

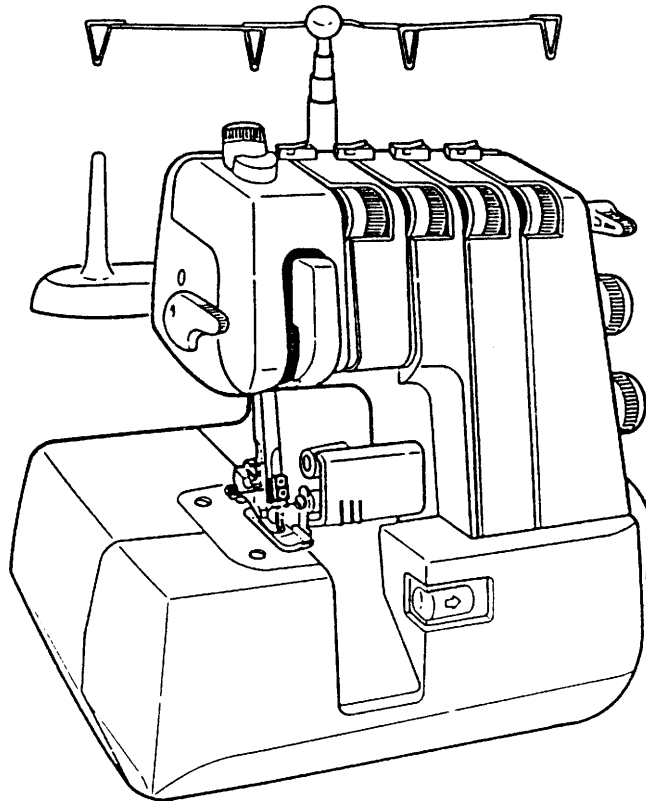
# SERVICE MANUAL FOR HUSKYLOCK

MODELS 460

460 D

460 ED

460 E



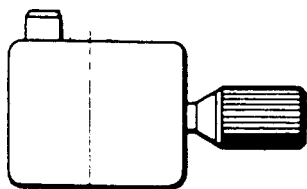
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## SPECIFICATION

Type of sewing	4-thread overlock sewing with 2 needles
Needles	Schmetz 130/705H ( # 80, # 90)
Stitch length	Maximum: 4.7 mm Minimum: 0.5 mm
Overcasting width	$.5 \pm 0.3$ m
Cutting width	4-thread 5.2 - 7.2 mm (between left needle and edge of cloth)
Presser foot lifter	Lever type
Light	Inside of the face cover
Motor	Built-in the body
Sewing speed	1200-1400 rpm

## SERVICE TOOLS

411 17 52-01



415 53 69-01



# 1. CLEARANCE BETWEEN LOWER LOOPER AND NEEDLE END POSITION OF LOWER LOOPER

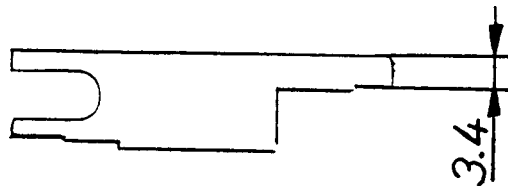
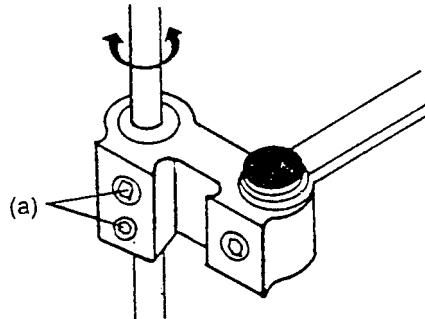
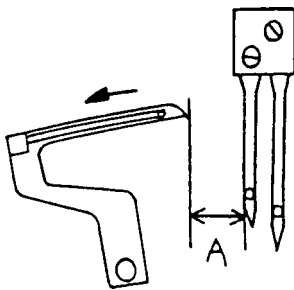
## CHECK

When lower looper is positioned at end of left side, the clearance between its point and left side of left needle should be 3.4 mm.

$$A = 3.4 \pm 0.2 \text{ mm}$$

## ADJUSTMENT

1. Move lower looper to its left end position by turning the handwheel towards you.
2. Loosen screws of the lever (a) of the lower looper. Adjust distance between left side of the needle and the point of the lower looper to 3.4 mm.
3. Tighten screws (a).



