

SILVER MASTER PLATEFORMER

PF-113RA

SERVICE MANUAL

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## **1. About this manual**

This PF-113RA service manual is intended to be used as a reference for service following installation. For information on how to operate the unit, see the "PF-113RA Operation manual" and "Technical Information".

The information contained in this manual is subject to change without prior notice as a result of modification or improvements to the equipment.

For inquiries about parts or ordering parts, please consult with the "PF-113RA part list", and prepare the following information:

Machine type name

Serial number

Part number, part name

Required quantity

Date of delivery

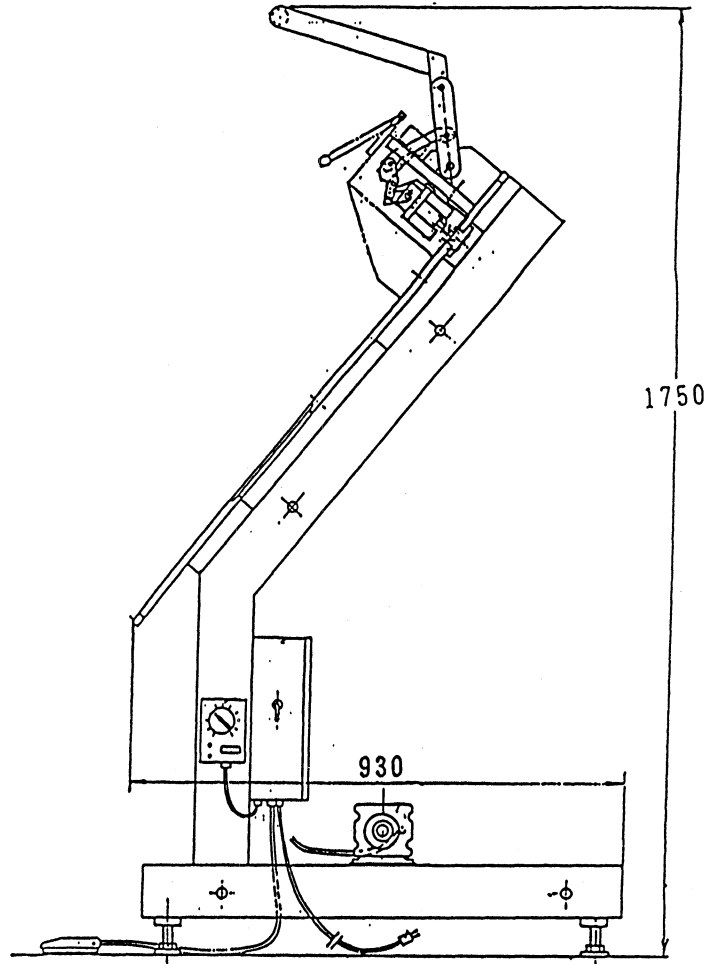
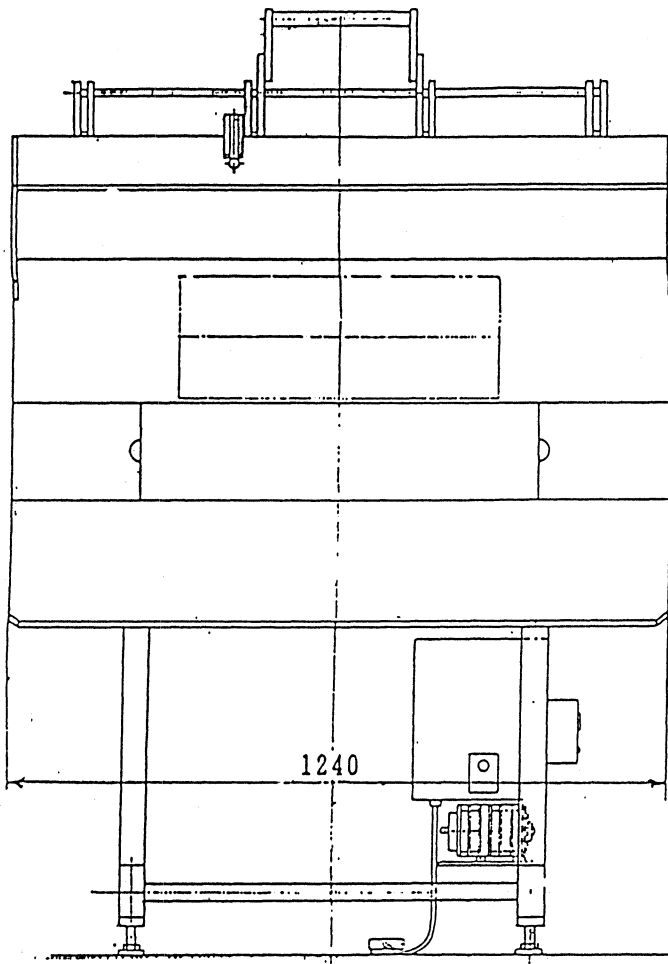
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## 2. Specifications

Item	
Materials	SLM, SDP film Plate ( 0.2 mm, 0.1mm)
Material size	636 x 470 mm to 636 x 939 mm. ( 25 "x 18.5 " to 25 "x 37 ")
Maximum material width	1130 mm ( 44.5 ")
Material positioning	Pin positioning
Bend length	3 mm - 8 mm ( 3 mm - 7 mm for 0.1mm base materials) 1 / 8" - 5 / 16 "(1 / 8" - 1 / 4 " for 0.1mm base materials)
Bend angle	90 degrees
Heater temperature	80 °C ( 176 °F) (temperature adjustment unit included)
Bending time	15 sec. (Internal timer, buzzer goes off when time is up)
Processing time	30 seconds per plate
Dimensions	1240 mm (W) x 930 mm (D) x 1750 mm (H) 48.8 " (W) x 36.6 " (D) x 68.9 " (H)
Weight	220 Kg ( 490 lbs )
Power	Single-phase 100V, 10A, 1 KW
Standard peripherals	Positioning pins, 8 mm ( For Komori press ) 4
Contents of package	Positioning pins, 8 mm 4 Operation manual 1 Installation guide 1

\* The specifications are subject to change for the improvements.

