

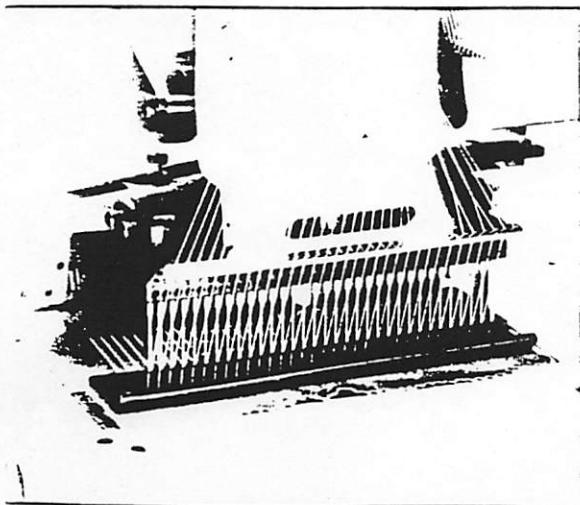
Industrial Sewing Machines

Kansai Special

INSTRUCTION MANUAL

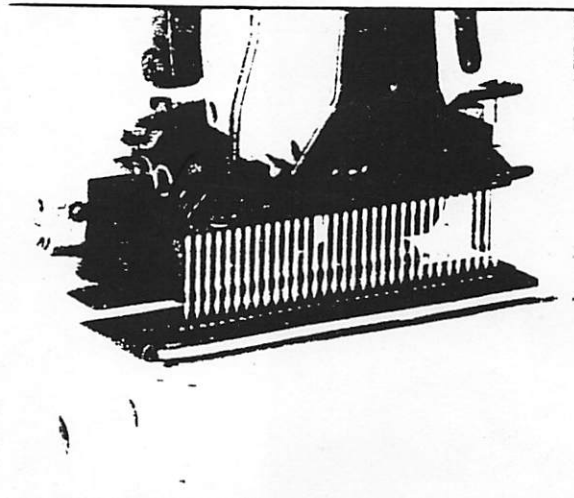
DFB-1433P

THIRTYTHREE NEEDLE,
VERTICAL LOOPER,
DOUBLE CHAINSTITCH, FLATBED
MACHINE WITH PULLER