## 2. TIMING OF LOWER LOOPER AND NEEDLE

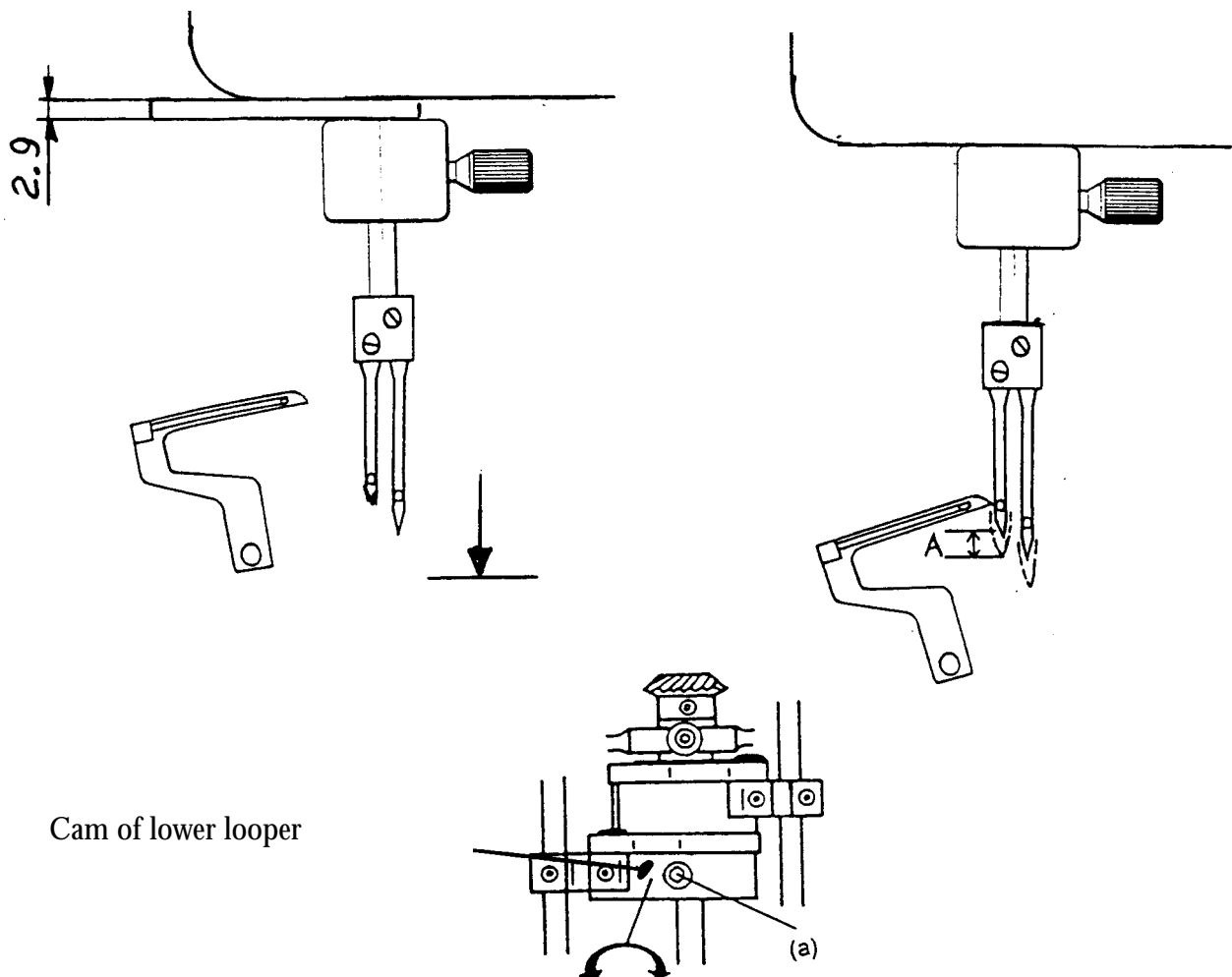
### CHECK

When lower looper is aligned with left side face of left hand needle, the needle should have travelled 2.9 mm upwards from its lowest position.

$$A = 2.9 \pm 0.2 \text{ mm.}$$

### ADJUSTMENT

- 1 Move needle to its lowest position.
- 2 Put setting gauge on needle bar with distance washer between tool and body.
- 3 Remove distance washer and move needle upwards by means of handwheel until setting tool touches body.
- 4 Loosen screw (a) in cam of lower looper. Align point of lower looper with left side face of left hand needle.
- 5 Tighten screw.



### 3. CLEARANCE BETWEEN LOWER LOOPER AND NEEDLES

#### CHECK

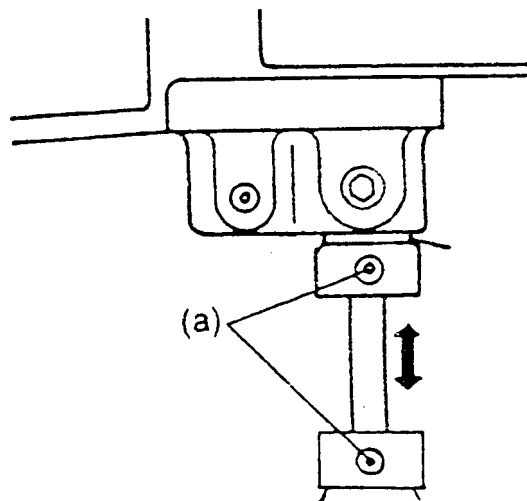
When point of lower looper is behind the needle, the clearance between needle and lower looper should be (0 - 0.03 mm).

A = 0 - 0.03 mm

#### ADJUSTMENT

1. Before adjusting make sure that timing of lower looper is correct.
2. Then set point of lower looper behind centre line of the needle by turning the handwheel towards you.