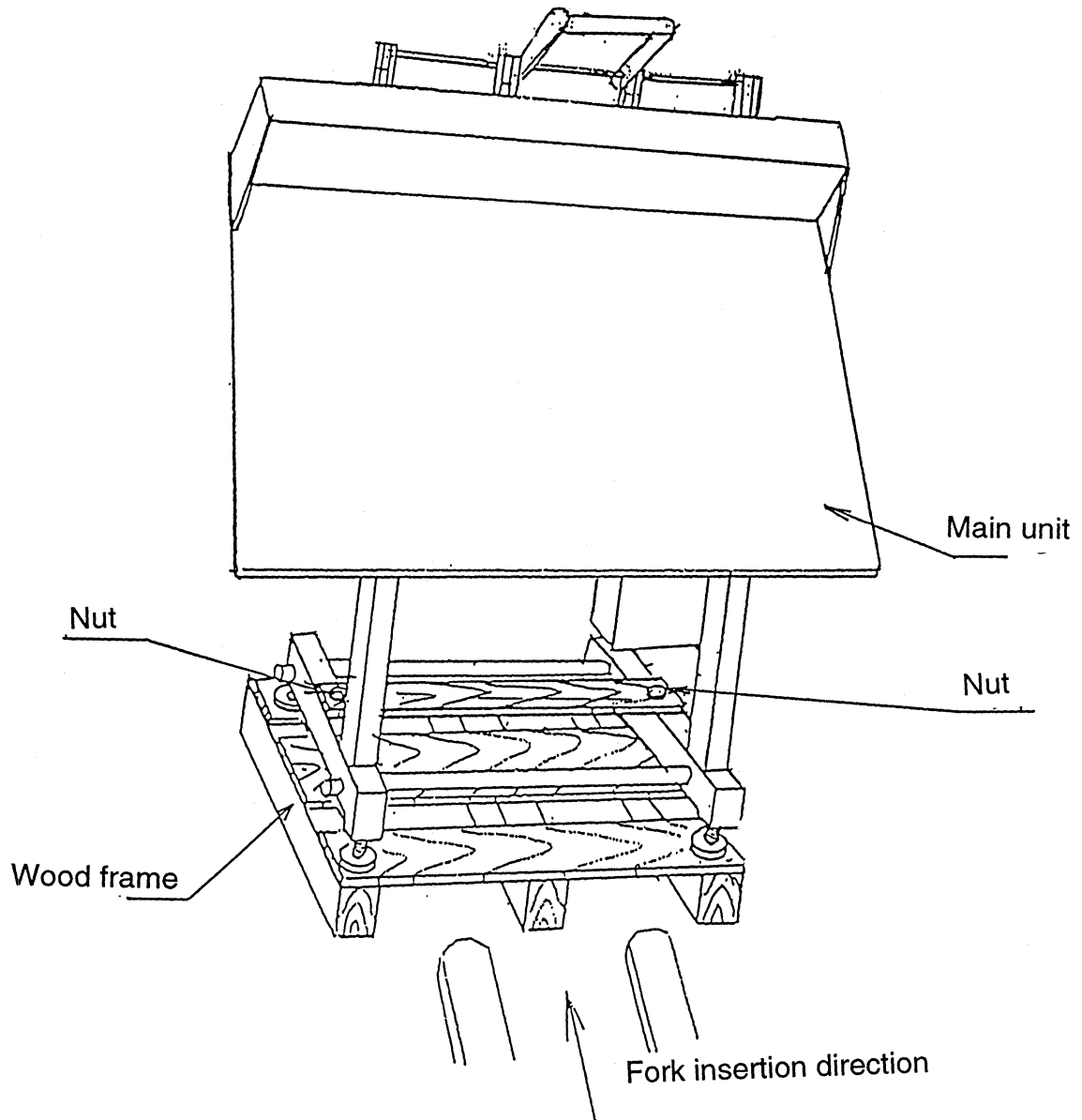
### 3. Schematic diagram



## 4. Installation Procedure

### 4-1 Removing and unpacking the unit

1. We recommend use of a forklift to handle the unit when removing it.
2. Unscrew the two bolts fixed the main unit and the wood frame together.
3. Take the main unit down from the wood frame.



## **4-2. Installation**

### **1). Set-up environment**

In order to use the unit in best condition, set it up in the following conditions.

#### **1. Floor strength**

The unit weighs 220 Kg ( 490 lbs.). Make sure to place it on a floor which can bear the weight.

#### **2. Power supply**

Prepare a source of single-phase, AC 100V, 1 KW, 10 A power.

#### **3. Grounding**

Make sure that the earth wire (green wire) of the power supply cable is grounded .  
Have this connection carried out by a qualified electrician .

#### **4. Installation space**

The unit is 1,240 mm ( 48.8 ") wide, 930 mm ( 36.6 ") deep, and 1,750 mm ( 68.9 ") high. Make sure of sufficient space to work on the table top .

#### **5. Flatness of the floor**

Make sure the area of floor on which the unit is set up is flat and level.

#### **6. Vibration**

Select a horizontal surface that is free of vibration .

