INSTRUCTION MANUAL

&

PARTS BOOK

INDEX

INSTALLATION

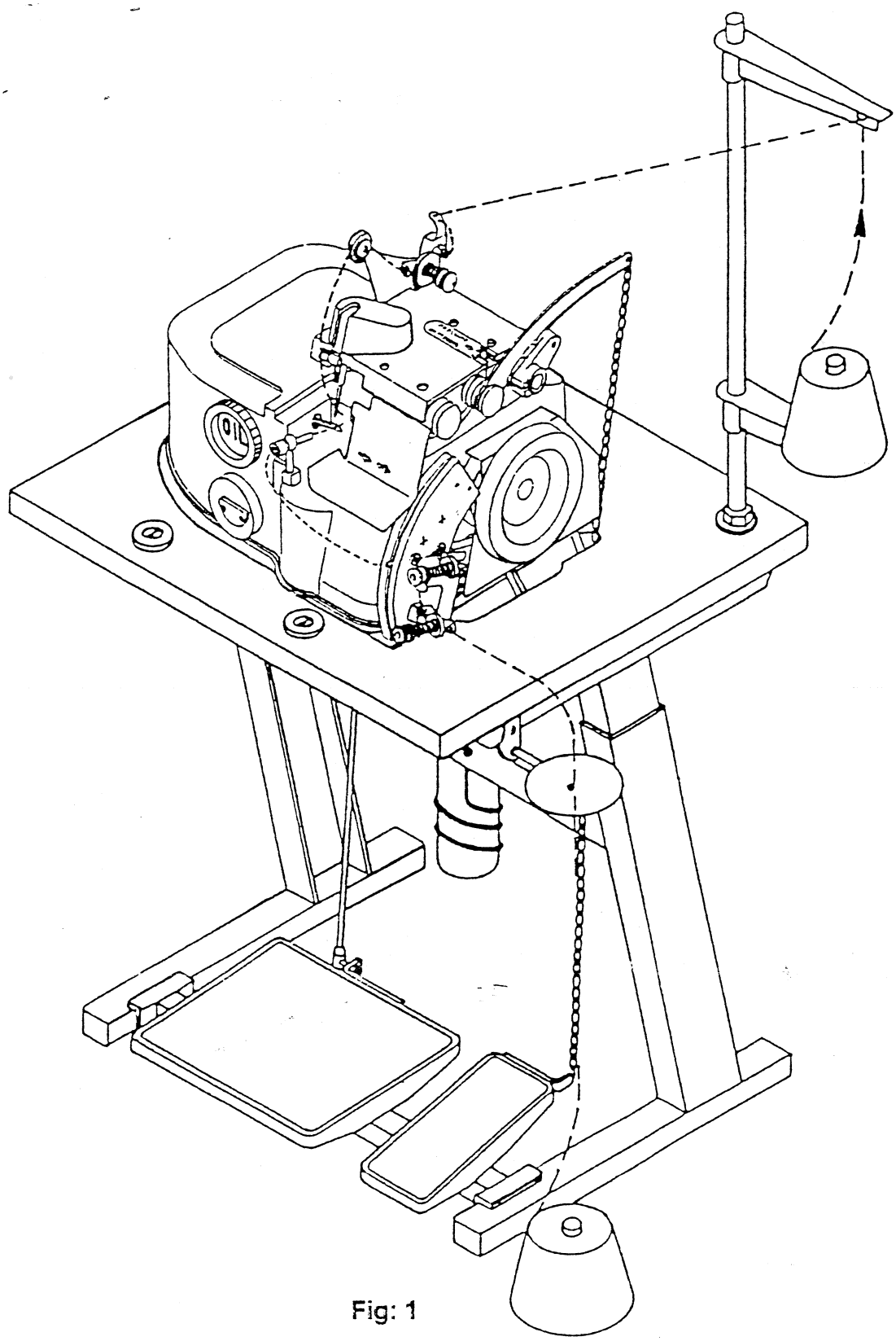


Fig: 1

THREADING

In order to thread the yarn of the lower looper M (fig. 2) 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. 2) is very exactly in its lowest neutral position, so that the eye of the lower looper stands exactly opposite the leading tube L (fig. 2). Yarn remainders, 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. 2) exactly to the eye of the lower hook M (fig. 2).

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. 2).

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.

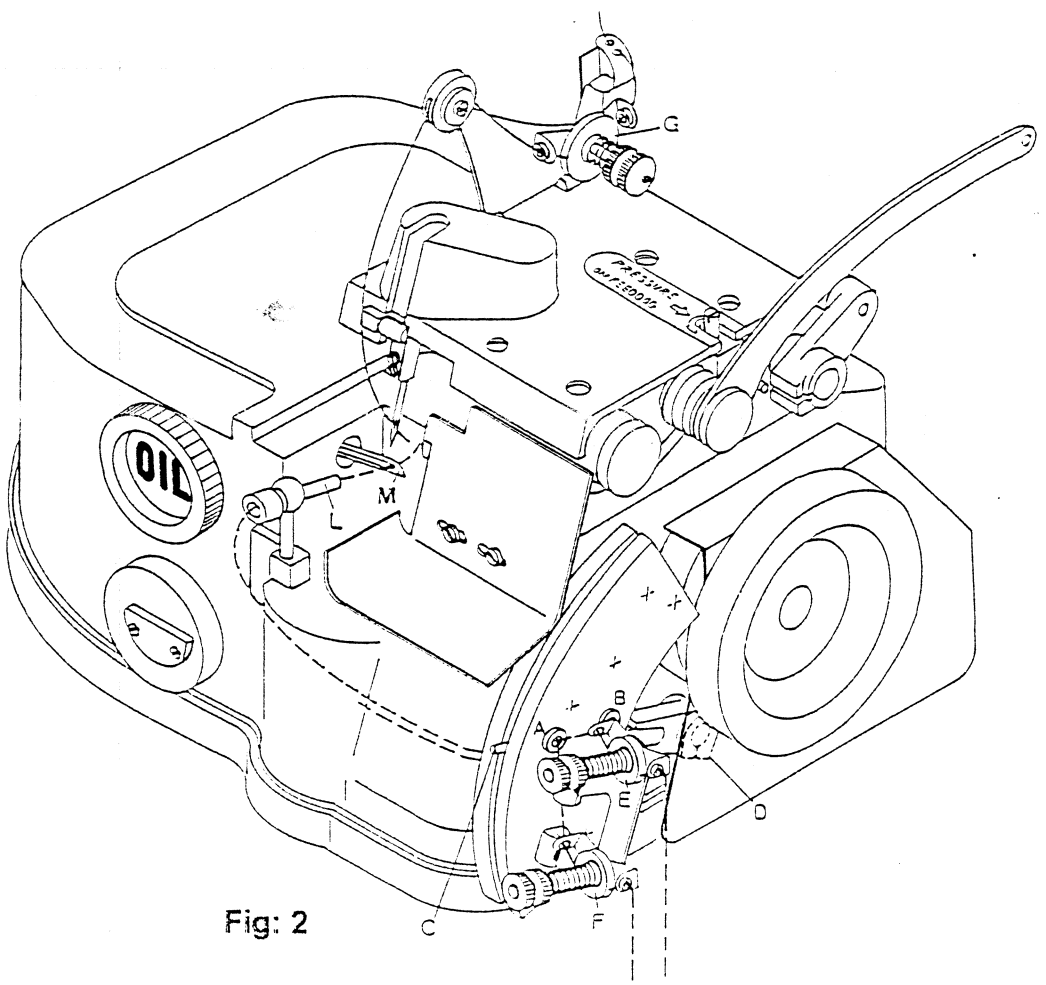


Fig: 2

LUBRICATION

are high precision machines. Although many parts move on ball bearings or needle-bearings, high speed makes an abundant lubrication necessary. For this reason the machine has been designed with a splash lubrication. Owing to a very special construction, all parts without exception are abundantly supplied with oil. Of course a little oil will disappear each day from the machine when working. As to enable the operator to check this steady and normal loss of oil, an oil level gauge has been fitted.

The perfect oil level is situated between both arrows printed on the oil level glass.
If there is too much oil leak. maybe one of the pipes for oil drainage is obstructed. In this case compressed air should be blowed into the hole of the oil plug. to avoid the stopping up of the pipes. Then you will have enough pressure inside the machine to unstop the oil drainage pipes.

STITCH ADJUSTMENT

To obtain a correct stitch (fig. 3) tension regulating discs G, E and F (fig. 2) are not very important.

They only restrain lightly the yarns so that the yarn drawing lever C (fig. 10) 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 (fig. 10) 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 upperlooper. 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. 3 & C2- fig. 9)

If length of yarn draw is not sufficient (fig.4 & C1- fig.9) , 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. 5 & C3- fig. 9) , 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 stitchdesign as shown on fig. 6, it is generally sufficient to drive the thread along the thread along the threading holes (B- fig. 11).

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

Fig. 7 : The tension on the looper yarn is too low, or that on the needle yarn too high.

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

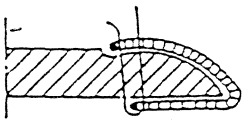


Fig. 3

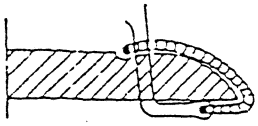


Fig. 4

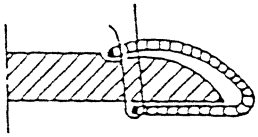


Fig. 5

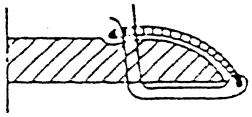


Fig. 6

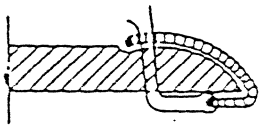


Fig. 7

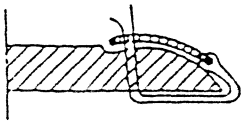


Fig. 8

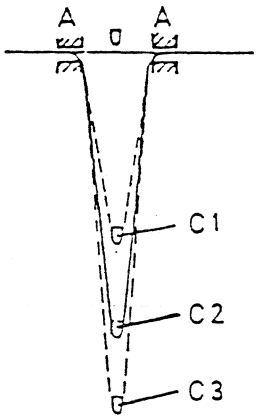


Fig. 9

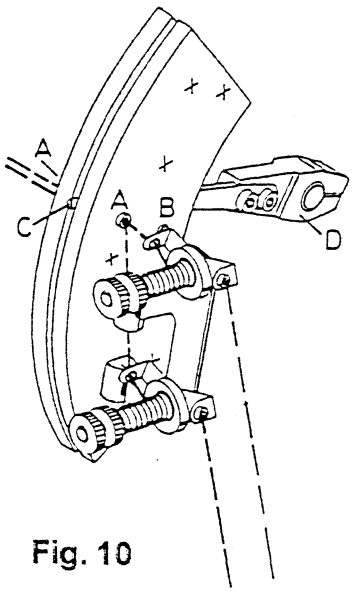


Fig. 10

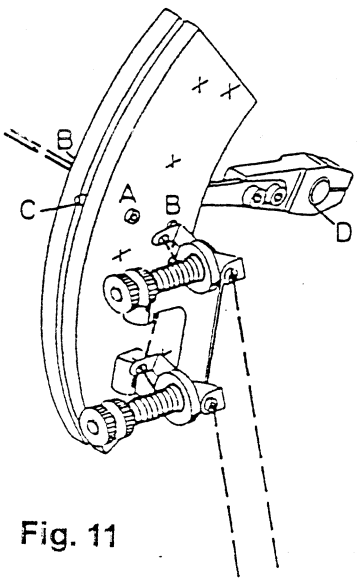


Fig. 11

CUTTING DEVICE

Both knives of the 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. A few plushes only may cause the knives to be irremediably destroyed within a short time.