3. Loosen screws (a) in the bushings of the looper shaft and adjust clearance between needle and point of looper by moving looper shaft until it is (0 - 0.03 mm).
4. Tighten screws. Make sure that looper shaft is free from play.

**ATTENTION!** If needle bar is twisted, clearance between lower looper and needles may differ.



## 4. SETTING OF NEEDLE AND LOWER LOOPER - NEEDLE HEIGHT

### CHECK

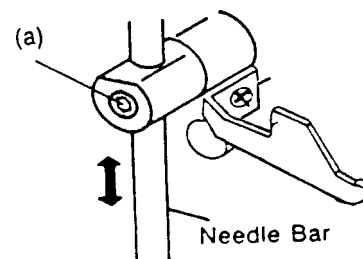
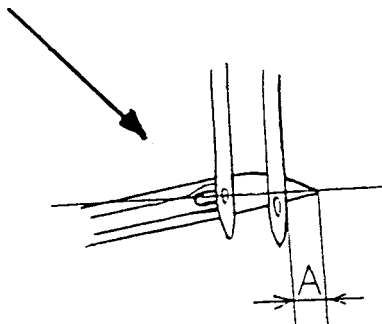
When point of lower looper is 1 - 1.5 mm outside right side face of right needle (acc. to A) the centre of the hole of the left hand needle should be aligned with the centre of the hole of the lower looper.

A = 1 - 1.5 mm

### ADJUSTMENT

1. Move lower looper by turning the handwheel in such a way that its point comes into a position according to A in relation to right side face of right hand needle.
2. Loosen screw (a) holding the needle bar and move needle bar until the centre of the hole of the left hand needle should be aligned with the centre of the hole of the lower looper.
3. Tighten screw.