The unit weight 220 kg ( 490 lbs) .

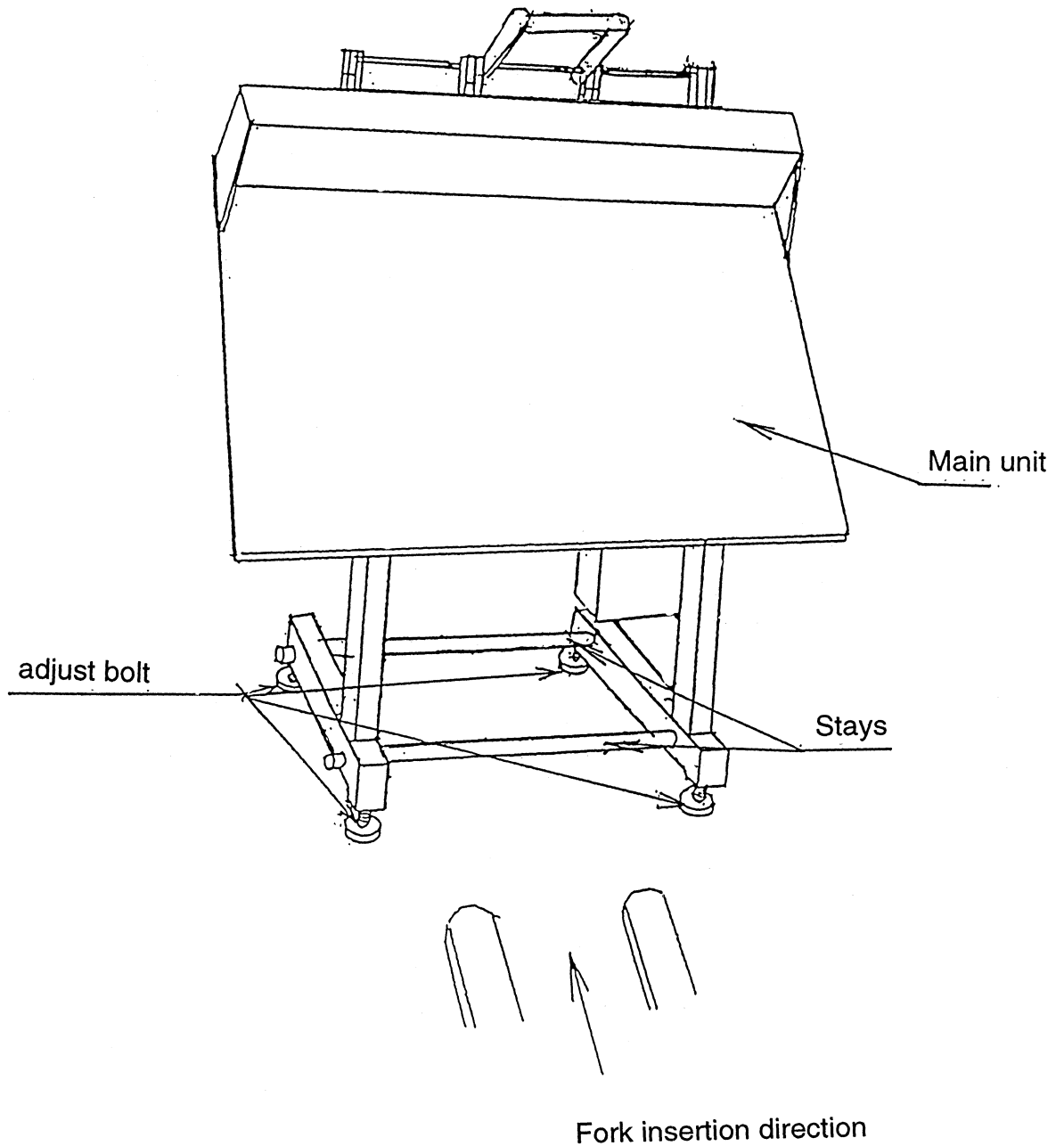
## 2) Setting up the unit

1. Transport the unit to desired location

Insert a fork lift or hand lifter below the two stays and move the unit.

2. When you have reached the designated location, adjust the four adjust bolts by rotating them so that they touch the floor.