When replacing knives, firstly loosen slightly handscrew C (fig. 12). Then untighten completely screw A of the upper knife without taking it out of its housing.

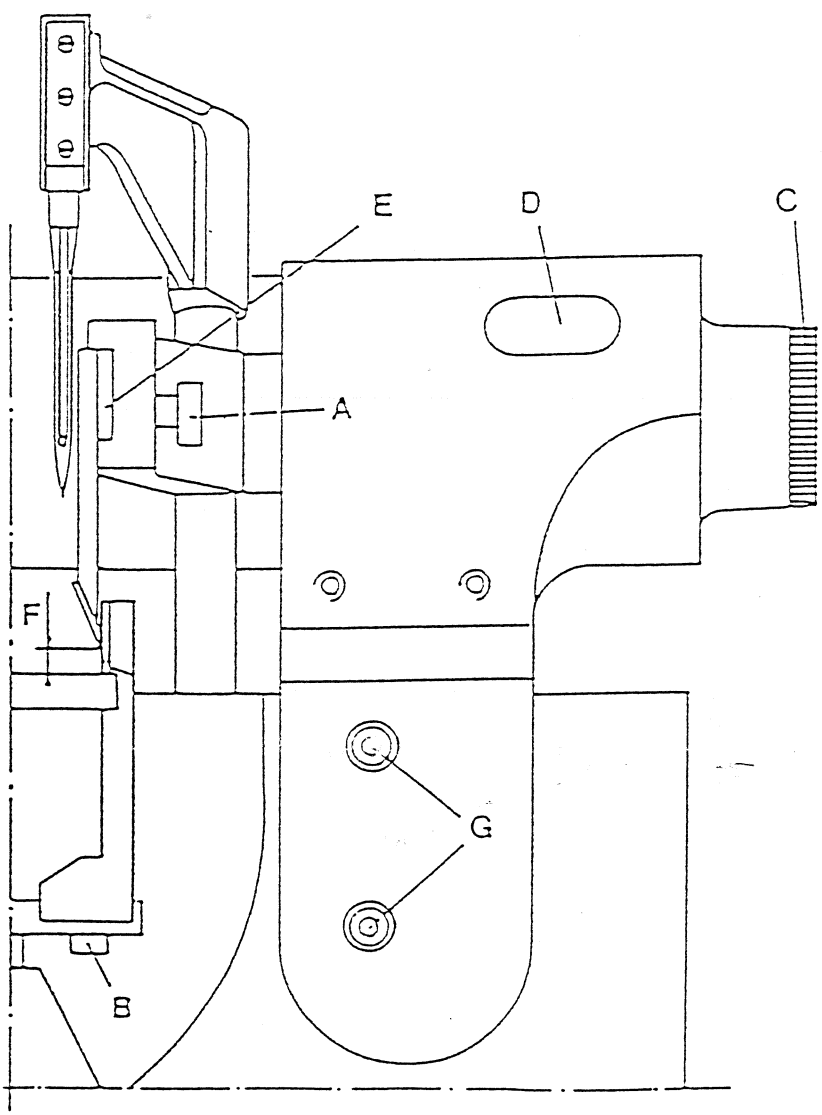


Fig. 12

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 turing 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 3 mm. above needle-plate. F (fig. 12) The lower knife (moving knife) may keep its position till many sharpenings have shortened it in such way that the replacement is required.

CARPET GUIDE

If the carpet edge shouldn't be cut off or only a very small strip should be, setting the guide as shown hereunder.

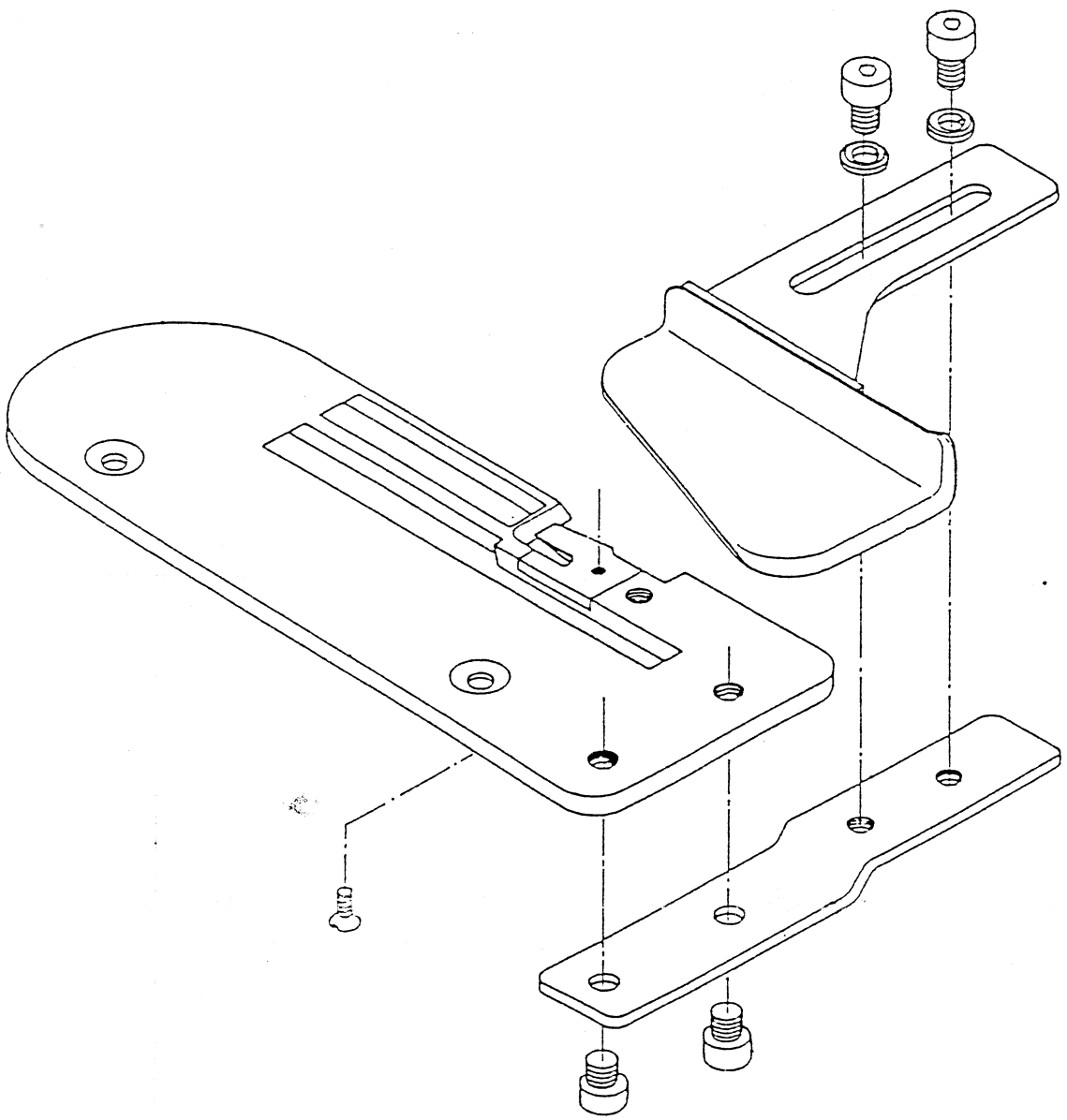


Fig. 13

LOOPER ADJUSTMENT

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. 14))

When upper looper is in its highest position, the take up of upper looper C will be situated at 4,5 mm of the needle A (fig. 14).

When using certain types of yarns, this distance might have to be either increased or reduced by 1 mm.
Carry out the adjustment as follows: loosen screws B a little (fig. 14) displace looper C, either to the right or to the left.