**ATTENTION!** If needle bar is twisted, clearance between lower looper and needles may differ.



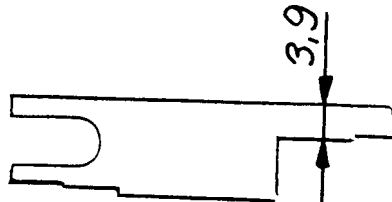
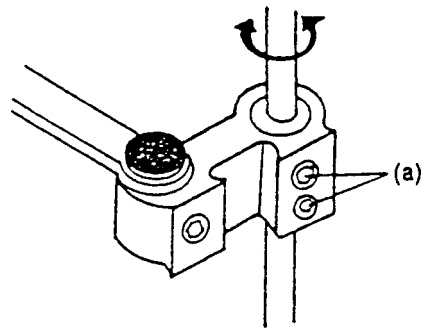
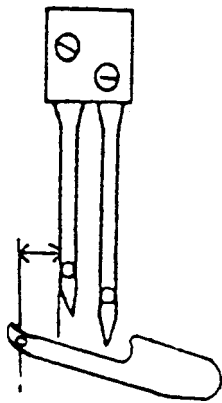
## 5. SETTING OF UPPER LOOPER IN RELATION TO THE NEEDLE

### CHECK

When upper looper is set at its highest position the clearance between the hole of the upper looper and the left side face of the left needle should be according to  $A\ 3.9 \pm 0.3\text{ mm}$ .

### ADJUSTMENT

1. Move upper looper to its highest position by turning the handwheel towards you.
2. Loosen screw of the link arm (a) of the upper looper and adjust the looper so that the clearance between the needle hole of the looper and the left side face of the left needle should be  $3.9 \pm 0.3\text{ mm}$ .
3. Tighten screws (a).





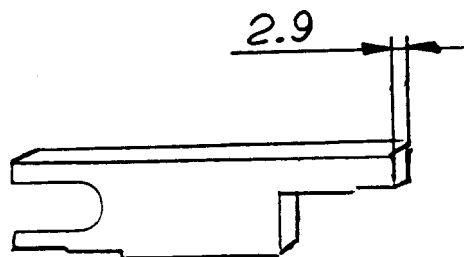
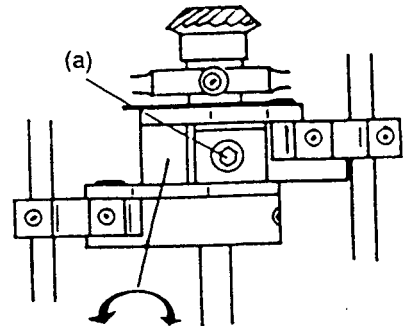
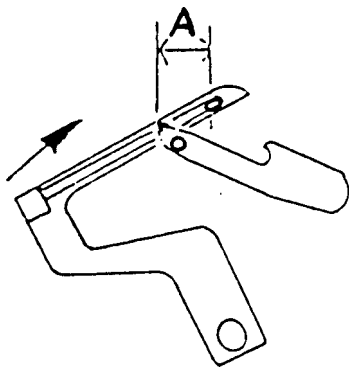
## 6. TIMING OF UPPER LOOPER AND LOWER LOOPER

### CHECK

When point of upper looper is aligned with back of upper end of lower looper, the clearance between the point of the upper looper and the hole of the lower looper should be  $2.9 \pm 0.5$  mm.

### ADJUSTMENT

1. Align the point of the upper looper with back of upper end of the lower looper by turning the handwheel towards you.
2. Loosen cam screw (a) of the upper looper and adjust the position of the upper looper so that the clearance between the point of the upper looper and the surface of the lower looper is  $2.9 \pm 0.5$  mm.
3. Tighten screw (a).