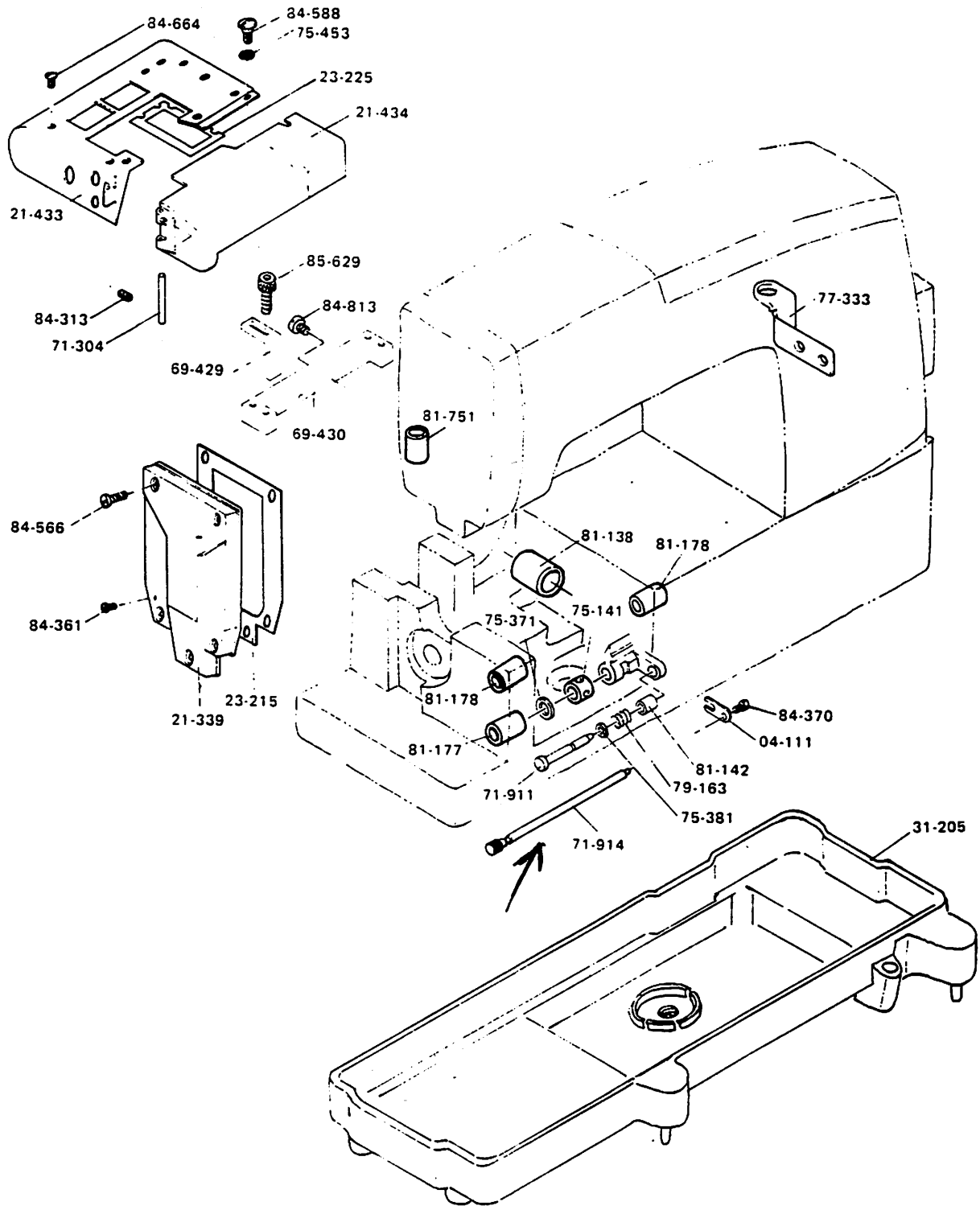


DFB-1033PS

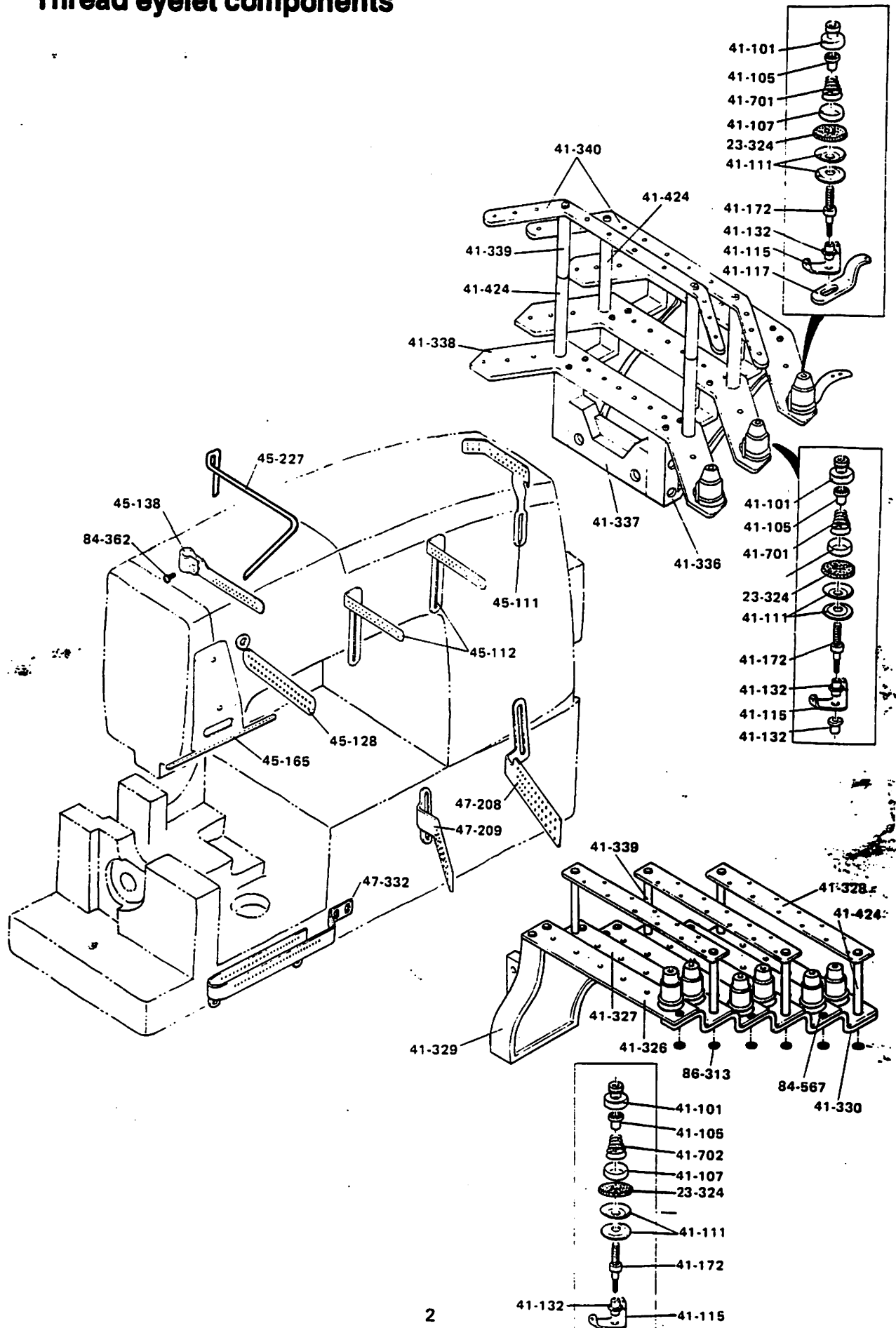
THIRTYTHREE NEEDLE,
SINGLE CHAINSTITCH,
FLATBED SHIRRING MACHINE



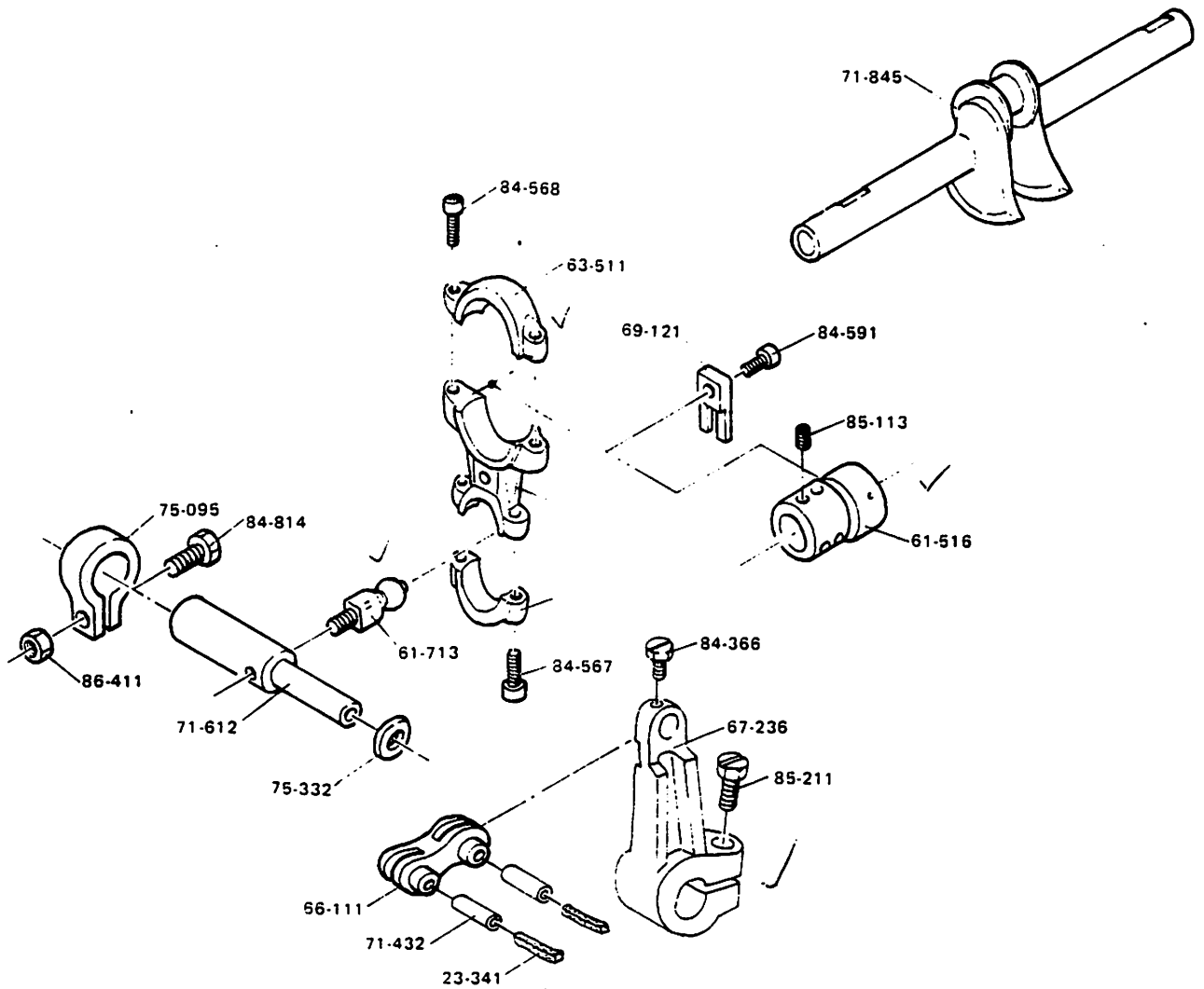
Housing components
Bushings
Looper
Foot lifter mechanism



