



**PEGASUS®**

# AT · KS · KH Device

## INSTRUCTIONS

Automatic tape cutter (AT)

Vertical type vacuum chain cutter (KS)

Flat type vacuum chain cutter (KH)

## **AT Device**

M932, M952

Models: AT7F

## **KS Device**

M952

Models: KS9G, KS9H, KS7C, KS7E

## **KH Device**

M932

Models: KH9L, KH9M, KH7A, KH7B

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**Regarding the item below, refer to the instruction manual for the mounted motor (DJ10·DJ20).**

- Air piping
- Connecting the connector
- Operation procedure

## Sewing

### AT7F

Sew the fabric by following the procedure below.

1. Turn on the power.
2. Place the fabric under the presser foot.
3. Press the machine treadle and start the machine.
4. The tape cutter cuts the tape (chain thread) automatically at the position selected in the cutter mode on the controller.

※ If you want to cut the tape and/or the thread chain manually (TK type), press the switch (see Fig. 4).

Fig.1

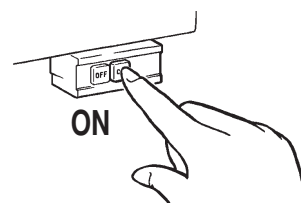


Fig.2

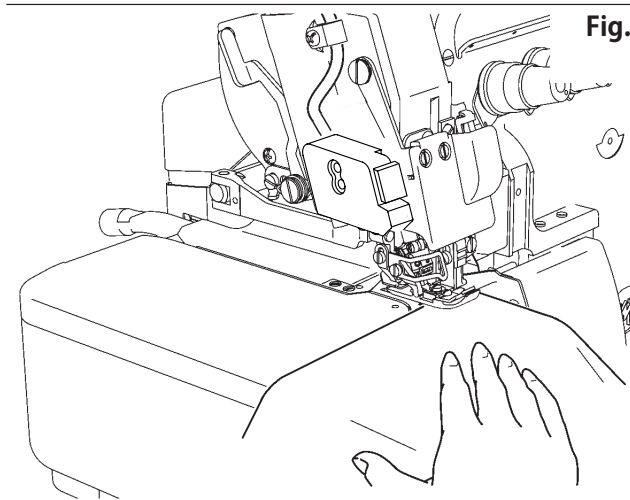
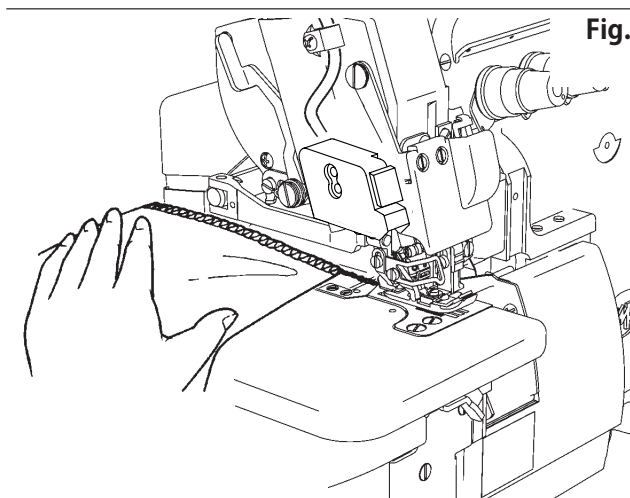
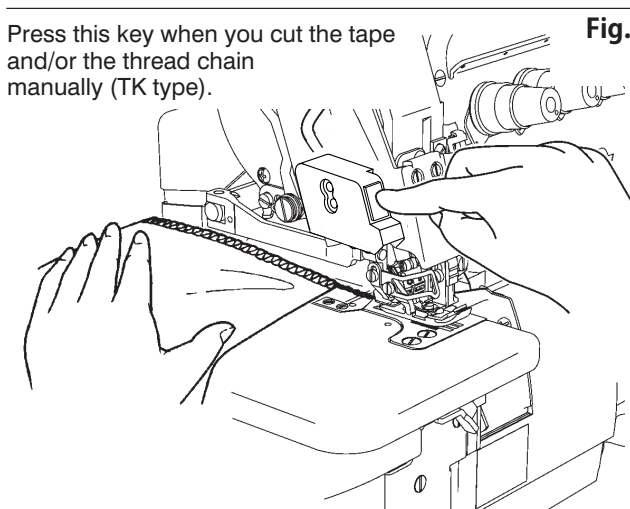


Fig.3



Press this key when you cut the tape and/or the thread chain manually (TK type).

Fig.4



## KS9G,KS9H,KS7C,KS7E

### Note

Lubricate the oil wick, pipes and moving parts before using the chain cutter. Thereafter supply oil to them as required.

Sew the fabric by following the procedure below.

1. Turn on the machine.
2. Heel the treadle to lift the presser foot.  
Place the fabric under the presser foot.
3. Toe the treadle to start sewing.
4. Complete sewing.  
In order to cut thread chain smoothly, stop feeding a fabric when the thread chain is sucked into the suction inlet **1**. (See the illustrations below). After cutting it, stop the machine.