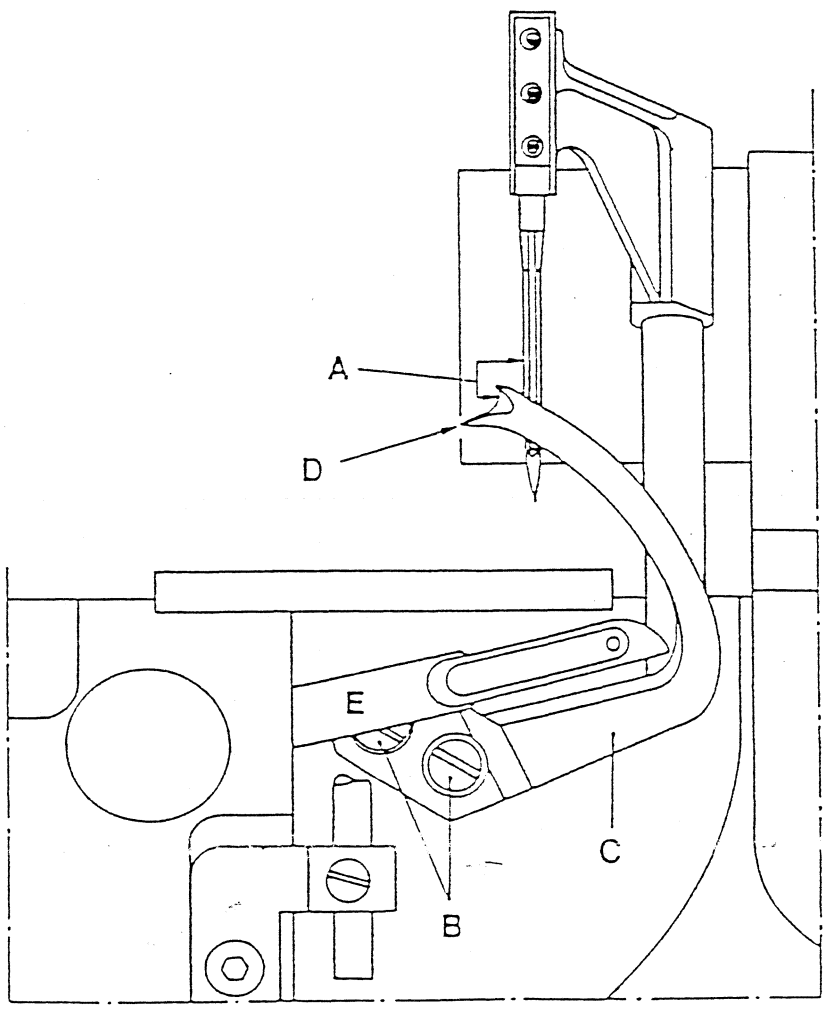


Fig. 14

Looper C can only be displaced over a short distance i.e. 1 mm in each direction. When the looper moves towards the needle, it crosses underlooper E (fig. 14). At this moment point D of looper C moves in a groove milled in the underlooper E. Take care that E and C do not touch each other.
When this adjustment is performed, refer to STITCH ADJUSTMENT

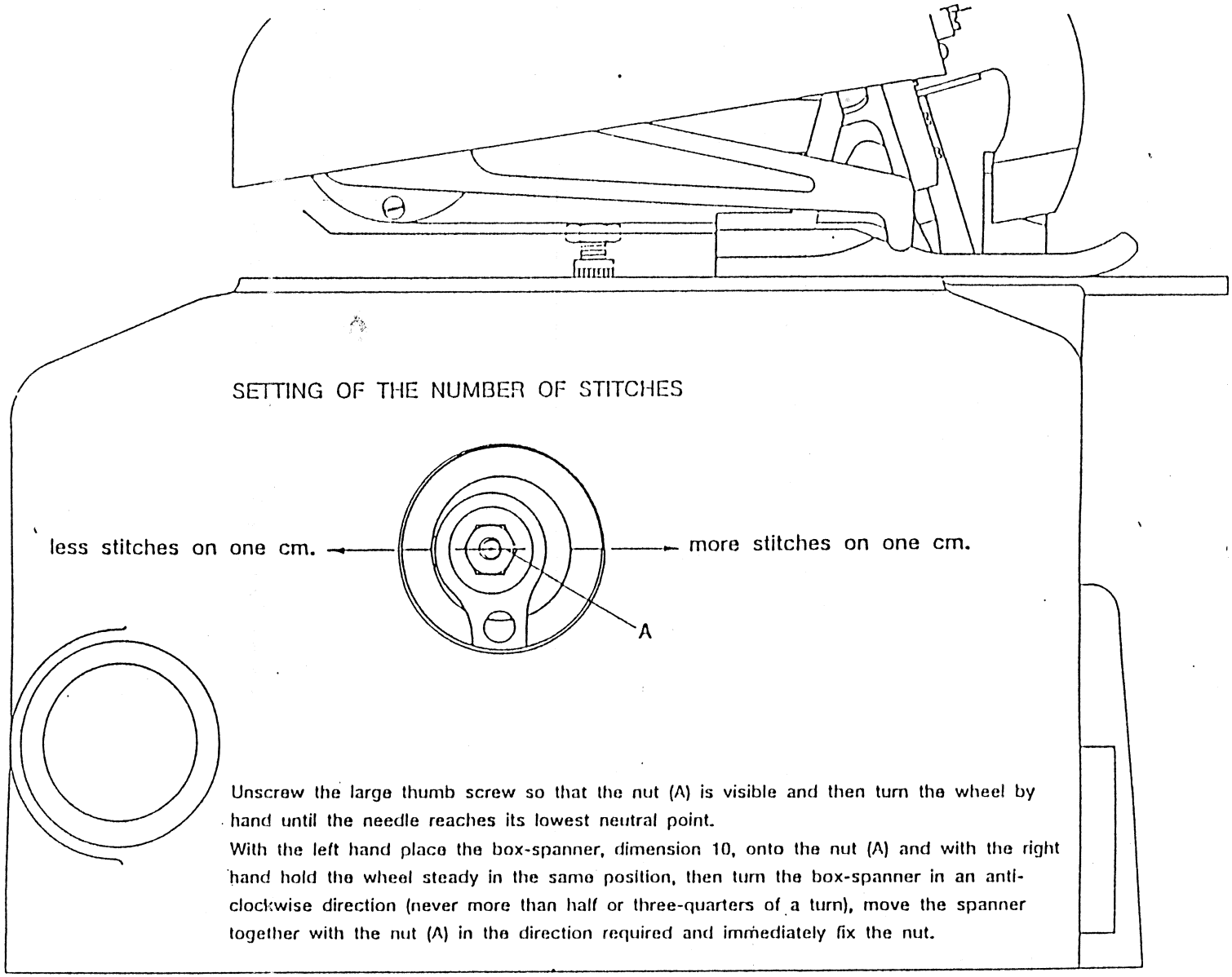

SETTING OF THE NUMBER OF STITCHES
less stitches on one cm.
more stitches on one cm.
A
Unscrew the large thumb screw so that the nut (A) is visible and then turn the wheel by hand until the needle reaches its lowest neutral point.
With the left hand place the box-spanner, dimension 10, onto the nut (A) and with the right hand hold the wheel steady in the same position, then turn the box-spanner in an anti-clockwise direction (never more than half or three-quarters of a turn), move the spanner together with the nut (A) in the direction required and immediately fix the nut.

Fig. 15

NEEDLE BAR ADJUSTMENT

Untighten both screws A (fig. 17) so that the needle bar B moves with a certain restraint in the holder C.

Turn the machine wheel by hand until the needle D gets engaged in the slot E of the needle plate I: the point of the needle must be exactly in the centre of the slot E.

During this adjustment, also adjust the height of the needle as follows:

Loosen slightly the screws G and set screw F in such position that it sticks out from its housing by 3 mm. (fig. 22)

Tighten the screw G, place a new needle and fix it with screw H (fig. 17) By turning the machine by hand, the needle-bar reaches its highest neutral point, in this position the distance between the point of the needle and the surface of the needle plate I (fig. 22) should be exactly 23 mm.

For this adjustment move the needle bar B with regard to the holder C (fig. 17), to the height which is required, making sure that the point of the needle is always exactly in the center of the slot E and tighten the screws A.

When the needle reaches its lowest neutral point, it is necessary for the correct formation of the loop of the needle's thread that the needle rises from 1,7 mm to 2 mm before the lower hook is in the position shown by figure 20.

ADJUSTMENT AFTER REPLACING THE LOWER OR UPPER LOOPER

Loosen both screws G (fig. 12) and remove the complete upper part of the machine, then the needle plate I (fig. 17) and the base plate as well.

REPLACEMENT OF THE LOWER HOOK

Insert a new needle and unscrew the nut K (fig. 17) half a turn.
By turning the machine wheel by hand, position both loopers as shown on (fig. 20), unscrew the looper J from its slot N (fig. 17), 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. 17). Place the surface S of the lower looper exactly parallel to the needle (fig. 23) i.e. at 17 °.

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 6 mm fork spanner and fix the nut K (fig. 17) maintaining the 17 ° angle of the surface S. (fig. 20) shows a measure of 80 mm which must be respected when the lever M (fig. 17) has to be moved. For this adjustment, loosen screws R (fig. 17) 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 80 mm and tighten the screws R.

REPLACEMENT OF THE UPPER LOOPER

Completely remove the upper part of the machine, and the needle plate I (fig. 17)
Turn the machine wheel by hand until the upper looper V reaches its lowest neutral point (fig. 18). In this position both screws T can be removed and the worn looper replaced by a new one (see *). 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. 17) and move the bronze slot N in the direction which is required (see arrows – fig. 16).

ATTENTION: The adjustment must be minimal and should never exceed 1/10 mm. Tighten both screws O.

A similar adjustment can be made by untightening the screw U (fig. 16) and by moving the shank of the swivel joint L in the required direction, with regard to the lever M (fig. 16)

* § Adjustment of loopers.