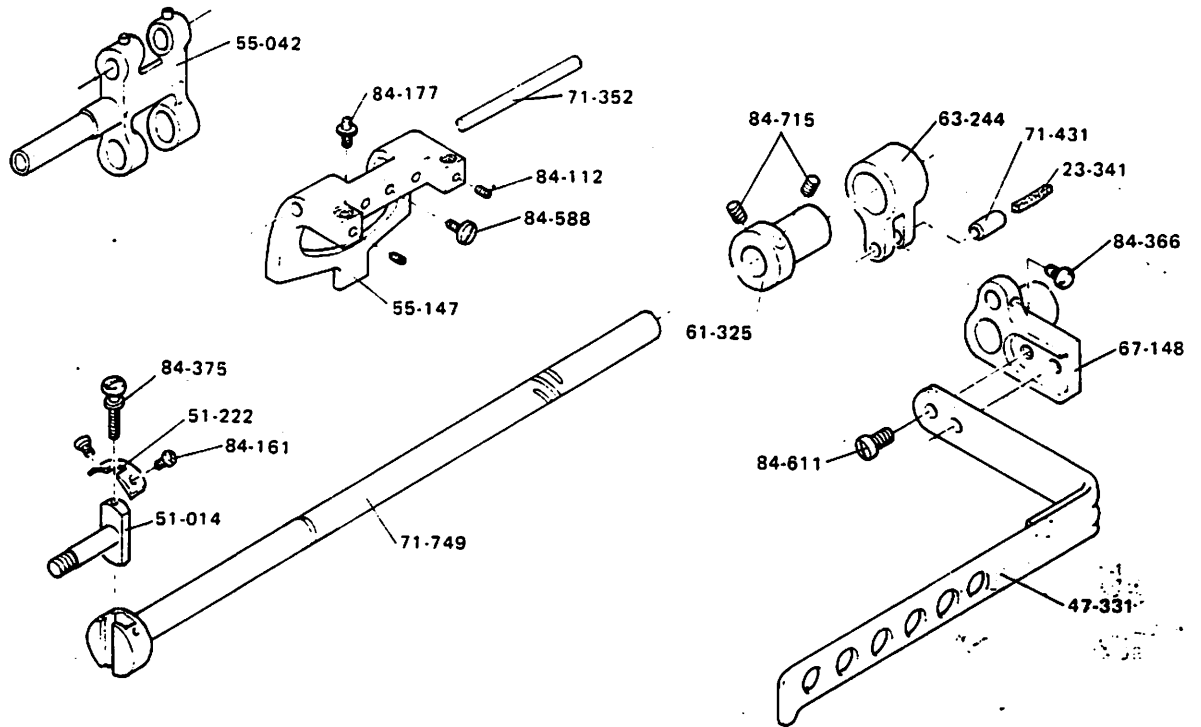
Thread eyelet components



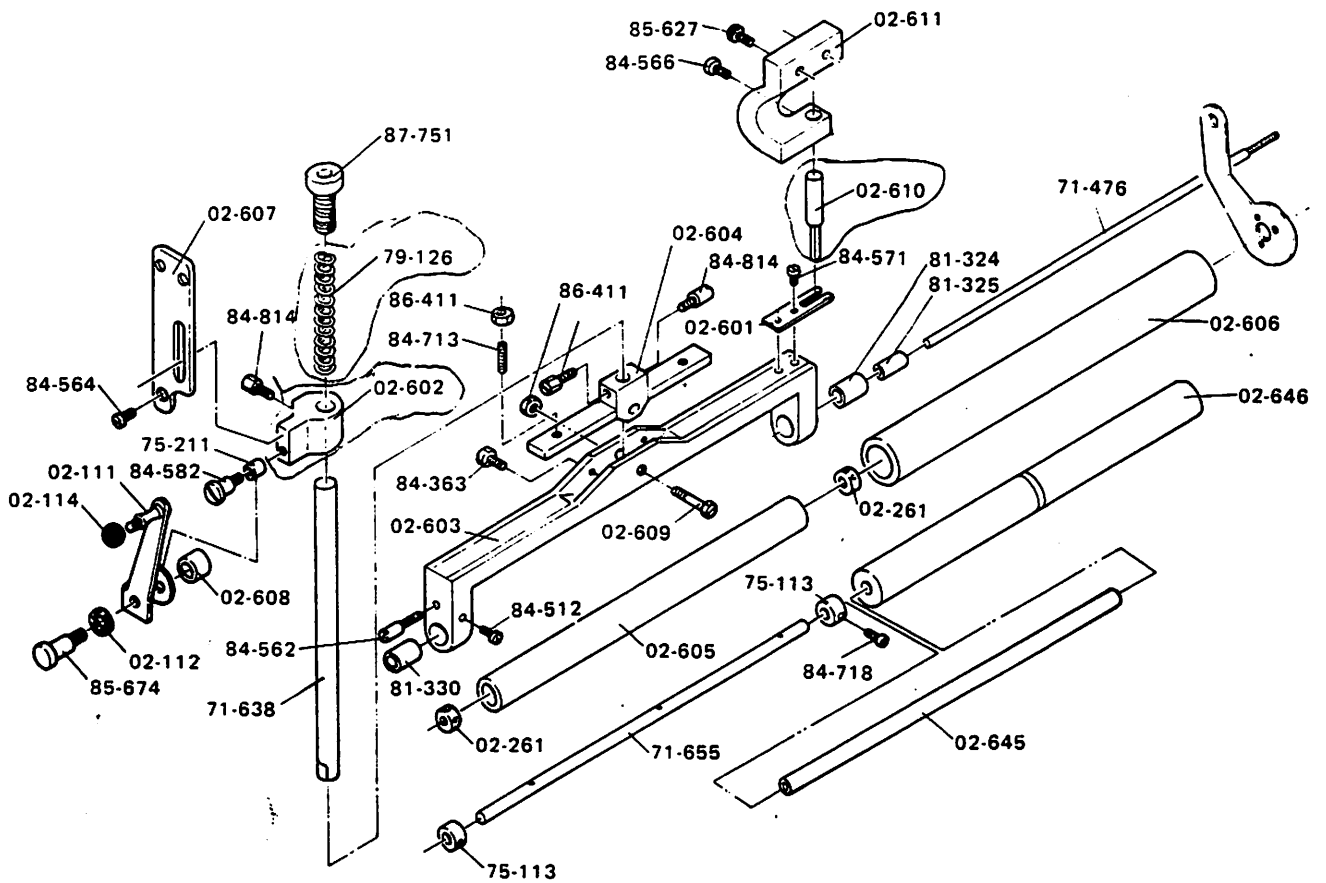
Needle lever crank



Feed rocker

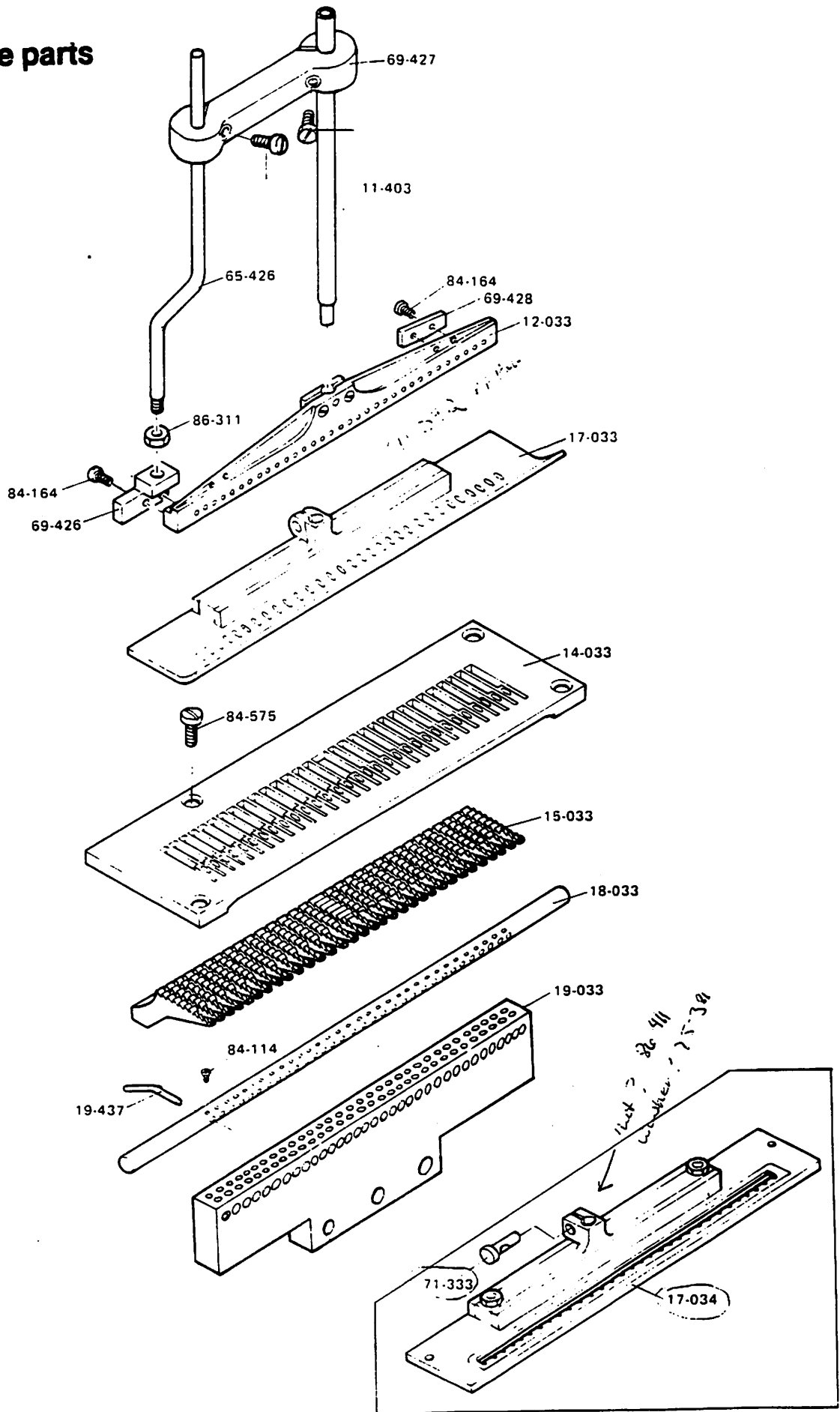


Puller



1425 top complete puller 00-433

Gauge parts



Specification

Model	1033P	1433P	1033P-SM	1433P-SM
Needle	33	33	33	33
Looper	0	0	0	33
Spreader	0	0	33	33
Thread	33	66	66	99
Service needle	DV x K25 (=18 ~ 21)	UO x 113 (=11 ~ 18)	DV x K25 (=18 ~ 21)	UO x 113 (=11 ~ 18)
Needle gauge	4.76 x 32 = 152.3 mm			
Feeding mechanism	Plain			
Stitch length	5 - 24 stitches / inch			