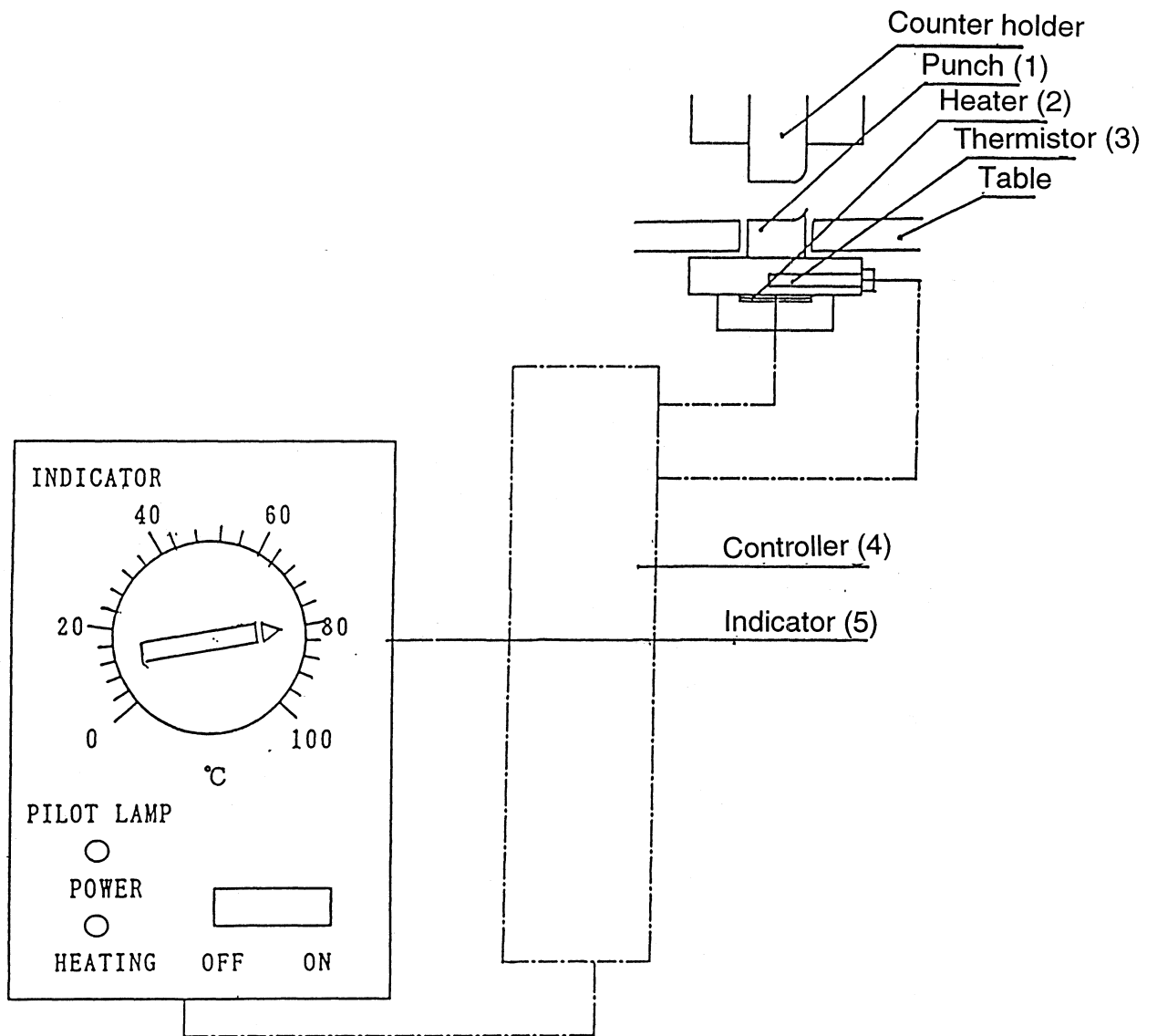
3. If the unit appears not to be level, adjust the level adjusters until it is level.





## 5. The heater temperature adjustment

The temperature is preset using the indicator (5) attached to the lower part of the Frame. The heater (2) adds heat to the punch (1), and the thermistor (3) measures the resulting temperature. The temperature is controlled by the controller (4). The recommended temperature setting is 80 °C ( 176 °F ) .