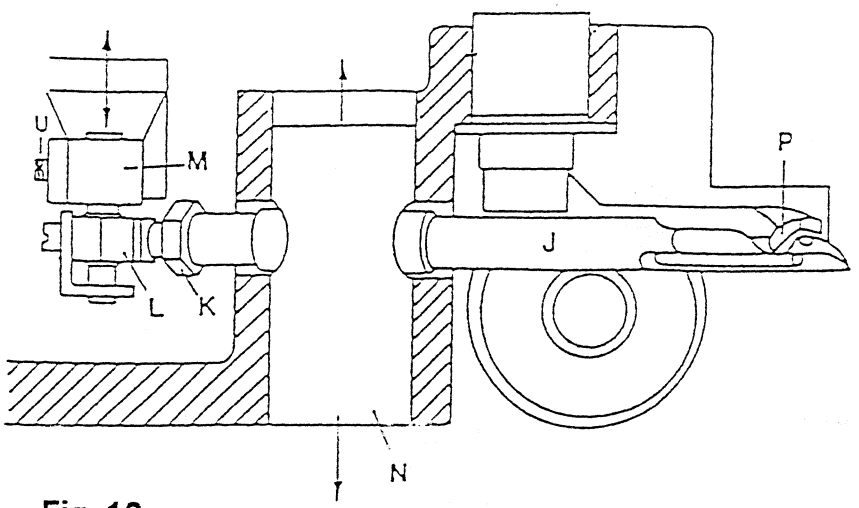


Fig. 16

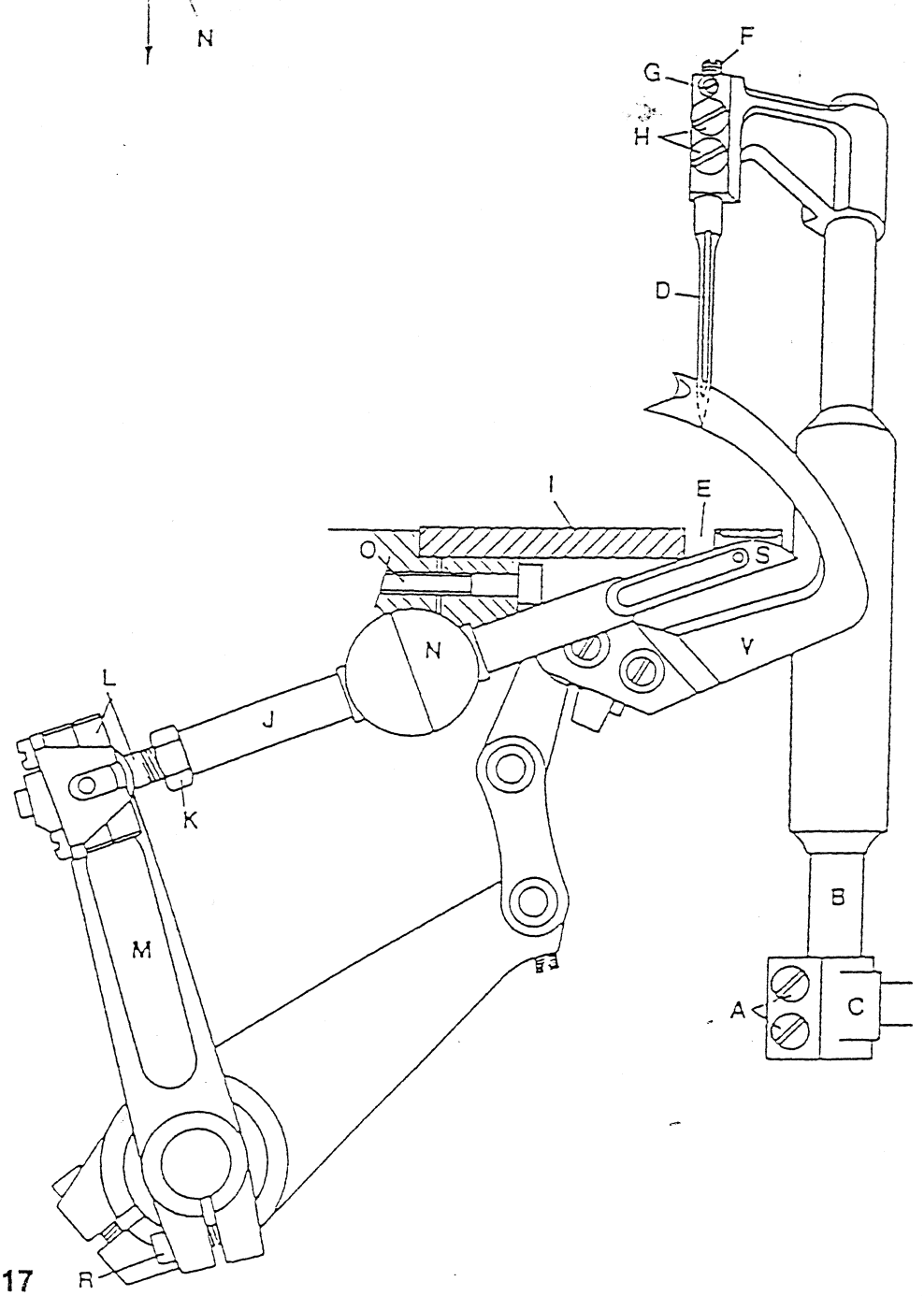


Fig. 17

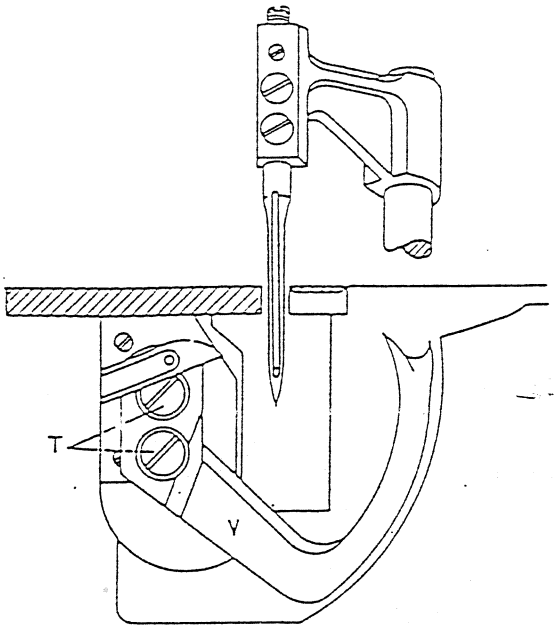


Fig. 18

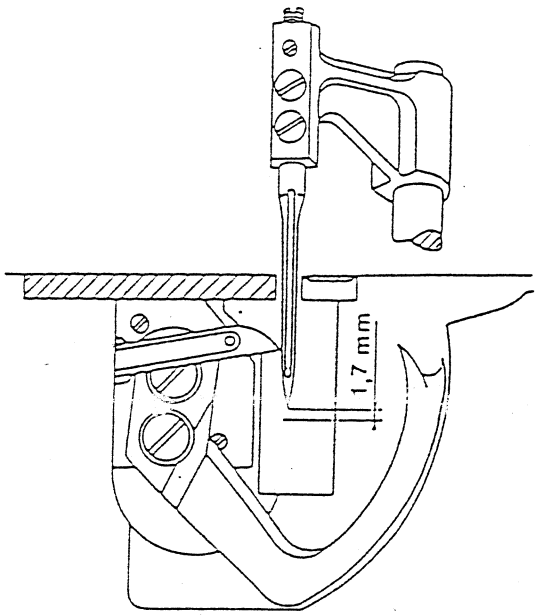


Fig. 19

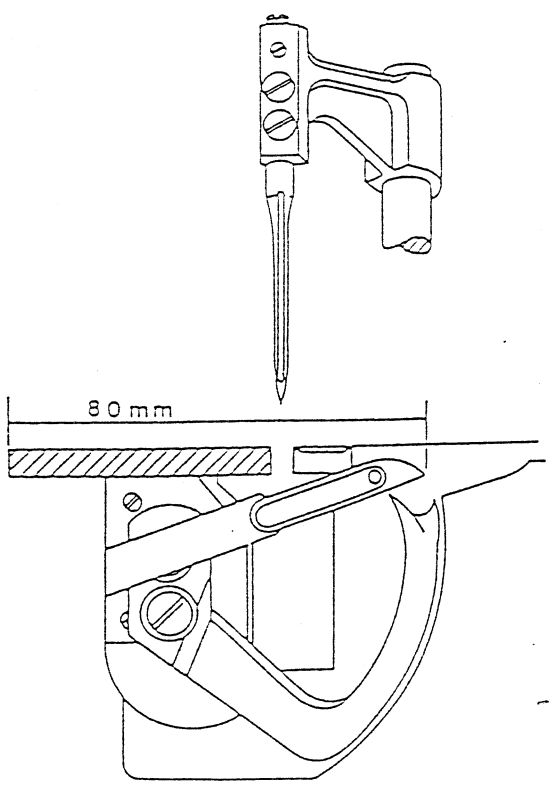


Fig. 20

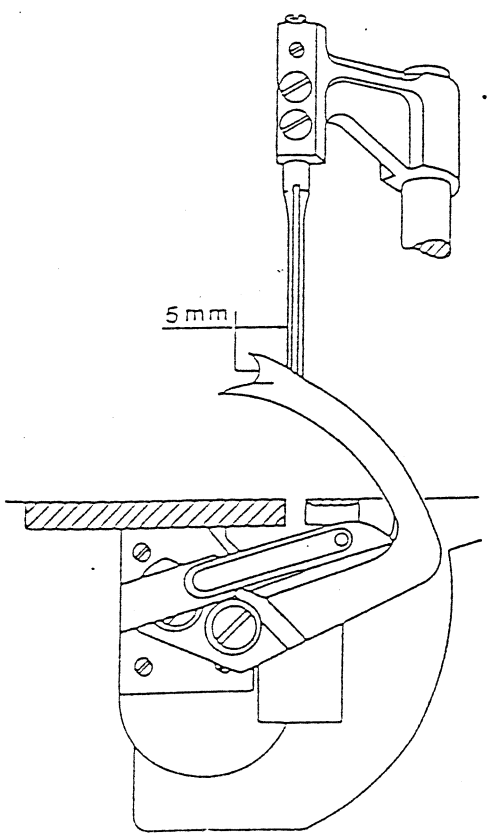


Fig. 21

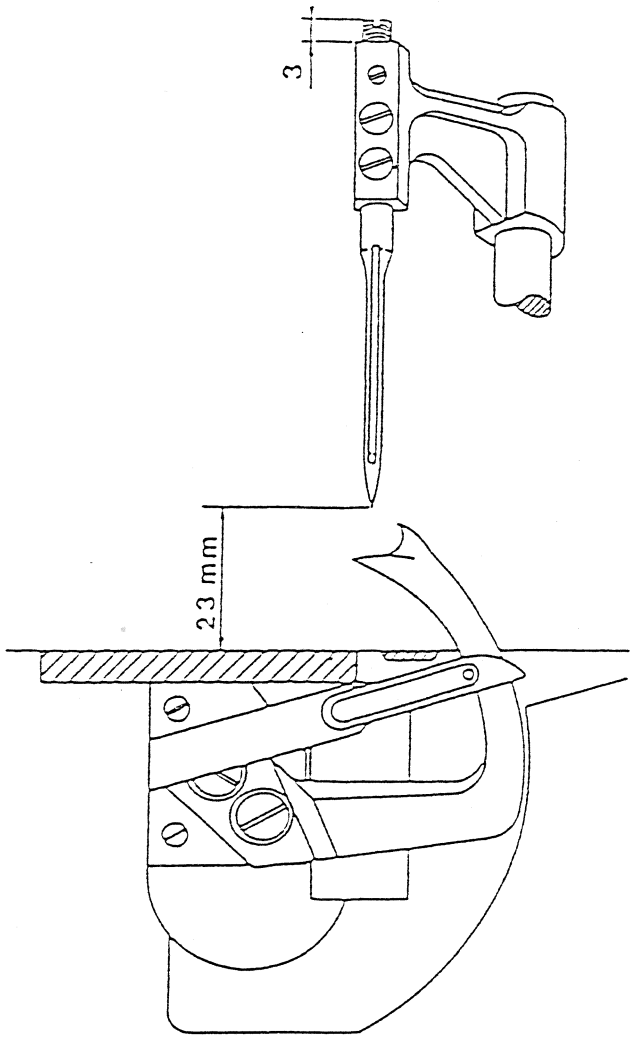


Fig. 22

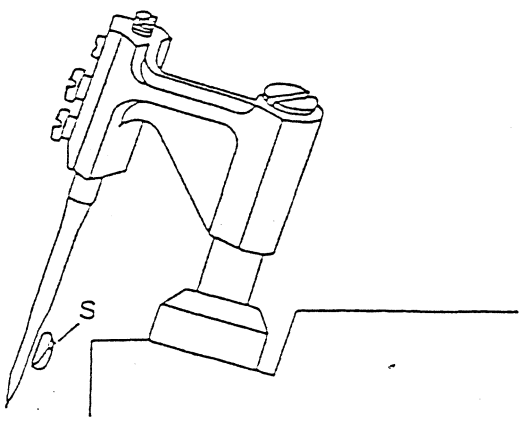


Fig. 23

YARNS

All types of yarn can be used on the 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.