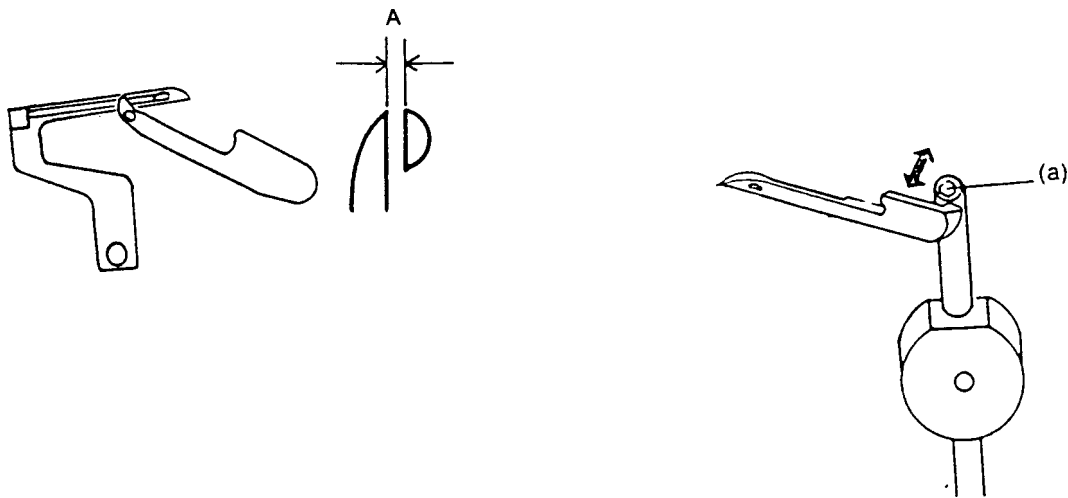
## 7. CLEARANCE BETWEEN UPPER LOOPER AND LOWER LOOPER

### CHECK

The clearance between upper looper and lower looper should be 0 - 0.10 mm. See ill. A 0 - 0.10 mm.

### ADJUSTMENT

1. Align point of upper looper with back of upper end of lower looper by turning the handwheel towards you.
2. Loosen fixing screw (a) of the upper looper and adjust the clearance between upper looper and lower looper. (0 - 0.10 mm).
3. Tighten screw (a).



## 8. FEED DOG HEIGHT

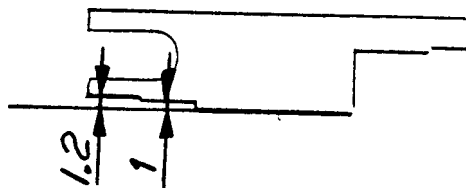
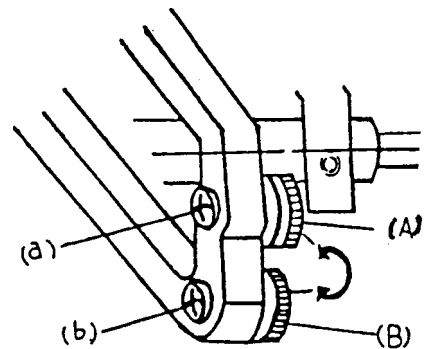
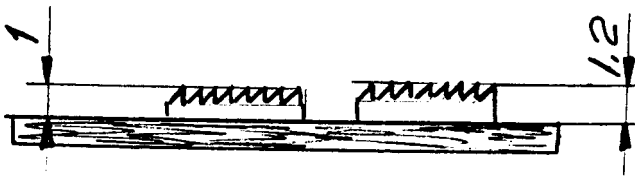
### CHECK

Height of rear feed dog above the needle plate should be  $1 \pm 0.1$  mm.

Height of front feed dog above the needle plate should be  $1.2 \pm 0.1$  mm.

### ADJUSTMENT

1. Move feed dog to its highest position by turning the handwheel towards you.
2. Loosen screw (a) and turn dial (A) so that the rear feed dog is  $1 \pm 0.1$  mm above the needle plate. Tighten screw (a).
3. Loosen screw (b) and turn dial (B) so that the front feed dog is  $1.2 \pm 0.1$  mm above the needle plate.
4. Tighten screw (b).



