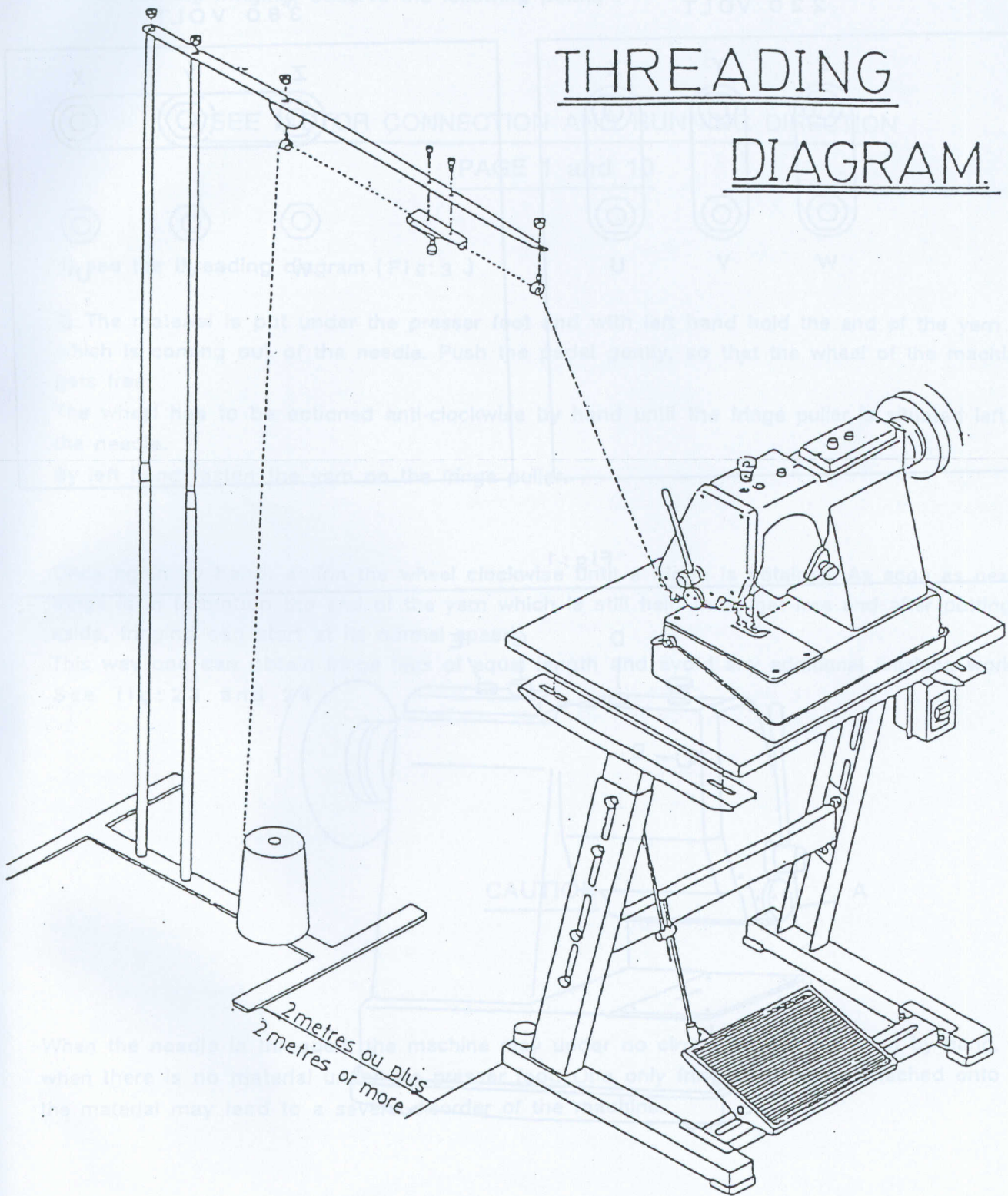


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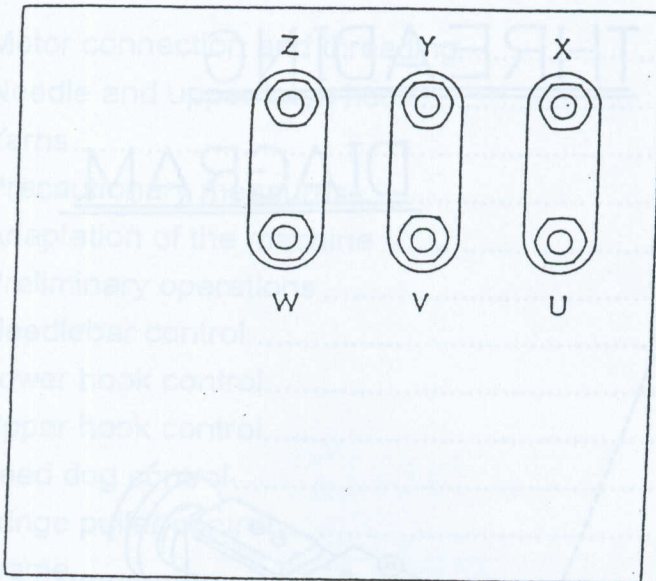
THREADING DIAGRAM.



Always tighten the end of the yarn coming out of the needle, under the presser foot, together with the material or else you can follow the above mentioned instructions.

INDEX

220 VOLT



380 VOLT

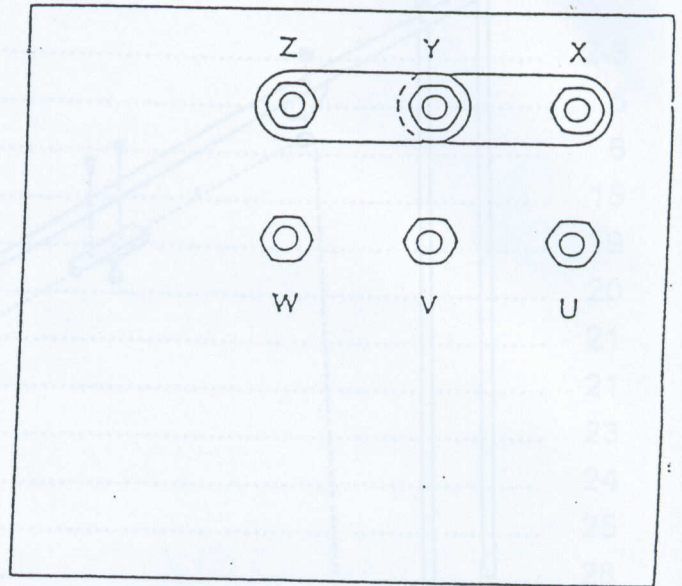


Fig :-1

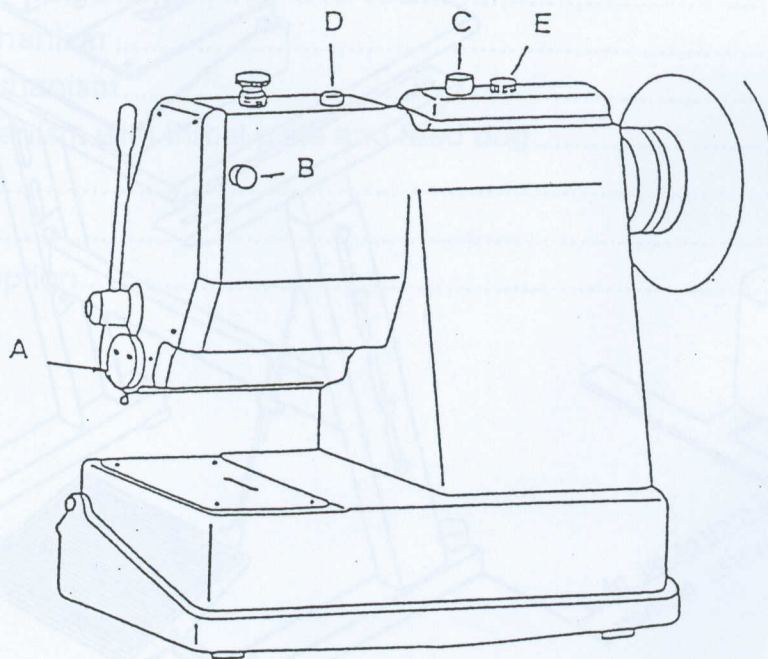


Fig:2

When starting fringing, observe the following points :

SEE MOTOR CONNECTION AND RUNNING DIRECTION

PAGE 1 and 10

1) see the threading diagram (Fig: 3 .)

2) The material is put under the presser foot and with left hand hold the end of the yarn which is coming out of the needle. Push the pedal gently, so that the wheel of the machine gets free.

The wheel has to be actioned anti-clockwise by hand until the fringe puller is situated left of the needle.

By left hand fasten the yarn on the fringe puller.

Once again by hand, action the wheel clockwise until a fringe is obtained. As soon as next fringe is in formation the end of the yarn which is still held must get free and after putting it aside, fringing can start at its normal speed.

This way one can obtain fringe legs of equal length and avoid any additional finishing work.

See fig: 23 and 24 .

CAUTION

When the needle is threaded, the machine may under no circumstances run even by hand, when there is no material under the presser foot. One only fringe improperly attached onto the material may lead to a severe disorder of the machine.

Always tighten the end of the yarn coming out of the needle, under the presser foot together with the material or else you can follow the above mentioned instructions.

the needle

Same should always be adapted to the kind of material which has to be handled :

Rugs and carpets	n° 7712/330
wall carpets, table mats and shawls	n° 7712/280

Some specific materials might require ball point needles.

Fig:13

Each type of needle requires a corresponding adjustment of the lower hook n°266 and the needle guard n° 151. (needle bar mechanism)

When the needle has been sewing for some time, a ring of dust is surrounding it. Same has to be eliminated before removing the needle from its housing. This in order to prevent that dust should enter the housing when inserting a new needle.
It would reduce the height of the housing and automatically bring the needle too low, which also leads to a disadjustment of the machine.

the upper latch hook

The original shape of the latch hook may get modified by the passing through of knots which may appear in some of the fringing yarns.
Consequently try as much as possible to avoid the use of such yarns.

The positioning of the latch hook is also very important.

Before removing the used latch hook, carefully eliminate the ring of dust which is surrounding it. After cleaning only the new latch hook can be introduced without taking the risk of pushing the dust inside the housing and once more disadjust the machine (low position).

The upperhook is fitted with a small latch. When placing a new one, check that the latch is in a perfect straight position with regard to the small groove made to this effect in the throat plate.

The latch hook is slightly bent. When this curve has gone and when consequently the hook is straight, replace it (see instruction manual : the upper hook control).

THE YARNS

The machine will not be able to take any moist fringing yarns.

Therefore, it is perfectly useless to try any adjustment of the machine. The only possible solution is to let the yarn dry properly.

When a needle hygrometer is available one can easily determine the rate of moistness. At 1% the machine will start to get problems: it produces faulty stitches as well as double knots, and beyond this rate it will simply refuse to work.

In order to produce large spools of yarn of about 6 to 7 kgs, supposedly "without knots" some yarn spinning factories use "latex" for end to end joining of the yarns.

The users of fringing machines should ask their suppliers of fringing yarns not to glue the yarns with latex.

Such assemblings are considerably braking the running of the yarn when passing through the upper hook n° 8. the upper hook will bend or break and consequently cause severe damage to the machine.

It is advised to attach the ends of the yarns by a simple knot which will simply break when touching the needle without causing any damage to the machine.

In order to use AK-2200 in a correct way, the use of a conveyor is indispensable to guide the carpet through the machine. One must have at disposal either an easy running carriage on small rails or a blowing table which lifts the carpet with the help of air and makes it float over the table which enables the machine to drive on the carpet without any resistance. (USE PULLER AK-2600)

When no such equipment is available, do not in any case stand behind the machine and pull the carpet. Such manoeuvre would drive the needle away from its original course and make it hit the throat plate instead of penetrating it.

A severe damage would be caused to many parts and an entire readjustment would have to be carried out.

One can also roll part of the carpet, leaving a part of it straight in order to be placed under the presser foot of the machine and push gently the entire roll.

The above is suitable for large carpets. Small carpets can be sewed directly without any further accessories.

NEEDLE AND TROATPLATE

Fringing machines needles being rather thick (normally 3.3 mm) and the eye of it being rather big, the remaining material on both sides of the eye is of course very thin.

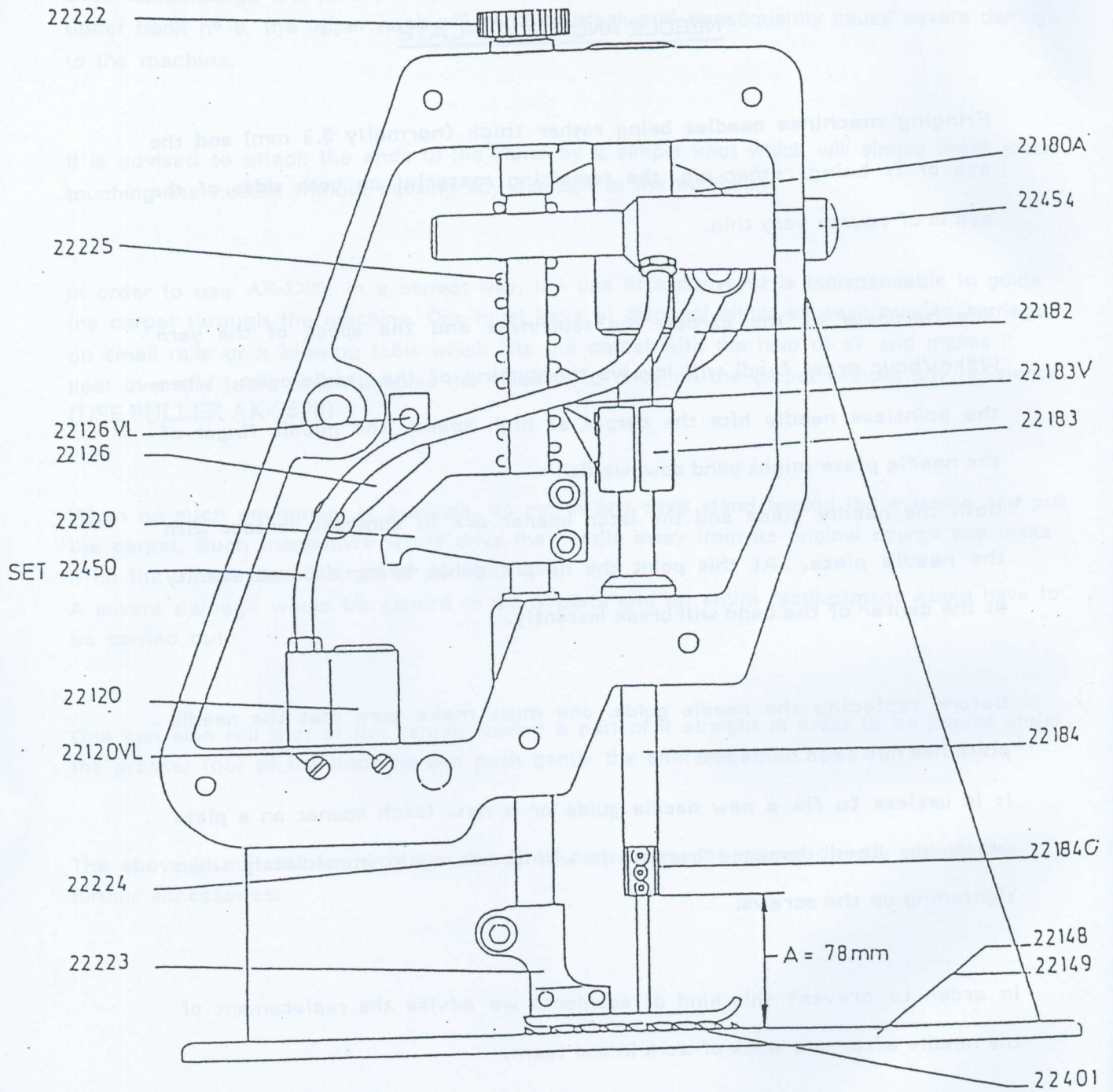
The hardness of the carpet, the roughness and the speed of the yarn (25km/hour cross feed) will involve the cutting of the needle point. When the pointless needle hits the carpet at high speed, the middle finger of the needle plate might bend downwards.

Both the needle guide and the latch opener are in constant contact with the needle plate. At this point the needle guide being situated exactly at the center of the bend will break instantly.

Before replacing the needle guide, one must make sure that the needle plate has not been damaged.

It is useless to fix a new needle guide or a new latch opener on a plate which has been damaged because it will break again immediately when tightening up the screws.

In order to prevent this kind of accidents we advise the replacement of the needle after one week of work in one team.