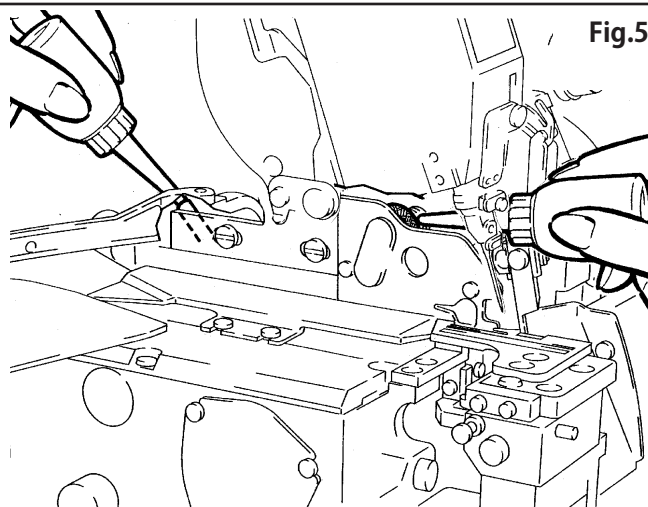


Fig.5

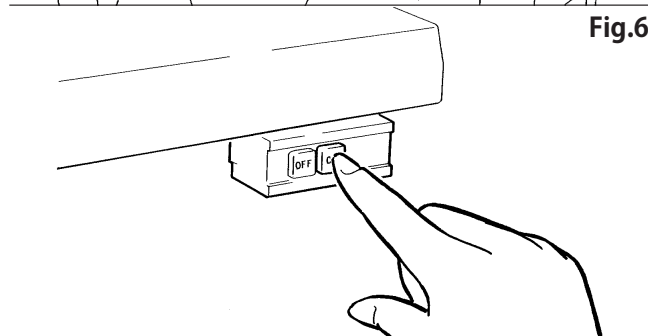


Fig.6

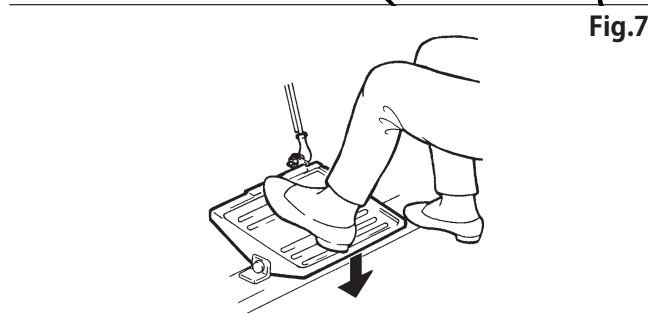


Fig.7

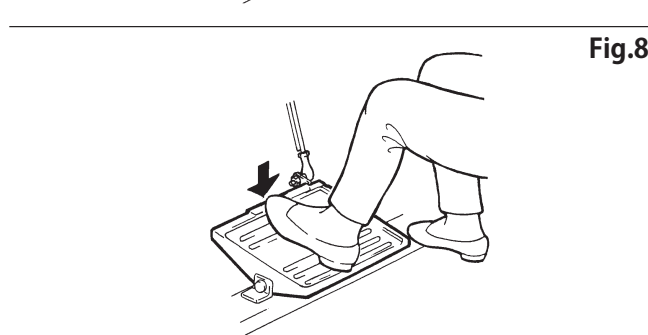


Fig.8

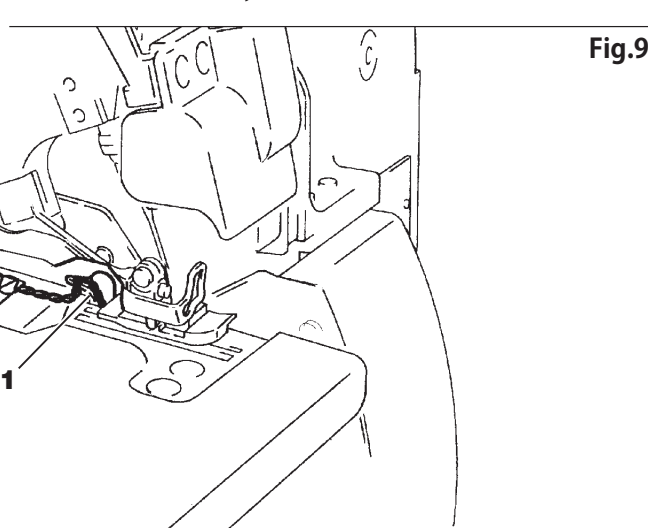


Fig.9

## KH9L,KH9M,KH7A,KH7B

### Note

Lubricate the oil wick, pipes and moving parts before using the chain cutter. This lubrication can be made by removing screws **1** and fabric guide **2**. Thereafter supply oil to them as required.

Sew the fabric by following the procedure below.

1. Turn on the machine.
2. Heel the treadle to lift the presser foot.  
Place the fabric under the presser foot.
3. Toe the treadle to start sewing.
4. Complete sewing.  
In order to cut thread chain smoothly, stop feeding a fabric when the thread chain is sucked into the suction inlet **3**. (See the illustrations below). After cutting it, stop the machine.