## 9. FEED TIMING

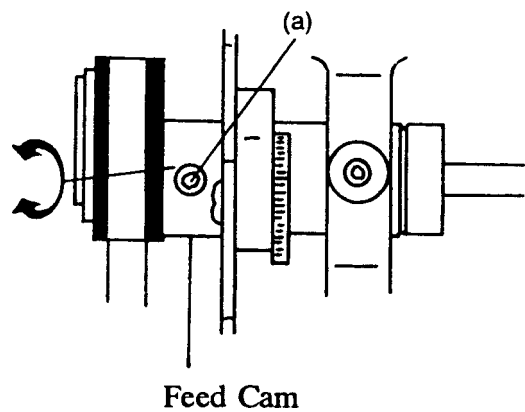
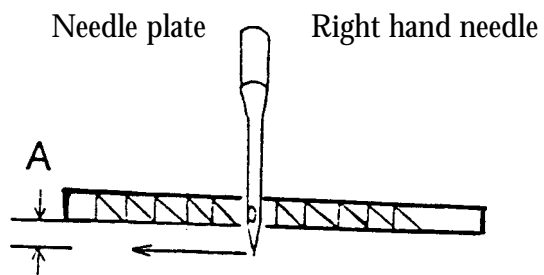
### CHECK

When the needle is moving upwards and the needle point is aligned with the underside of the needle plate (max. 2 mm under), the feed dog should be aligned with surface of the needle plate.

A = 0 - 2 mm.

### ADJUSTMENT

1. Turn handwheel towards you so that the needle point is aligned with the underside of the needle plate.
2. Loosen feed dog cam screw (a) and adjust feed dog so that it is aligned with surface of the needle plate.
3. Tighten screw.



## 10. POSITIONS OF UPPER AND LOWER KNIVES

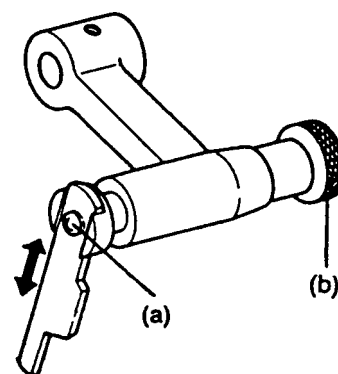
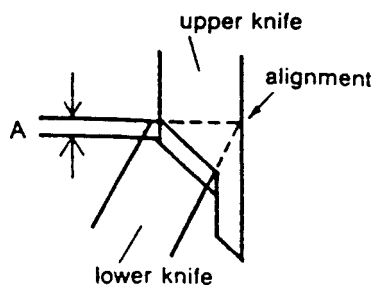
### CHECK

When upper knife is in its lowest position, its cutting edge should be positioned 0,5 - 1,2 mm lower than the cutting edge of the lower knife.

Position B of the lower knife should be aligned with back of the upper knife (see ill.).

### ADJUSTMENT

1. By turning handwheel towards you, move upper knife to its lowest position.
2. Loosen upper knife fixing screw (a) and adjust position of upper knife downwards 0.5 - 1,2 mm from the cutting edge of the lower knife.
3. Loosen screw (b) and turn upper knife so that its back is aligned with the cutting edge (B) of the lower knife.
4. Tighten screws (a) and (b).