(FIG. 4)

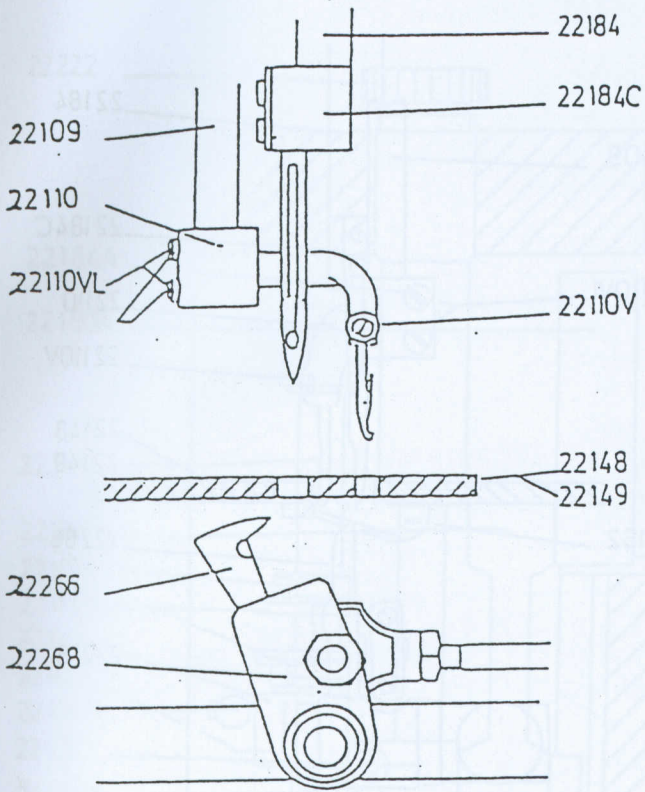


FIG. 5

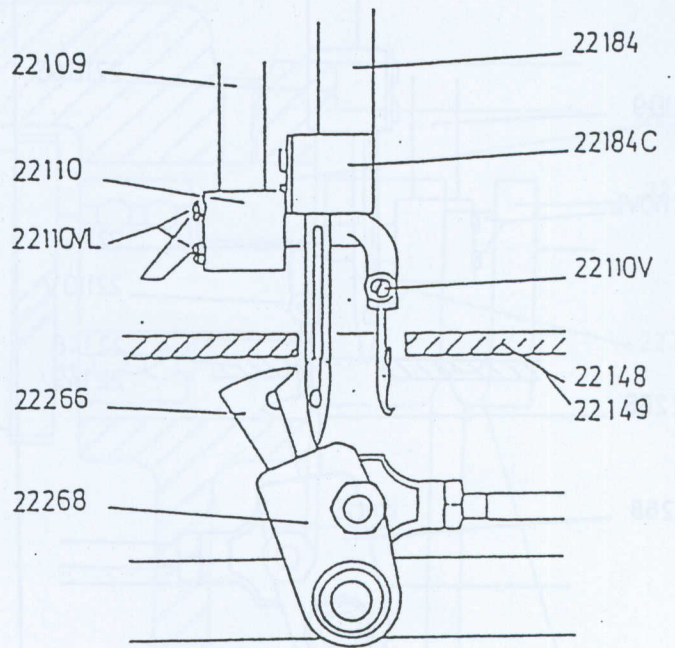


FIG. 6

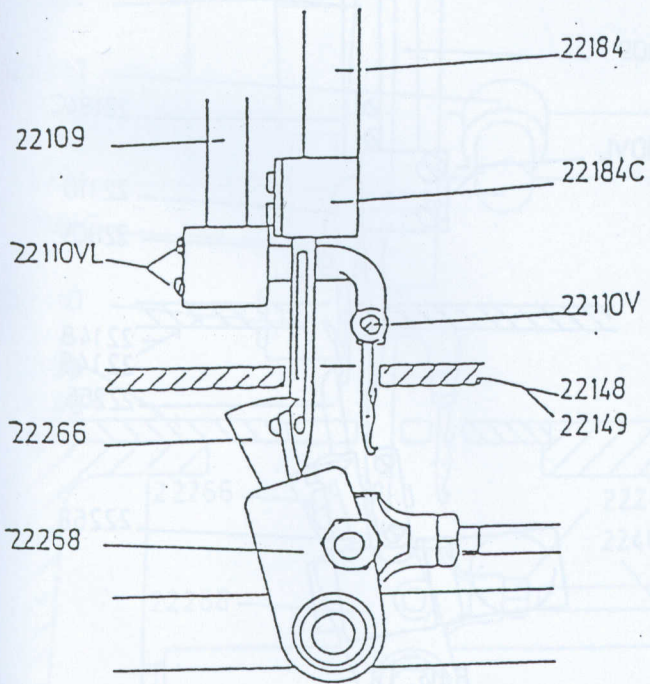


FIG. 7

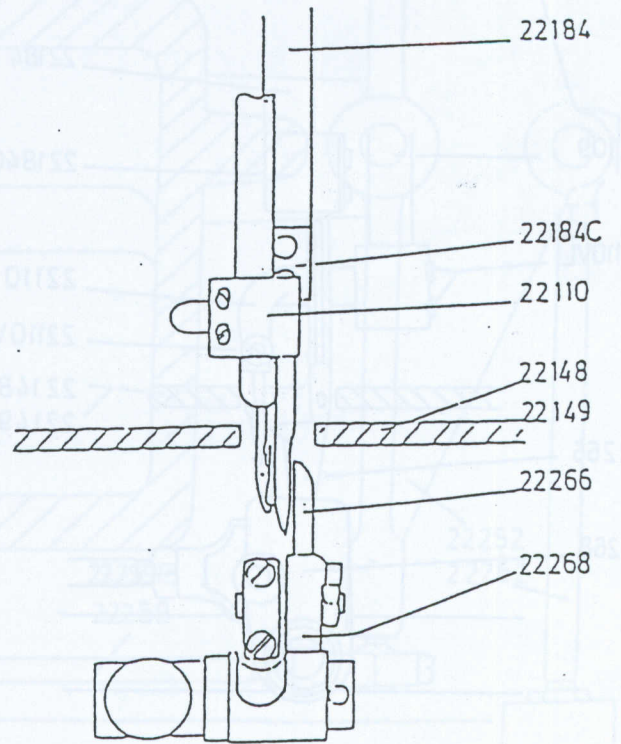


FIG. 8

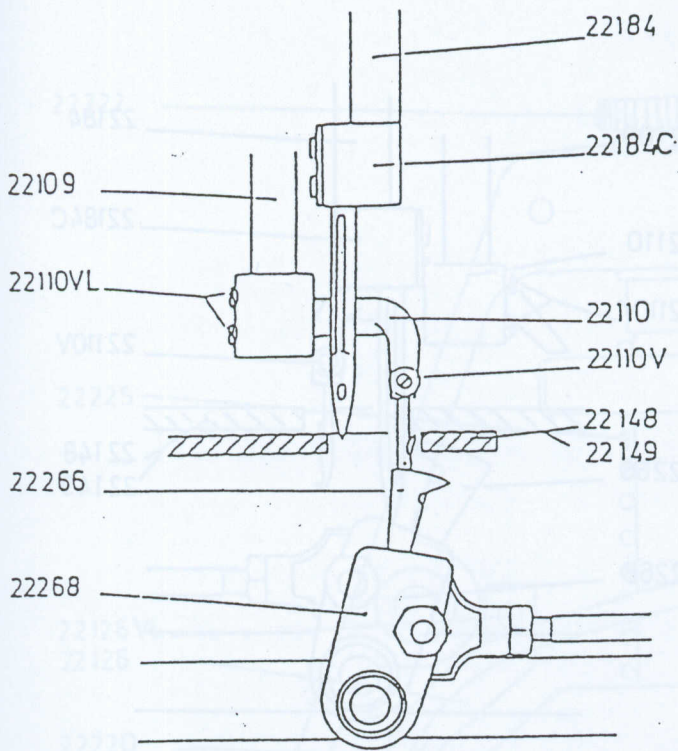


FIG. 9

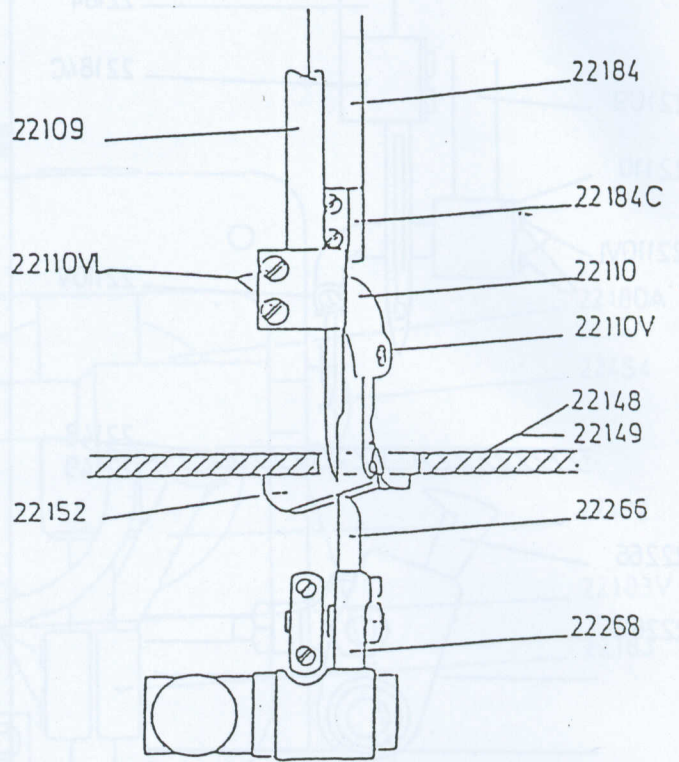


FIG. 10

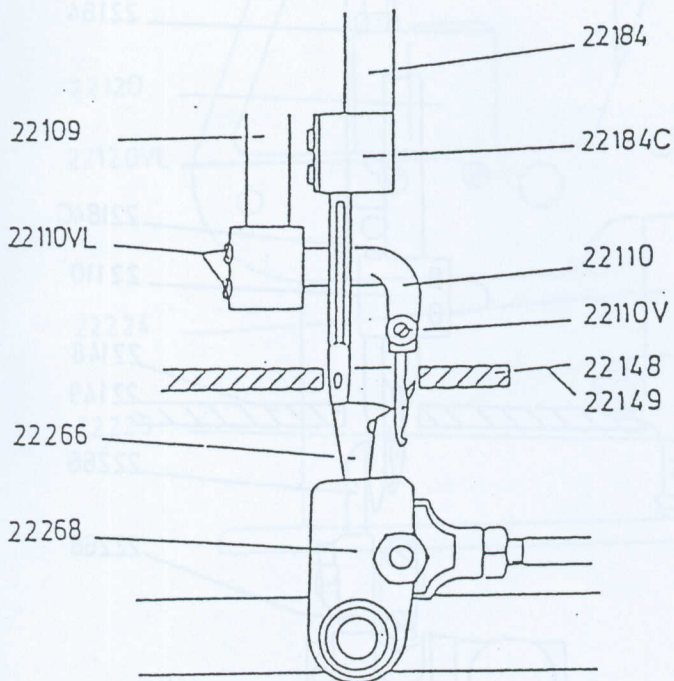


FIG. 11

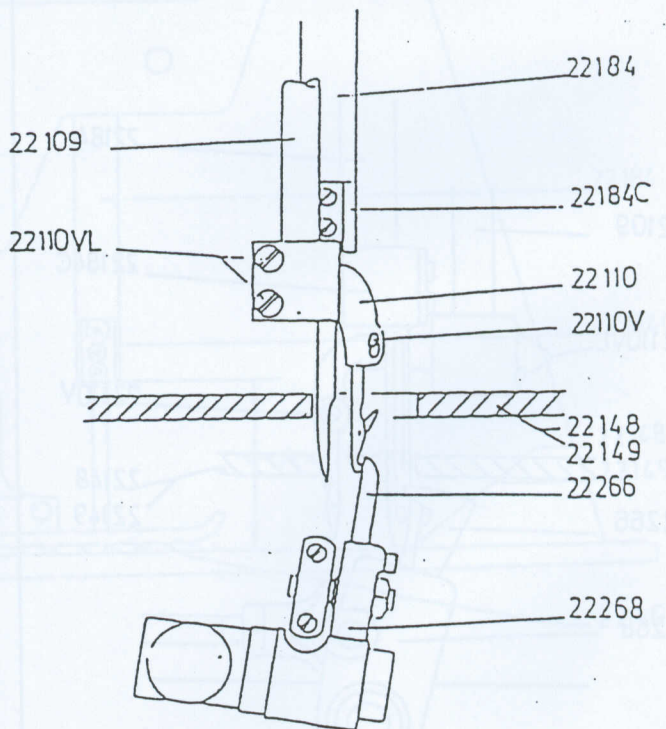
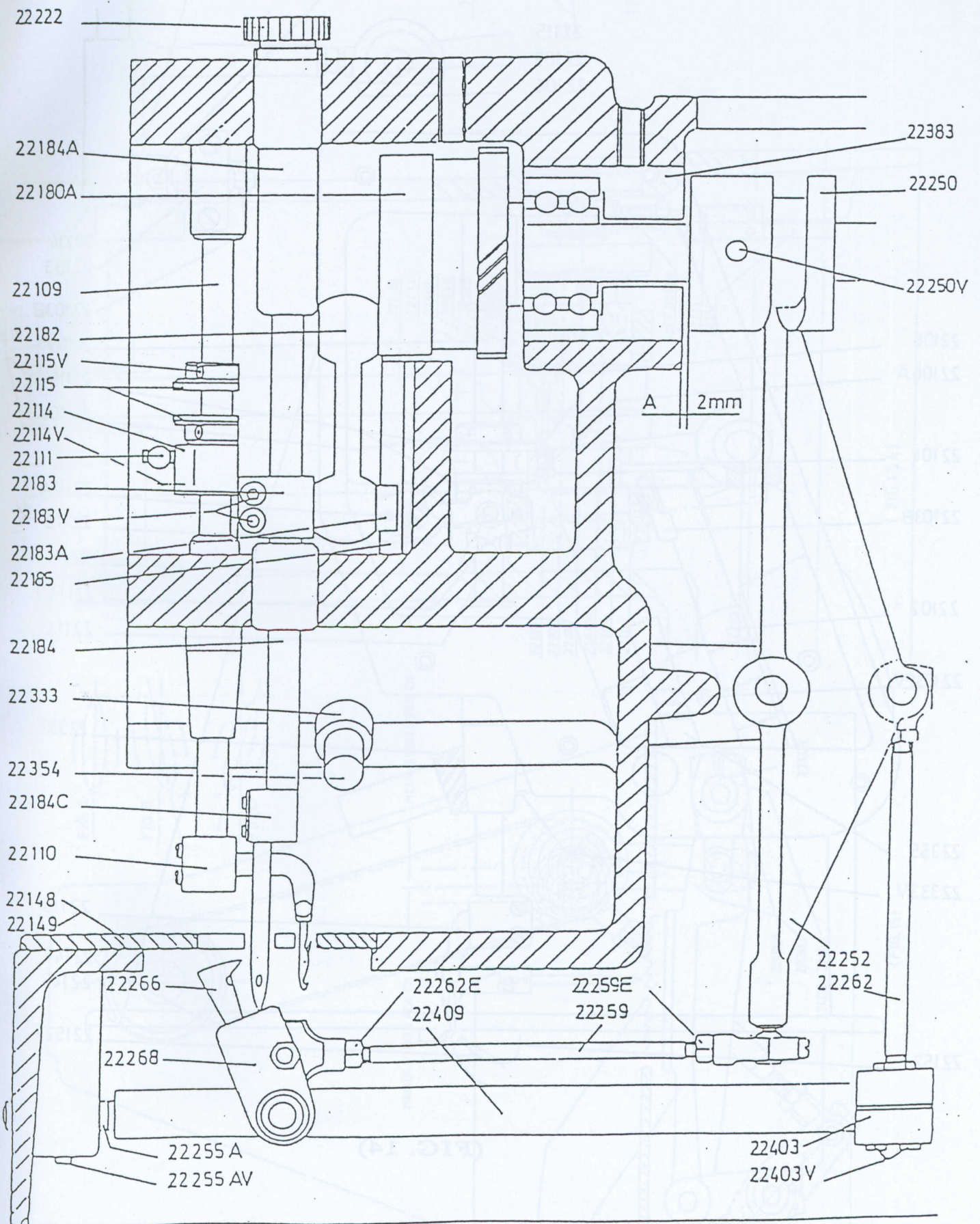
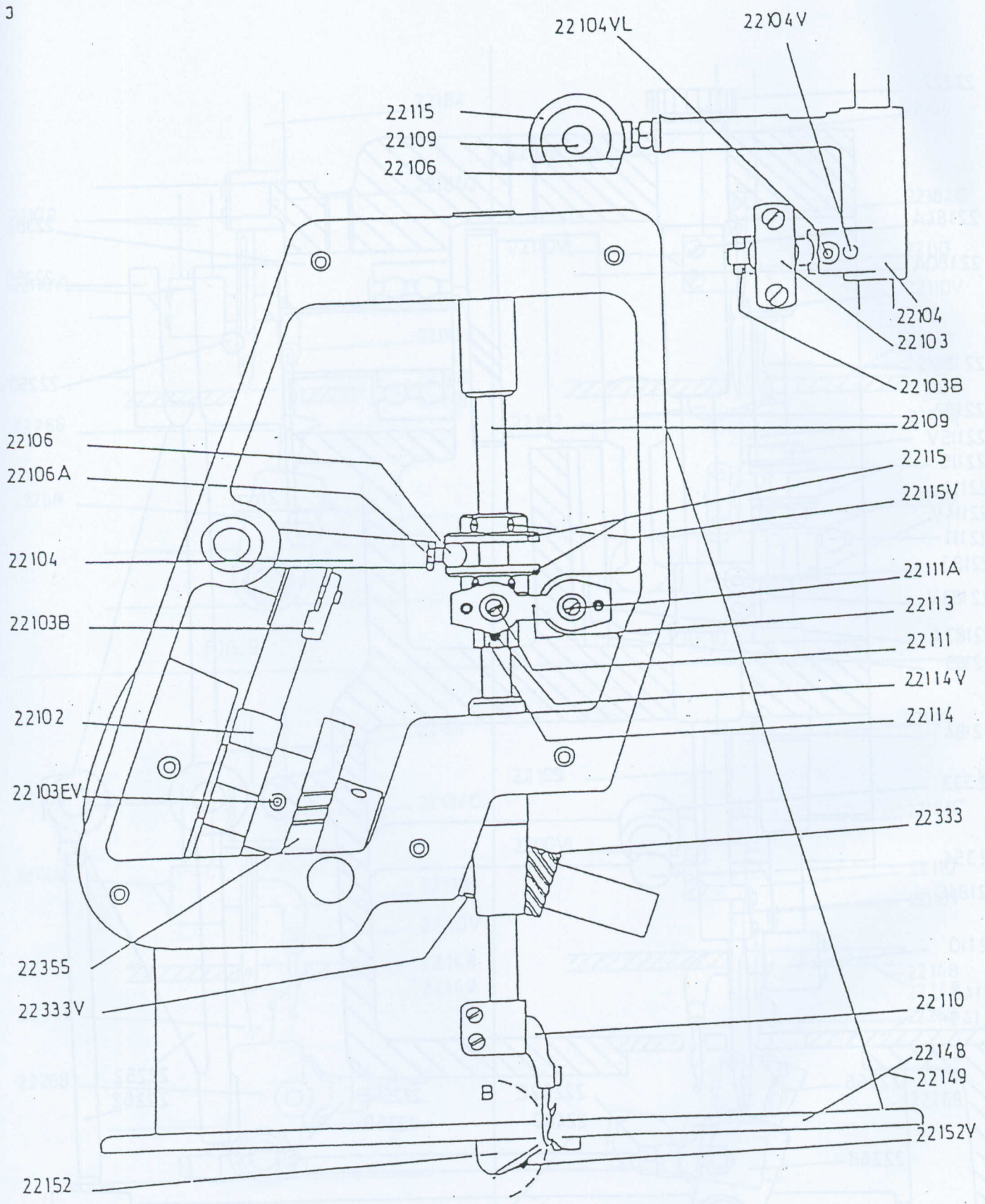
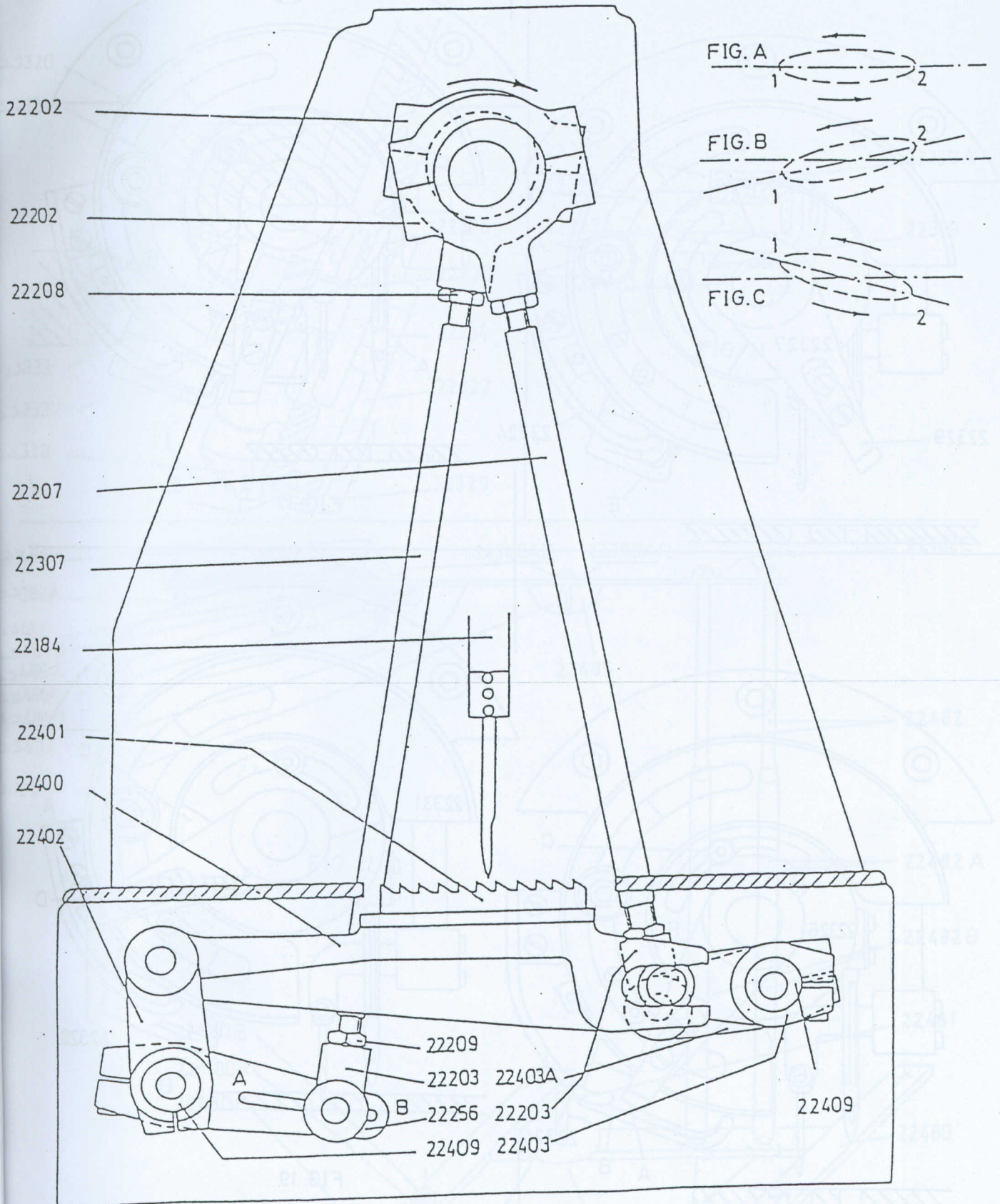