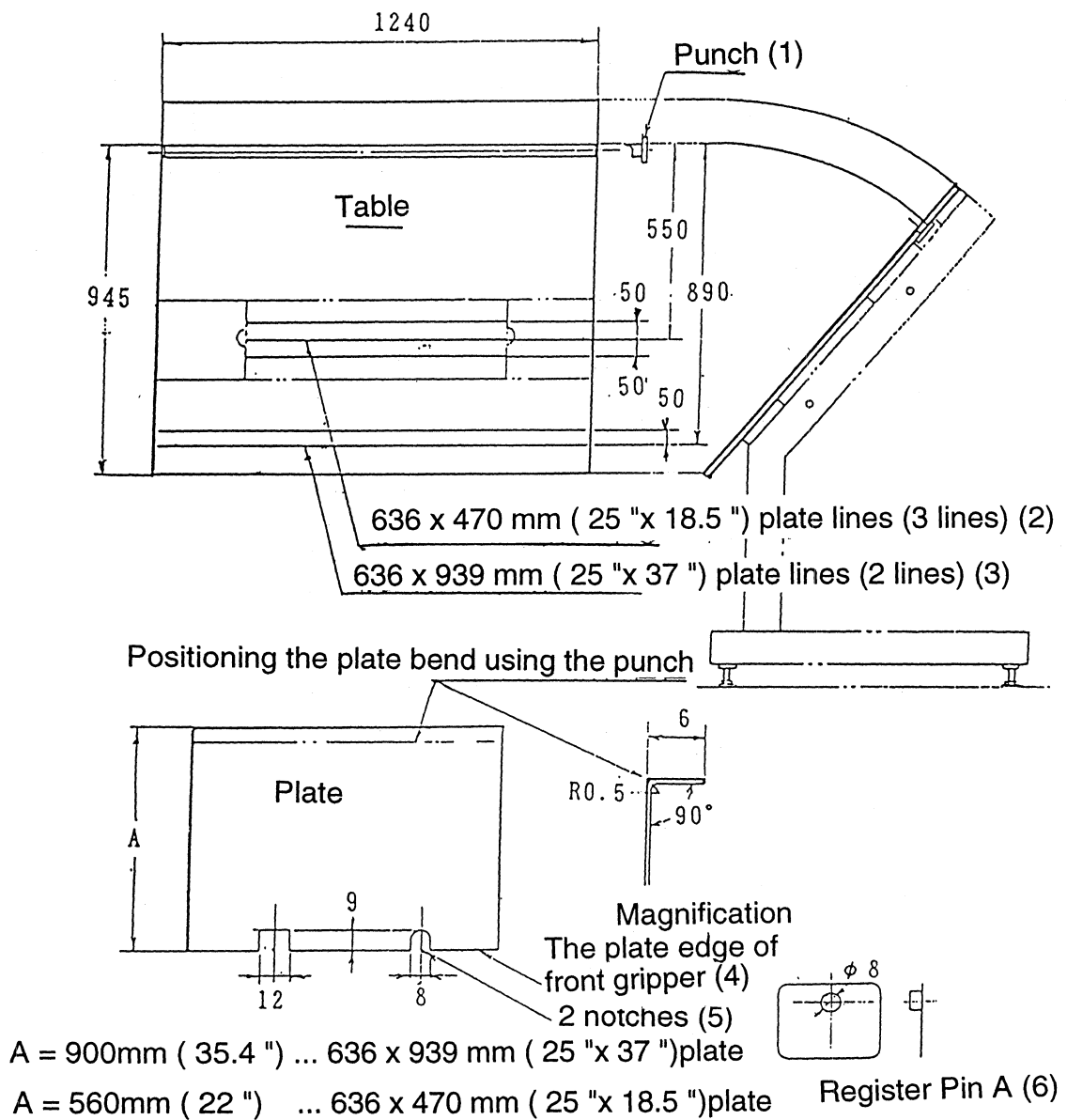
## 6. The plate bend adjustment

There are three lines (2) for placing 636 x 470 mm ( 25 "x 18.5 " ) plates . The center line locates 550 mm ( 21.6 " ) from the punch (1) . Other lines locate out of 50 mm ( 2 " ) from the center line .

There are two more lines (3) for placing 636 x 939 mm ( 25 "x 37 " ) plates . The line of lower position locates 890 mm ( 35 " ) from the punch (1) . Another line locates 50 mm ( 2 " ) of upper position from another line . In order to determine the bend for a plate, match the plate edge of front gripper (4), to (2) or (3) . Place the Register Pins A (6) in the two notches (5), and attach them with adhesive tape.

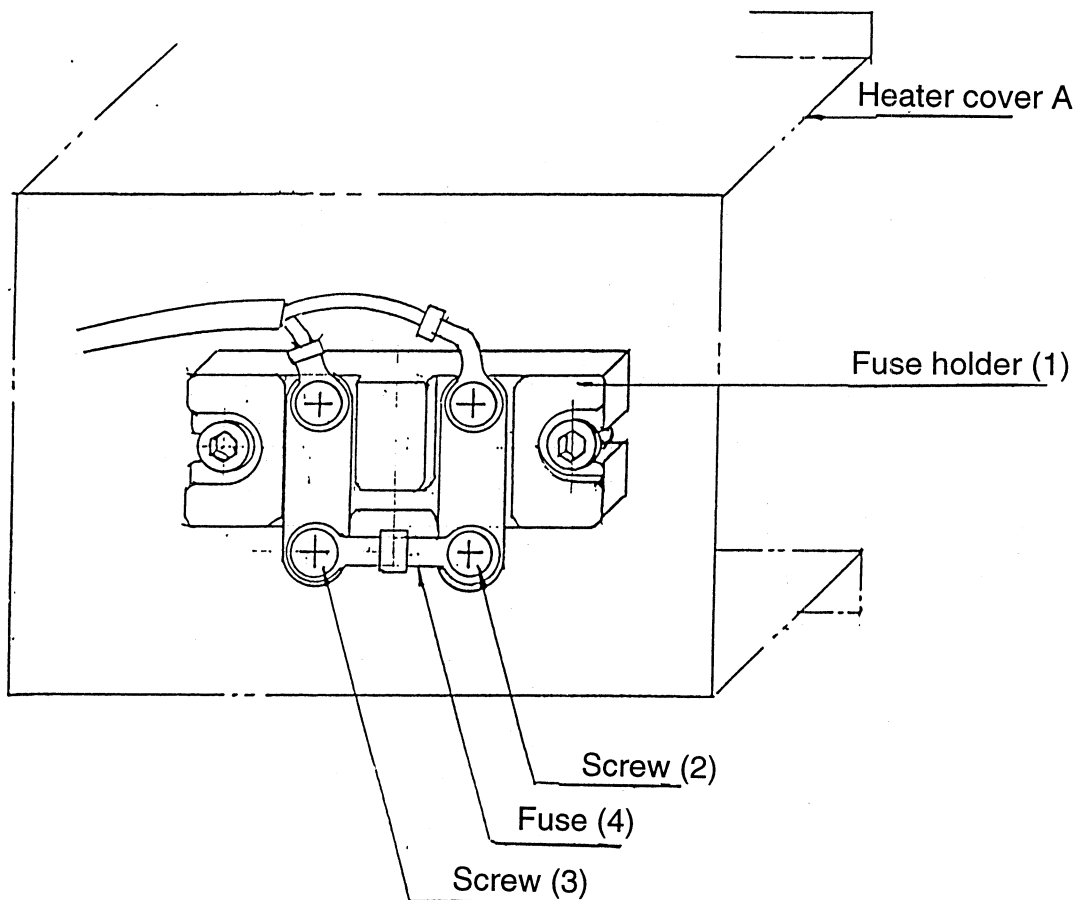
You can then use punch (1) to make the plate bend.

To adjust the bend position, move the Register Pin A (6).