Lubrication system	Fully automatic			
Max. speed	2,500 rpm			

DFB-1433P

1. Needle bar's height adjustment

Needle bar height (length of needle bar from needle plate) of this unit is $+0.15$ mm.
 -0.1

Adjust as follows.

- 1) Turn the pulley to lift the needle bar to the highest position, and loosen the screw (B) in Fig.2 fixing needle bar.
- 2) Adjust needle clamp so that needles enter needle holes when the needle bar is lowered. After adjustment, tighten screw (B) in Fig.2 fixing the needle bar.

Fig. 1

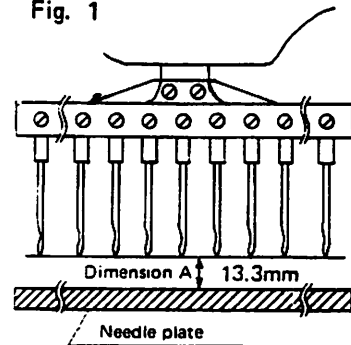
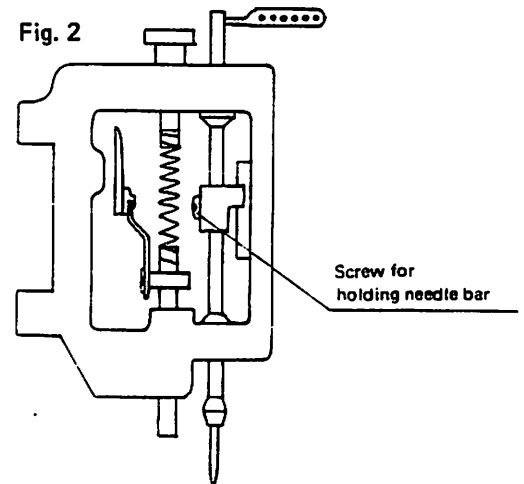


