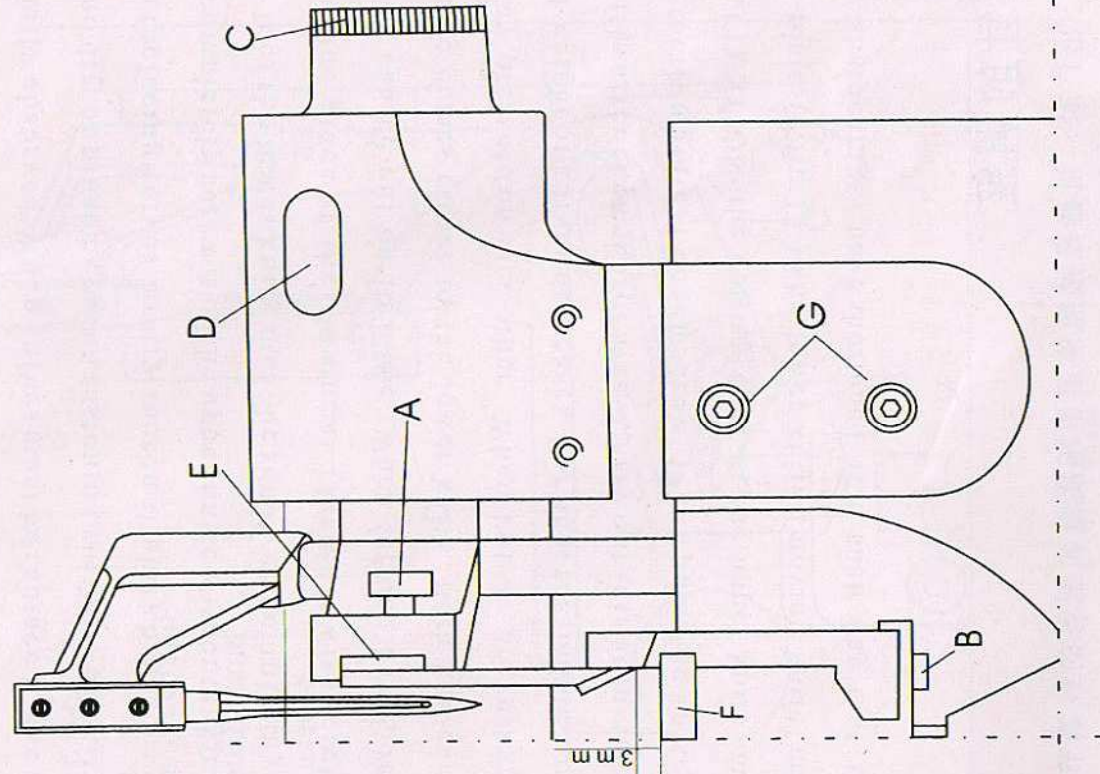


Fig:13

CUTTING DEVICE

Both knives of the CM-2500 overedging machine are lined with tungsten carbide. They can work for 3 months without being sharpened, if following directions are strictly observed: When knives must be replaced, take good care that there will be no dirt or plush between fastening surfaces of knives and knives holders. When replacing knives, firstly loosen slightly handscrew C. (fig:13) Then untighten completely screw A of the upper knife without taking it out of its housing. Screw B of the lower knife must be removed completely. Put the new knife exactly at the place of the old one and fasten it with screw B. Afterwards the upper knife can be put on its place. When turning handscrew C clockwise, the upper knife comes closer to the lower knife. Both knives must touch without exerting any pressure on each other. When knives are resharpened some metal is lost and height of knives decreases. For that reason the upper knife must be lowered a little after each sharpening. Carry out this adjustment as follows: take off the protection plate. Loosen screw D and push the knife holder down.

ATTENTION: the cutting edge of the upper knife must be at 3mm, above needle-plate. (F.fig:13.) The lower knife (moving knife) may keep its position till many sharpenings have shortened it in such way that the replacement is required

弯针的调整

出厂时，机器是按照使用中等质量和型号的线调节好的，当使用较差质量的线时，那么就可能有必要对机器进行调整，进行这种调整就要移动上弯针C（图15）。当上弯针处于其最高位置时，它的挑线槽与机针左边的距离为4.5mm（图15）。当使用某种线时，这一距离可能需要增大或减小1mm。

调整方法：松开螺钉B（图15），向左或右移动弯针C，弯针C只能被移动很短距离，比如每个方向1mm，当上弯针向针移动时，它将穿过下弯针E（图15），这时，上弯针C的D点移到下弯针的凹槽里，小心不要让E和C相互接触，调节完成后，请参考“获得正确的线迹”。

ADJUSTMENT OF LOOPERS

When leaving the factory, the machine is adjusted for using yarns of medium quality and size. If yarns of lower quality are used, a little adjustment will perhaps be necessary. This adjustment will be performed by displacing upper looper C. (fig:15.)