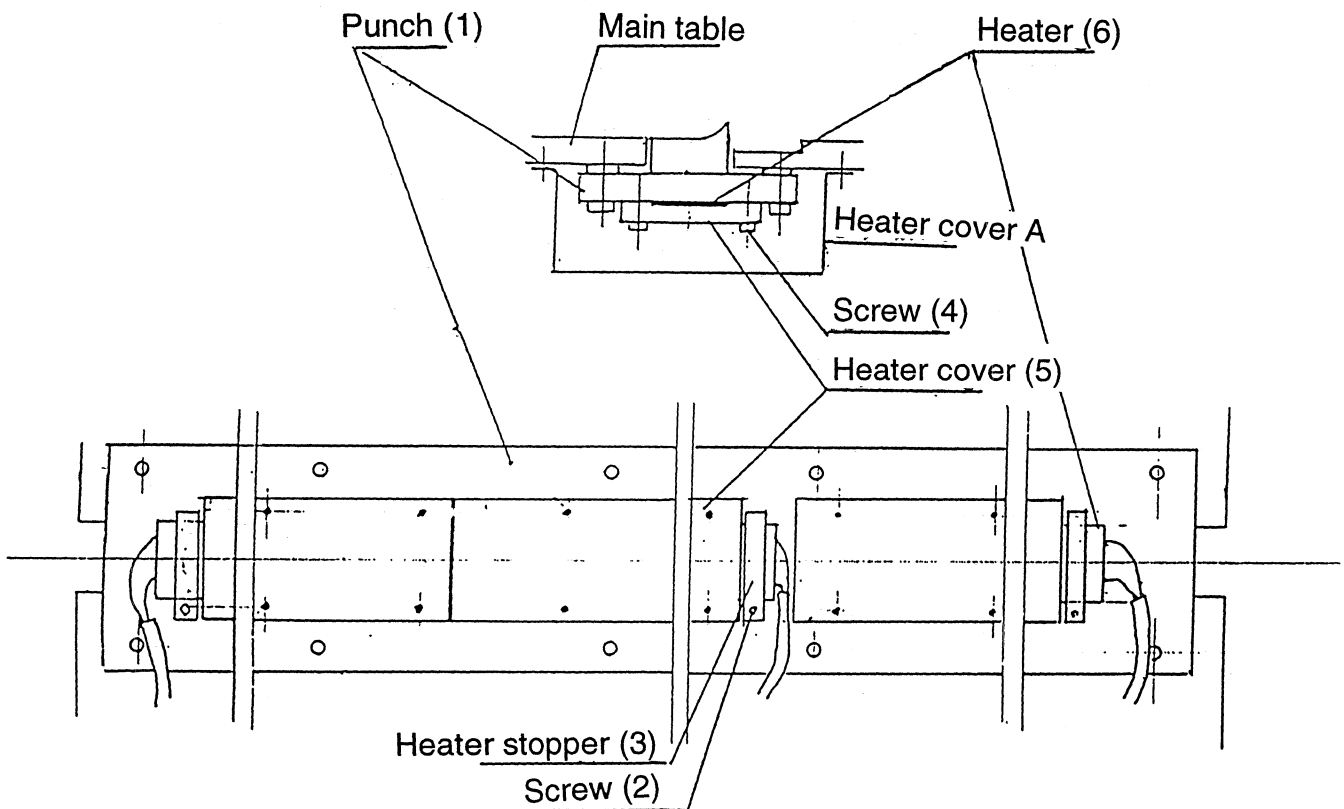
## 7. The temperature fuse replacement

- 1) First, turn off the power. Then remove heater cover A from the rear side of the main table.
- 2) Make sure that the heater has cooled down sufficiently.
- 3) Loosen and remove screws (2) and (3) from the fuse holder (1) attached to the center of the unit. Remove the old fuse (4).
- 4) Attach a new fuse, and insert and tighten screws (2) and (3).
- 5) Turn on the power, and check that the unit is functioning properly.
- 6) Reattach the heater cover.