## 11. CLEARANCE BETWEEN REAR NEEDLE SUPPORT AND NEEDLE

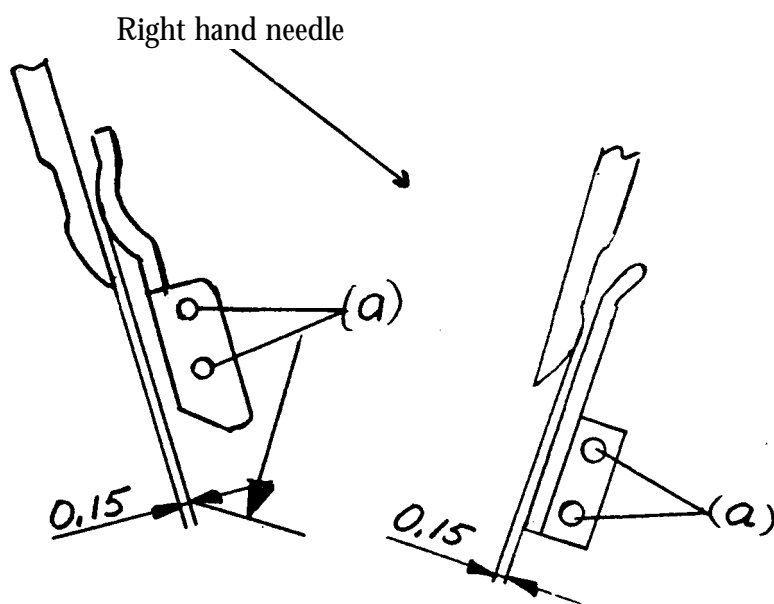
### CHECK

When needle is in its lower turning position, clearance between needle support and right hand needle should be  $0.5 (\pm 0.15 \text{ mm})$ .

Valid for Schmetz #90.

### ADJUSTMENT

1. Loosen screws (a) of the needle support and turn it until its clearance to the needle is 0.15 mm.
2. Tighten screws.



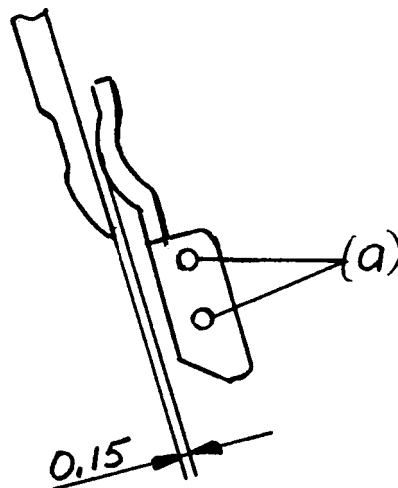
## 12. CLEARANCE BETWEEN FRONT NEEDLE SUPPORT AND NEEDLE

### CHECK

Clearance between front needle support and needle shall be  $0.15 \pm 0.15$ . Valid for Schmetz # 90.

### ADJUSTMENT

1. Loosen both needle support screws (a) and move needle support until its clearance is  $0.15 \pm 0.15$  mm.
2. Tighten screws.



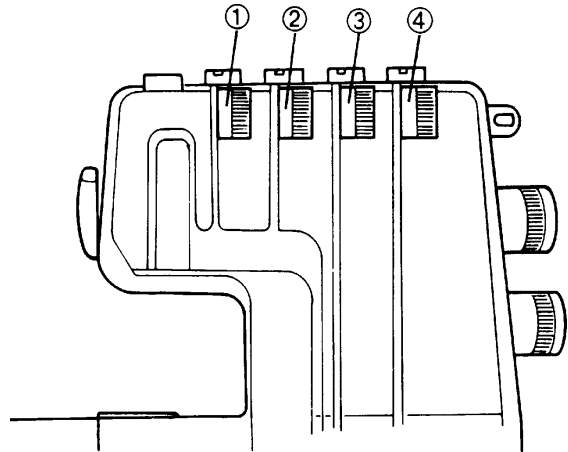
## 13. THREAD TENSION

### CHECK

Check thread tension according to manual.

Power of thread tension

A	43-45 gr
B	14-19 gr
C	12-17 gr
D	15-22 gr



### ADJUSTMENT

1. Set thread tension dial at normal position.
2. The basic setting may be adjusted by blocking the plate sheet at the edge of the thread tension dial by means of a small screw driver while moving the thread tension dial.