When upper looper is in its highest position, the take up of upper looper C will be situated at 4,5mm of the needle (fig. 15A).

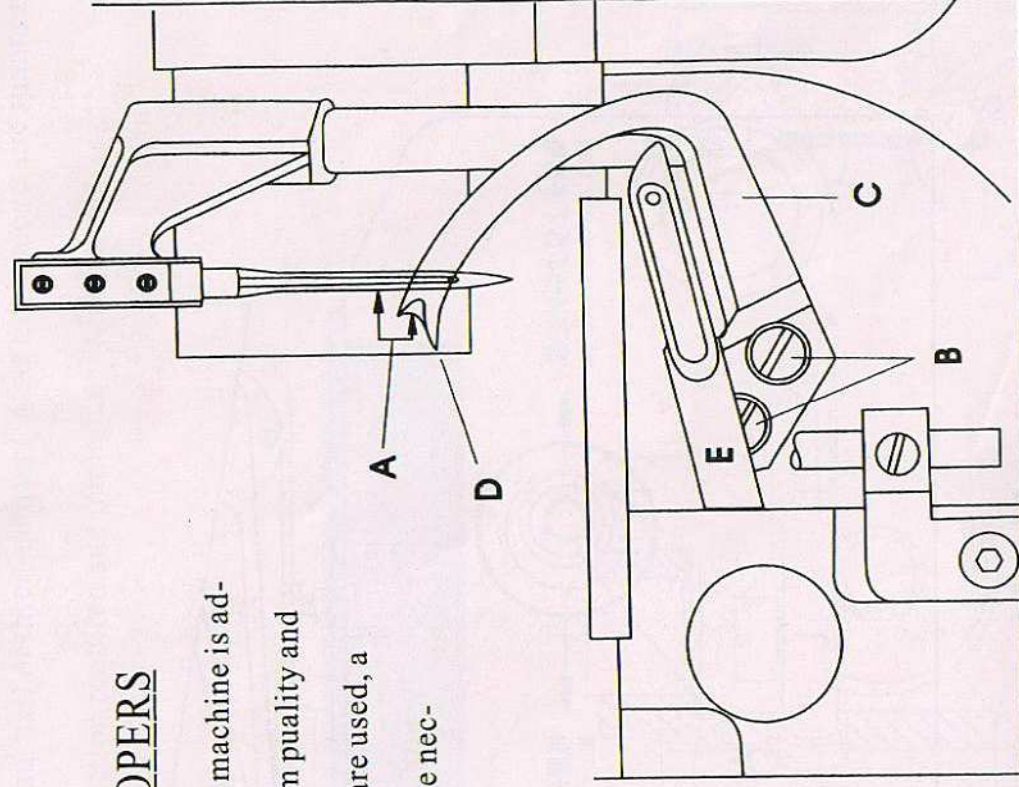


Fig:15

When using certain types of yarns, this distance might have to be either increased or reduced by 1mm. Carry out the adjustment as follows: loosen screws B a little (fig. 15) displace looper C. Either to the right or to the left. Looper C can only be displaced over a short distance i.e. 1mm in each direction. When the looper moves towards the needle, it crosses under looper E (fig. 15). At this moment point D of looper C moves in a groove milled in the under looper E. Take care that E and C, do not touch each other. When this adjustment is performed, refer to obtaining correct stitch.