FIG. 12





(FIG. 14)



(FIG. 15)

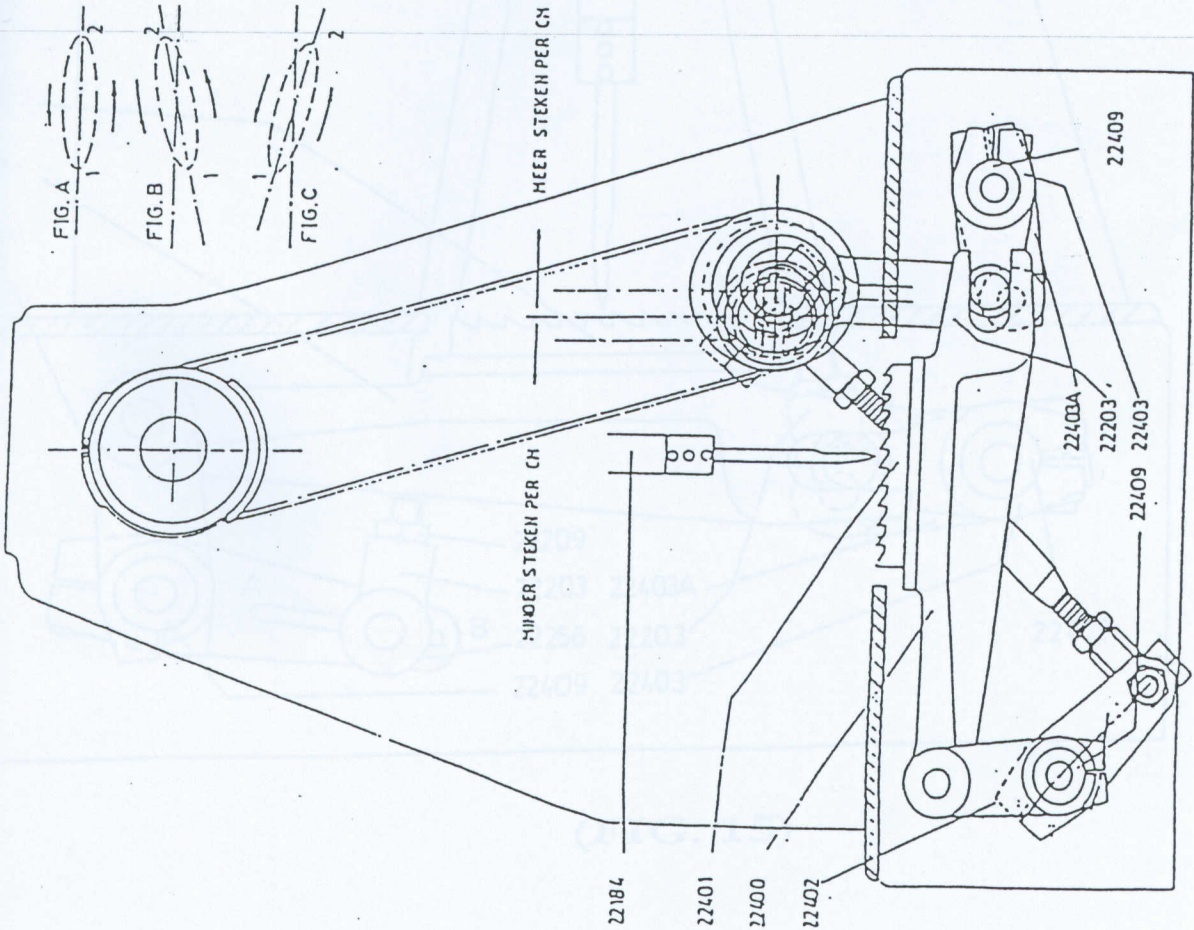
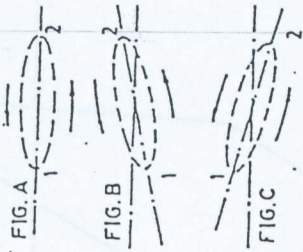
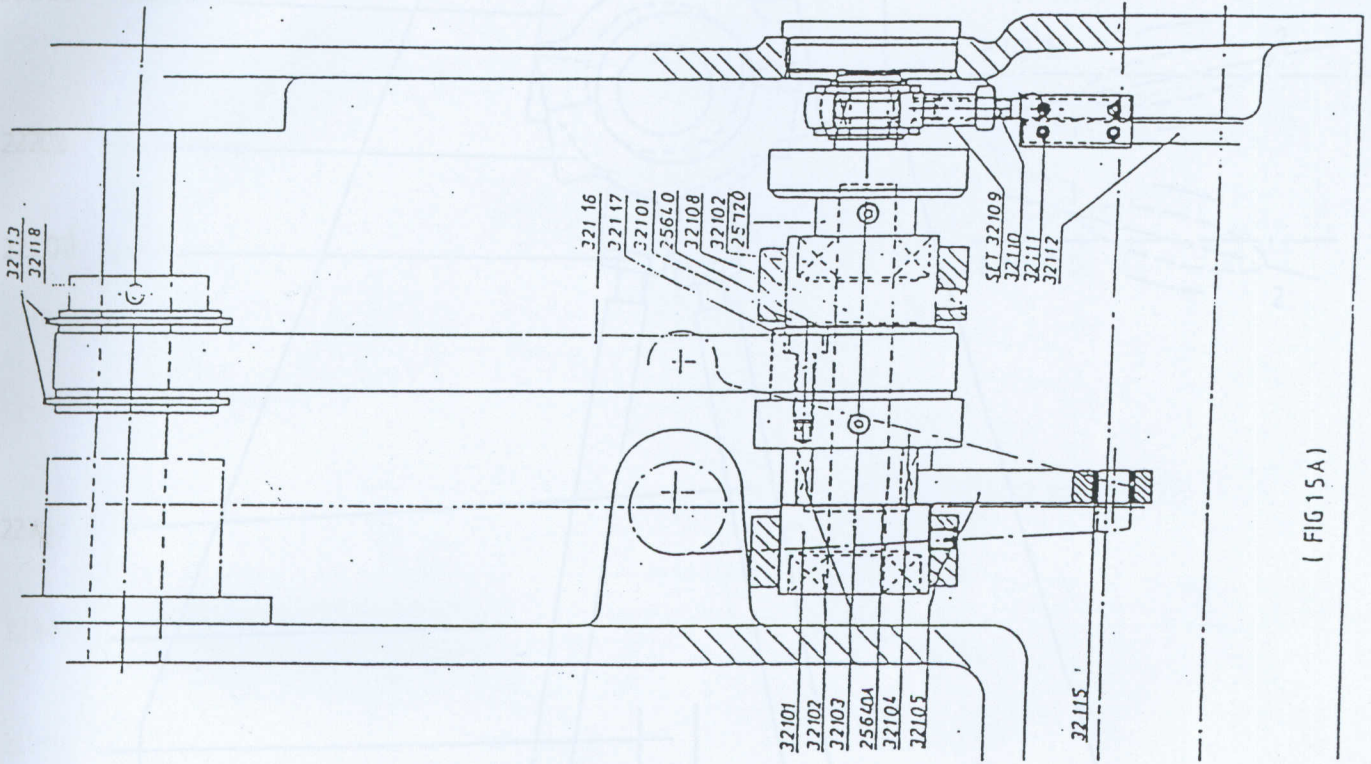
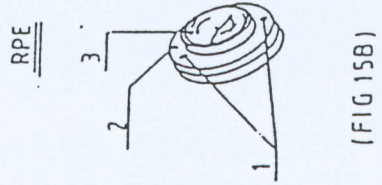


FIG. 16

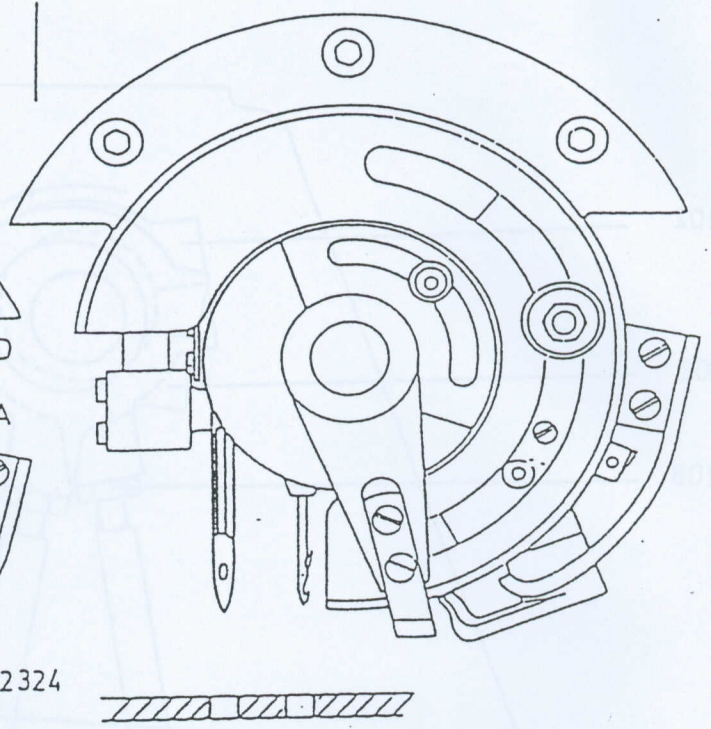
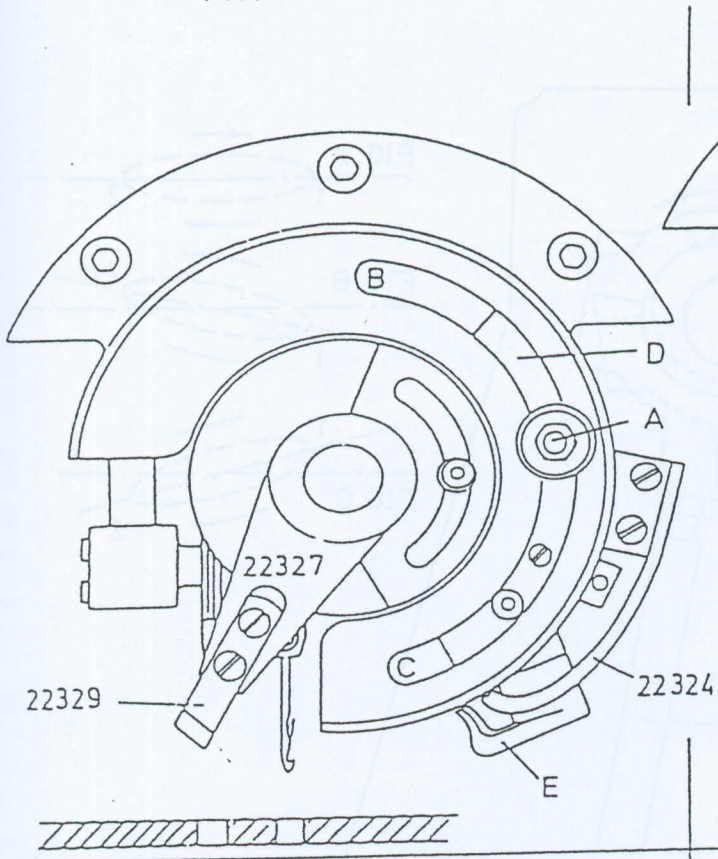