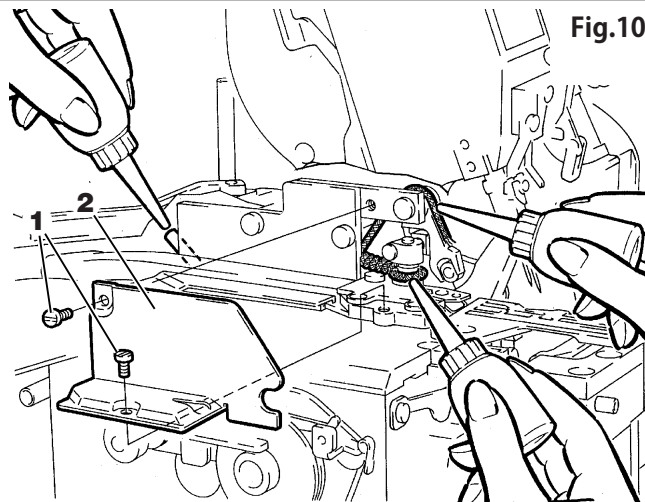


Fig.10

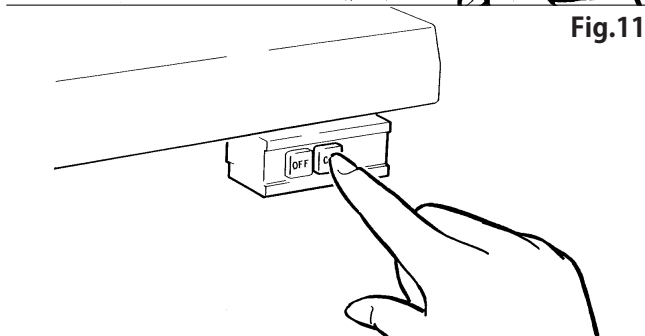


Fig.11

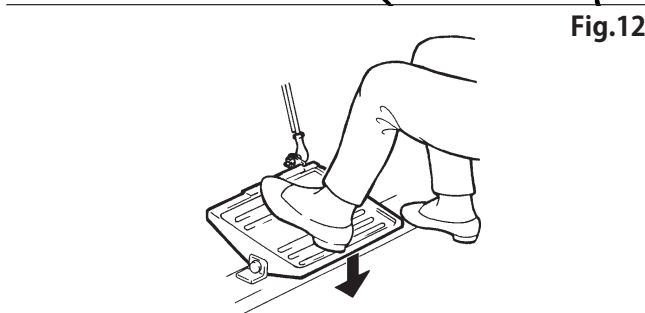


Fig.12



Fig.13

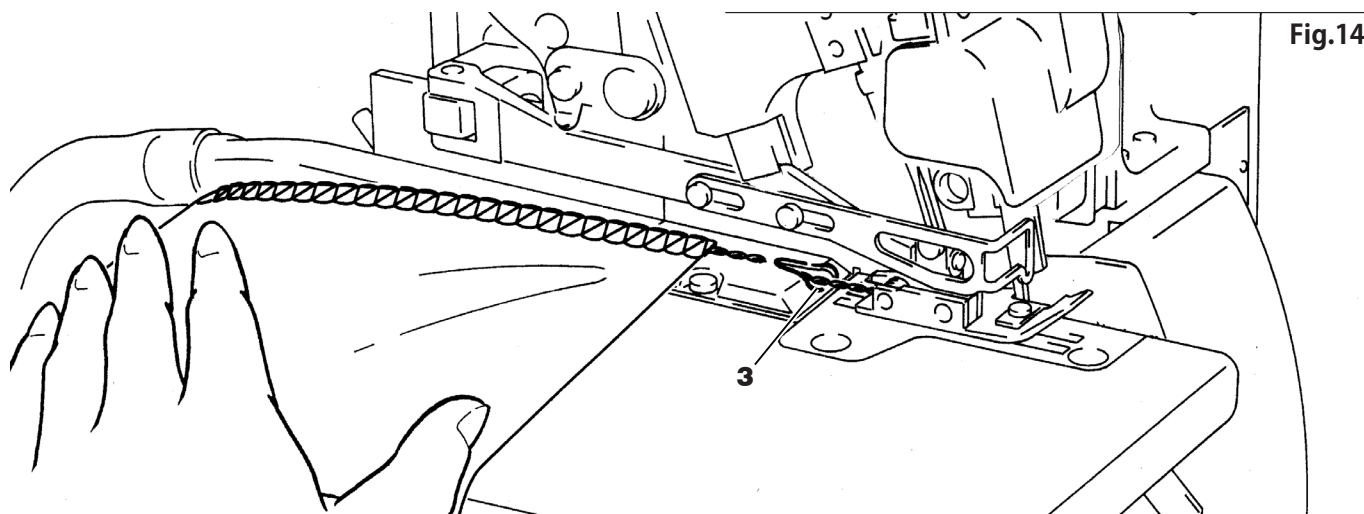



Fig.14

## Replacing and adjusting knives

### WARNING

 Always turn off the power, unplug the machine and then authorized technicians are allowed to replace and adjust the knives.

 Be careful not to injure your hands and fingers when replacing and adjusting the knives.

Note

The chain cutter knives are replaceable parts.  
The knives should be replaced when cutting is not smooth.

### WARNING

 To prevent physical injury, do not touch the upper blade by hand when making this adjustment.

## AT7F

1. Open the needle breakage shield **1** and the cloth plate **2**.  
Turn the machine pulley until the needle comes to the highest position of its stroke. Push the presser foot lift lever **3** backward and swing the presser foot **4** outward.
2. Remove the screw **5** and the needle plate **6**.
3. Remove the screw **7** and the tape cutter **8**.

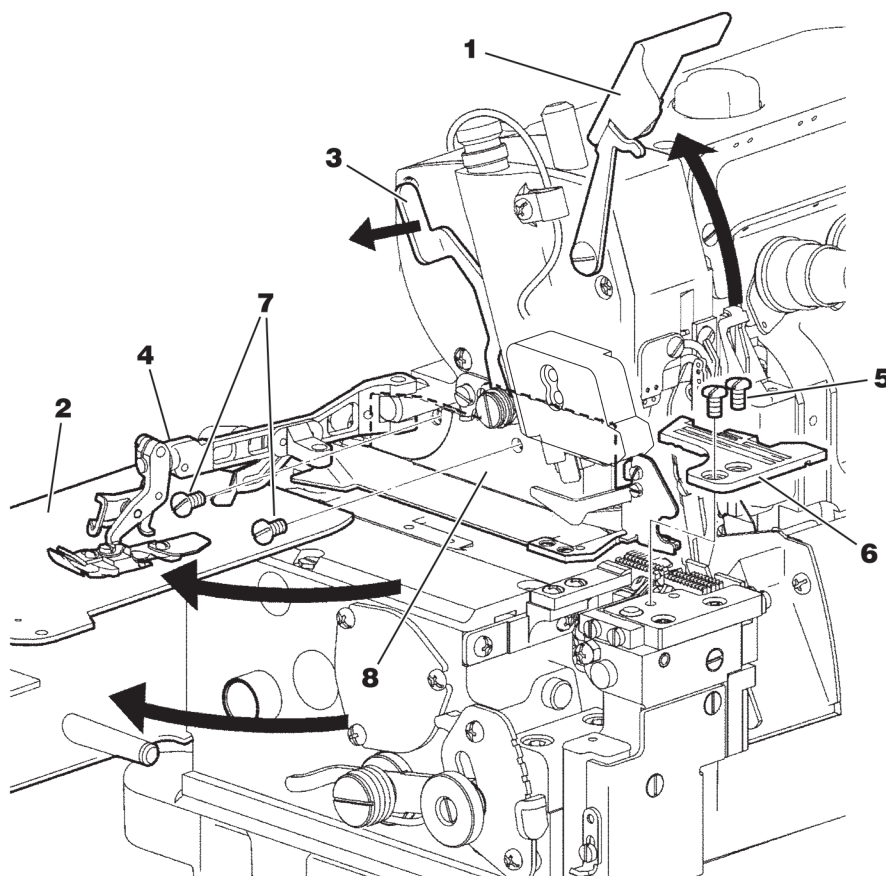
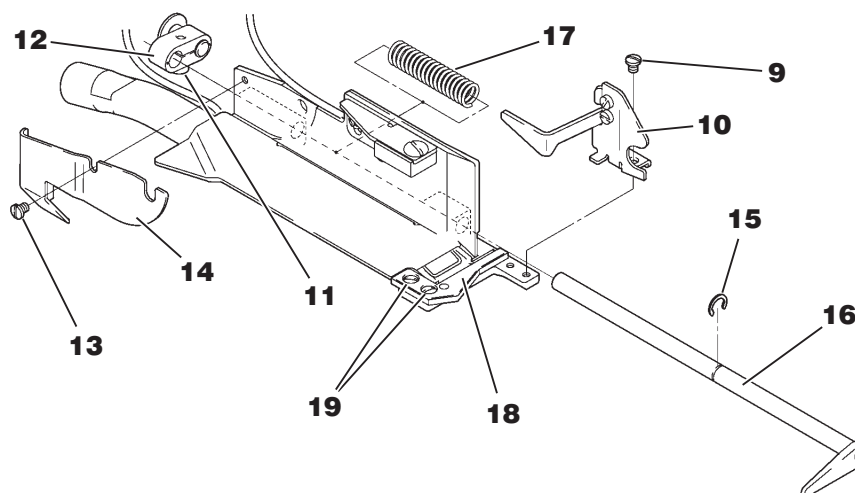