针迹数目的设置

SETTING OF THE NUMBER OF STITCHES

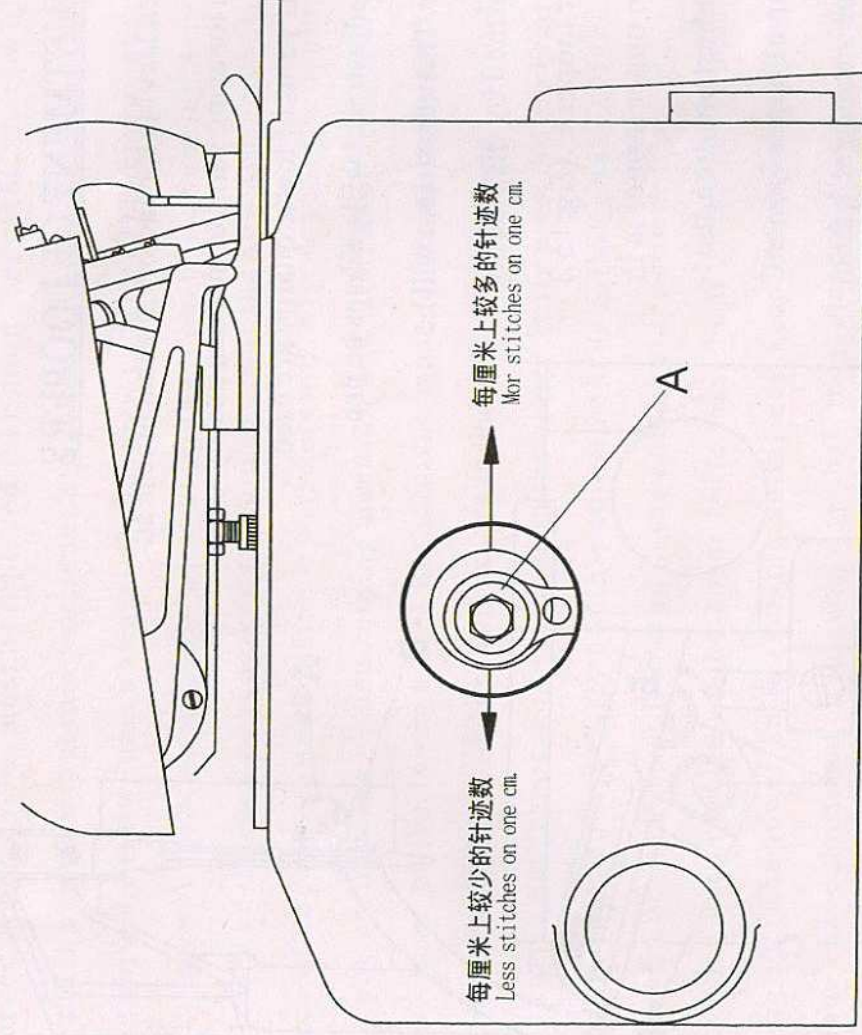


Fig:16

针迹数目设置

卸下大的螺盖，以便看到螺母（A），然后用手转动轮子直到针处于它最低的中立点，用左手把尺寸为10的扳手放到螺母（A）上，用右手握住轮子固定住，然后逆时针方向转动扳手和螺母（A）立即安装上螺母

SETTING OF THE NUMBER OF STITCHES

Unscrew the large thumb screw so that the nut(A) is visible and then turn the wheel by hand until the needle reaches its lowest neutral point

with the left hand place the box-spanner, dimension 10, onto the nut(A) and with the right hand hold the wheel steady in the same position .then turn the box-spanner in an anti-clock Wise direction (never more than half or three-quarters of a turn), mcve the spanner together with the nut(A)in the direction required and immediately fix the nut