FEED DOG

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 dust 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.

KNIFE

The knives are lined with plates in a hard metal allowing a service life of about two months. As these plates are extremely hard they are also very brittle, which means that 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. 12) 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 knives will have to be resharpened.

We do not advise trying to sharpen the knives without specialized machinery.

NEEDLE

Type : 7713/230,180 or 160
7713-99/230 (square pointed)

Considering the fact that the needle of the machine pierces the carpet 2800 times a minute, it is quite normal that the original shape of the needle is significantly altered after a few days. The recess in the needle which forms the loop in the yarn wears away and this causes false stitches.

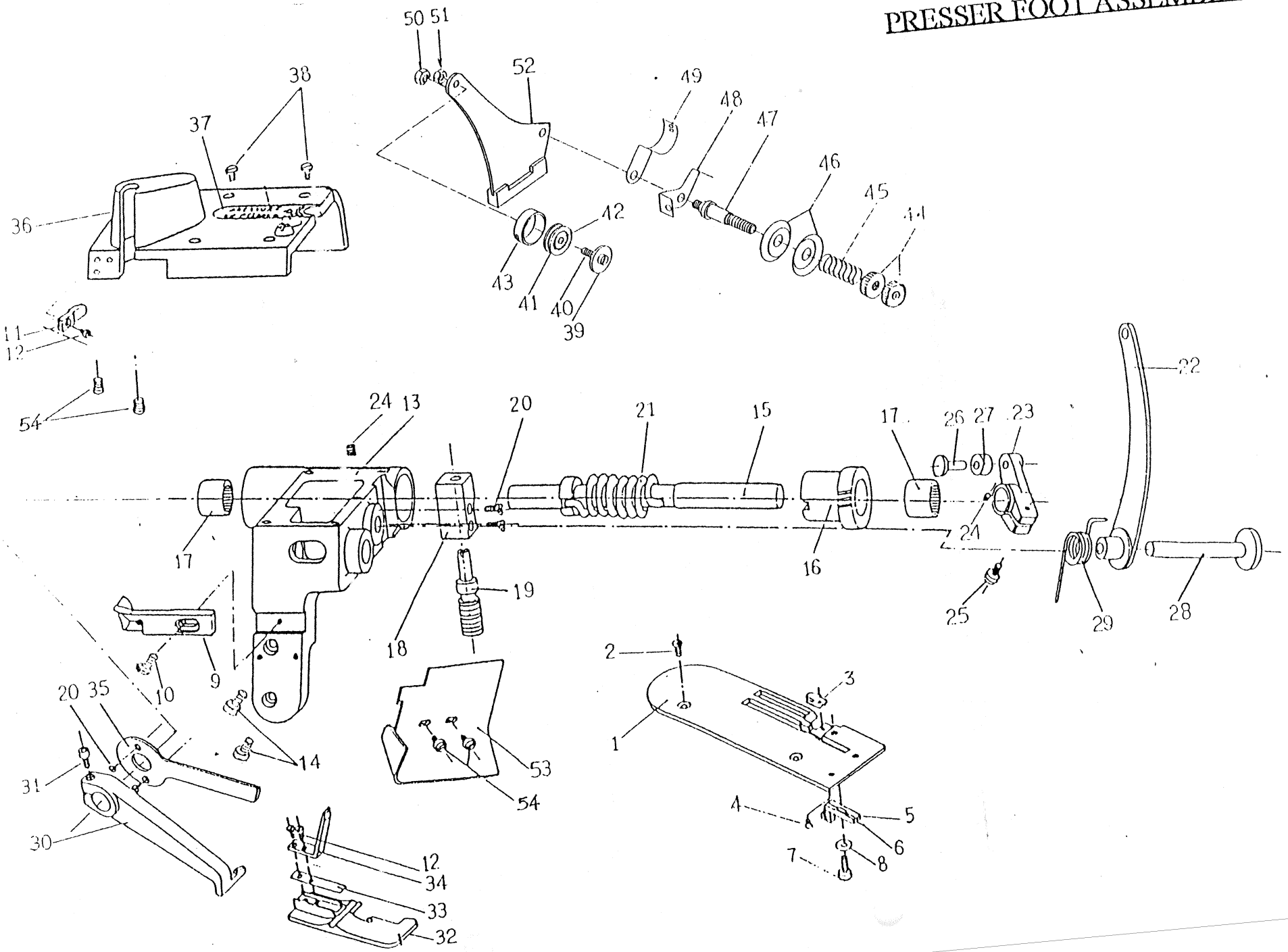
If the MACHINE runs for 8 hours a day, the needle must be at the latest replaced after one week (36 hours) by a new one. The old needle will then have pierced and been withdrawn from the carpet 10 million times.

The needle in the machine may reach a temperature of 450 °C causing the foam at the back of tufted carpets to melt and to stick to the needle. This reduces the penetration power of the needle by about 50% and causes severe overlaoding of the needle drive mechanism and a premature wear of the internal parts of the machine. Therefore we advice to lubricate the needle when sewing rubber-backed carpets. This can be done by allowing the needle yarn bobbin to soak in a parafin oil bath for 24 hours, subsequently allow the bobbin to drip out for some days, after which the yarn can be used. The parafin laden yarns prevent the needle from sticking to the rubber. Parafin oil leaves no stains on the sewn work.

When changing needles you will notice that a ring of dust has been formed around the needle shaft. It is essential that this dust ring is carefully removed BEFORE the change of the needles. If this is not done properly, 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.