Fig.15

4. Remove the following parts. Screw **9** and Fabric guard **10**, Screw **11** and Link **12**, Screw **13** and Cover **14**.
5. Remove the ring **15** and pull out the upper knife **16** along with the spring **17**.

Fig.16



6. Replace the upper knife **16** with new ones and attach the removed parts in a reverse order from step 5 to 4.  
There should be a distance of 8.5 mm from link **12** to the end of the upper knife shaft (see **A** in Fig. 17). After this adjustment is made, tighten screw **11** temporarily.
7. Then move upper knife **16** by turning link **12** by hand. Check to see if upper knife **16** rotates smoothly against lower knife **18**, and a woolly thread or a similar type of thread is cut properly anywhere on the knives. If adjustments are required, loosen screws **19** and adjust the position of lower knife **18**. After any adjustment is made, tighten screws **19**.
8. Fit link **12** into solenoid **20**. Tighten tape cutter **8** temporarily with screws **7** (see Fig. 18). At this time, clearance **B** between solenoid **20** and washer **21** should be 0.1–0.2 mm. To make this adjustment, loosen screw **11**, and adjust the position of shaft **22**. After this adjustment is made, tighten screw **11** (see Fig. 17).

Fig.17

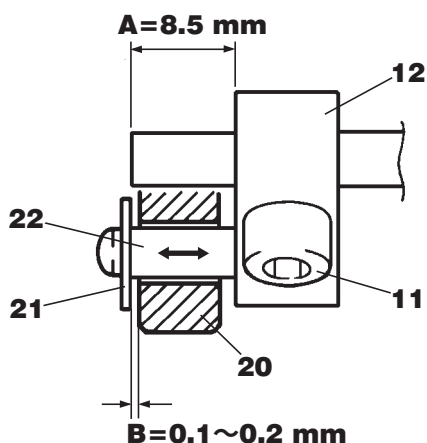
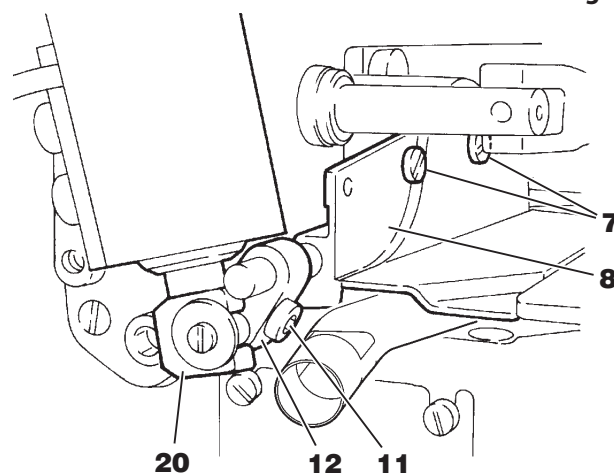


Fig.18



9. Attach the needle plate **6** with the screw **5**.

## 10. 【Adjusting the tape cutter height】

By moving the tape cutter **8** (see Fig. 18) up and down, align the top side of the lower knife **18** with the top side of the needle plate **6** and make the plate **8a** level. Then tighten the screws **7**.

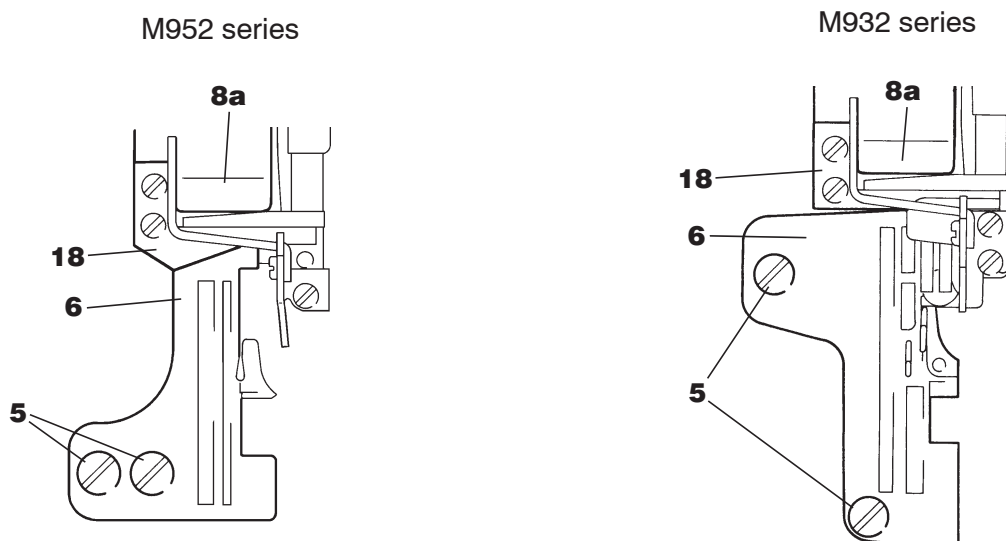


Fig.19

11. Raise solenoid **20** using a finger, turn link **12** and then move upper knife **16** (see Fig. 20). Check to see if upper knife **16** and lower knife **18** overlap smoothly. In order to check for proper cutting, place a woolly thread or a similar type of thread between the knives. The thread should be cut anywhere on the knives. If adjustments are required, loosen screws **19** and adjust the position of lower knife **18**. After any adjustment is made, tighten screws **19**.