更换上弯针或下弯针后的调节
 ADJUSTMENT AFTER REPLACING THE LOWER OR UPPER LOOPER

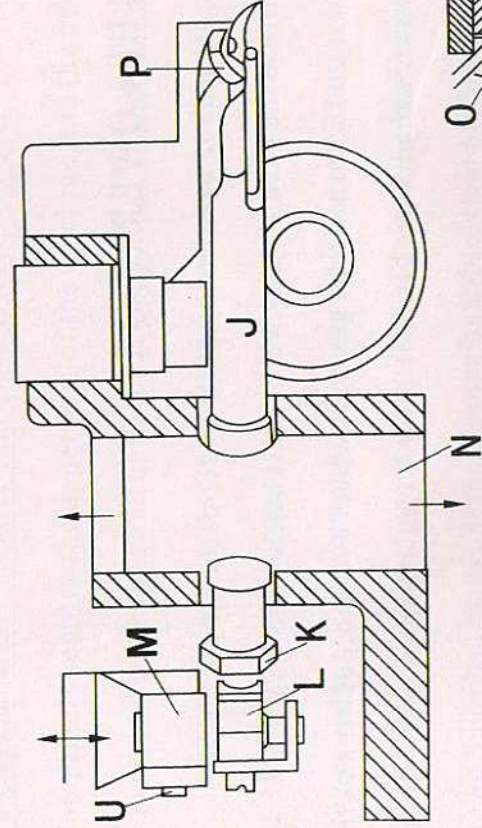


Fig:17

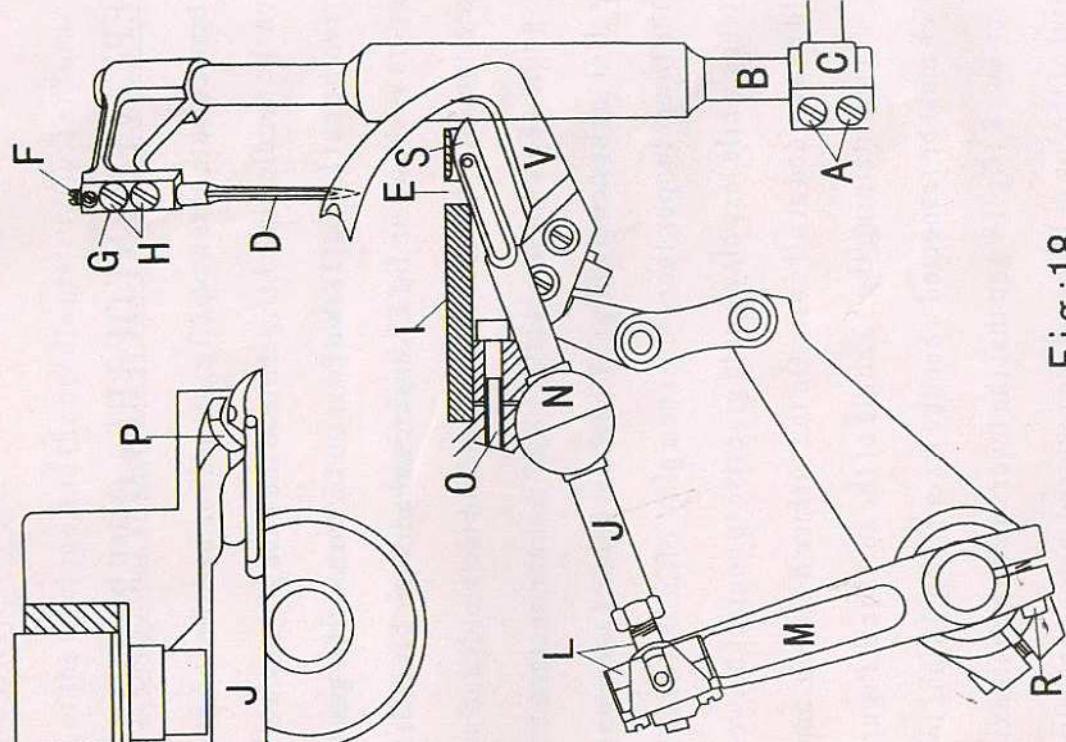


Fig:18

更换下弯针

松开两个螺钉G (图13), 卸下机器的整个上部, 然后再卸下针板 (图18) 以及底板。插入一根新的针并将螺母K松开半圈。用手转动机器轮子, 使两个弯针处于图21的位置, 逆时针方向旋下弯针J。导入新弯针并将它上到螺杆L上, 直到螺母所在点 (图18), 将下弯针表面S正好与针平行 (图24)。在针的凹槽与下弯针的表面S之间留有0.2-0.3mm的间隙, 留的太大引起跳针, 留的太小会导致相关部件接触, 无论如何要避免接触, 在表面S放一个6mm的叉形扳手, 保持表面S为17°的角度并锁紧螺母K (图18)。图21显示了当控制杆M (图18) 转动时的测量值为80mm, 在作这一调节时, 松开螺钉R (图18), 以便控制杆可以略带点约束地沿着它的轴转动, 按照所要求的测量值80mm来调节下弯针并上紧螺钉。

REPLACEMENT OF THE LOWER HOOK

Loosen both screws G (fig:13) and remove the complete upper part of the machine, then the needle plate I (fig:18) and the base plate as well. Insert a new needle and unscrew the nut K (fig:18) half a turn. By turning the machine wheel by hand, position both loopers as shown on fig.21, unscrew the looper J from its slot N (fig:18), in an anti-clockwise direction. Introduce the new looper into the slot N and screw it on the threaded rod L up to the point where the nut is (fig:18). Place the surface S of the lower looper exactly parallel to the needle (fig:24). Between the countersink of the needle and the surface S of the lower looper, there must be a play of 2/10 to 3/10 mm, more would give rise to false stitches, while less play would give rise to contact between the parts concerned, which should be avoided at all costs. On the surface S place a 6mm fork spanner and fix the nut K (fig:18) maintaining the 17 angle of the surface S. Figure 21 shows a measure of 80mm which must be respected when the lever M (fig:18) has to be moved. For this adjustment, loosen screws R (fig:18) so that the lever can turn on its axis with a slight restraint; adjust the point of the lower looper at the required measure of 80mm and tighten the screws R.