Fig. 2

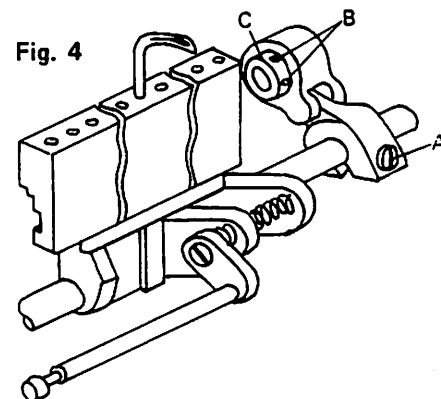
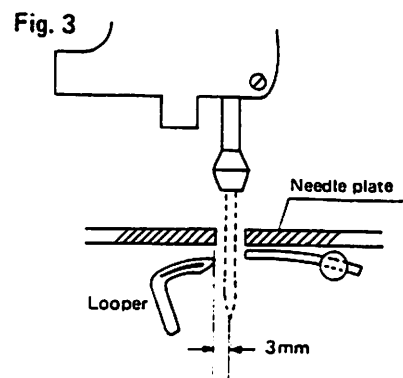


2. Installation of looper and looper holder

Install looper holder and hand tighten screws for loopers. Lower the needle clamp to the lowest point and adjust the clearance between the loopers and needles after the end of backward movement to 3.0 mm.

At this time, check for the parallelism between needle looper holder and needle clamp. **Adjust as follows.**

- 1) Remove the upper cloth plate and oil reservoir top cover.
- 2) Fasten retainer lever (A) in Fig.4 on looper retainer lever. Adjust the clearance between looper and needle using a 3.0 mm bar gauge. Then, fasten screw (A).



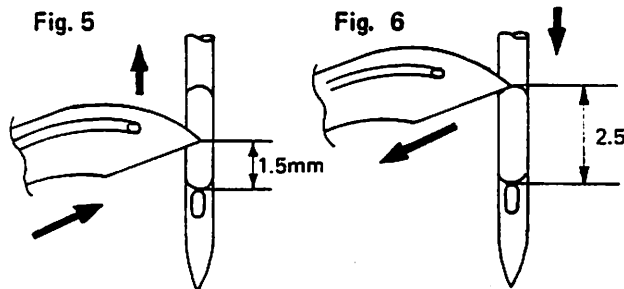
3. Timing of needle bar and looper

Time the looper to needle bar movement so that looper tip is 1.5mm higher than needle hole (See Fig.5) during forward movement when the needle bar locates 7mm above its lowest position, and looper tip is 2.5mm higher than needle hole (See Fig.6) during backward movement when the needle bar locates 28mm below its highest position.

Adjust as follows.

- 1) Remove the upper cloth plate and oil reservoir top cover.
- 2) Loosen screw (B) in Fig.4 for retainer eccentric ball.
- 3) Setting retainer eccentric ball toward the operator increases the speed of looper movement, while setting it opposite to the operator slows the speed.

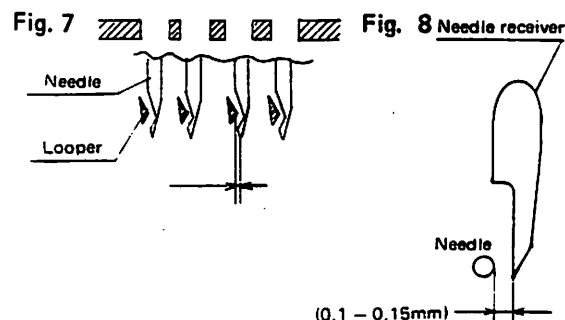
When the best timing is obtained by turning the pulley, tighten screw (B) in Fig.4.



4. Needle guide installation (Looper installation)

Adjust the clearance between the needle guide and needle to 0.1 – 0.15mm as shown in Fig.7.

- 1) Install loopers and needle guide on looper holder. Adjust the clearance between needle and looper to mm. Set looper straight.
- 2) Set the needle guide as shown in Fig.7 and secure it with setscrew. Recheck the clearance between loopers and needles after the end of backward movement is 3.0mm. Then, fasten screw for loopers completely.

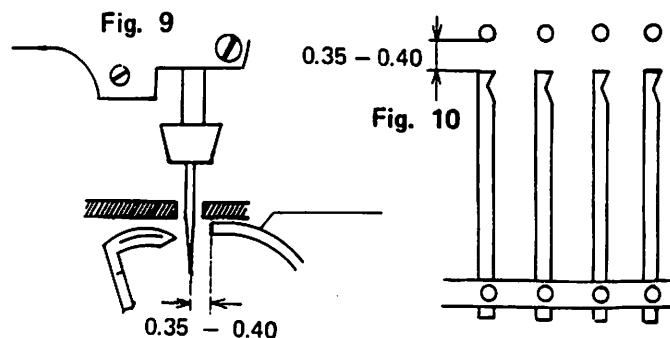


5. Spreader alignment

The right clearance between needles and spreaders is 0.35 – 0.40mm as shown in Fig.9.

Adjust as follows.

- 1) Loosen screws for spreaders (A) in Fig. 10.
- 2) Lower the needle bar to the lowest position, and check for parallelism of spreaders. After adjustment to 0.35 – 0.40 mm clearance, fasten the screw.
- Check the parallelism of spreader again.



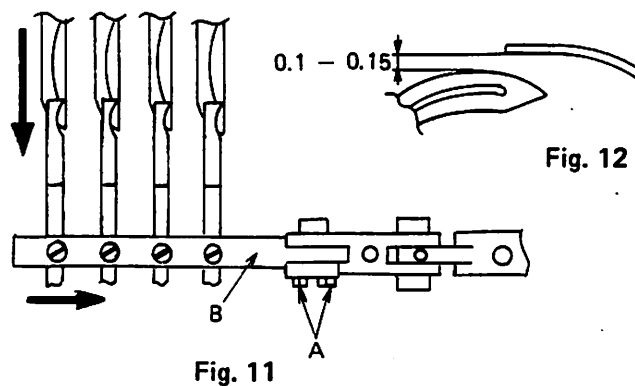
6. Relative position between looper and spreader

- 1) When the spreaders locate at the extremely left position, right side of spreader must meet the right side of looper.

Adjust as follows.

- 1) Temporarily tighten screw (A) for spreader holder.
- 2) Turn pulley to move the spreader to the extremely left position. Fastening screw (A) in Fig. 11 when the above relative position is satisfied.