PARTS BOOK

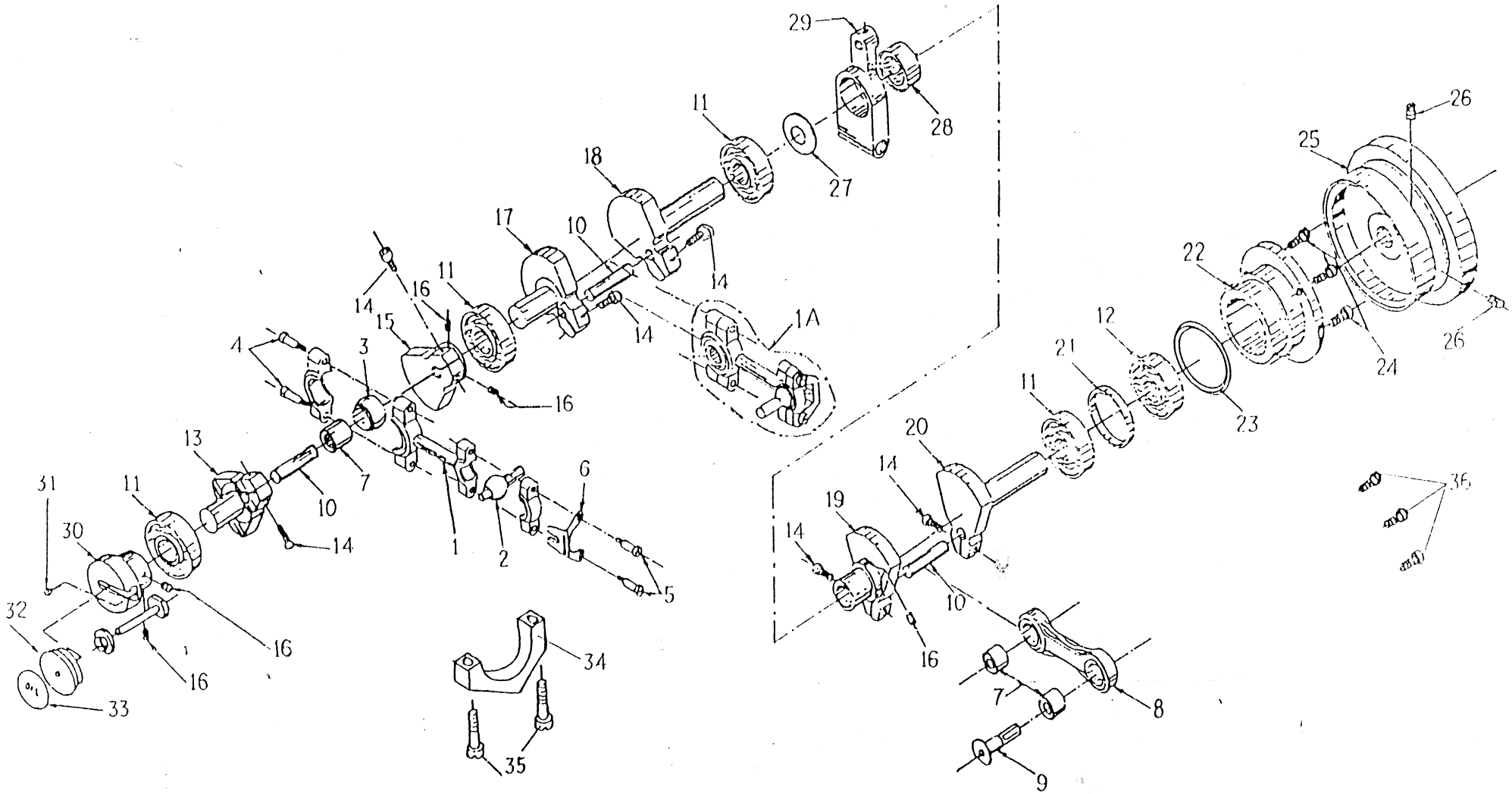
PRESSER FOOT ASSEMBLY



REF. NO.	PARTS NO.	DESCRIPTION
1	2502-01-001	NEEDLE PLATE
2	2502-01-002	SCREW
3	2502-01-003	FINGER
4	2502-01-004	SCREW
5	2502-01-005	NEEDLE GUIDE A
6	2502-01-006	NEEDLE GUIDE B
7	2502-01-007	SCREW
8	2502-01-008	WASHER
9	2502-01-009	CHAIN GUIDE
10	2502-01-010	SCREW
11	2502-01-011	TENSION RELEASER
12	2502-01-012	SCREW
13	2502-01-013	FRAME
14	2502-01-014	SCREW
15	2502-01-015	LEVER SHAFT
16	2502-01-016	BUSHING
17	2502-01-017	BEARING
18	2502-01-018	REGULATING SCREW HOLDER
19	2502-01-019	REGULATING SCREW HOLDER
20	2502-01-020	SCREW
21	2502-01-021	FOOT LIFTING SPRING
22	2502-01-022	FOOT LIFTING LEVER
23	2502-01-023	RISE LEVER
24	2502-01-024	SCREW
25	2502-01-025	SCREW
26	2502-01-026	ROLLER STUD
27	2502-01-027	ROLLER STUD
28	2502-01-028	SHAFT
29	2502-01-029	RETURN SPRING
30	2502-01-030	LEVER SHAFT

REF. NO.	PARTS NO.	DESCRIPTION
31	2502-01-031	SCREW
32	2502-01-032	PRESSURE FOOT
33	2502-01-033	SPRING
34	2502-01-034	HOLDER FOR PARALLELISM
35	2502-01-035	CONNECTING ROD
36	2502-01-036	COVER
37	2502-01-037	LABEL
38	2502-01-038	SCREW
39	2502-01-039	WASHER
40	2502-01-040	SCREW
41	2502-01-041	ROLLER STUD
42	2502-01-042	BEARING
43	2502-01-043	ROLLER HOLDER
44	2502-01-044	NUT
45	2502-01-045	TENSION SPRING
46	2502-01-046	TENSION DISC
47	2502-01-047	TENSION POST
48	2502-01-048	THREAD GUIDE
49	2502-01-049	THREAD GUIDE
50	2502-01-050	NUT
51	2502-01-051	NUT
52	2502-01-052	TENSION HOLDER
53	2502-01-053	PROTECTIVE PLATE
54	2502-01-054	SCREW

CRANK SHAFT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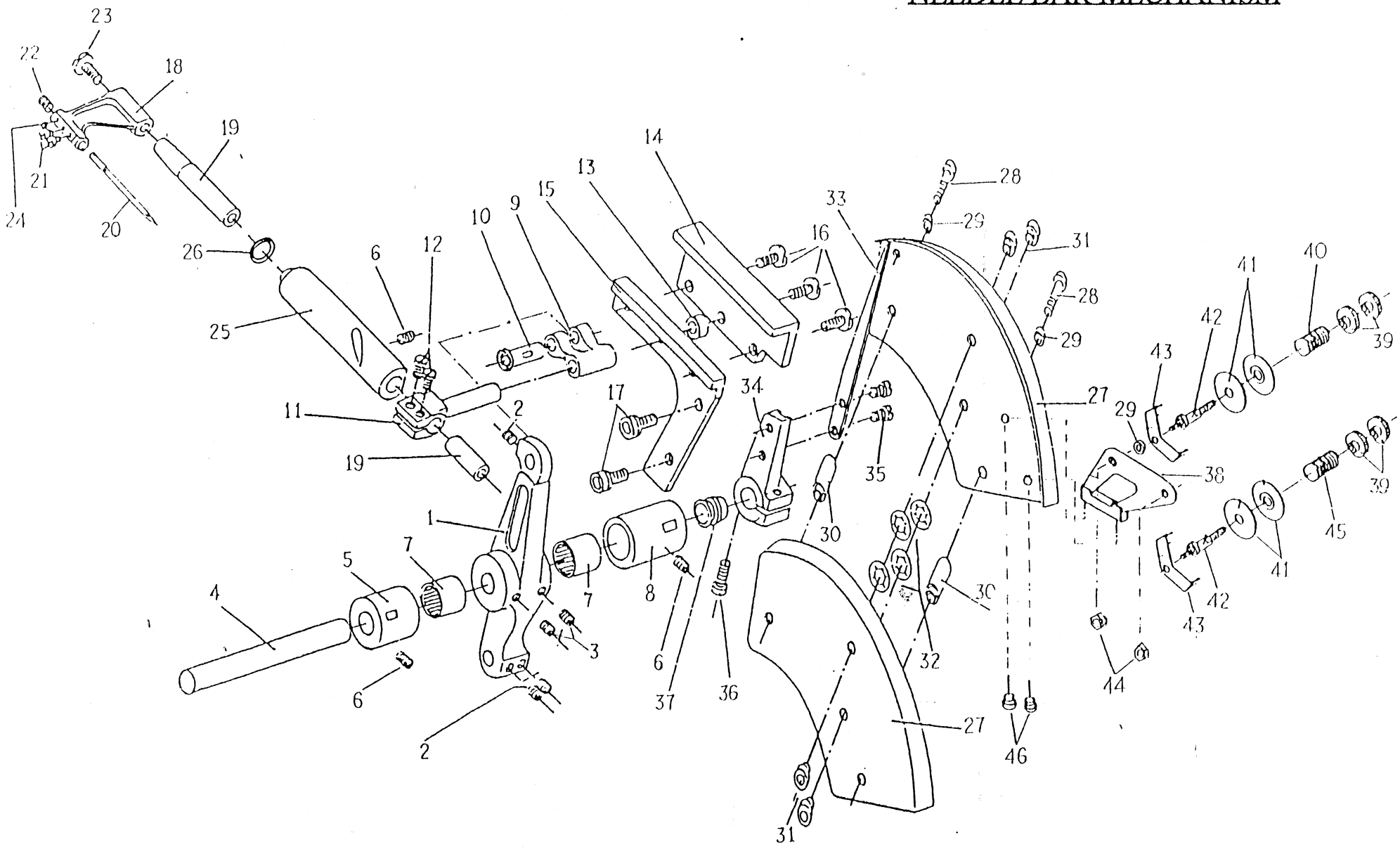
REF. NO.	PARTS NO.	DESCRIPTION
1A	2502-03-0055	CONNECTING ROD COMPLETE
1	2502-03-0056	CONNECTING ROD COMPLETE
2	2502-03-0057	BALL
3	2502-03-0058	BALL
4	2502-03-0059	CLAMP SCREW
5	2502-03-0060	CLAMP SCREW
6	2502-03-0061	BALL JOINT GUIDE FORK
7	2502-03-0062	BUSHING
8	2502-03-0063	ROD
9	2502-03-0064	STUD
10	2502-03-0065	PIN
11	2502-03-0066	BEARING
12	2502-03-0067	BEARING
13	2502-03-0068	CRANK
14	2502-03-0069	SCREW
15	2502-03-0070	CRANK
16	2502-03-0071	SCREW
17	2502-03-0072	CRANK
18	2502-03-0073	CRANK
19	2502-03-0074	CRAND
20	2502-03-0075	CRANK
21	2502-03-0076	RING
22	2502-03-0077	BEARING BUSHING
23	2502-03-0078	O-RING
24	2502-03-0079	SCREW
25	2502-03-0080	PULLEY
26	2502-03-0081	SCREW
27	2502-03-0082	WASHER
28	2502-03-0083	BEARING
29	2502-03-0084	LOWER KNIFE DRIVING LINK

REF. NO.	PARTS NO.	DESCRIPTION
30	2502-03-0085	E CENTRIC
31	2502-03-0086	S REW
32	2502-03-0087	P UG
33	2502-03-0088	
34	2502-03-0089	
35	2502-03-0090	S REW
36	2502-03-0091	S REW