## ⚠ CAUTION

⚠ Great care should be taken when adjustments are made on the knives.

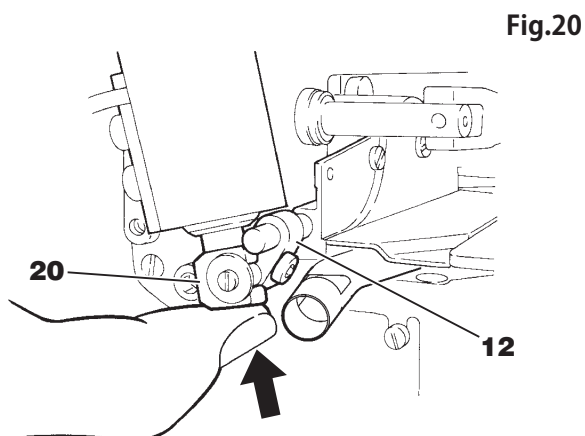


Fig.20

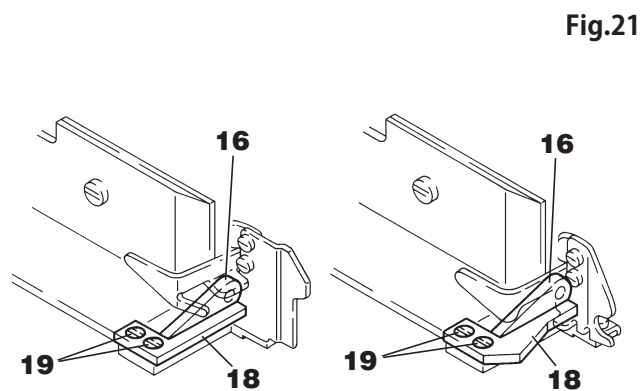


Fig.21



## 12. 【 Blade overlap adjustment 】

The overlap of the upper and lower knives of the tape cutter should be 0 mm – 0.5 mm. Bring solenoid **20** up to its highest position using a finger (see Fig. 22). At this time, the overlap of upper knife **16** and lower knife **18** should be 0 mm – 0.5 mm. Adjustments can be made by loosening screw **11**. After any adjustment is made, tighten screw **11**.

### Note

After tightening screw **11**, check to see if distance **A** (see Fig. 23) from the end of the upper knife shaft is 8.5 mm, and clearance **B** between solenoid **20** and washer **21** is 0.1 – 0.2 mm.

Fig.22

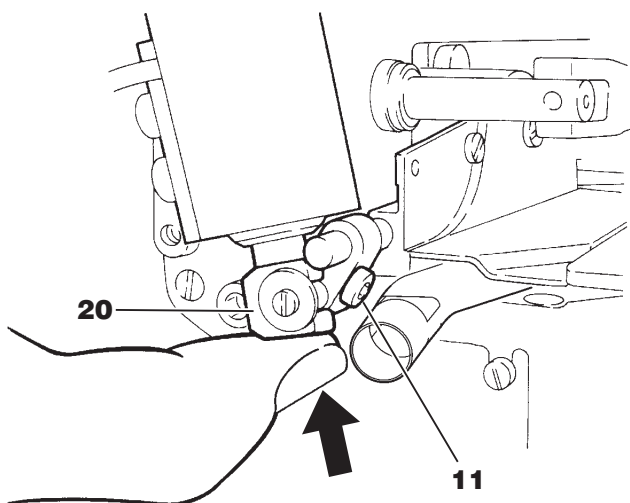
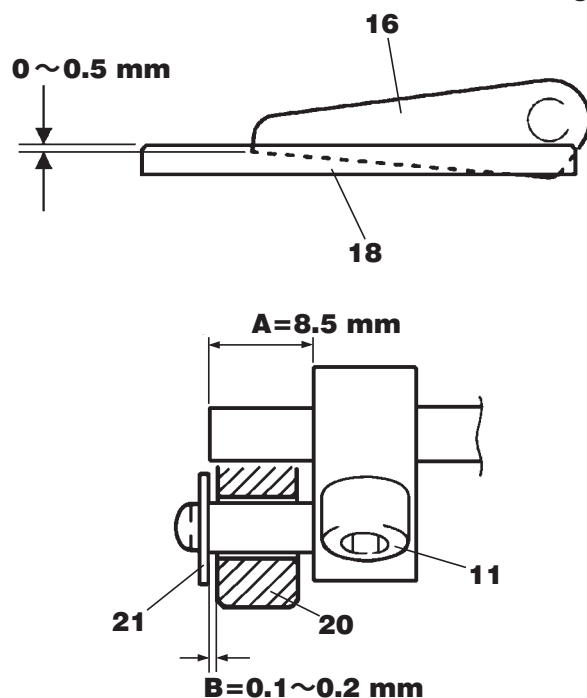
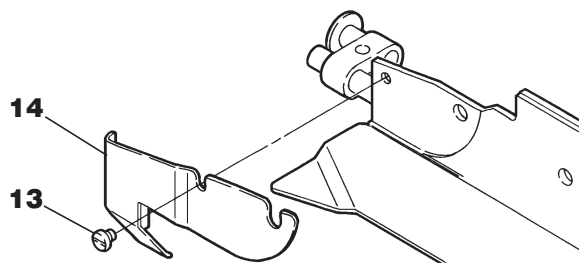


Fig.23



13. After this adjustment is made, replace safety cover **14** and tighten screw **13**. Then replace the needle breakage shield, the cloth plate and the presser foot.