Note: For spreader adjustment, adjust A and B at the same time. The clearance between loopers and spreaders should be within 0.1 – 0.15mm as shown in Fig. 12. (Use the clearance gauge.)

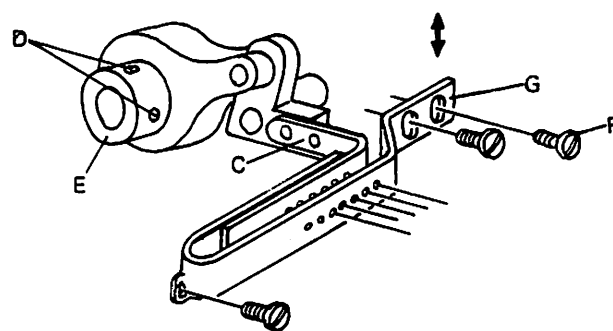


7. Looper thread retainer adjustment

- 1) Adjust the looper thread retainer (C) in Fig. 13 so that it begins rising when needle bar lowers by 20mm from its highest position.

Adjust as follows.

- 1) Loosen and temporarily fasten the excentric-ball screw (D) in Fig. 13 for looper thread retainer. Turn the pulley and adjust the looper thread retainer so that the above condition should be satisfied moving the excentric-ball setscrew (E) in Fig. 13 to the operator increases the retainer speed while moving it to the opposite direction decreases the speed.
- 2) For fine adjustment, loosening screw (F) in Fig. 13 and slide the thread way (G) in Fig. 13 vertically.



1. Feed teeth height

Set feed teeth height to 1 – 1.8mm from the needle plate upper surface.

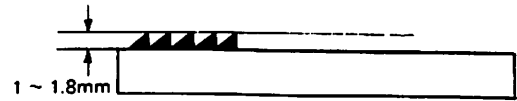


Fig. 1

2. Needle bar's height adjustment

Needle bar height (length of needle bar from needle plate) of this unit is $+0.15$ mm.
 -0.1

Adjust as follows.

- 1) Turn the pulley to lift the needle bar to the highest position, and loosen the screw (B) in Fig.2 fixing needle bar.
- 2) Adjust needle clamp so that needles enter needle holes when the needle bar is lowered. After adjustment, tighten screw (B) in Fig.2 fixing the needle bar.

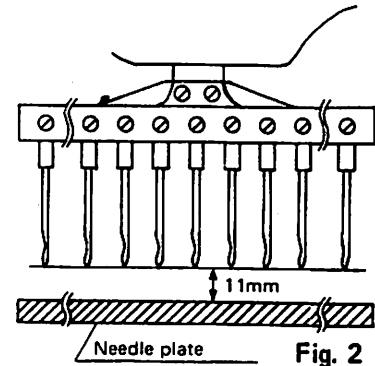


Fig. 2

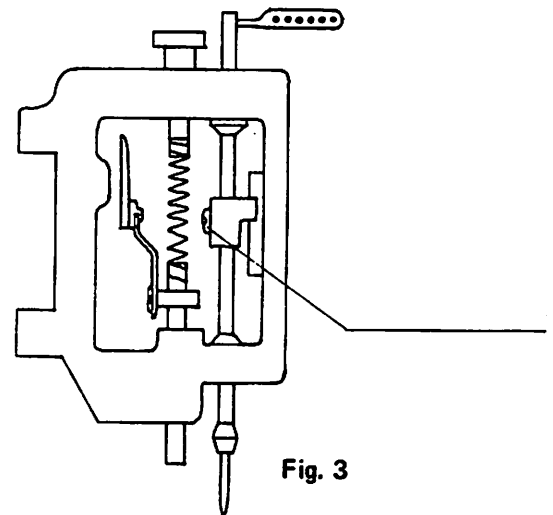


Fig. 3

3. Looper

This sewing machine uses Organ needles.

DVK-20 \approx 21: 1.8mm

DVK-20 \approx 18: 2.0mm

Install looper holder and hand tighten screws for loopers. Lower the needle clamp to the lowest point and adjust the clearance between the loopers and needles after the end of backward movement to 3.0 mm.

At this time, check for the parallelism between needle looper holder and needle clamp. **Adjust as follows.**

- 1) Remove the upper cloth plate and oil reservoir top cover.
- 2) Fasten retainer lever (A) in Fig.4 on looper retainer lever. Adjust the clearance between looper and needle using a 3.0 mm bar gauge. Then, fasten screw (A).

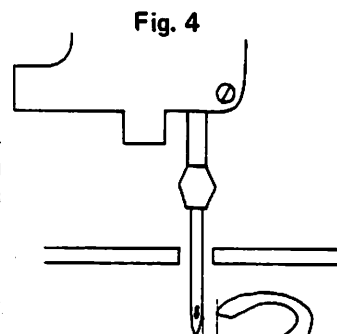


Fig. 4

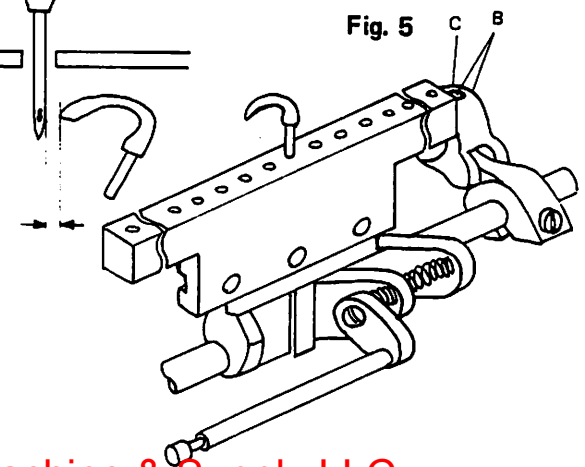


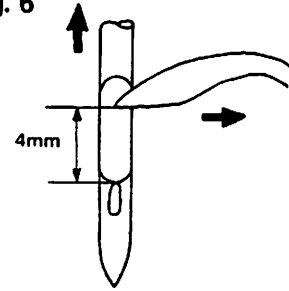
Fig. 5

4. Needle bar and looper timing

Adjust needle bar and looper timing so that looper passes over a point 4mm above the needle hole when needle bar just begins to move up from the lowest position, looper just begins to move back, and looper tip positions on a needle center line. Needle and looper timing is identical in both forward and backward movements.

(Adjustment procedure is the same as that for 1433P.)

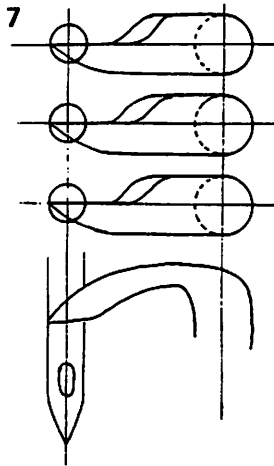
Fig. 6



5. Looper setting angle

Set loopers so that looper center and needle center are on a center line.