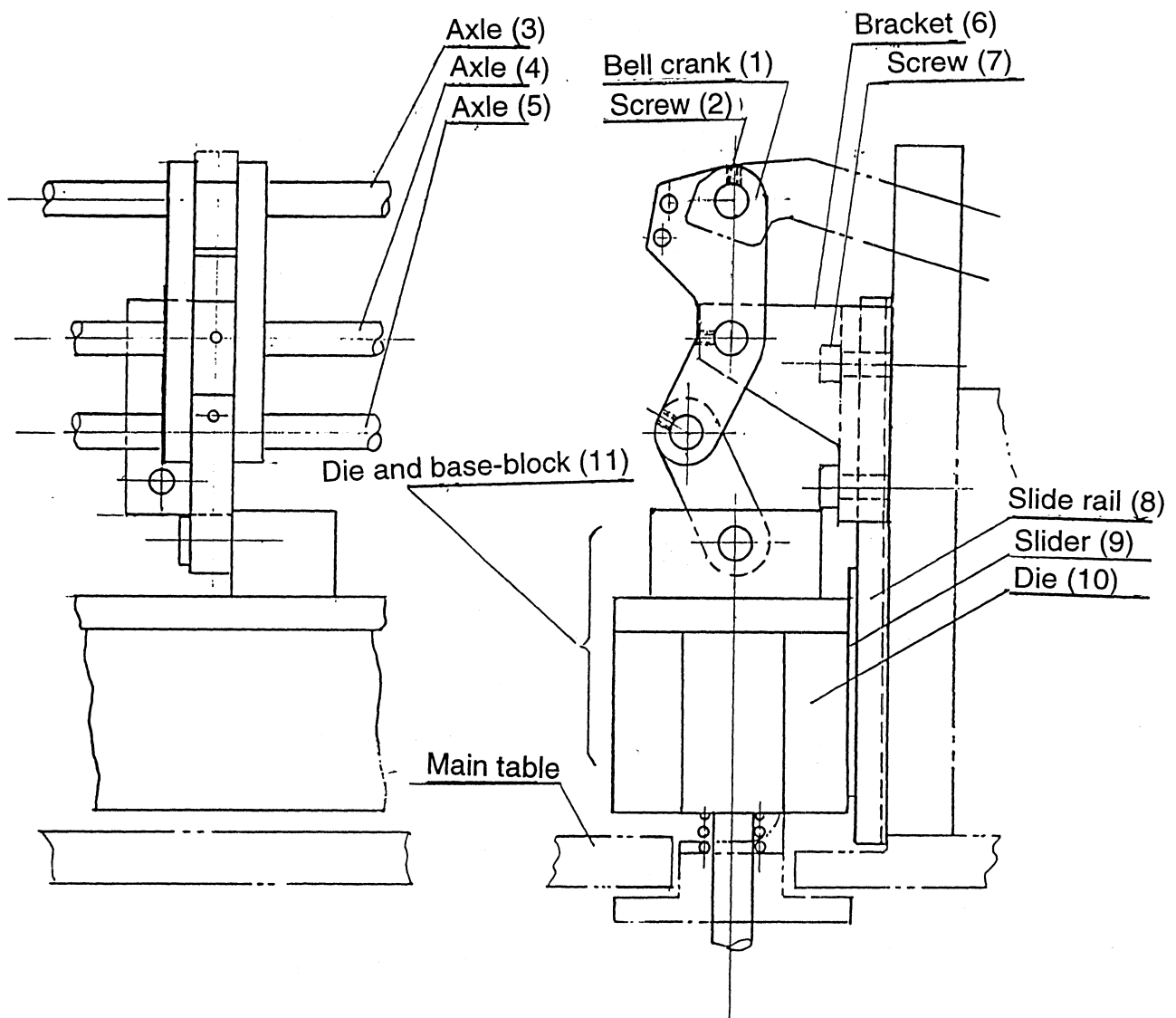
## 8. The heater replacement

- 1) First, turn off the power. Then remove heater cover A from the rear side of the main table.
- 2) Make sure that the heater has cooled down sufficiently.
- 3) Loosen and remove screw (2) from the punch (1), and remove the heater stopper (3).
- 4) Loosen and remove screw (4), and take off the heater cover (5).
- 5) Take out the old heater (6) and put in the new heater.
- 6) Reattach the heater cover (5) to the punch (1) using screw (4).
- 7) Reattach the heater stopper (3) using screw (2).
- 8) Turn on the power, and check that the unit is functioning properly.
- 9) Reattach the heater cover.



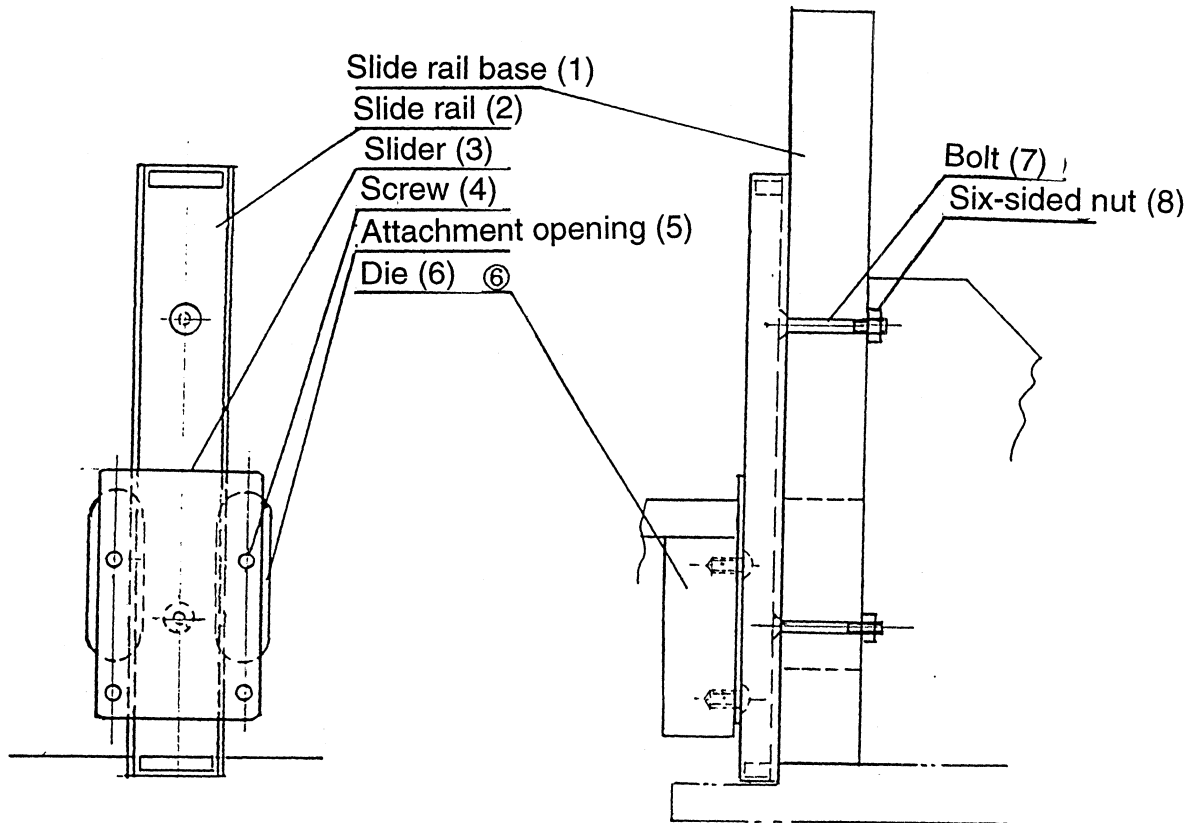
## 9. The Die and base-block replacement

- 1) Remove the slider (9) From the Die (10). (For details, see section 10)
- 2) Remove the 4 screws (2) holding the 4 bell cranks (1) in place, and remove axles (3) and (5) by pulling them out to the side.
- 3) Remove axle (4). Hold the bell cranks (1) and be sure not to let them fall onto the main table.
- 4) Remove bolt (7), and the bracket (6).
- 5) Remove the Die and Base-block (11).
- 6) Reverse these steps to replace the parts.