Fig.24

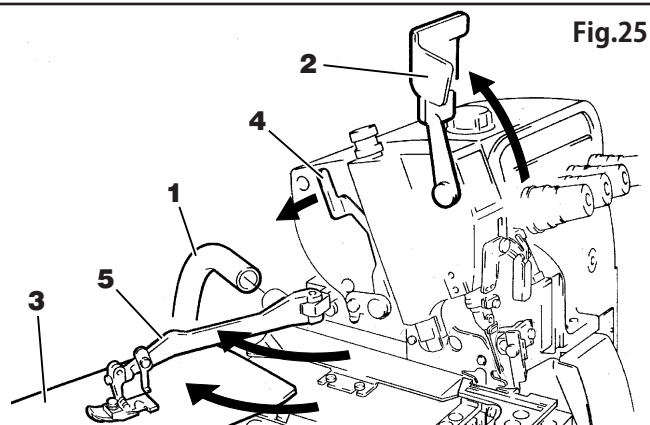


## ⚠ WARNING

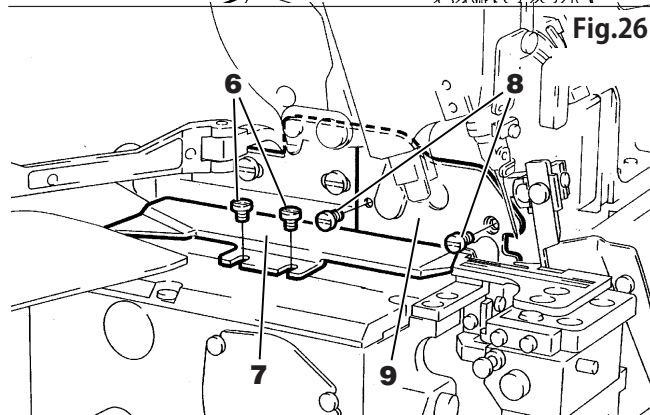
⚠ Check to see if the safety cover is installed before using the TK.

## KS9G,KS9H,KS7C,KS7E

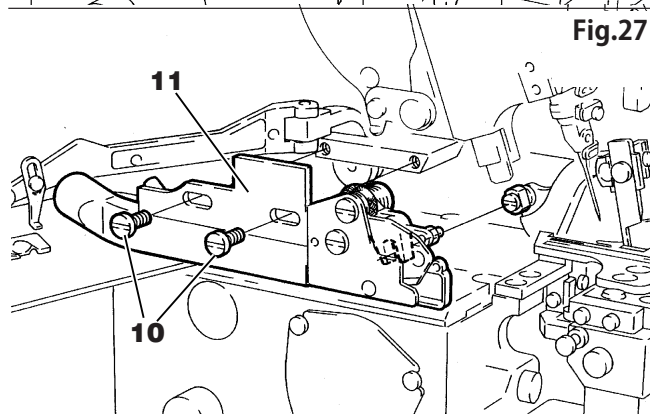
1. Remove the hose **1**. Open the needle breakage shield **2** and the cloth plate **3**. Turn the machine pulley by hand until the needle comes to the top of its stroke. Press the presser foot lift lever **4** and swing the presser foot **5** outward.



2. Remove the screw **6** and the auxiliary plate **7**. Remove the screw **8** and the fabric guide **9**.

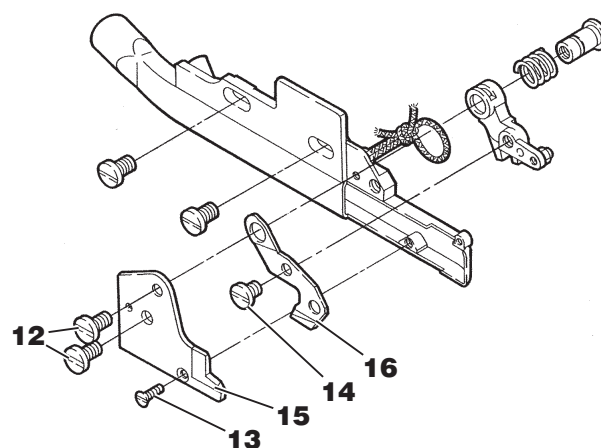


3. Remove the screw **10** and the KS device **11**.



4. Remove the screw **12**, **13** and **14**. Then remove the stationary knife **15** and the movable knife **16**.

5. Replace the stationary knife **15** and the movable knife **16** with new ones. Reassemble the chain cutter in a reverse order of the above procedures 1-4.



## 6. [ Blade pressure adjustment ]

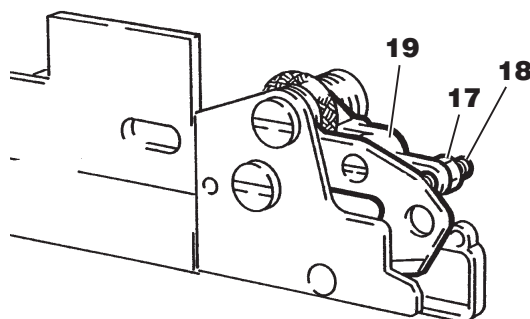
Fig.29

To adjust the pressure between blades, loosen the nut **17** and turn the screw **18** as required.

● To increase the pressure, turn the screw **18** clockwise.

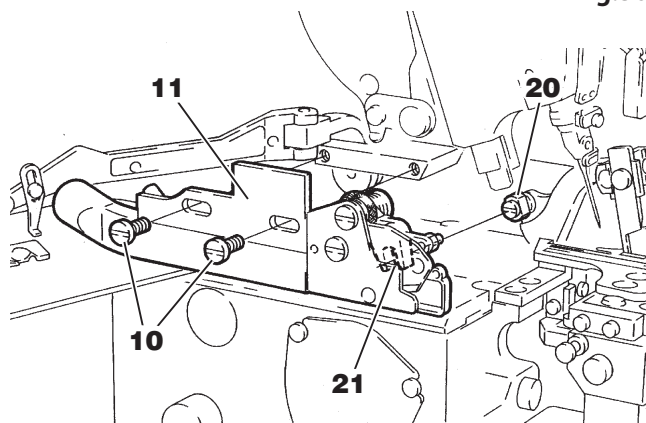
● To decrease the pressure, turn the screw **18** counterclockwise.

After this adjustment, make sure that the knife can cut a thread smoothly by moving the lever **19** by hand. Then tighten the nut **17**.



7. Fit the groove **21** of the chain cutter lever **11** onto the block **20**. Install the chain cutter **11** temporarily with the screws **10**.

Fig.30



8. Loosen the screws **10** and position the chain cutter **11** by referring to the dimensions in the illustration. Then tighten the screws **10**.