Fig. 7

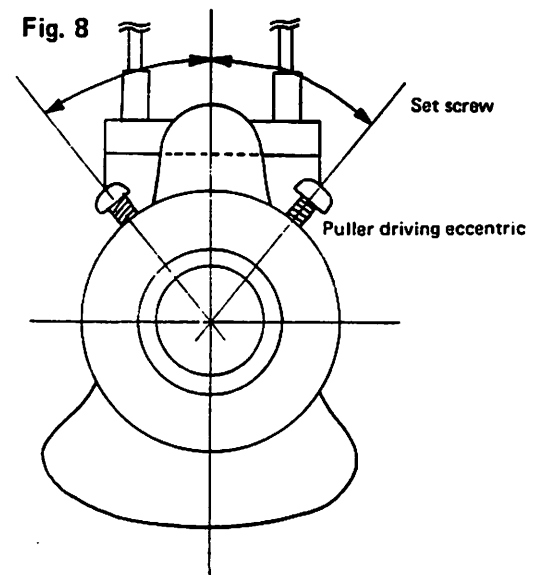


6. Rear puller timing

Adjust rear puller timing so that the center of puller driving eccentric set screws meets the center of crankshaft when the needle bar is at its lowest position.

Note that puller roller reaches its extreme end when needle just enters the needle plate hole.

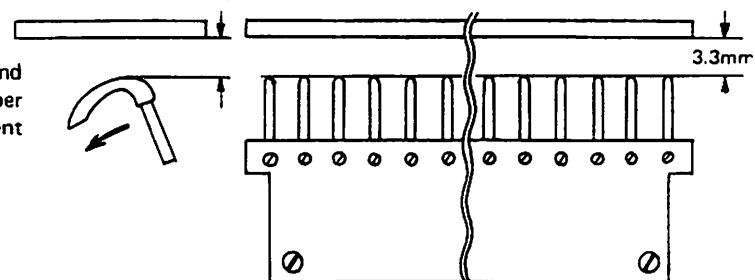
Fig. 8



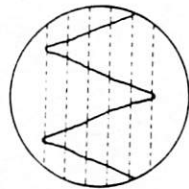
7. Looper height

Set looper so that clearance between looper and needle plate is 3.3mm (Fig. 9) when the looper positions at its extreme end in forward movement (it stops).

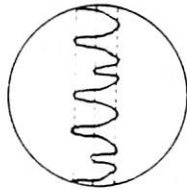
Fig. 9



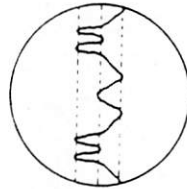
Kinds of standard cams (9 pieces)



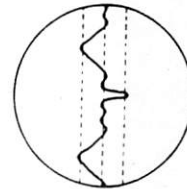
No. 1 EX 01055



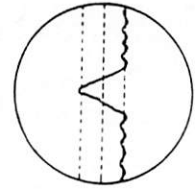
No. 2 EX 01056



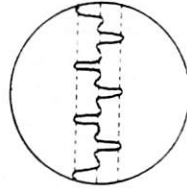
No. 3 EX 01057



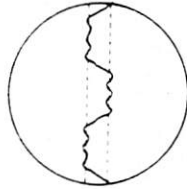
No. 4 EX 01058



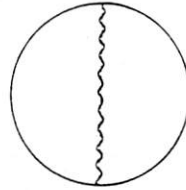
No. 5 EX 01059



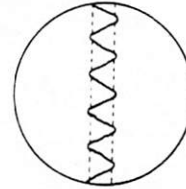
No. 6 EX 01060



No. 7 EX 01061

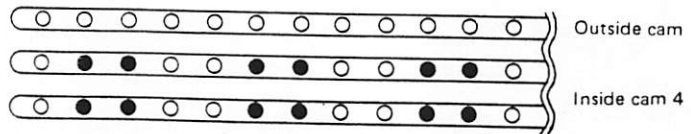
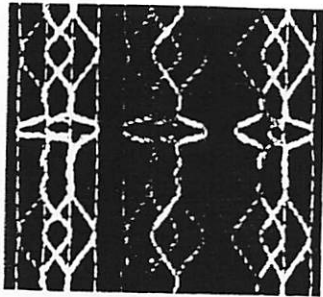


No. 8 EX 01062



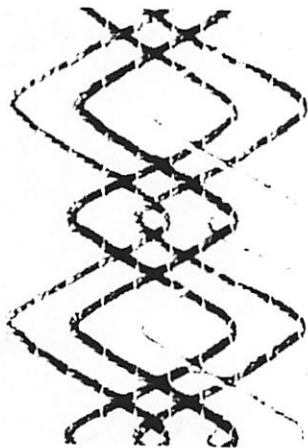
No. 9 EX 01063

Example of pattern making

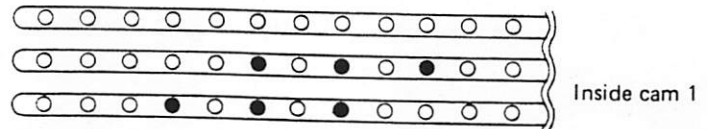


In case of making the pattern as photo shown on the left, set the cam No. 4 to the inside and use only two lower moving plates. Any outside cam is available in this case. Insert decorating thread into the point marked (●) and this pattern can be made automatically.