更换上弯针

完全卸掉机器上部和针板（图18），用手转动机器轮子直到上弯针V处于它的最低中立点（图19），在此位置，两个螺钉T可以被卸下来，同时用新的弯针换下旧的弯针，如果在更换以后上、下弯针有接触，请作如下调整：松开螺钉O（图18）并按要求的方向移动N（看箭头-图17）。

注意：该调节必须最小限度地进行，决不能超过0.1mm，然后上紧螺钉O。类似的调整也可以通过松开螺钉U（图17）进行，按照要求的方向移动接头L的杆部，参照控制杆M（图17）。

REPLACEMENT OF THE UPPER LOOPER

Completely remove the upper part of the machine, and the needle plate I (fig.18) Turn the machine wheel by hand until the upper looper V reaches its lowest neutral point (fig. 19).In this position both screws T can be removed and the worn looper replaced by a new one, If after this replacement, there is contact made between the upper looper and the lower looper, carry out the following adjustment: Loosen screws O (fig.18) and move the bronze slot N in the direction which is required (see arrows fig.17).

ATTENTION: The adjustment must be minimal and should never exceed 1/10mm. Tighten both screws O. A similar adjustment can be made by untightening the screw U (fig. 17) and by moving the shank of the swivel joint L in the required direction, with regard to the lever M (fig:17) Adjustment of loopers