Fig.31

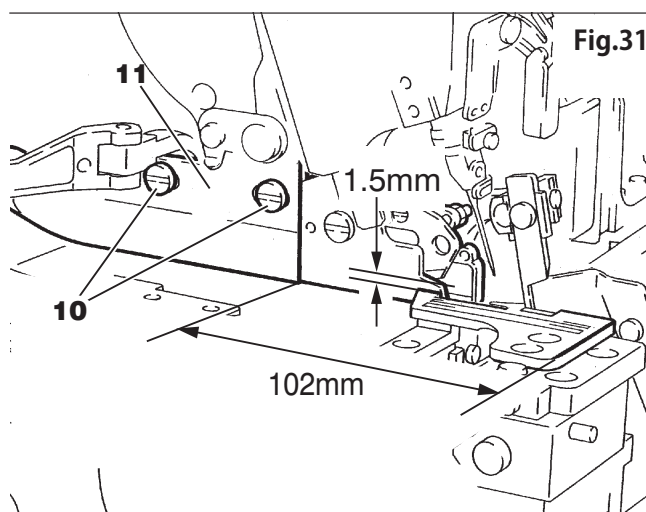


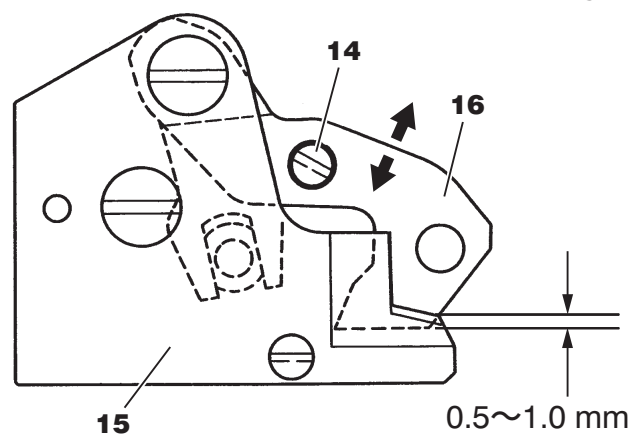
Fig.32

## 9. [ Blade overlap adjustment ]

Turn the machine pulley by hand until the movable knife **16** comes to the bottom of its travel. Loosen the screw **14** and adjust the position of the movable knife **16** so that the overlap of the knife **15** and **16** is between 0.5 and 1.0mm. After this adjustment, secure the movable knife **16** with the screw **14**.

10. Attach the fabric guide and the auxiliary plate (see Fig.26 on the previous page). Place the needle breakage shield, the cloth plate, the presser foot and the hose in each original position (see Fig.25).

11. Turn the machine pulley by hand to see if cutting is smooth.



## KH9L,KH9M,KH7A,KH7B

1. Remove the hose **1**. Open the needle breakage shield **2** and the cloth plate **3**. Turn the machine pulley by hand until the needle comes to the top of its stroke. Press the presser foot lift lever **4** and swing the presser foot **5** outward. Remove the screws **6** and the needle plate **7**.

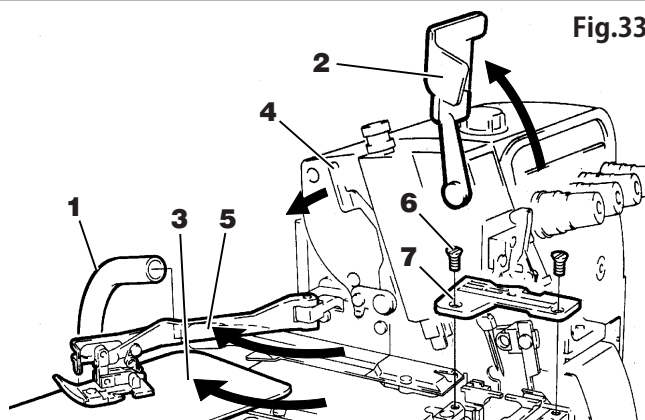


Fig.33

2. Remove the screw **8** and the fabric guide **9**. The shape of the fabric guide varies according to each KH (flat vacuum chain cutter).

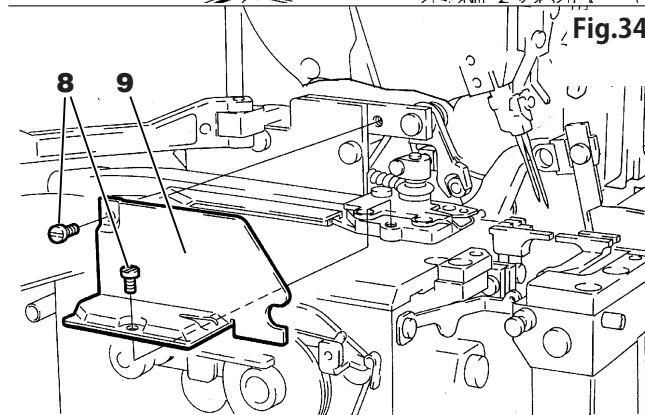


Fig.34

3. Remove the screw **10** and the KH device **11**.

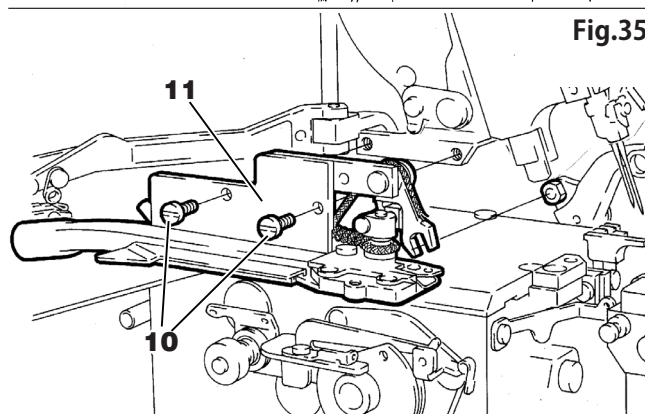
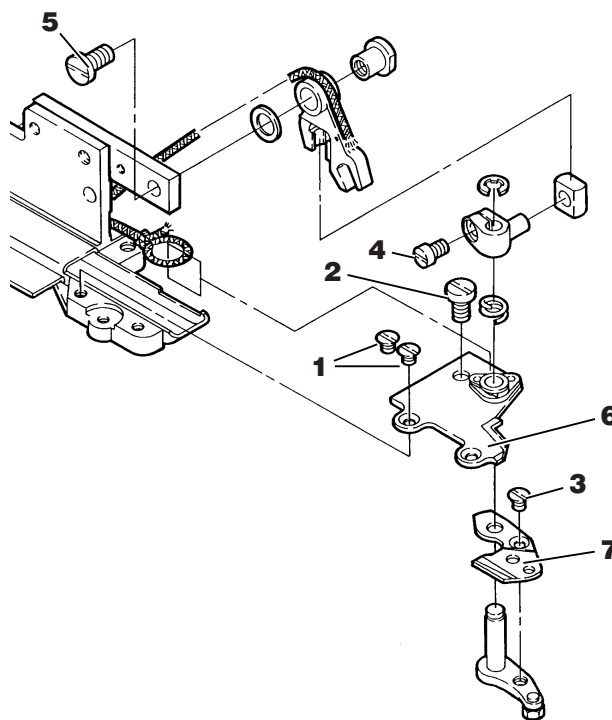


Fig.35

Fig.36

4. Remove the screw 1,2,3,4 and 5. Then remove the stationary knife 6 and the movable knife 7.
5. Replace the stationary knife 6 and the movable knife 7 with new ones. Reassemble the chain cutter in a reverse order of the above procedure 1-4.