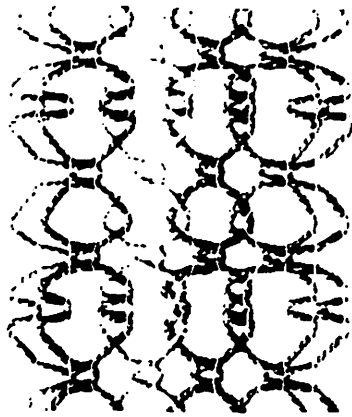
Example of pattern



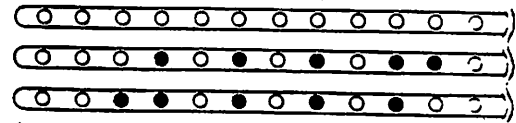
No. 1



A sample of pattern by cam No. 1

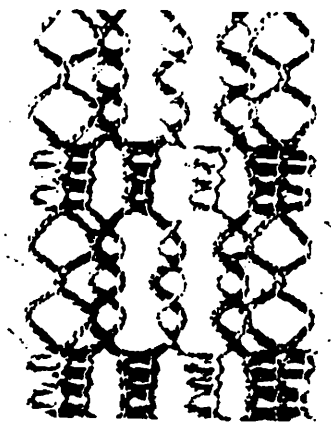


No. 2

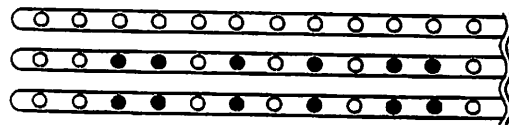


A sample of pattern by cam No. 2

Inside cam 2

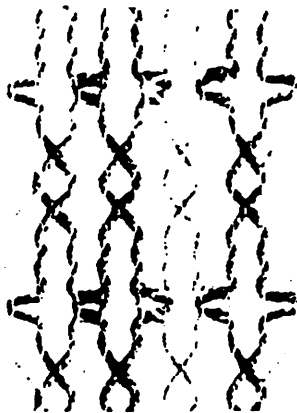


No. 3

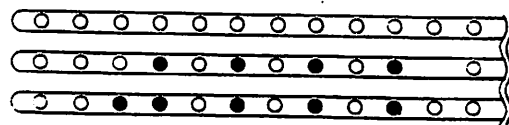


A sample of a pattern by cam No. 3

Inside cam 3

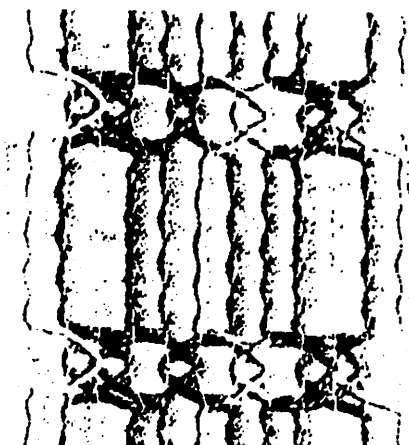


No. 4

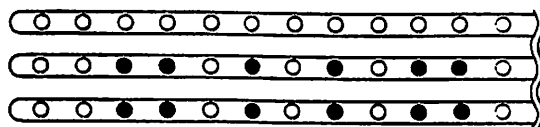


A sample of a pattern by cam No. 4

Inside cam 4

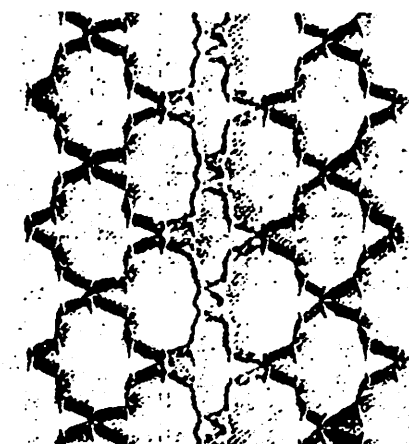


No. 5

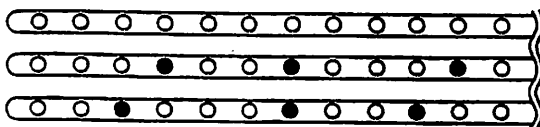


A sample of a pattern by cam No. 5

Inside cam 5

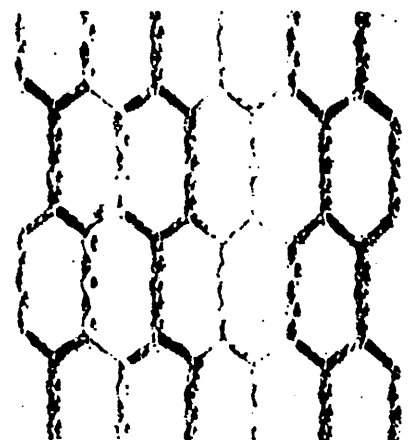


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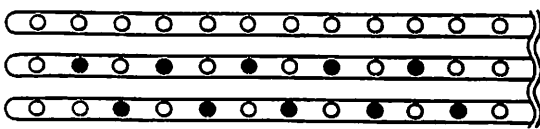


A sample of a pattern by cam No. 6

Inside cam 6

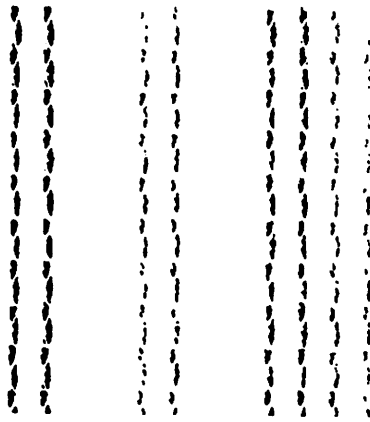


No. 7

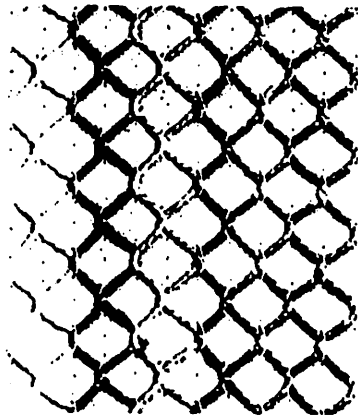
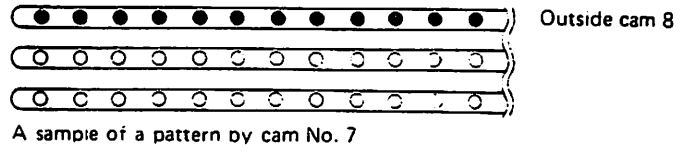


A sample of a pattern by cam No. 7

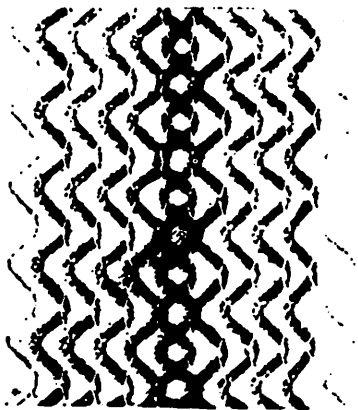
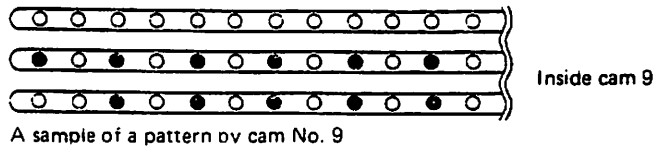
Inside cam 7



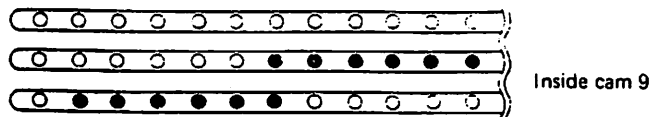
No. 8



No. 9



No. 9



By changing threading, a wide variety of patterns are possible.