FIG. 17

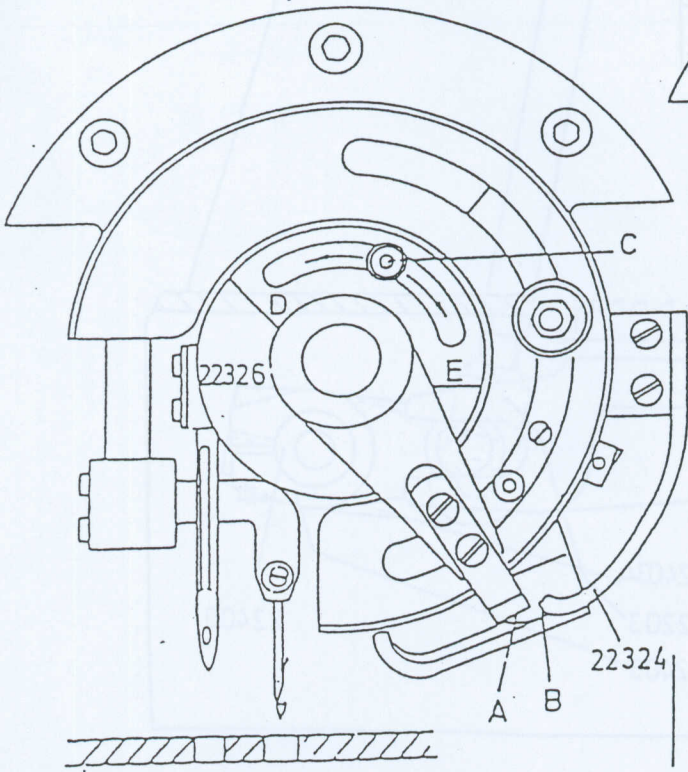


FIG. 18

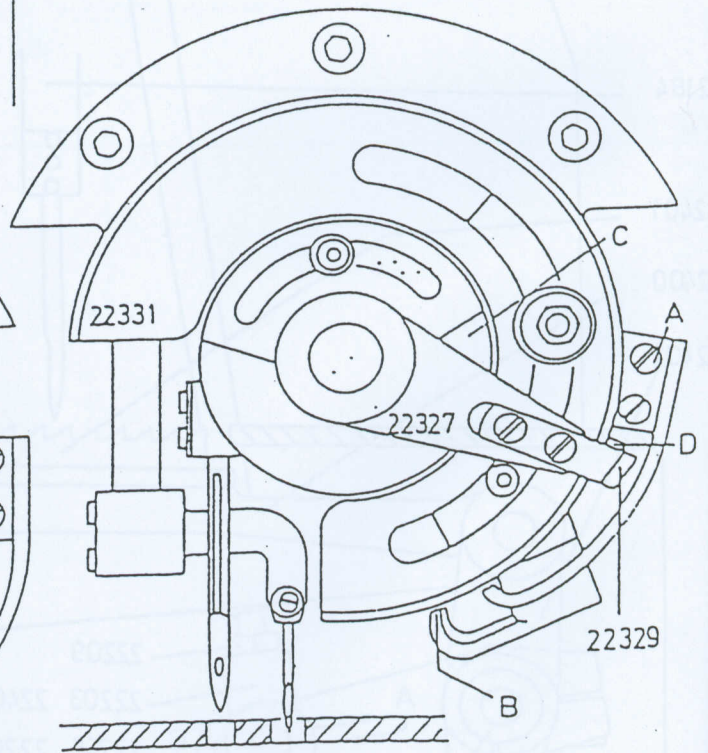


FIG. 19

2232
22321
22333
22333
2328
2486V
2369A
2486
2486C
2486A
2486C
2486E
2483
2369A

FIG. 20

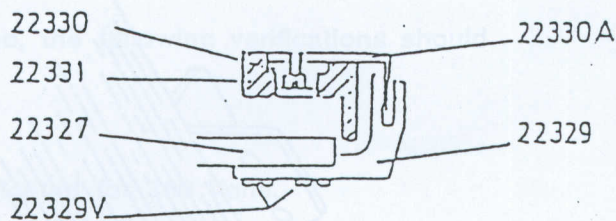
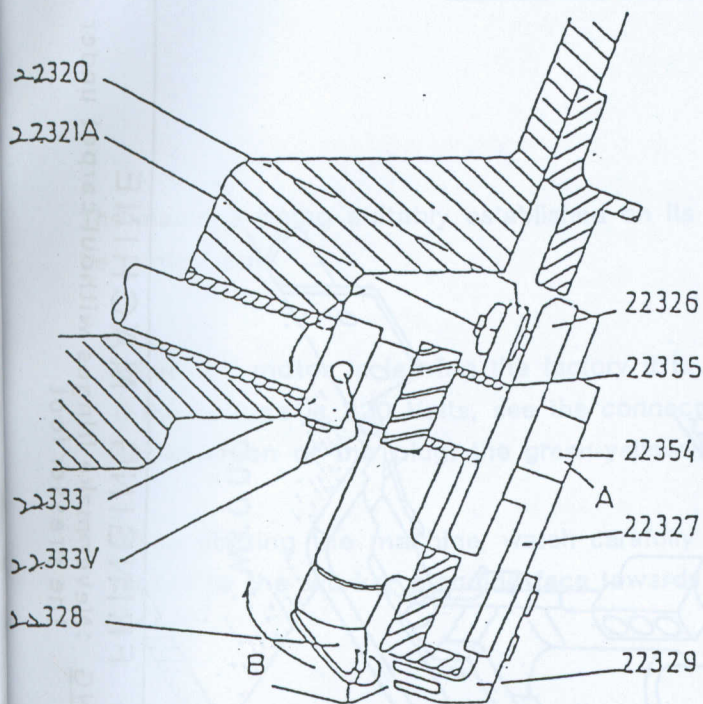


FIG. 21

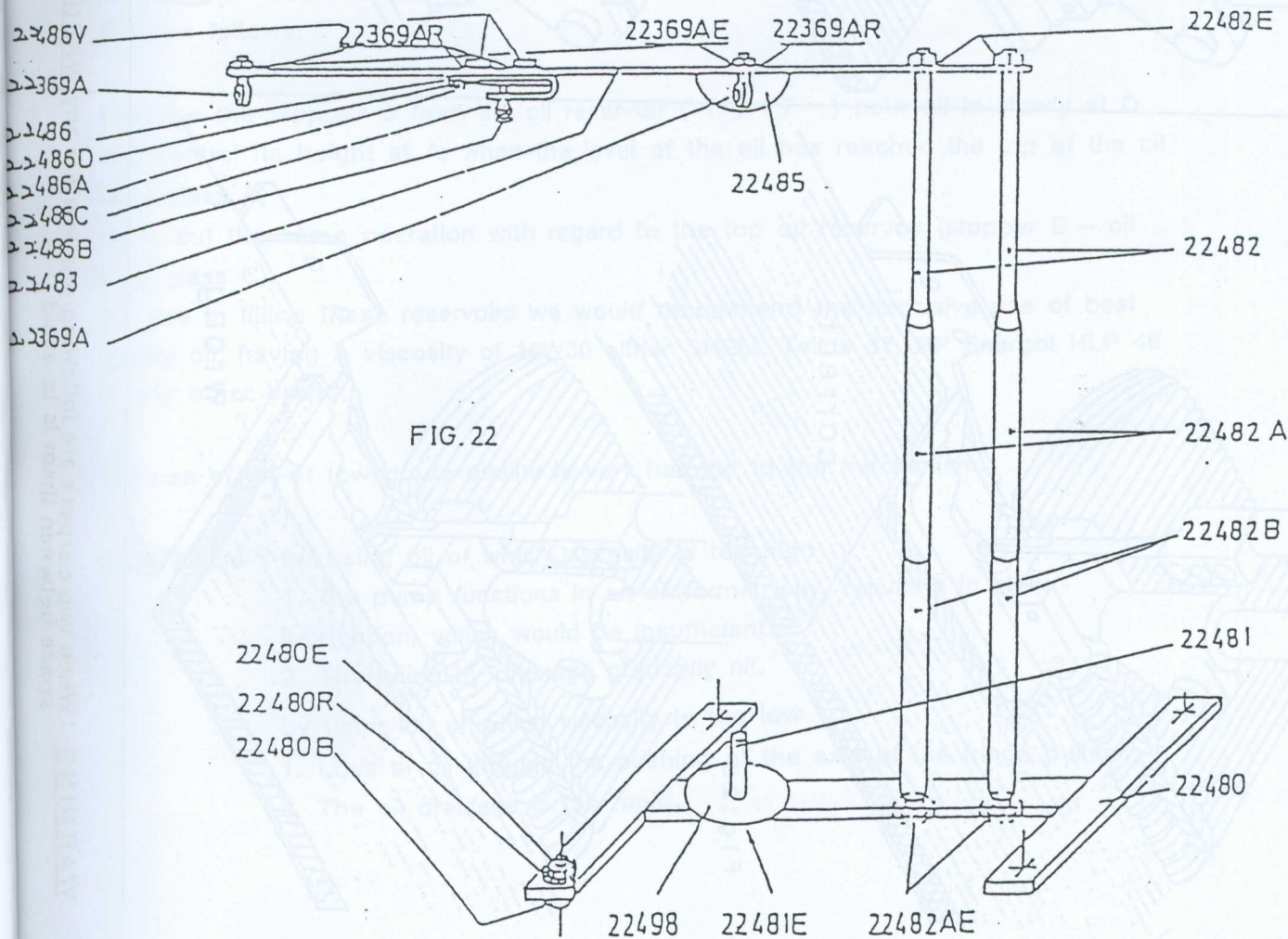


FIG. 22

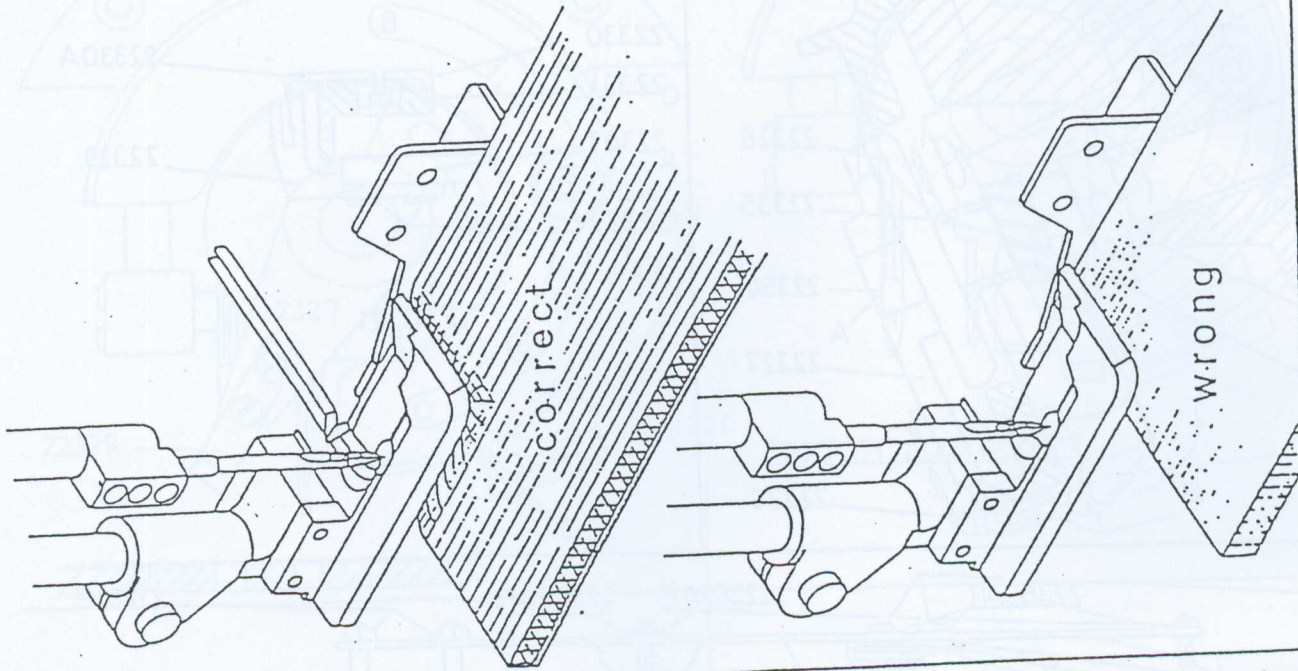


Fig: 24

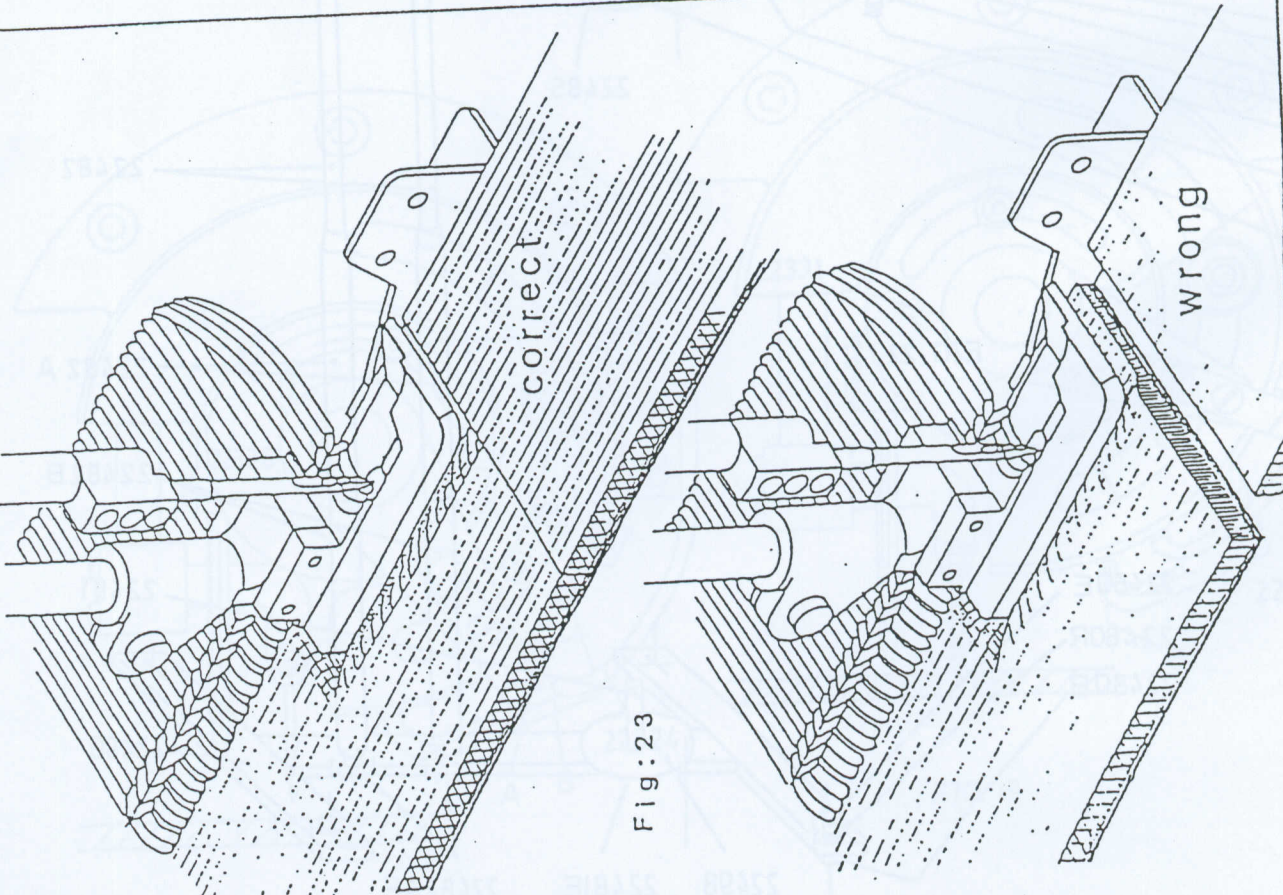


Fig: 23

FRINGING MACHINE

WARNING : Never make fringes without carpet under the presser foot

WARNING : When two carpets are following one another any space between them is to avoid

precautionary measures

The machine being suitably established on its stand, the following verifications should be carried out:

1. When the motor is leaving the factory it is connected for 380 Volts.
If the voltage is 220 Volts, see the connection fig:1.
For insertion of the plug, the green-yellow wire connects earth.
2. When starting the machine, watch carefully that the handwheel turns clockwise, with regard to the worker standing face towards the machine (fig: 2 , indicating arrow).
3. Do not allow the machine to function unless the oil reservoirs have been properly filled as follows:

Unscrew the stopper D from the oil reservoir (fig:17) pour oil in slowly at D and control its height at A; when the level of the oil has reached the top of the oil level glass A,

Carry out the same operation with regard to the top oil reservoir (stopper E – oil level glass C).

For use in filling these reservoirs we would recommend the exclusive use of best quality oil, having a viscosity of 15W30 either SHELL Tellus 37, BP Energol HLP 46 or any other brand.

The use of oil of low grade quality is very harmful to the mechanism.

for example : by using oil of which viscosity is too high

1. the pump functions in an abnormal way, resulting in slow lubrication, which would be insufficient.
2. The oiling by drainage practically nil.

by using oil of which viscosity is too low

1. Loss of oil through the bushing of the axis of the fringe puller.
2. The oil drainage is too rapid.

During the running in of the machine some parts are being polished and consequently a slight clearance may appear at different points.

Being on the 3 shafts 409 (fig:13 and 15).

These three shafts oscillate on studs 255a. To correct clearance, loosen the screws which hold each stud and press them deeper into the shafts and tighten screws 255 AV again (fig:13).

See main shaft with feed dog mechanism.

With regard to the principal shaft 382 a longitudinal clearance may arise which could cause very serious harm to the whole of the mechanism. In order to find out if clearance in the longitudinal direction is present, proceed as follows: stand facing the machine, hold the machine firmly with one hand, the handwheel with the other, push and pull the handwheel. If any clearance is discerned, correct it as follows:

1. find out if the ball bearing sets 383 and 384 have remained properly in their places.
2. Loosen slightly both screws of the handwheel and push the principal shaft 382 towards the handwheel, and whilst thus supported push the handwheel by striking its centre with the handle of a screw driver until the handwheel has regained its place against the ball bearings set 384. Next tighten both screws of the handwheel.

adaptation of the machine

1. Replacement of the needle

Although its breakage is practically excluded, the needle nevertheless undergoes variable wear according to the kind of material which is used. The replacement of the needle must be done at least every month. Insert the needle into the needle-holder, so the groove will be absolutely straight and towards the back of the machine.