## 6. [ Blade pressure adjustment ]

To adjust the pressure between blades, loosen the nut 8 and turn the screw 9 as required.

- To increase the pressure, turn the screw 9 clockwise.
- To decrease the pressure, turn the screw 9 counterclockwise.

After this adjustment, make sure that the knife can cut a thread smoothly by moving the lever 10 by hand. Then tighten the nut 8.

7. Fit the groove 10 of the chain cutter lever 12 onto the block 11. Install the chain cutter 12 temporarily with the screw 13.
- Place the fabric guide and the needle plate in each original position (see page 10).
8. Loosen the screws 13 and position the chain cutter 12 by referring to the dimensions in the illustration. Then tighten the screws 13. (Fig.39)

Fig.37

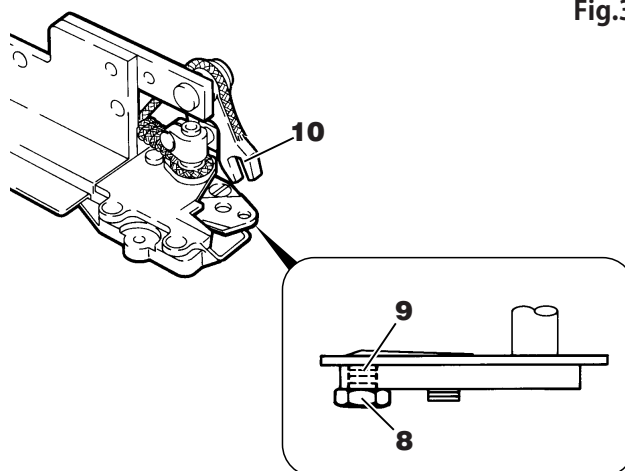


Fig.38

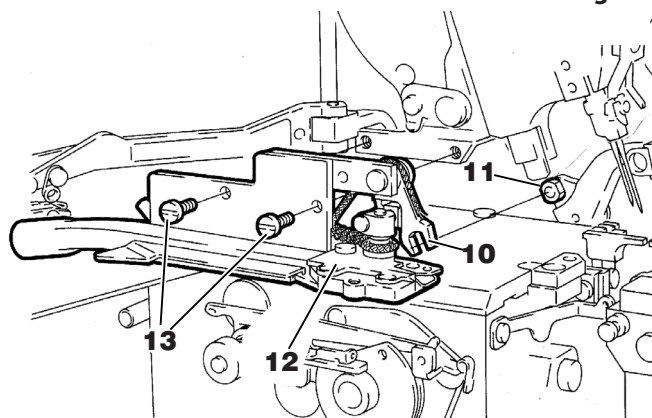
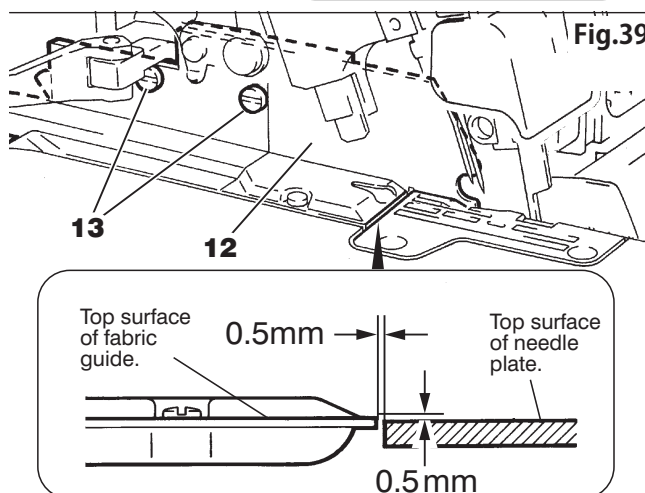


Fig.39



## 9. [ Blade overlap adjustment ]

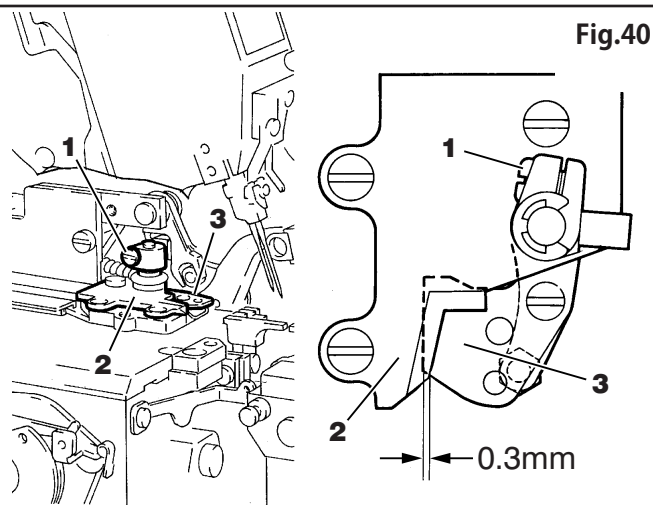
Remove the fabric guide.

Turn the machine pulley by hand until the needle comes to the bottom of its travel. Loosen the screw **1** and adjust the position of the movable knife **3** so that the overlap of the knife **2** and **3** is 0.3mm.

After this adjustment, secure the movable knife **3** with the screw **1**.

- 10.** Attach the fabric guide (see Fig.34 on the previous page). Place the needle breakage shield, the cloth plate, the presser foot and the hose in each original position (see Fig.33).

- 11.** Turn the machine pulley by hand to see if cutting is smooth.



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Cat. No. 9B3133000009 February 2022

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