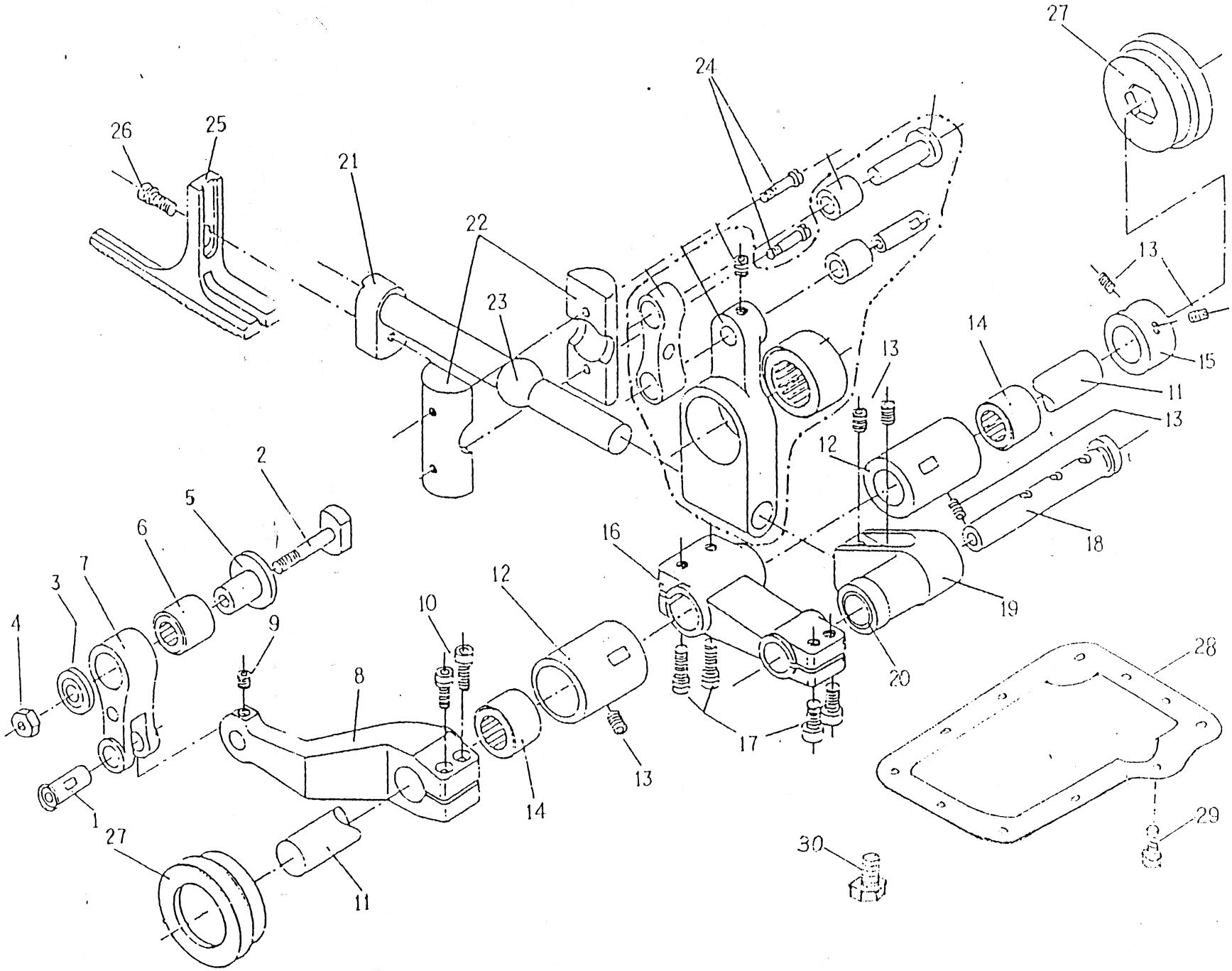
NEEDLE BAR MECHANISM



REF. NO.	PARTS NO.	DESCRIPTION
1	2502-05-0092	NEEDLE BAR LEVER
2	2502-05-0093	SCREW
3	2502-05-0094	SCREW
4	2502-05-0095	ECCENTRIC SHAFT
5	2502-05-0096	BUSHING
6	2502-05-0097	SCREW
7	2502-05-0098	BEARING
8	2502-05-0099	BUSHING
9	2502-05-0100	CONNECTION
10	2502-05-0101	LINK SHAFT
11	2502-05-0102	CONNECTION STUD
12	2502-05-0103	SCREW
13	2502-05-0104	GUIDE ROLLER
14	2502-05-0105	NEEDLE BAR GUIDE A
15	2502-05-0106	NEEDLE BAR GUIDE B
16	2502-05-0107	SCREW
17	2502-05-0108	SCREW
18	2502-05-0109	NEEDLE CLAMP
19	2502-05-0110	NEEDLE BAR
20	2502-05-0111	NEEDLE
21	2502-05-0112	SCREW
22	2502-05-0113	SCREW
23	2502-05-0114	SCREW
24	2502-05-0115	SCREW
25	2502-05-0116	NEEDLE BAR BUSHING
26	2502-05-0117	O-RING
27	2502-05-0118	THREAD GUIDE HOLDER
28	2502-05-0119	SCREW
29	2502-05-0120	WASHER
30	2502-05-0121	BUSHING

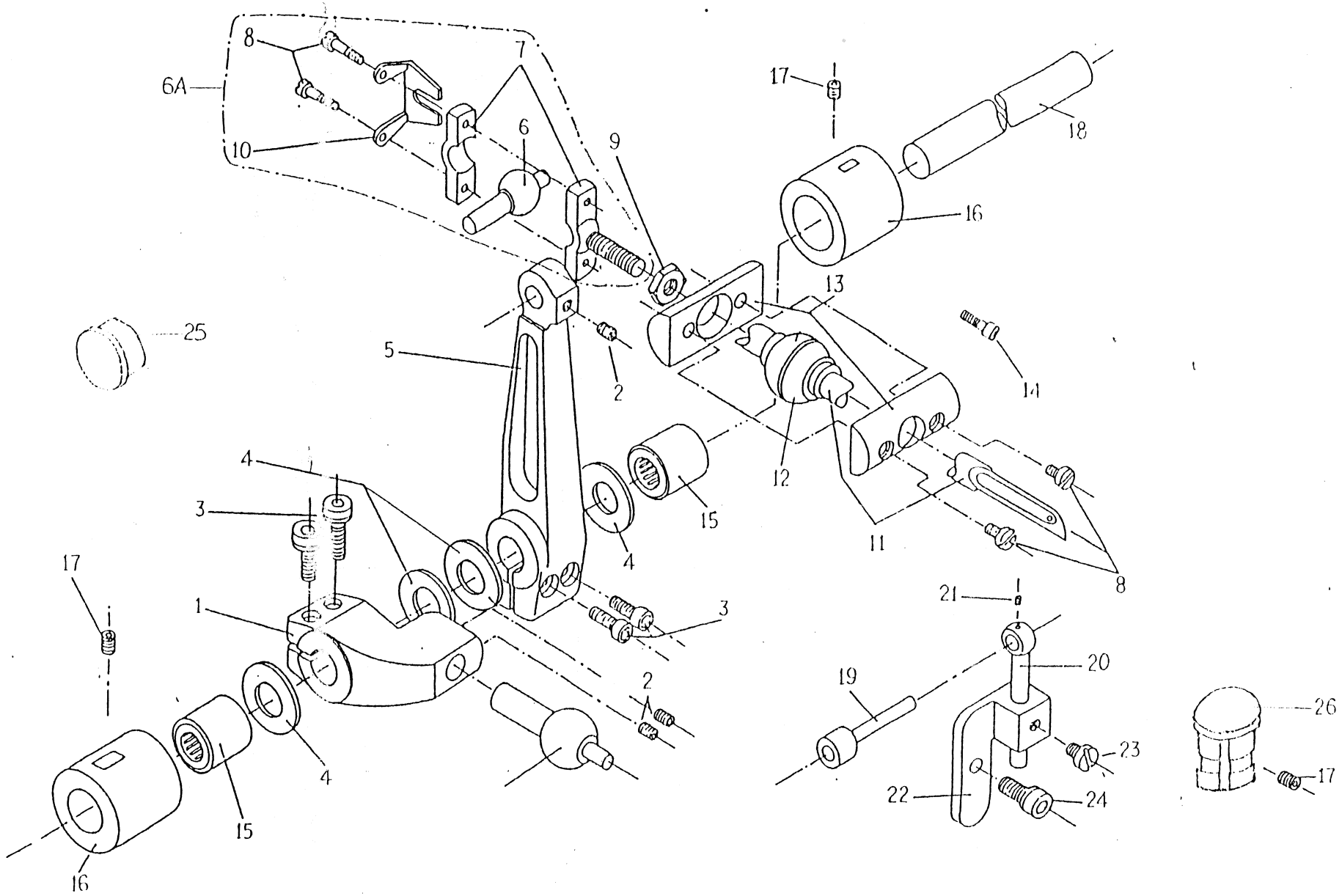
REF. NO.	PARTS NO.	DESCRIPTION
31	2502-05-0122	THREAD GUIDE PLATE
32	2502-05-0123	SPRING RING
33	2502-05-0124	THREAD TAKE-UP
34	2502-05-0125	THREAD TAKE-UP LEVER
35	2502-05-0126	SCREW
36	2502-05-0127	SCREW
37	2502-05-0128	RUBBER SEAL
38	2502-05-0129	TENSION HOLDER
39	2502-05-0130	NUT
40	2502-05-0131	TENSION SPRING
41	2502-05-0132	TENSION DISC
42	2502-05-0133	TENSION POST
43	2502-05-0134	THREAD GUIDE PLATE
44	2502-05-0135	NUT
45	2502-05-0136	TENSION SPRING
46	2502-05-0137	SCREW

FEED DOG MOVEMENT



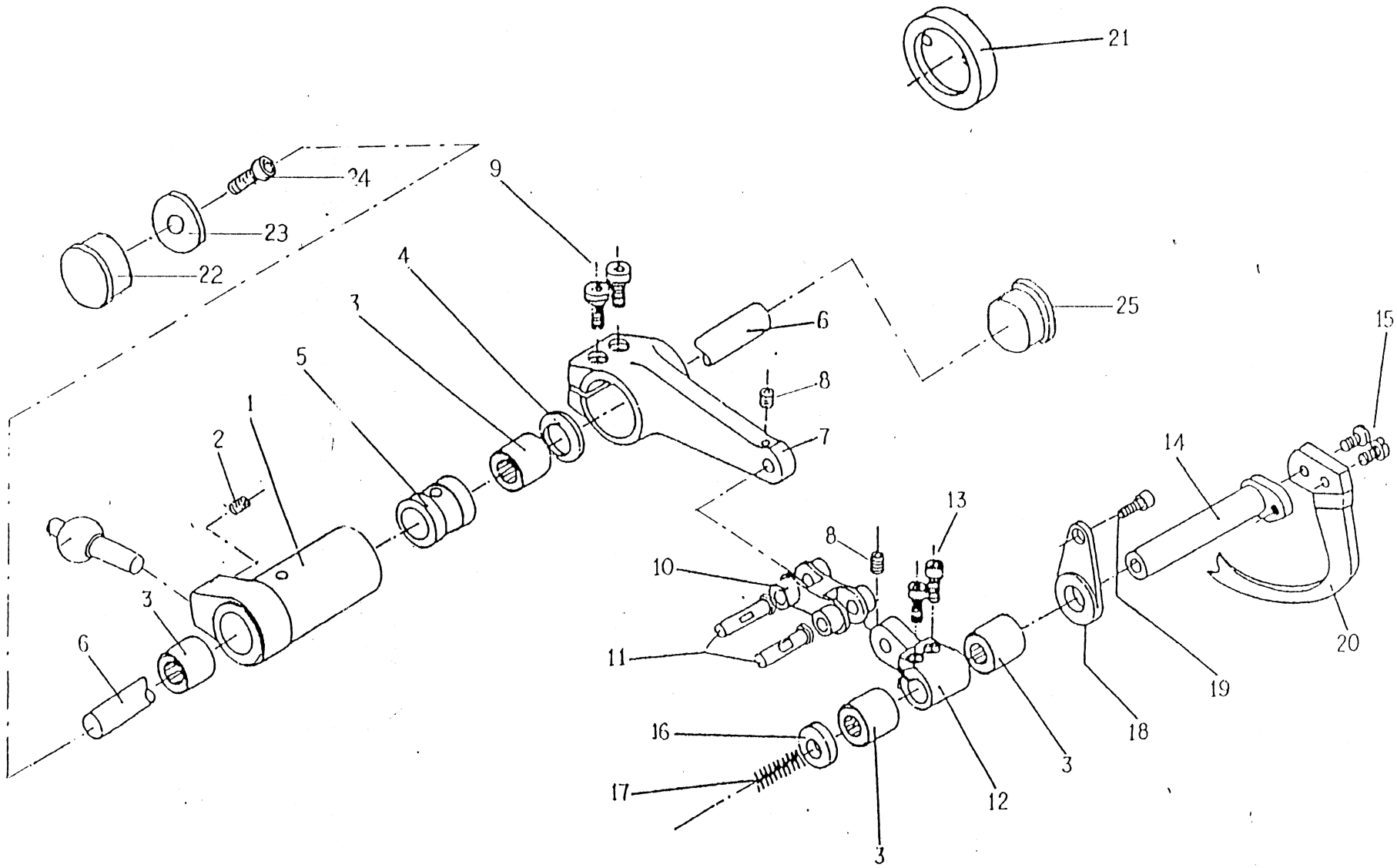
REF. NO.	PARTS NO.	DESCRIPTION
1	2502-07-0138	PIN
2	2502-07-0139	FEED ACROSS REGULATOR
3	2502-07-0140	WASHER
4	2502-07-0141	NUT
5	2502-07-0142	BEARING BUSHING
6	2502-07-0143	BEARING
7	2502-07-0144	FEED DRIVING ROD
8	2502-07-0145	FEED DRIVING LEVER
9	2502-07-0146	SCREW
10	2502-07-0147	SCREW
11	2502-07-0148	SHAFT
12	2502-07-0149	BUSHING
13	2502-07-0150	SCREW
14	2502-07-0151	BEARING
15	2502-07-0152	THRUST COLLAR
16	2502-07-0153	LEVER
17	2502-07-0154	SCREW
18	2502-07-0155	STUD
19	2502-07-0156	BASE
20	2502-07-0157	
21	2502-07-0158	FEED DOG SHAFT
22	2502-07-0159	FEED DOG SHAFT GUIDE
23	2502-07-0160	SHUTTER
24	2502-07-0161	SCREW
25	2502-07-0162	FEED DOG
26	2502-07-0163	SCREW
27	2502-07-0164	PLUG
28	2502-07-0165	GASKET
29	2502-07-0166	SCREW
30	2502-07-0167	DRAINAGE SCREW