2. Replacement of the upper hook n° 8

Place the hook-holder ^{fig:13} 110 fitted with its upper hook n° 8 in the most advanced position, in such a way that the latch of the hook will be exactly at the height of the upper surface of the throat plate. Take out the worn latch hook and put in a new one, whilst exercising care that the latter is in its proper place, i.e., the point of the latch, precisely towards the operator.

3. Adjustment of the fringe length (Fig:16)

Loosen screw A and displace part D either towards C in order to obtain shorter fringes; or towards B to produce longer fringes. Be sure after having made one of the above adjustments that the ejector does not hit against the presser foot.

4. Regulation of the density of fringes (Fig:15)

Loosen the nut holding part 203, displace same in the groove of part 256, either towards A to reduce the number of fringes or towards B in order to increase it. Next tighten again the nut holding part 203.

preliminary operations

(Fig: 4)

1. Remove presser foot's screw 222 from the top of the machine.
2. Remove the carter cover 369. (see frame of the machine)
3. Loosen the screws 120VL of the pump also the screw 126VL of the lever 126. Remove the whole pump with oiling distribution pipes from the reservoir.
4. Remove the presser bar spring 225 and the presser foot 223.
5. Lower the machine backwards so as to empty the oil reservoir.

the needlebar control

1. To facilitate this operation, let the machine remain lowered backwards on its support 462.
2. By clockwise rotation of the handwheel put the needle bar 184 at its upper neutral point.
3. Loosen the screws 183V of the needle bar cross 183 (fig:4).

4. important

Place the needle bar 184 fitted with its needle holder so that there will be exactly 78 mm between the lower face of the needle holder and the upper face of the throat plate (fig:4A).

Having made this first adjustment, now tighten the screw 183V of the needle bar cross, so that it will still be possible to pivot the needle bar (but still maintaining the distance of 78 mm).

5. By clockwise rotation of the handwheel and by pivoting the needle bar, introduce the needle precisely into the hole reserved for it in the throat plate.
6. When this adjustment has been made, tighten up screws 183V of the needle bar cross.
7. Check again the measures regarding points 4 and 5 of the present paragraph.

the lower hook control

1. Loosen screws 250V of the driving cam 250 of the lower hook. (fig:13)
2. Put the needle bar 184 at its low neutral point.
3. Turn the lower hook driving cam in its normal way of rotation until the lower hook 266 has come to the exact point where it will begin its run towards the right to the needle. Watch that the distance A between the cam 250 and socket 383 does not exceed 2 mm. Then tighten screws of the cam 250.

4. Unscrew the right hand nut 259E, and the left hand nut 262E:

Adjust the lower hook 266 by turning the connection rod 259 either towards the right or the left, in order that the distance between the point of the lower hook 266 and the left side of the needle should be 1,5 mm (fig:6).

Tighten both screws 259E and 262E without changing the position of the connection rod 259.

5. When connecting rod is adjusted, maintain a slight clearance between ball-joints and casting.

6. Remove the throat plate.

7. By rotating clockwise the handwheel bring the lower hook 266 up to the needle (fig. 7).

8. Loosen screws 403V of part 403.(fig:13)

Bring the lower hook 266 into the position as indicated Fig.8 , taking care that the distance between the lower hook and the needle is not less than 2/10 mm.

According to the quality of the fringing thread used, a modification of the position of the lower hook with regard to the needle may become necessary.

EXAMPLE: it is possible that the distance as recommended 1,5 mm between the point of the lower hook 266 and the needle's left side. (fig. 6 needle bar control §4) may require increasing up to 2 mm.

9. Put back the throat plate on the machine.

10. Bring the lower hook 266 to the position as indicated (fig:11). the incumbent distance between the top of the lower hook 266 and the lower surface of the throat plate must be 3 mm. (fig:11).

The milled groove in the lower hook must be strictly parallel to the axis 409 (fig:13) Before the lower hook starts its stroke towards the needle, same should already have an upwards run of 1,5 to 2 mm from its lowest point.

The synchronization of the starting point of the lower hook 266 with regard to the needle can be set up by the advance or the delay which will be put on the driving cam.

the upper hook control

1. remove the upper hook holder 110 from the hook bar 109.(fig.14)
2. Loosen both screws 103EV of the ball eccentric 102.
3. By rotating the handwheel clockwise place the needle bar at its upper neutral point, then lower it by 2 mm.
4. Turn the ball eccentric 102 around its axis 354 in an anti-clockwise movement until the hook bar has reached the highest point of the hook bar's stroke.
During this setting, the position of the needle bar must not be modified (see Par. 3) or the whole would require re-adjusting.
5. Tighten again both screws 103EV of the ball eccentric 102.
6. The stroke of the hook bar 109 should measure accurately 34,5 mm and this accuracy is obtained by introducing the stud of the ball-joint 103 more or less deeper into the oscillator (fig.14). To do this operation it is necessary to loosen the screws 104V and 104VL of the oscillator 104.(fig.14)
7. Loosen the screws 107V of the part 107 which will allow the hook-bar 109 to slide.
8. Place the upper hook holder 110 on the hook bar so that the lower face of the hook holder 110 forms a strictly level surface with the base of the hook bar 109.
Then tighten both screws 110VL of hook holder 110.
9. Introduce and fasten the upper hook in the holder 110.
Adjust the hook bar 109 according to the position indicated(fig. 5) , so that the distance between the take up of the hook and the upper face of the throat-plate should be 13 mm.
Tighten up the screw 107V on part 107 as to maintain the hook bar in this position, at the same time allowing it to revolve in part 107.
10. Remove the throat plate from the machine.

11. By rotating the handwheel bring the hook bar 109 provided with the hook holder 110 and the hook n° 8 at its lowest position (fig.12). Turn the hook holder 110 around the hook bar 109 so that the take up of the hook goes as far as possible into the groove of the lower hook 266. (fig.9).

Check if the position of the lower hook 266 and the latch hook are identical to fig.9
Namely that the take up of the upper hook is really placed in the farthest left corner of the groove of the lower hook 266, but avoiding any contact between these two parts.

12. Put back the throat plate on the machine.

13. By rotating the handwheel clockwise, bring the hook bar 109 downwards so that the take up of the upper hook will be placed exactly at the height of the lower face of the throat plate 149 .

Set the latch opener 152 on the throat plate. The distance between the edge of the latch opener 152 and the take up of the upper hook should be 2/10 mm.

They must not in any case touch each other. Only the latch of the hook can gently get in contact with the sharp edge of the latch opener 152.

In each downward motion of the upper hook, the latch has to get opened on the sharp side of the latch opener 152. It is kept open by its course inside the curved side of the latch opener.

14. The small ball connecting rod 113 imparts to the hook bar 109 during its downward and upward movements, an oscillation towards the left or towards the right. This oscillation imparts to the upper hook an increased horizontal curving movement (fig.14). whose middle is situated on the edge of the latch opener. This accurate adjustment is obtained by sliding upwards or downwards the regulating part 108 in relation to part 107.

the feed dog control

Before starting this adjustment, the feed dog should be allowed the facility to perform its greatest possible stroke by pushing part 203 along the groove A-B of part 256, to the extreme length A.

During its course, the feed dog should perform a precise horizontal oval and the horizontal middle line of this oval will be the upper face of the throat plate 148 fig.15 A.

The up and down movement of the feed dog is controlled by the eccentric 202.

When both eccentrics are properly synchronized the movement of the feed dog should be as per fig.15 A.

When on the contrary both eccentrics 202 are improperly synchronized the result of it will be as shown on fig.15 B and C.

When starting synchronization of the eccentrics, place the needle bar at its highest neutral point.

Untighten screws maintaining the eccentrics on the axis.

Rotate the eccentric which is shown in full line(fig.15) around its axis until the feed dog 401 reaches its highest neutral point as well.

The second eccentric must be adjusted with regard to the first one step by step, until the situation of the oval is as per fig.15 A.

To operate a perfect attachment of the fringes, it is essential to watch that the feed dog should be regulated with the most possible delay in relation to the needle, i.e. that the progressive course of the feed dog can only reach its end at the precise moment when the point of the needle, in its declining course, has reached within a distance of 2,5 mm from the throat plate 148.

the fringe puller control

I. Lever of the fringe puller

1. Remove the thread pincer 324 (fig.16).
2. By rotating the handwheel clockwise, bring the needle bar 184 into its highest position.
3. Loosen both screws of part 327 and place the fringe puller 329 accurately on the line of continuation of the point of the needle (fig.16).
4. Tighten again both screws of part 327.

II. Ejector

1. Loosen both screws of the gear wheel 333 (fig.20)
2. By rotating the handwheel clockwise, bring the lever 327 into the position indicated (fig.17). Turn the gear wheel 333 in the direction of the arrow (see fig.20) until the ejector 328 gets in the position shown in the a.m. schema i.e. that there is a maximum distance of 2 mm between the fringe puller 329 and the ejector 328 when they cross each other. It is necessary that the adjustment of the ejector be performed so that it functions with the greatest possible delay in relation to the fringe puller 329 (fig 20. B)
Watch especially that the gear wheel 333 has been brought as close as possible to the nut 321^A without these two touching however, at the precise moment when the nut 321^A in its run will have reached its nearest approach to the axis 354 (fig.20)

III. Thread pincer and thread cutting knife

1. Set the thread pincer.
2. Operate as follows to obtain a perfect adjustment of the fringe puller 329 with relation to the thread pincer 324: turn the handwheel clockwise. If thread pincer 324 hits against part A-B (fig.18) of the fringe puller 329, it is because the thread pincer 324 opens either too soon or too late. To correct this, displace the nut C (fig.18) in the groove either towards D to advance the closing or towards E to delay the closing of the thread pincer 324.
3. Your attention is called to the importance of the present adjustment of the thread pincer 324, for this will avoid the premature wear of the cam, of the bearing, as well as of the thread pincer itself.

important notice

Control the adjustment of the thread pincer 324 in relation to the bearing 331 by placing a thin sheet of paper between the thread pincer when closed and the outside face of bearing 331. On drawing out the paper a certain resistance should be felt, but the paper should not be torn.

Take care that the paper is pressed in an equal degree on the whole of the bearing of the thread pincer's hook 324 as this will give the assurance that both parts 324 and 331 are equidistant and also parallel.

4. At each revolution the fringe puller 329 crosses over the thread cutting knife and each time this knife passes between the two teeth of the fringe puller 329 (fig. 21).

Watch particularly that the knife does not touch the interior sides of both teeth.

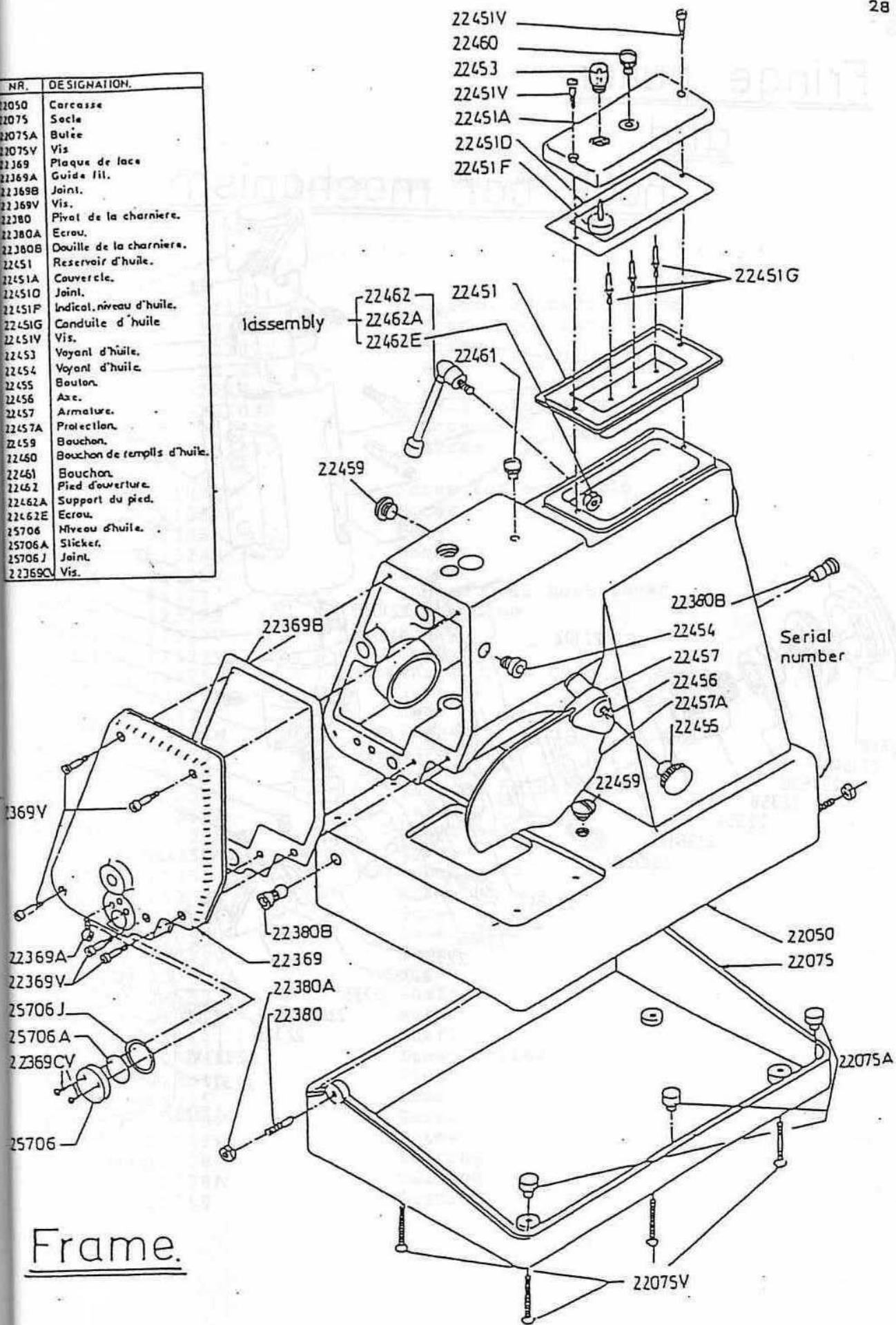
5. To enable the machine to produce fringes of a strictly equal length, the following adjustment should be carried out with the greatest attention:

At each rotation, the fringe puller presents the thread, pulled from the needle, in front of the thread cutting knife 330a.

The edge of the thread cutting knife comes into contact with the thread, although the knife does not yet exercise any pressure on the thread, but precisely at that moment the thread pincer should be closed and thus cause pressure on the thread, so that the latter is presented to the fringe puller in a tight condition. In this way, the thread will offer the necessary resistance to the thread cutting knife 330a, and there will ensue a perfect cut of fringes of equal length.

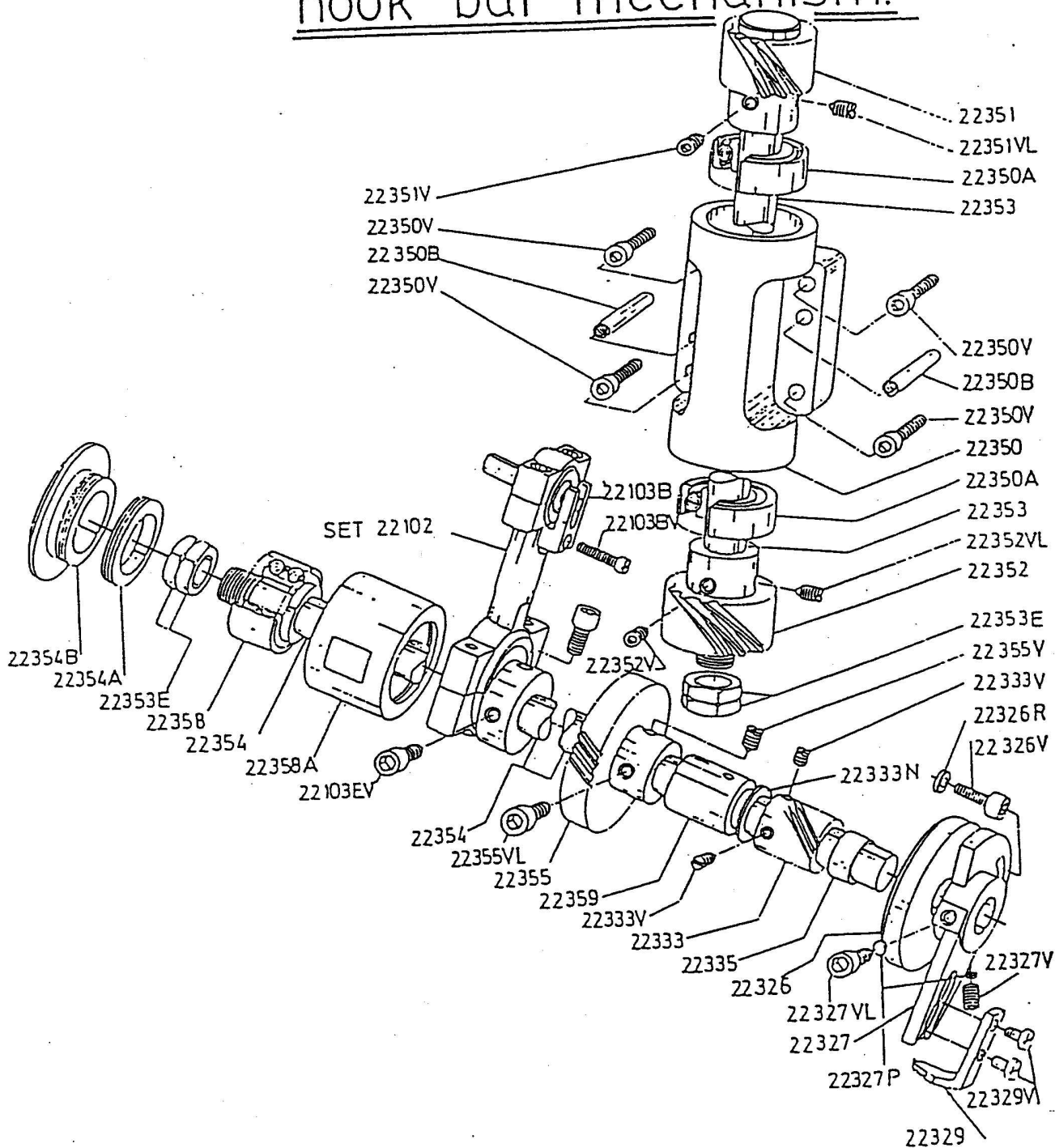
The unevenness of fringes can be caused by the mis-adjustment of the thread pincer 324, either because the closing is done too soon or too late.