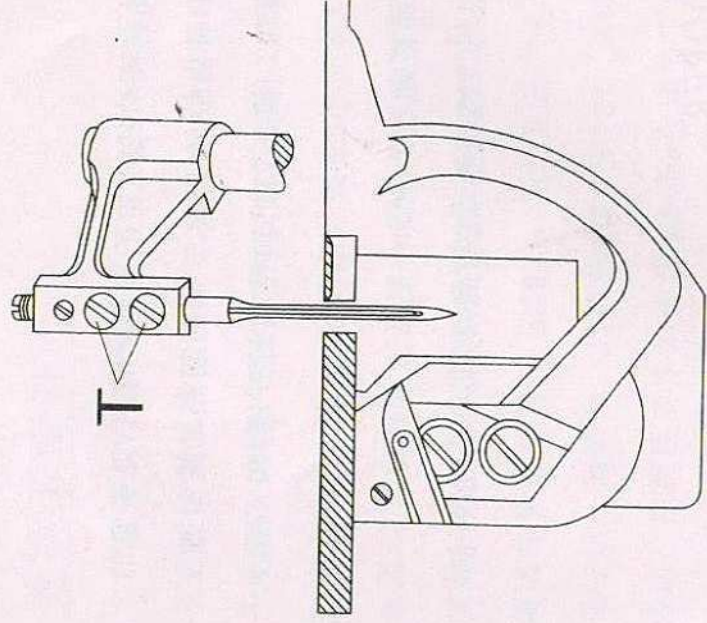


Fig:19

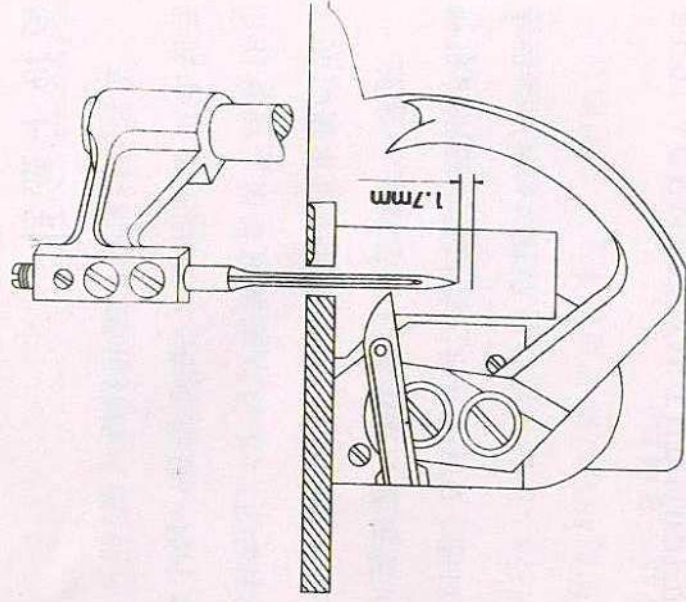


Fig:20

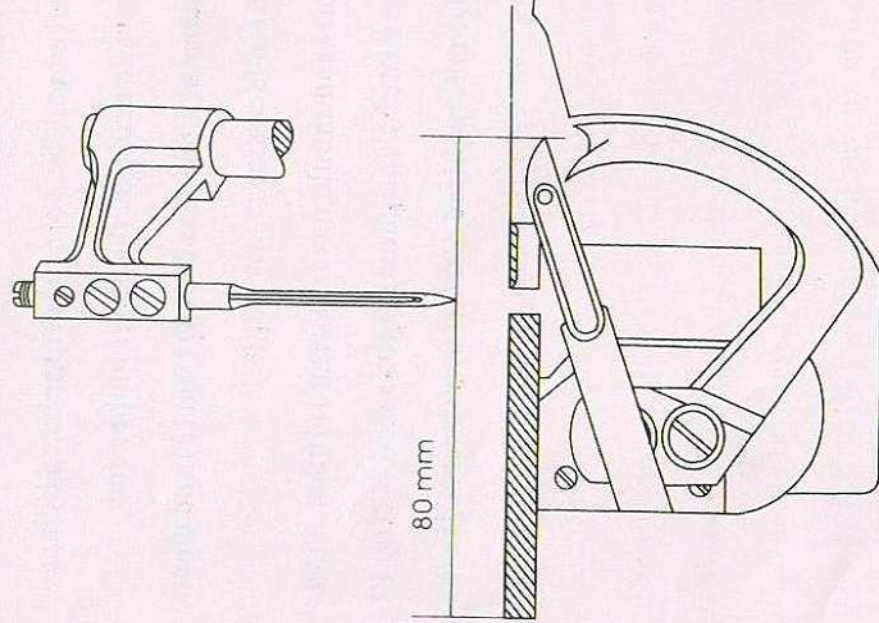


Fig:21

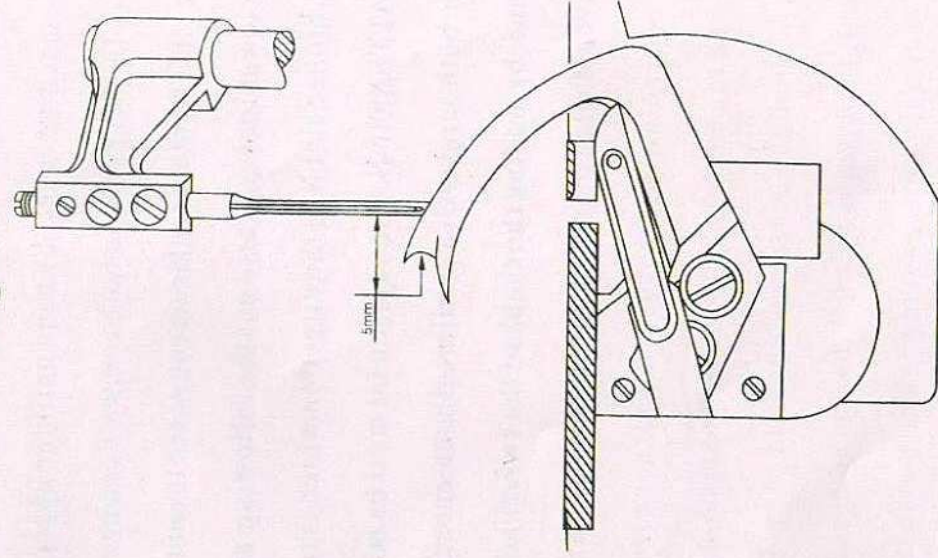


Fig:22

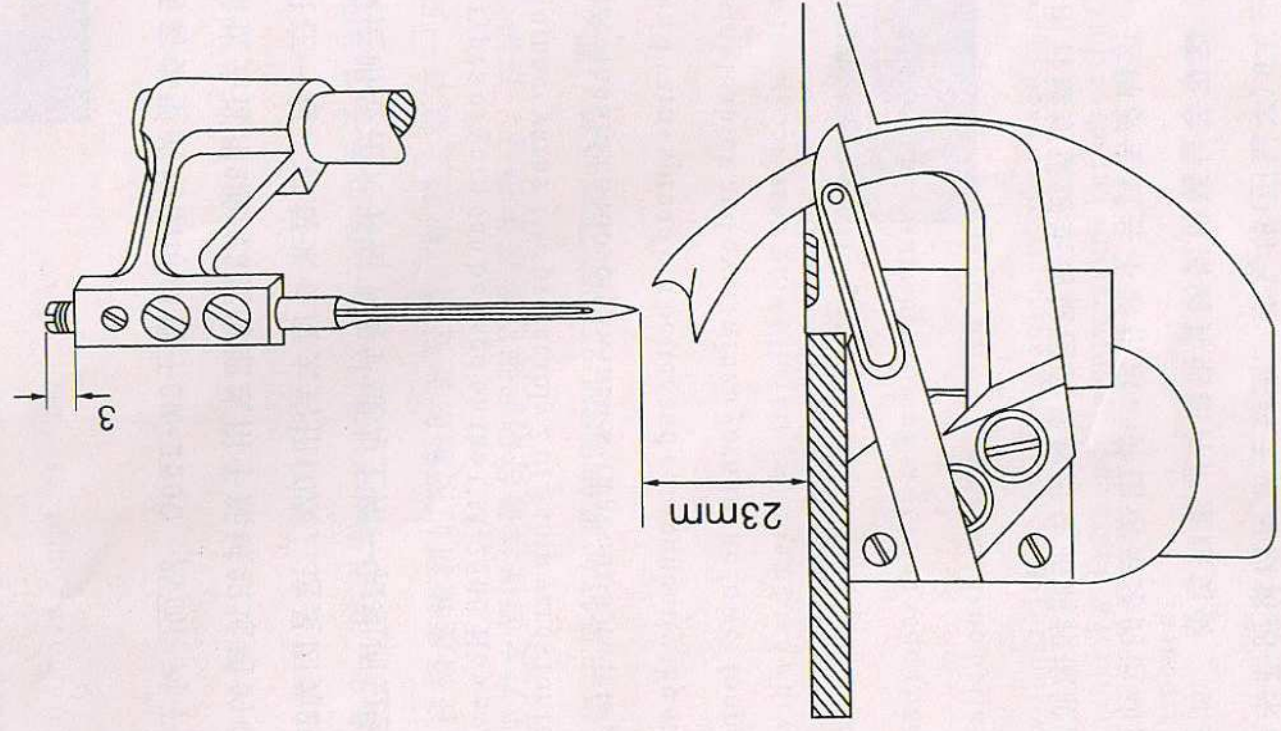


Fig:23

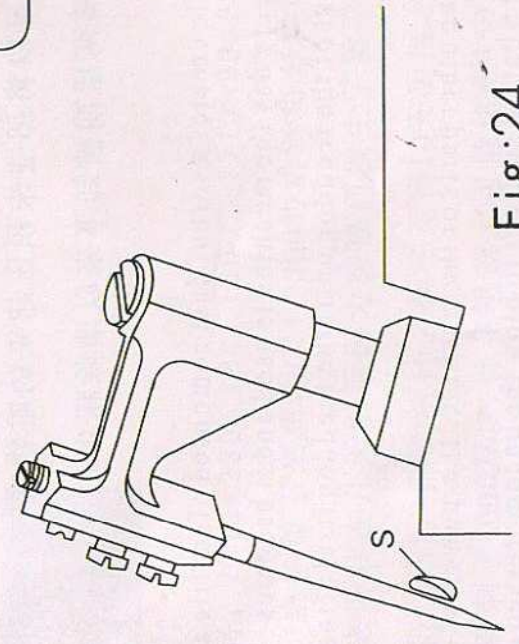


Fig:24

线

YARNS

所有类型的线都可以用于CM-2500, 然而, 对于针而言, 我们推荐使用较细的线, 请优先选用2股或3股的细线用于簇绒织地毯的收尾线, 这些细线应该较松散地合股在一起, 按每米长度大约扭10次, 这是因为2或3, 甚至4根纱线伸展得更好, 从而线迹明显在大于在下弯针或勾上用一根粗而过多扭结的线。

All types of yarn can be used on the CM-2500. However, for the needle, we recommend using thinner yarns. Use preferably 2 or 3 thin yarns for the finishing yarn for tufted carpets. These should be loosely twined with about 10 twists per metre. This is because 2 or 3 and even 4 yarns spread out better and consequently the stitch can be markedly larger than with a single thick and overtwined yarn in the lower looper or hook.