LOWER LOOPER MECHANISM



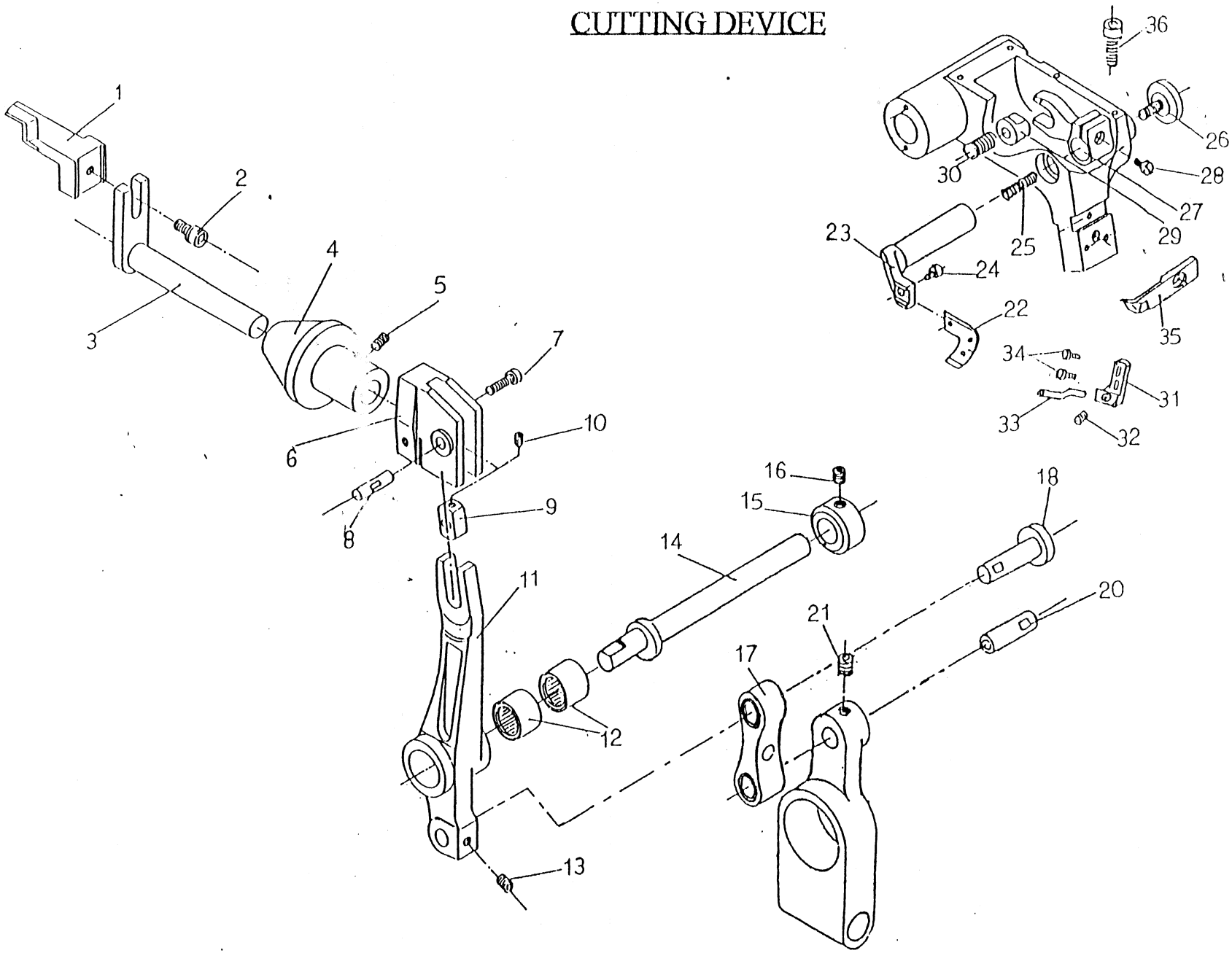
REF. NO.	PARTS NO.	DESCRIPTION
1	2502-09-0168	SMALL LEVER
2	2502-09-0169	SCREW
3	2502-09-0170	SCREW
4	2502-09-0171	WASHER
5	2502-09-0172	DRIVING LEVER
6	2502-09-0173	CONNECTING BALL
7	2502-09-0174	CONNECTING BALL JOINT
8	2502-09-0175	SCREW
9	2502-09-0176	NUT
10	2502-09-0177	BALL JOINT GUIDE FORK
11	2502-09-0178	LOWER LOOPER
12	2502-09-0179	BALL JOINT GUIDE FORK
13	2502-09-0180	UPPER LOOPER BALL JOINT
14	2502-09-0181	SCREW
15	2502-09-0182	NEEDLE BEARING
16	2502-09-0183	BUSHING
17	2502-09-0184	SCREW
18	2502-09-0185	SHAFT
19	2502-09-0186	THREAD GUIDE
20	2502-09-0187	THREAD GUIDE SUPPORTING SHAFT
21	2502-09-0188	SCREW
22	2502-09-0189	THREAD GUIDE HOLDER
23	2502-09-0190	SCREW
24	2502-09-0191	SCREW
25	2502-09-0192	PLUG
26	2502-09-0193	MACHINE PLUG

UPPER LOOPER MECHANISM



REF. NO.	PARTS NO.	DESCRIPTION
1	2502-11-0194	INTEMEDIATE LEVER
2	2502-11-0195	SCREW
3	2502-11-0196	BEARING
4	2502-11-0197	WASHER
5	2502-11-0198	BUSHING
6	2502-11-0199	SHAFT
7	2502-11-0200	BIG LEVER
8	2502-11-0201	SCREW
9	2502-11-0202	SCREW
10	2502-11-0203	CONNECTION LINK
11	2502-11-0204	LINK PIN
12	2502-11-0205	SMALL LEVER
13	2502-11-0206	SCREW
14	2502-11-0207	UPPER LOOPER
15	2502-11-0208	SCREW
16	2502-11-0209	WASHER
17	2502-11-0210	SPRING
18	2502-11-0211	TRUST PLATE
19	2502-11-0212	SCREW
20	2502-11-0213	UPPER LOOPER
21	2502-11-0214	OIL WINDOW
25	2502-11-0215	MACHINE PLUG

CUTTING DEVICE



REF. NO.	PARTS NO.	DESCRIPTION
1	2502-13-0216	LOWER KNIFE
2	2502-13-0217	SCREW
3	2502-13-0218	LOWER KNIFE SHAFT
4	2502-13-0219	LOWER KNIFE BUSHING
5	2502-13-0220	SCREW
6	2502-13-0221	SLIDE BLOCK GUIDE
7	2502-13-0222	SCREW
8	2502-13-0223	LINK PIN
9	2502-13-0224	SLIDE BLOCK GUIDE
10	2502-13-0225	SCREW
11	2502-13-0226	LOWER KNIFE LEVER COMPLETE
12	2502-13-0227	BEARING
13	2502-13-0228	SCREW
14	2502-13-0229	ECCENTRIC
15	2502-13-0230	COLLAR
16	2502-13-0231	SCREW
17	2502-13-0232	DRIVING LINK
18	2502-13-0233	STUD
20	2502-13-0234	LOWER SHAFT
21	2502-13-0235	SCREW
22	2502-13-0236	UPPER KNIFE
23	2502-13-0237	UPPER KNIFE HOLDER
24	2502-13-0238	SCREW
25	2502-13-0239	SPRING
26	2502-13-0240	SCREW
27	2502-13-0241	POSITIONING LEVER
28	2502-13-0242	SCREW
29	2502-13-0243	SLIDE BLOCK GUIDE
30	2502-13-0244	FEED SPRING
31	2502-13-0245	FINGER HOLDER

REF. NO.	PARTS NO.	DESCRIPTION
32	2502-13-0246	SET SCREW
33	2502-13-0247	FINGER HOLDER
34	2502-13-0248	SCREW
35	2502-13-0249	CHAIN GUIDE
36	2502-13-0250	SCREW