NR.	DESIGNATION.
22050	Carcasse
22075	Socle
22075A	Bulée
22075V	Vis
22369	Plaque de face
22369A	Guide fil.
22369B	Joint.
22369V	Vis.
22380	Pivot de la charniere.
22380A	Ecrou.
22380B	Ouille de la charniere.
22451	Reservoir d'huile.
22451A	Couvercle.
22451D	Joint.
22451F	Indicat. niveau d'huile.
22451G	Canduite d'huile
22451V	Vis.
22453	Voyant d'huile.
22454	Voyant d'huile.
22455	Boulon.
22456	Axe.
22457	Armature.
22457A	Protection.
22459	Bouchon.
22460	Bouchon de remplis d'huile.
22461	Bouchon.
22462	Pied d'ouverture.
22462A	Support du pied.
22462E	Ecrou.
25706	Niveau d'huile.
25706A	Sticker.
25706J	Joint.
22369CV	Vis.

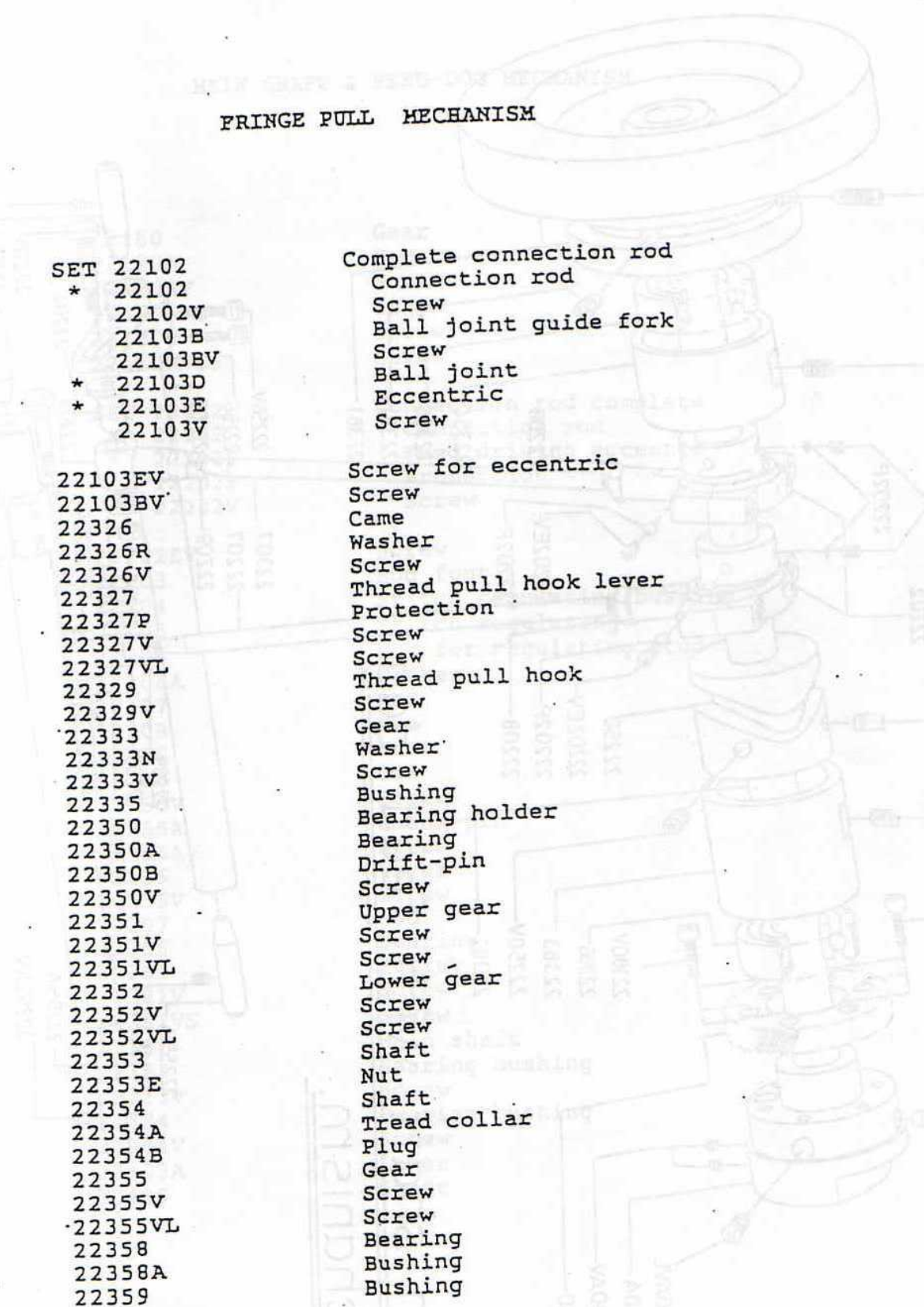


Frame.

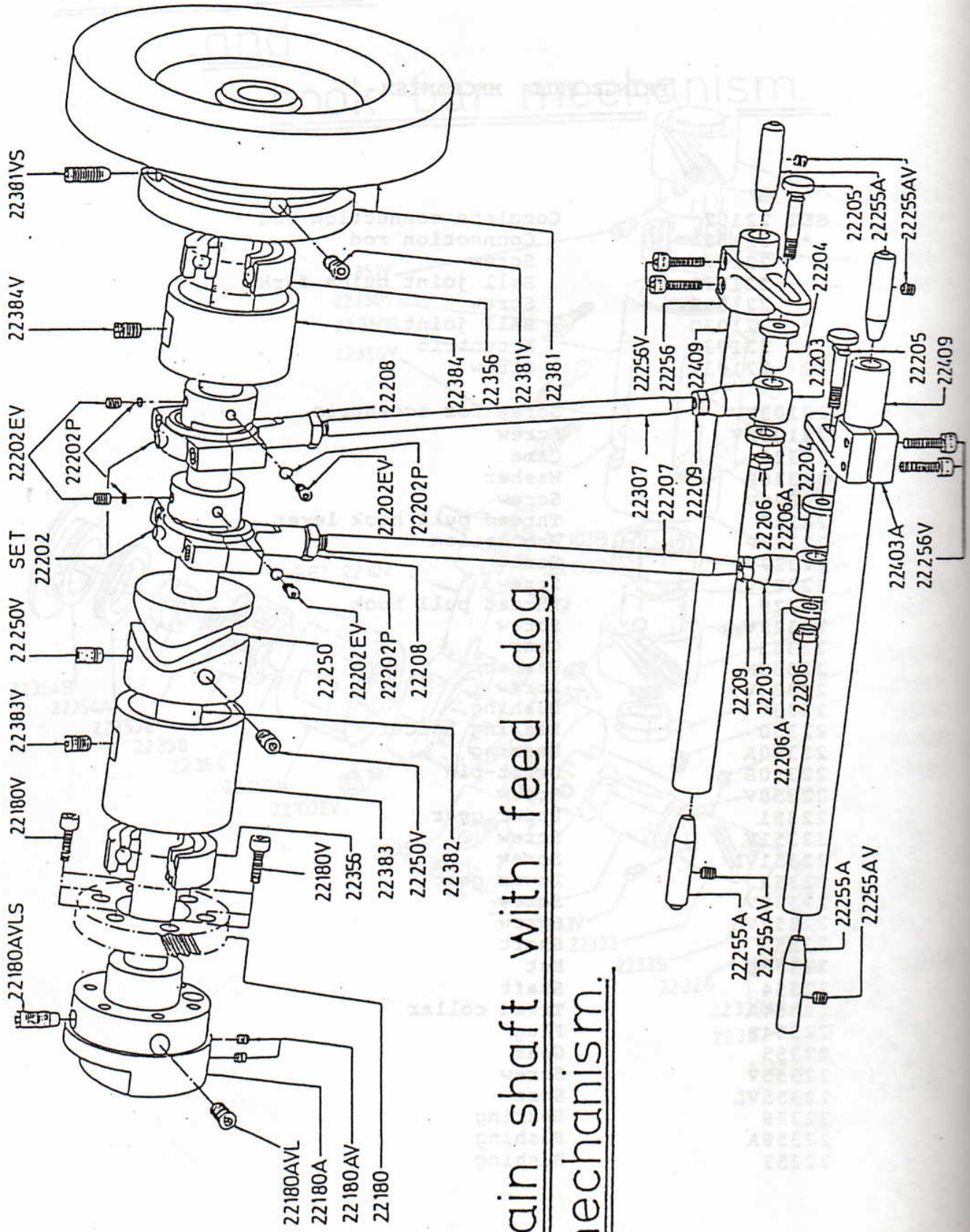
Fringe puller and hook bar mechanism.



FRINGE PULL MECHANISM



SET 22102	Complete connection rod
* 22102	Connection rod
22102V	Screw
22103B	Ball joint guide fork
22103BV	Screw
* 22103D	Ball joint
* 22103E	Eccentric
22103V	Screw
22103EV	Screw for eccentric
22103BV	Screw
22326	Came
22326R	Washer
22326V	Screw
22327	Thread pull hook lever
22327P	Protection
22327V	Screw
22327VL	Screw
22329	Thread pull hook
22329V	Screw
22333	Gear
22333N	Washer
22333V	Screw
22335	Bushing
22350	Bearing holder
22350A	Bearing
22350B	Drift-pin
22350V	Screw
22351	Upper gear
22351V	Screw
22351VL	Screw
22352	Lower gear
22352V	Screw
22352VL	Screw
22353	Shaft
22353E	Nut
22354	Shaft
22354A	Tread collar
22354B	Plug
22355	Gear
22355V	Screw
22355VL	Screw
22358	Bearing
22358A	Bushing
22359	Bushing



Main shaft with feed dog mechanism.

MAIN SHAFT & FEED-DOG MECHANISM

22180	Gear
22180A	Cam
22180AV	Screw
22180AVL	Screw
22180V	Screw
22180AVLS	Screw
SET 22202	Connection rod complete
* 22202	Connection rod
* 22202E	Feed driving eccentric
22202P	Protection
22202V	Screw
22202EV	Screw
22203	Rod foot
22204	Stitch regulating bushing
22205	Stitch regulating
22206	Nut for regulating stud
22206A	Washer
22207	Rod
22208	Nut
22209	Nut
22250	Cam
22250V	Screw
22255A	Crank-pin
22255AV	Screw
22256	Lever
22256V	Screw
22307	Rod
22356	Bearing
22381	Pulley
22381V	Screw
22381VS	Screw
22382	Main shaft
22383	Bearing bushing
22383V	Screw
22384	Bearing bushing
22384V	Screw
22403A	Lever
22409	Shaft

22256V

22205
22409

22256V

MAIN SHAFT & FEEDDOG MECHANISM

22180 Gear
 22180A Cam
 22180AV Screw
 22180AVL Screw
 22180AVLS Screw
 22180V Screw

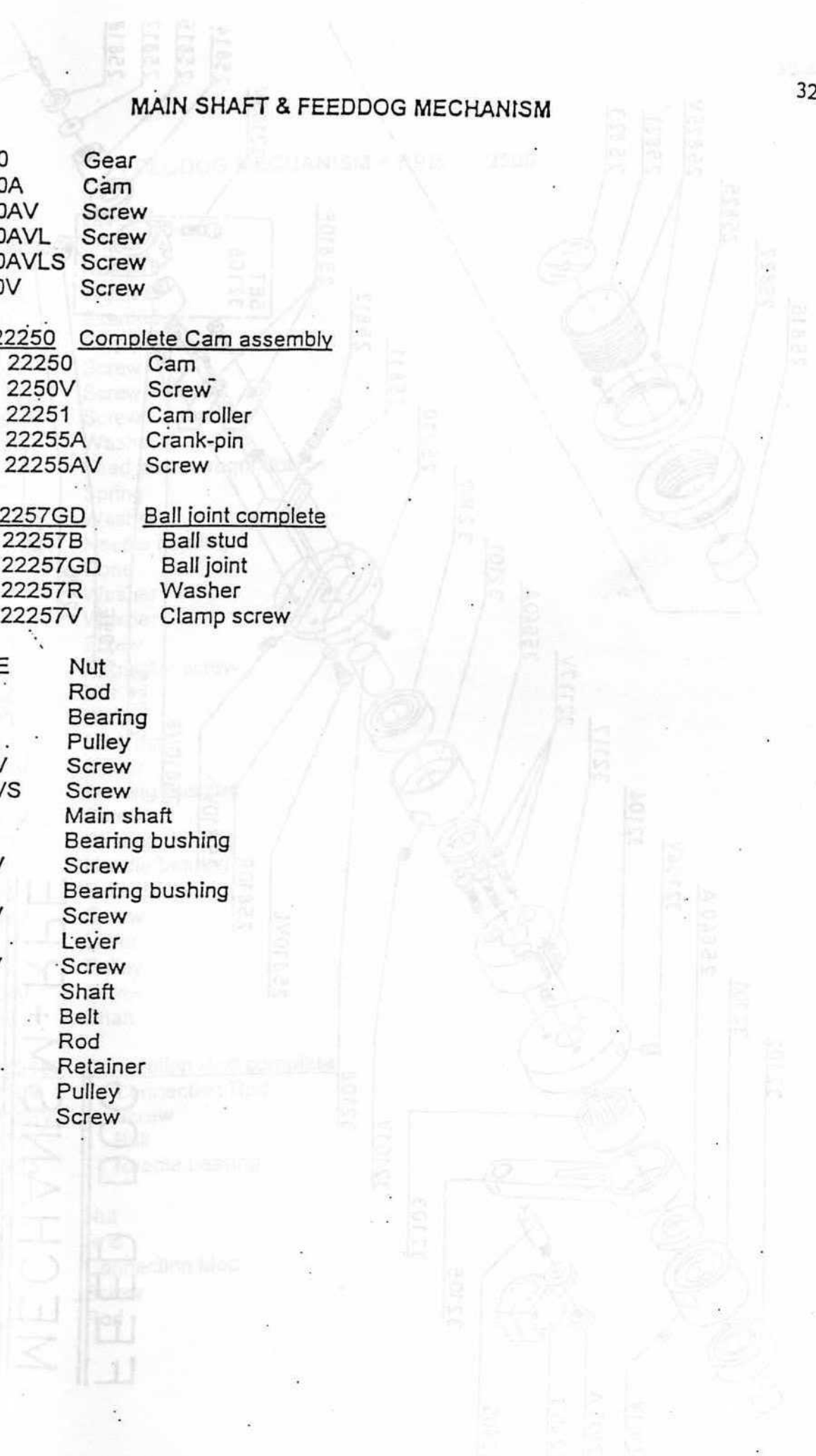
SET 22250 Complete Cam assembly

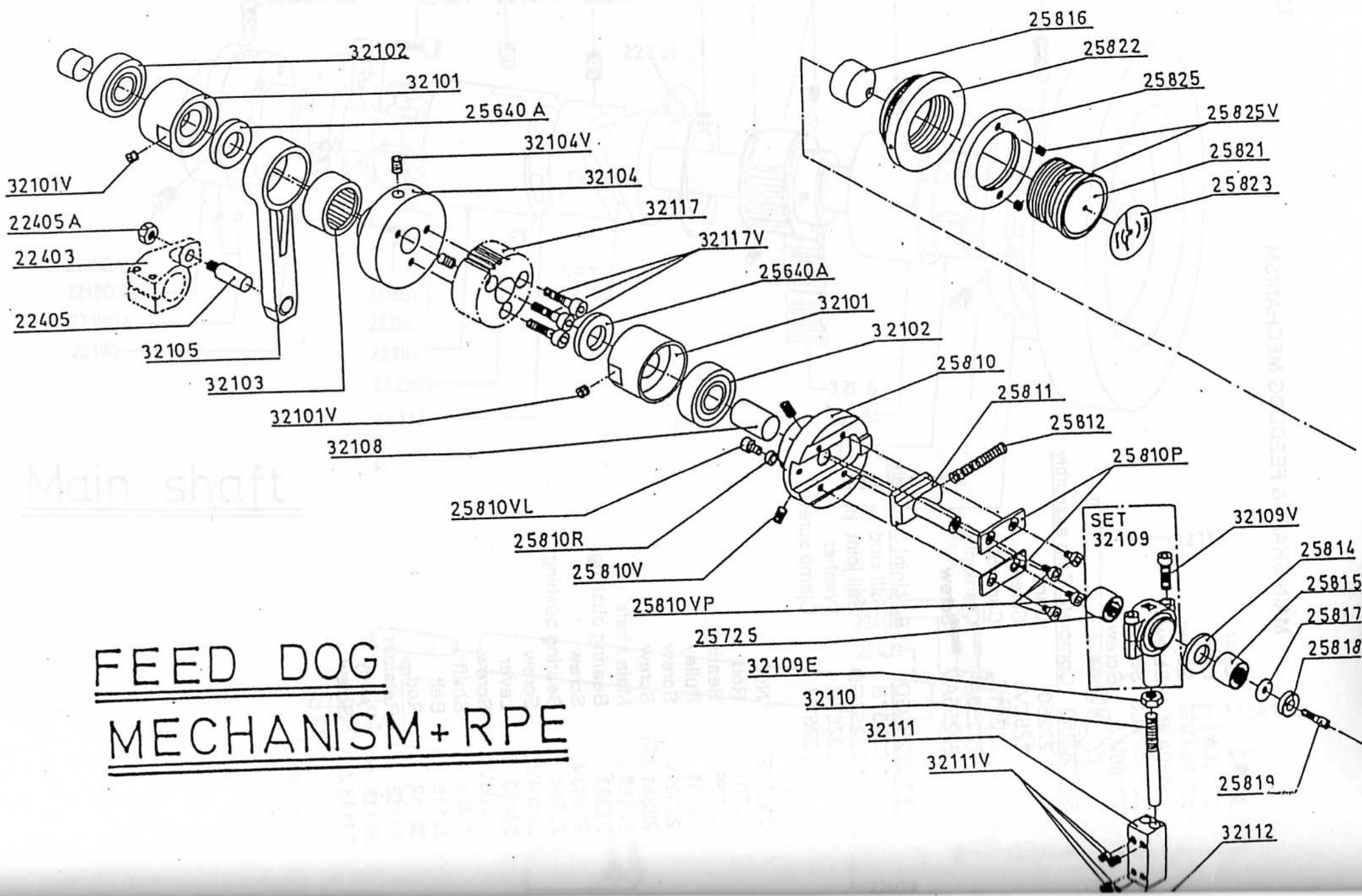
* 22250 Cam
 2250V Screw
 22251 Cam roller
 22255A Crank-pin
 22255AV Screw