送布牙

THE FEEDDOG

用针缝织簇绒织的地毯会导致产生布屑和橡胶屑组成的灰尘。当每天使用机器时, 这种灰尘就会不断积累, 并由送布牙的运动而被压缩起来直至最后损坏送布牙, 这也会导致机器的其他部件严重超负荷, 如果能够有一个强力空气压缩机可以产生6(大气压)的气流, 那每天就足以将那些未积压起来的脏物吹走, 另外在机器投入使用, 喉板也应该至少每隔两星期被卸下来以清除积尘。

The sewing of tufted carpets with a needle creates a sort of dust composed of textile and Rubber particles. This dust accumulates every day the machine is used and it becomes more and more compressed by the movement of the feeddog until the feeddog itself finally breaks.

This also causes severe overloading of the other parts of the machine. If a powerful compressor is available which delivers air at 6 bar, it suffices to blow the uncompressed du-

st away every day . even so the throat plate should be removed at least every two weeks the machine is in operation, in order to remove compressed dirt.

刀

KNIVES

刀与板子一样是采用硬质合金，使用寿命约2个月，由于这些板子极为坚硬而脆，这就意味着当上、下刀锋在极度锋利的接触时会受损。机器上装有一只调节螺钉（见图13），这样就可以使刀之间保持最好的间隙以免产生损坏。在编织车棚时经常会用到一些钉，别忘了当一只钉如果伸到CM-2500的刀之间时，那么又得磨刀了。

The knives are lined with plates in a hard metal (wydia) allowing a service life of about two months. As these plates are extremely hard they are also very brittle, which means that at overly sharp contact between the upper and lower knives can cause the cutting edges to shatter. An adjusting screw is installed on the machine (see fig 13) and this allows the best gap between the knives to be set without risking damage. Staples are often used in weaving sheds; it should not be forgotten that if a staple ends up between the knives of the CM-2500 the knives will have to be resharpened.

机针

NEEDLES

型号：7713/230、180、160 7713-99/230（方头）

当你停下来思考CM-2500的机针每分钟刺穿地毯2800次的时候，会因为机针的原来形状在几天以后因为磨损而发生了重要的改变而感到惊讶。如果CM-2500每天运行8小时，那么机针必须在运行10天后换上一根新的，因为旧的机针已经在缝料上穿刺了1000万次，针在机器上可能达到450°的温度，经常引起泡沫橡胶簇织毯背面融化而黏住针，这会使机针的穿透能力下降50%，而且引起机针驱动装置的严重过载

和过早磨损。

在缝制有橡胶底层地毯的时候，机器的针应该被润滑，这可能需要针线夹线板在石蜡油里至少浸24小时以上，然后把夹线板拿出来晾几天，以后夹线板就可以用了，当充满油的线接触到机针时，会籍着针的热把油蒸汽释放出来，避免了橡胶粘在针上。石蜡油不会在缝料上留下污物。

在更换机针的时候，你将注意到会有一圈灰尘粘在针棒的周围。在更换机针前有必要把环形灰尘小心地拿掉，如果没有这么做，就有把灰尘推进针夹的可能，如此引起最初的针距离被灰尘层的厚度而改变，导致做出来的线迹不对。

Model: 7713/230、180、160 7713-99/230 (square pointed)

When you pause to consider that the needle of the CM-2500 machine pierces the carpet 2800 times a minute, it does not really come as a surprise to learn that the original shape of the needle is significantly latered by wear after a few days. The recess in the needle which forms the loop in the yarn wears away and this.

If the CM-2500 runs 8 hours per day, the needle must at the latest be replaced after 10 days by a new one. The old needle will then have pierced and been withdrawn from the carpeting 10 million times. The needle in the machine may reach a temperature of 450 causing the foam which tufted carpets are usually backed with to melt and to stick to the needle. This reduces the penetrating power of the needle by about 50% and causes severe overloading of the needle drive mechanism and the associated premature wear. Therefore when sewing rubber-backed carpets, the needle of the machine should be lubricated. This can be done by allowing the needle thread bobbin to soak in a bath of paraffin oil for a least 24 hours, subsequently the bobbin is allowed to drip out for several days, after which the bobbin can be used. The oil vapour released by the heat of the needle when it touches the oil-laden yarns prevents the needle from stitching to the rubber. Paraffin oil leaves no stains on the sewn work. When changing needles it will be noticed that a ring of dust will have collected around the shaft of the needle. It is essential that this ring of dust is carefully removed before the needle is removed from the holder. If this is not done, there is a danger that the dust is pushed into the needle holder, thus causing the original needle distance to be altered by the thickness of the dust layer, which could lead to the stitches not being properly made.