SET 22257GD Ball joint complete

* 22257B Ball stud
 * 22257GD Ball joint
 22257R Washer
 22257V Clamp screw

22257E Nut
 22307 Rod
 22356 Bearing
 22381 Pulley
 22381V Screw
 22381VS Screw
 22382 Main shaft
 22383 Bearing bushing
 22383V Screw
 22384 Bearing bushing
 22384V Screw
 22403 Lever
 22403V Screw
 22409 Shaft
 32116 Belt
 32112 Rod
 32113 Retainer
 32118 Pulley
 32118V Screw





Main shaft

FEED DOG
MECHANISM + RPE

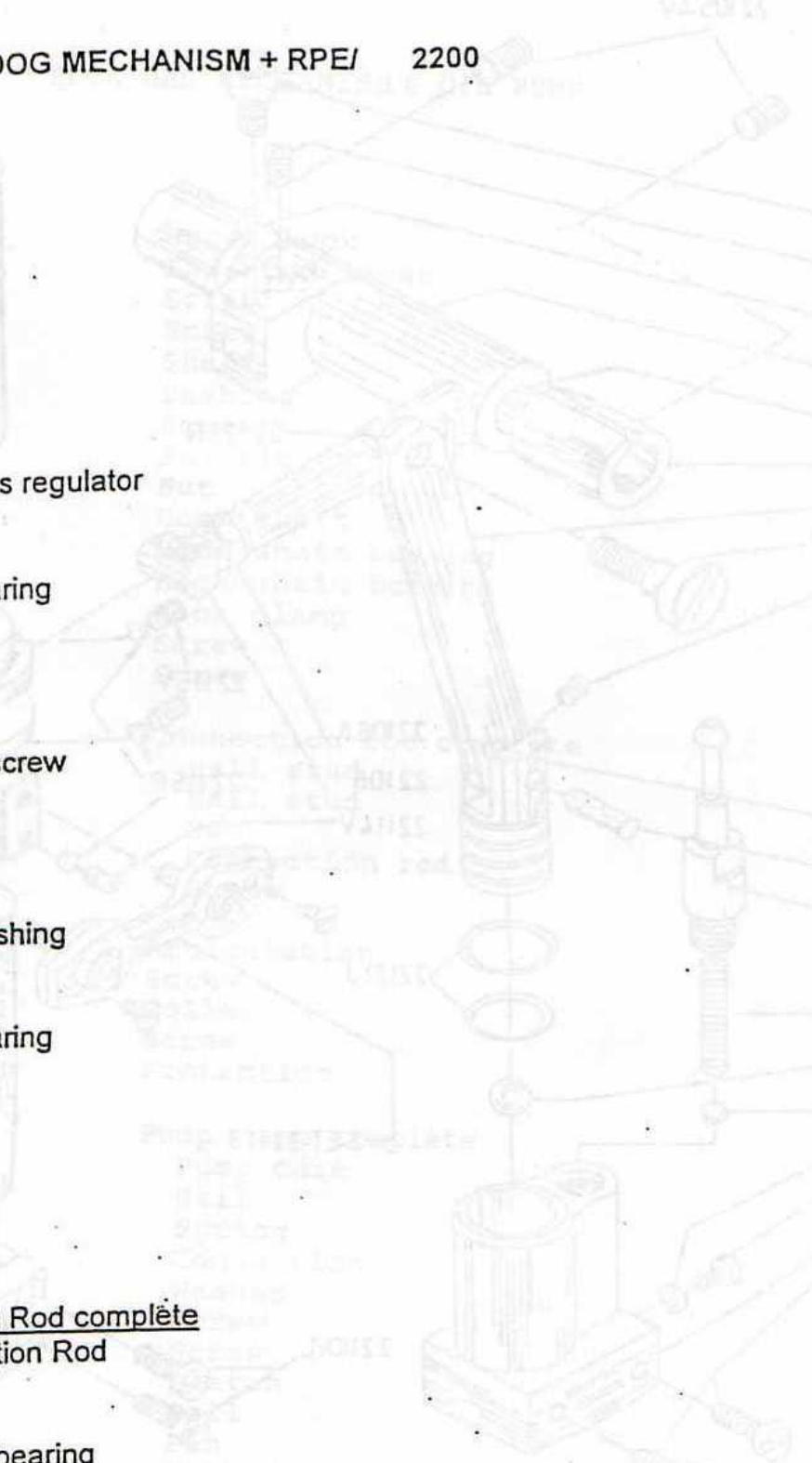
32112

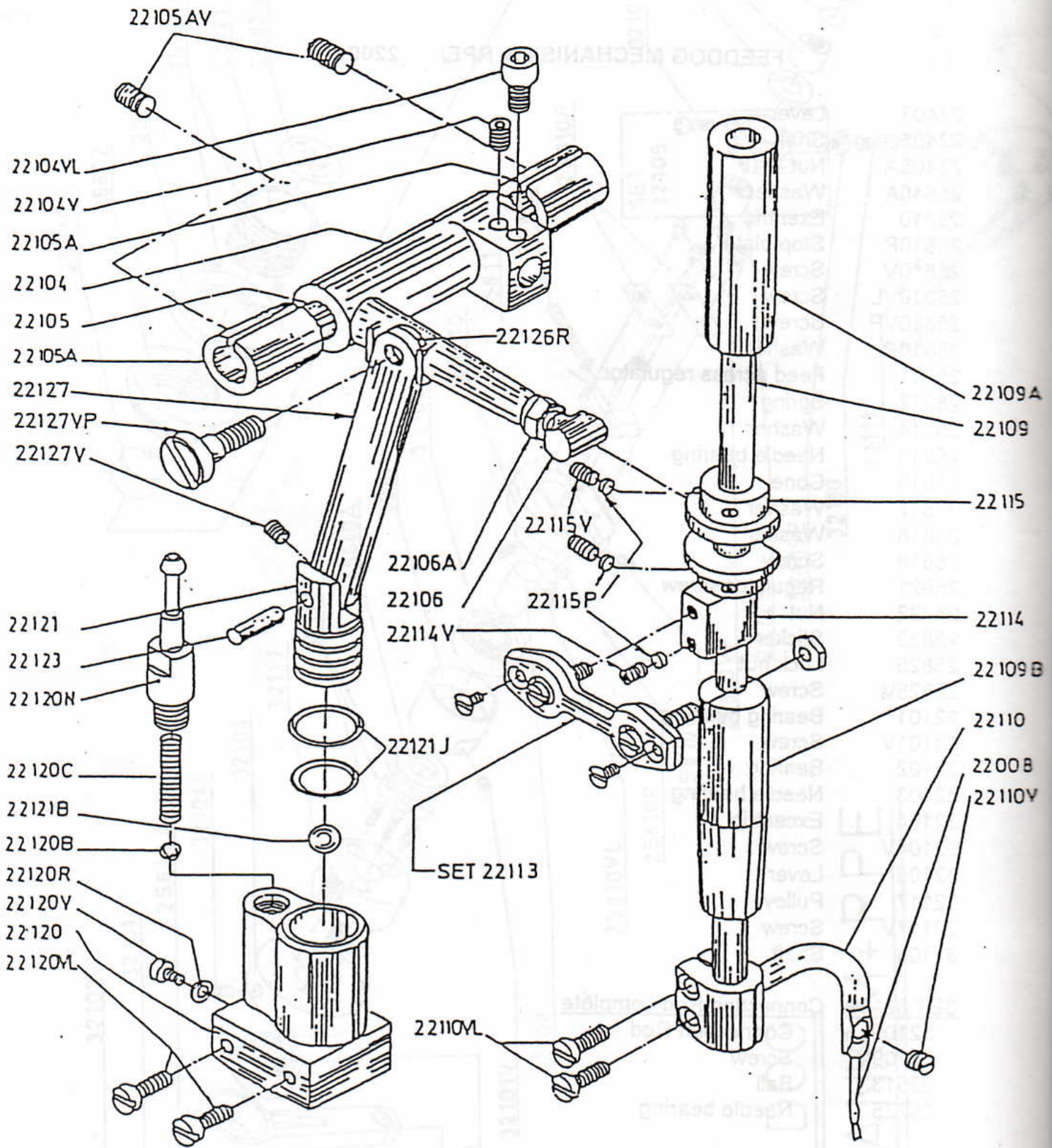
FEEDDOG MECHANISM + RPE/ 2200

- 22403 Lever
- 22405 Shaft
- 22405A Nut
- 25640A Washer
- 25810 Exentric
- 25810P Stop plate
- 25810V Screw
- 25810VL Screw
- 25810VP Screw
- 25810R Washer
- 25811 Feed access regulator
- 25812 Spring
- 25814 Washer
- 25815 Needle bearing
- 25816 Cone
- 25817 Washer
- 25818 Washer
- 25819 Screw
- 25821 Regulator screw
- 25822 Nut
- 25823 Sticker
- 25825 Lock nut
- 25825V Screw
- 32101 Bearing bushing
- 32101V Screw
- 32102 Bearing
- 32103 Needle bearing
- 32104 Exentric
- 32104V Screw
- 32105 Lever
- 32117 Pulley
- 32117V Screw
- 32108 Shaft

- SET 32109 Connection Rod complète
- 32109 Connection Rod
- 32109V Screw
- 25513 Ball
- 25725 Needle bearing

- 32109E Nut
- 32110 Rod
- 32111 Connection bloc
- 32111V Screw
- 32112 Rod



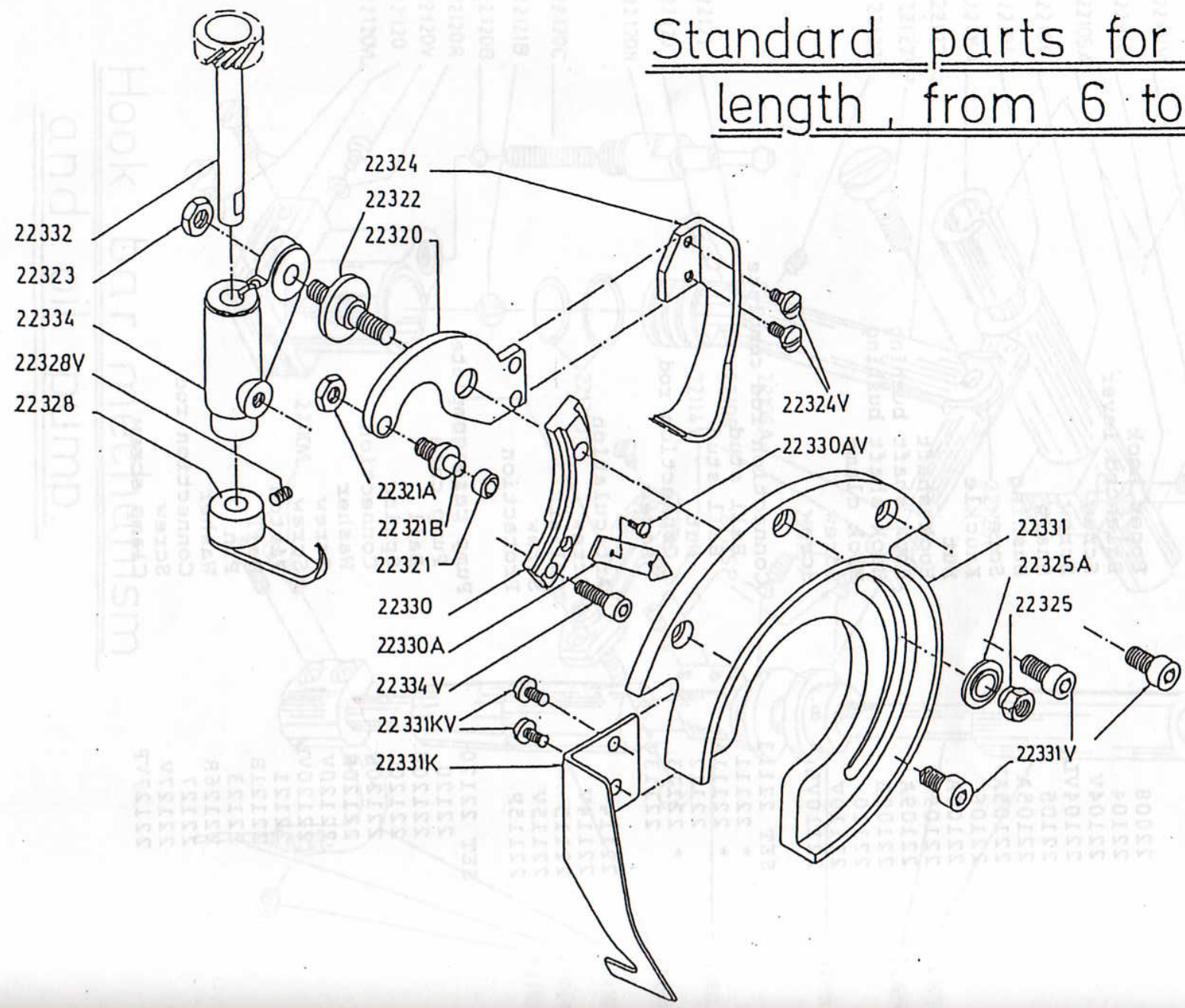


Hook bar mechanism
and oil pump.

HOOK BAR MECHANISM & OIL PUMP

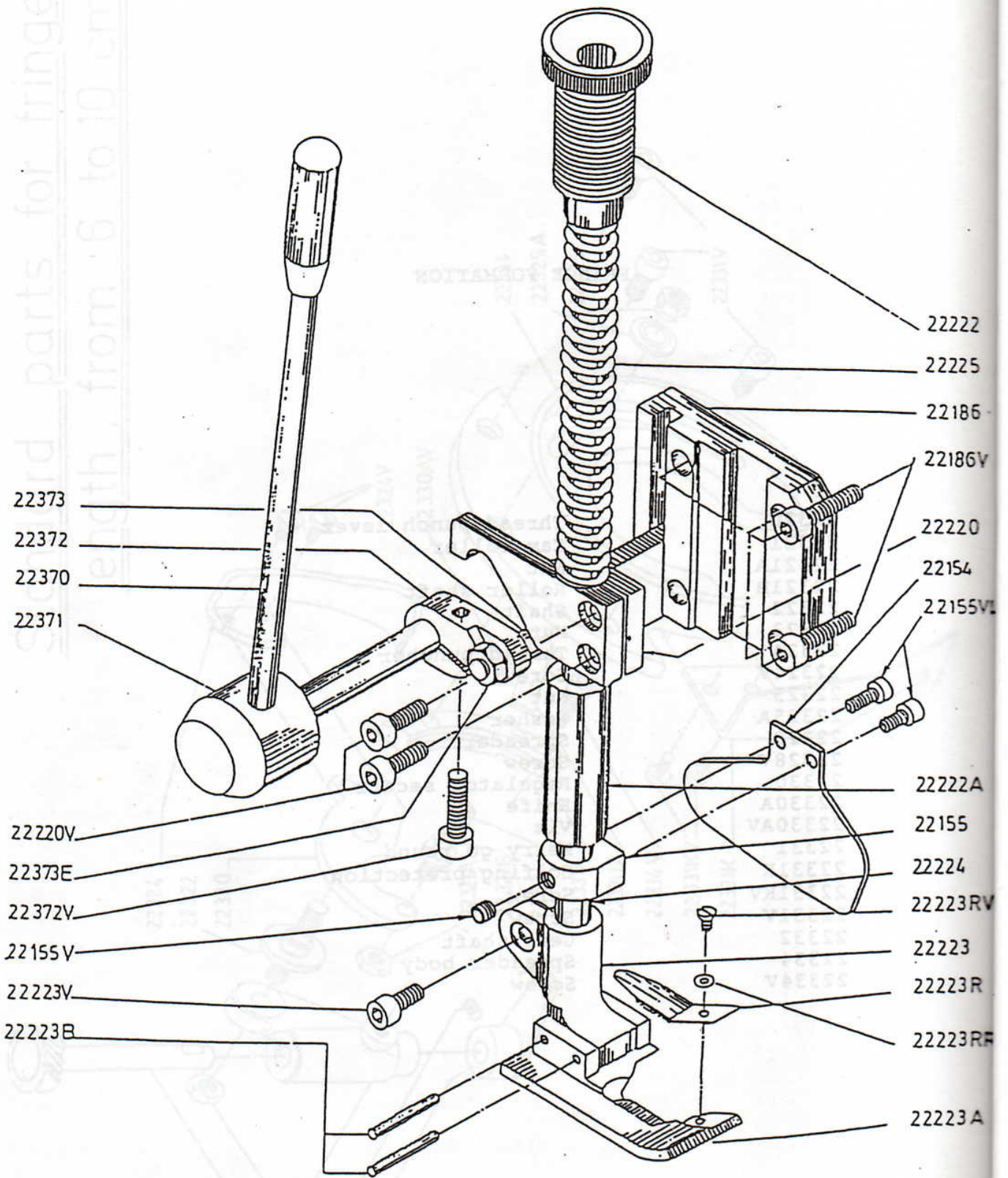
	22008	Upper hook
	22104	Balanced lever
	22104V	Screw
	22104VL	Screw
	22105	Shaft
	22105A	Bushing
	22105AV	Screw
	22106	Knuckle
	22106A	Nut
22109A	22109	Hook shaft
22109	22109A	Hook shaft bushing
	22109B	Hook shaft bushing
	22110	Hook clamp
22115	22110V	Screw
	22110VL	Screw
	SET 22113	Connection rod complete
	* 22111	Ball stud
22114	* 22111A	Ball stud
	22112	Nut
22109B	* 22113	Connection rod
	22113V	Screw
22110	22114	Articulation
	22114V	Screw
22008	22115	Collar
22110V	22115V	Screw
	22115P	Protection
	SET 22120	Pump case complete
	22120	Pump case
	22120B	Ball
	22120C	Spring
	22120N	Connection
	22120R	Washer
	22120V	Screw
	22120VL	Screw
	22121	Piston
	22121B	Ball
	22123	Pin
	22126R	Washer
	22127	Connection rod
	22127V	Screw
	22127VP	Clamp screw

Standard parts for fringe length, from 6 to 10 cm.



FRINGE FORMATION

22320	Thread punch lever
22321	Cam roller
22321A	Nut
22321B	Roller shaft
22322	Shaft
22323	Nut
22324	Thread puncher
22324V	Screw
22325	Nut
22325A	Washer
22328	Spreader
22328V	Screw
22330	Regulator sector
22330A	Knife
22330AV	Vis
22331	Merry go round
22331K	Solfing protection
22331KV	Screw
22331V	Screw
22332	Gear shaft
22334	Spreader body
22334V	Screw

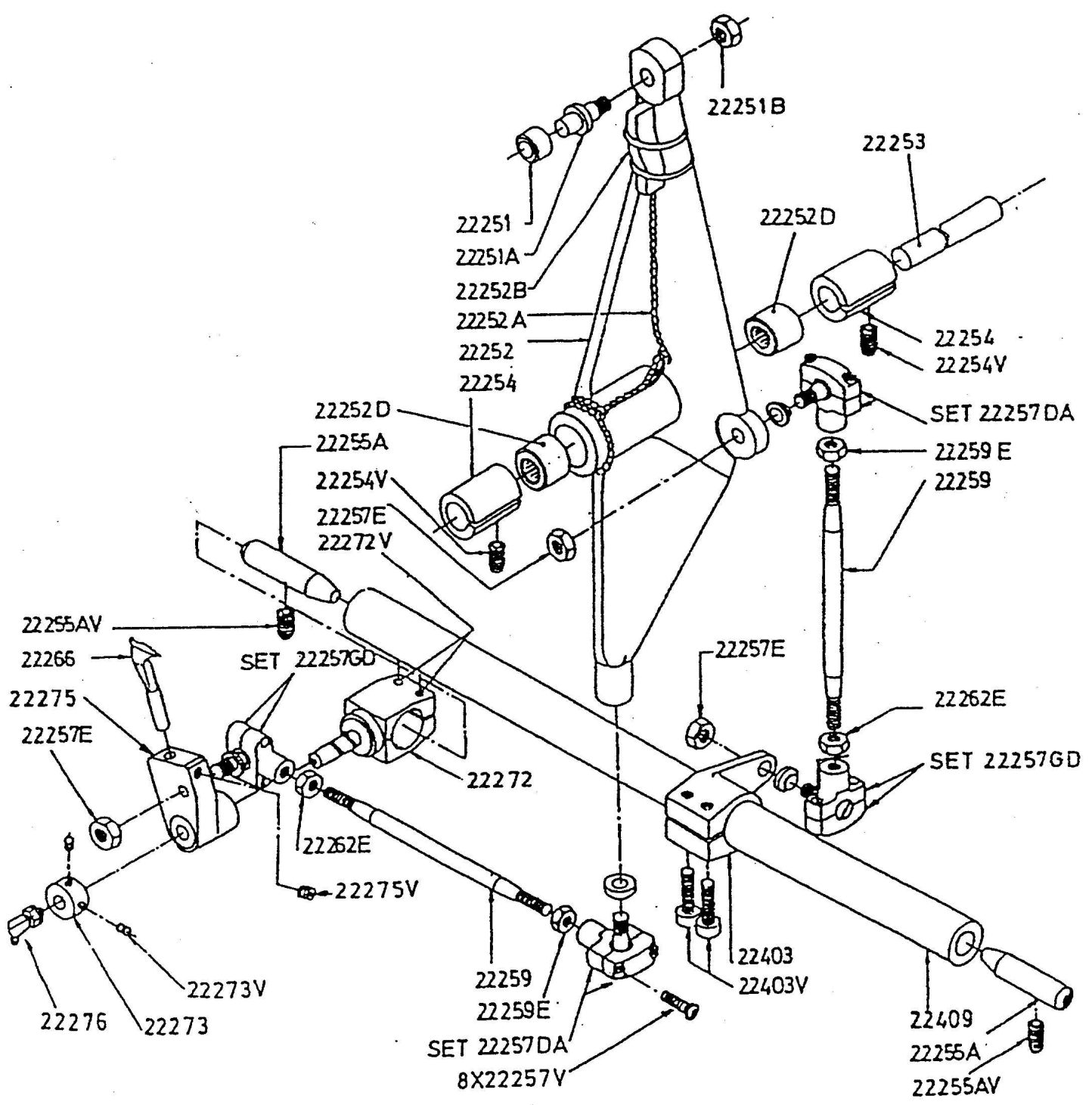


Presser foot mechanism.

PRESSER FOOT MECHANISM

22222		
22225	22154	Fringe protection
22186	22155	Fringe protection holder
22186V	22155V	Screw
	22155VL	Screw
	22186	Guide
	22186V	Screw
22220	22220	Guide block
	22220V	Screw
22154	22222	Pressure regulating bushing
22155V	22222A	Bushing
	SET 22223	Presser foot complete
	22223	Presser foot holder
	22223A	Presser foot
	22223B	Shaft
	22223R	Presser foot spring
	22223RR	Washer
	22223RV	Screw
22222A	22223V	Screw
22155	22224	Presser foot shaft
22224	22225	Spring
22223RV	22370	Lever
22223	22371	Presser foot lifter
22223R	22371V	Screw
	22372	Presser bar lever
	22372V	Screw
	22373	Presser bar pin
	22373E	Nut
22223RF		
22223A		

Lower looper mechanism.

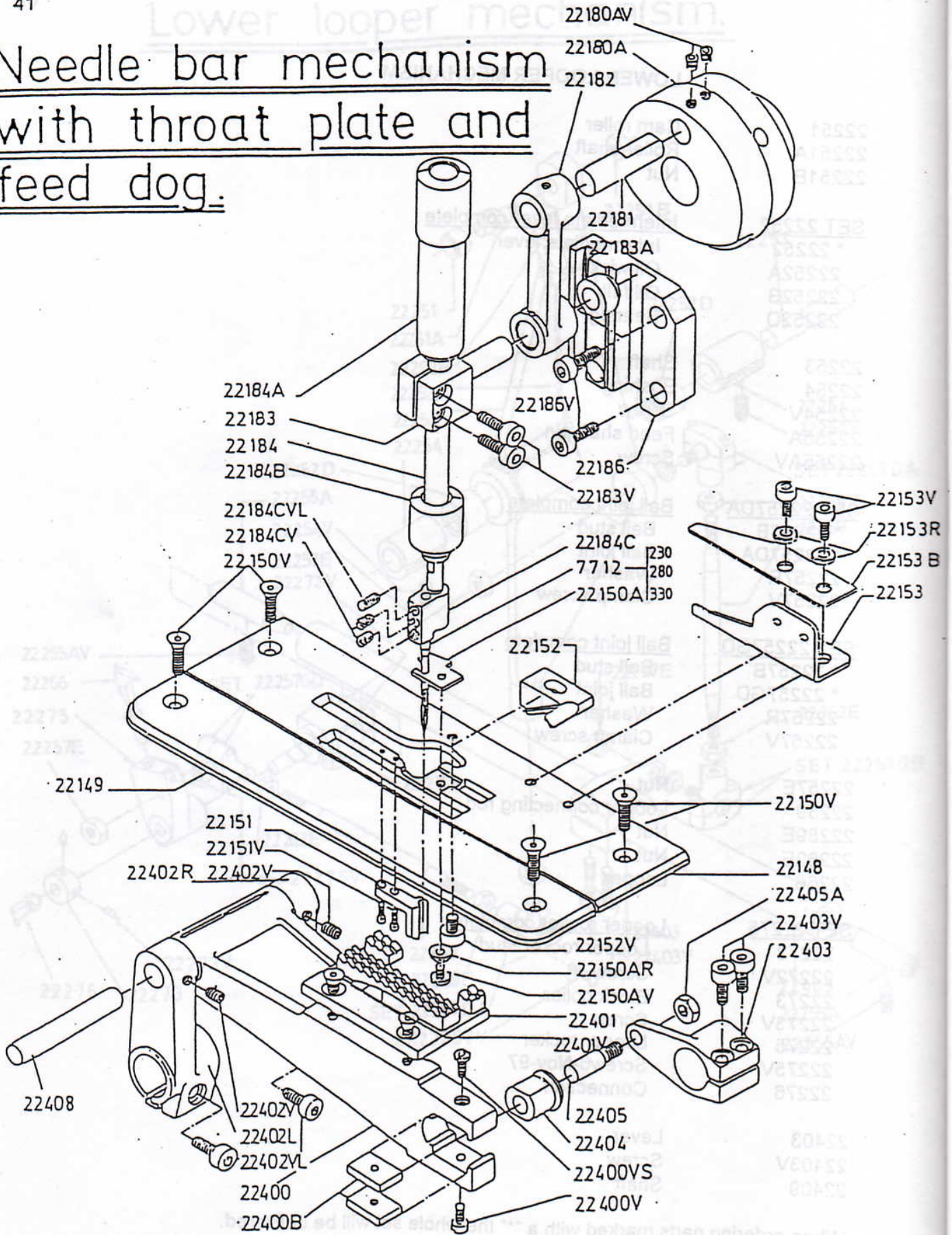


LOWER LOOPER MECHANISM

22251	Cam roller
22251A	Roller shaft
22251B	Nut
<u>SET 22252</u>	<u>Intermediate lever complete</u>
* 22252	Intermediate lever
22252A	Oil wick
22252B	Oil felt
22252D	Bearing
22253	Shaft
22254	Bushing
22254V	Screw
22255A	Feed shaft pin
22255AV	Screw
<u>SET 22257DA</u>	<u>Ball joint complete</u>
* 22257B	Ball stud
* 22257DA	Ball joint
22257R	Washer
22257V	Clamp screw
<u>SET 22257GD</u>	<u>Ball joint complete</u>
* 22257B	Ball stud
* 22257GD	Ball joint
22257R	Washer
22257V	Clamp screw
22257E	Nut
22259	Looper connecting rod
22259E	Nut
22262E	Nut
22266	Looper
<u>SET 22275</u>	<u>Looper rocker complete</u>
22272	Looper rocker stud
22272V	Screw
22273	Block collar
22273V	Screw
22275	Looper rocker
22275V	Screw6-Nov-97
22276	Connection
22403	Lever
22403V	Screw
22409	Shaft

When ordering parts marked with a "*" the whole set will be delivered.

Needle bar mechanism with throat plate and feed dog.



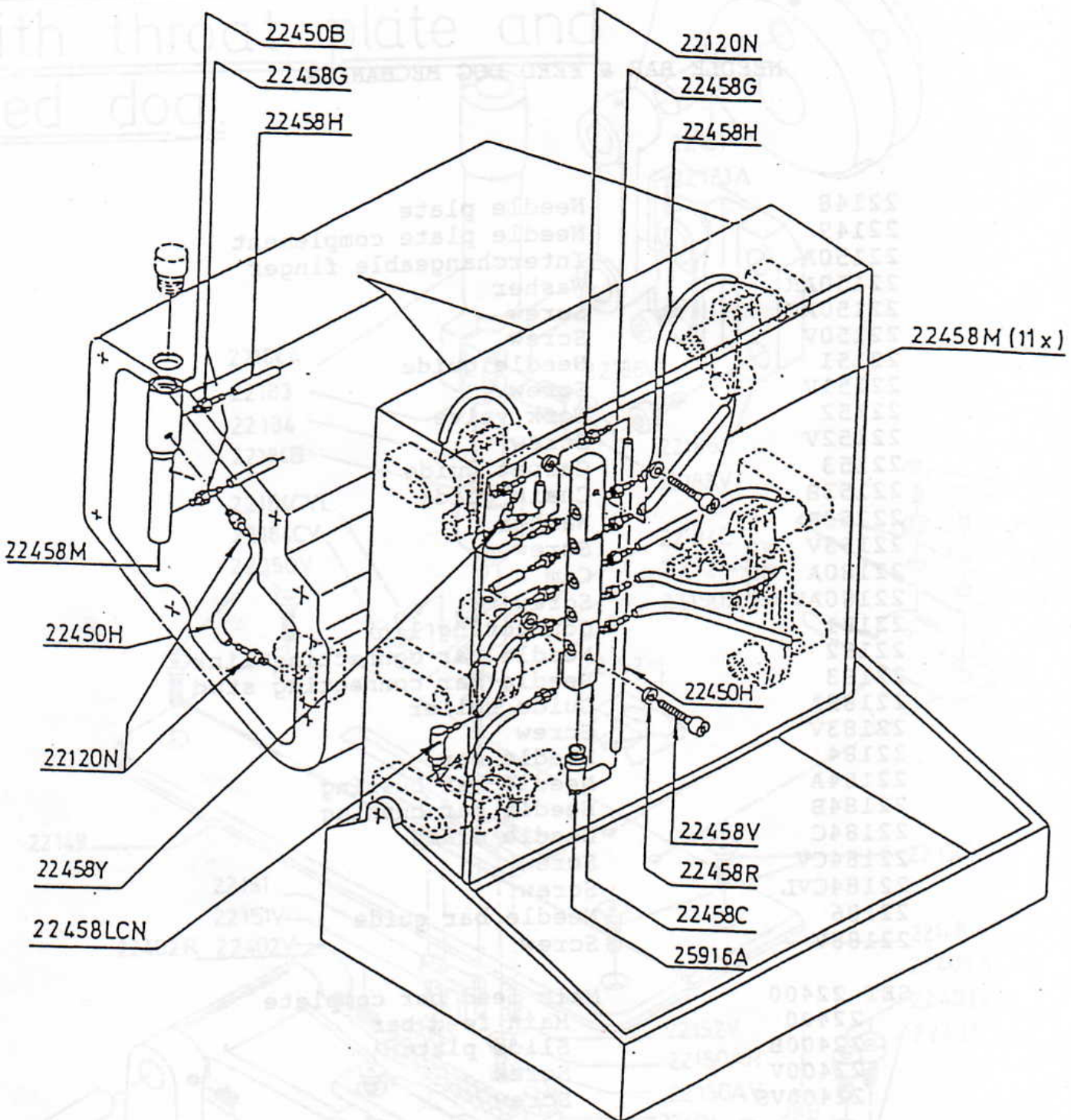
NEEDLE BAR & FEED DOG MECHANISM

22148	Needle plate
22149	Needle plate complement
22150A	Interchangeable finger
22150AR	Washer
22150AV	Screw
22150V	Screw
22151	Needle guide
22151V	Screw
22152	Work valve
22152V	Screw
22153	Carpet guide
22153B	Chain guide
22153R	Washer
22153V	Screw
22180A	Cam
22180AV	Screw
22181	Connecting link
22182	Needle bar connecting link
22183	Needle bar connecting stud
22183A	Guide roller
22183V	Screw
22184	Needle bar
22184A	Needle bar bushing
22184B	Needle bar bushing
22184C	Needle clamp
22184CV	Screw
22184CVL	Screw
22186	Needle bar guide
22186V	Screw

SET 22400	Main feed bar complete
22400	Main feed bar
22400B	Slide plate
22400V	Screw
22400VS	Screw

22401	Feed dog
22401V	Screw
22402L	Feed dog bar bell crank
22403R	Feed dog bar bell crank
22402VL	Screw
22402V	Screw
22403	Lever
22403V	Screw
22404	Slide block
22405	Roller shaft
22405A	Nut
22408	Feed bar shaft

needle bar mechanism
with through plate and
ed door



Lubricating circuit.

LUBRICATING CIRCUIT

11x)

SET 22450	Upper oil distributor
22120N	Connection
22450B	Oil distributor
22450H	Hose
22458G	Connection
22458H	Hose

SET 22458	Lower oil distributor
22120N	Connection
22450H	Hose
22458C	Oil distributor
22458G	Connection
22458H	Hose
22458LCN	Connector
22458M	Lubrication cord
22458R	Washer
22458V	Screw
22458Y	Connection
25916A	Connection