## 10. The slide rail replacement

- 1) Remove the six-sided nut (8), and pull the bolt (7) out on the opposite side.
- 2) Lift up the Die (6) using the handle, and remove the lower six-sided nut (8).
- 3) Remove the slider's (3) screw (4) by passing it through the attachment opening (5) in the slide rail base (1).
- 4) Lift the handle of the Die (6) and remove the 2 lower screws (4).
- 5) Remove the slide rail (2) and the entire slider (3) by lifting them up and out.
- 6) Reverse these steps to replace the parts.



## 11. The lifter adjustment and replacement

### 1) Adjusting the lifter

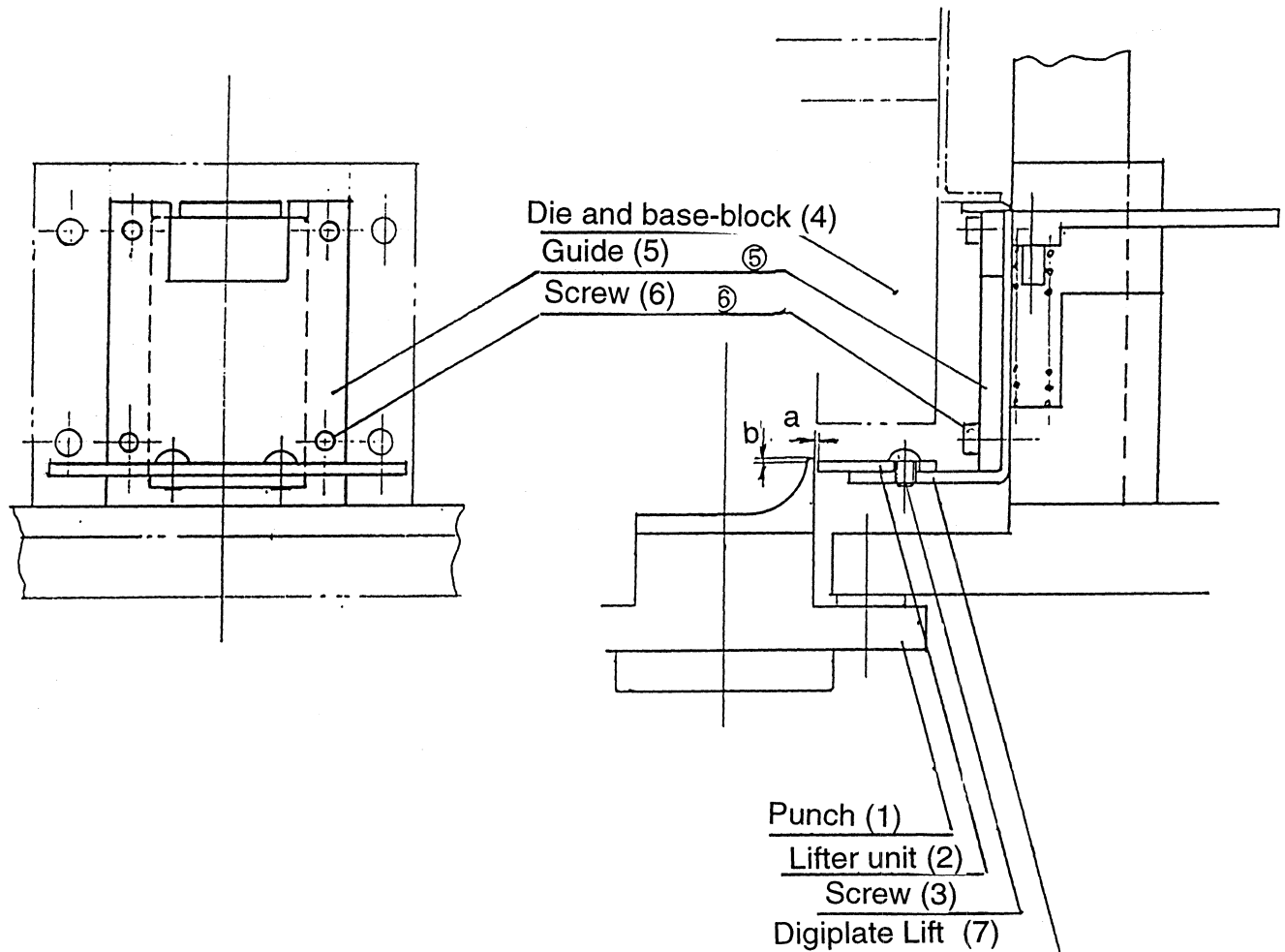
(1) Measure the distance between the punch (1) and the lifter unit (2) to make sure that gap "a" is smaller than the thickness of the plate to be used. In other words,  $a < 0.2\text{mm}$ . To adjust this measurement, loosen screw (3), and move the lifter unit (2) horizontally. Retighten screw (3) after measurement.

(2) The lifter unit (2) is installed so that it will be lower ( $b = 0.5 - 1.0\text{mm}$ ) than the top of the punch (1).

### 2) Changing the lifter

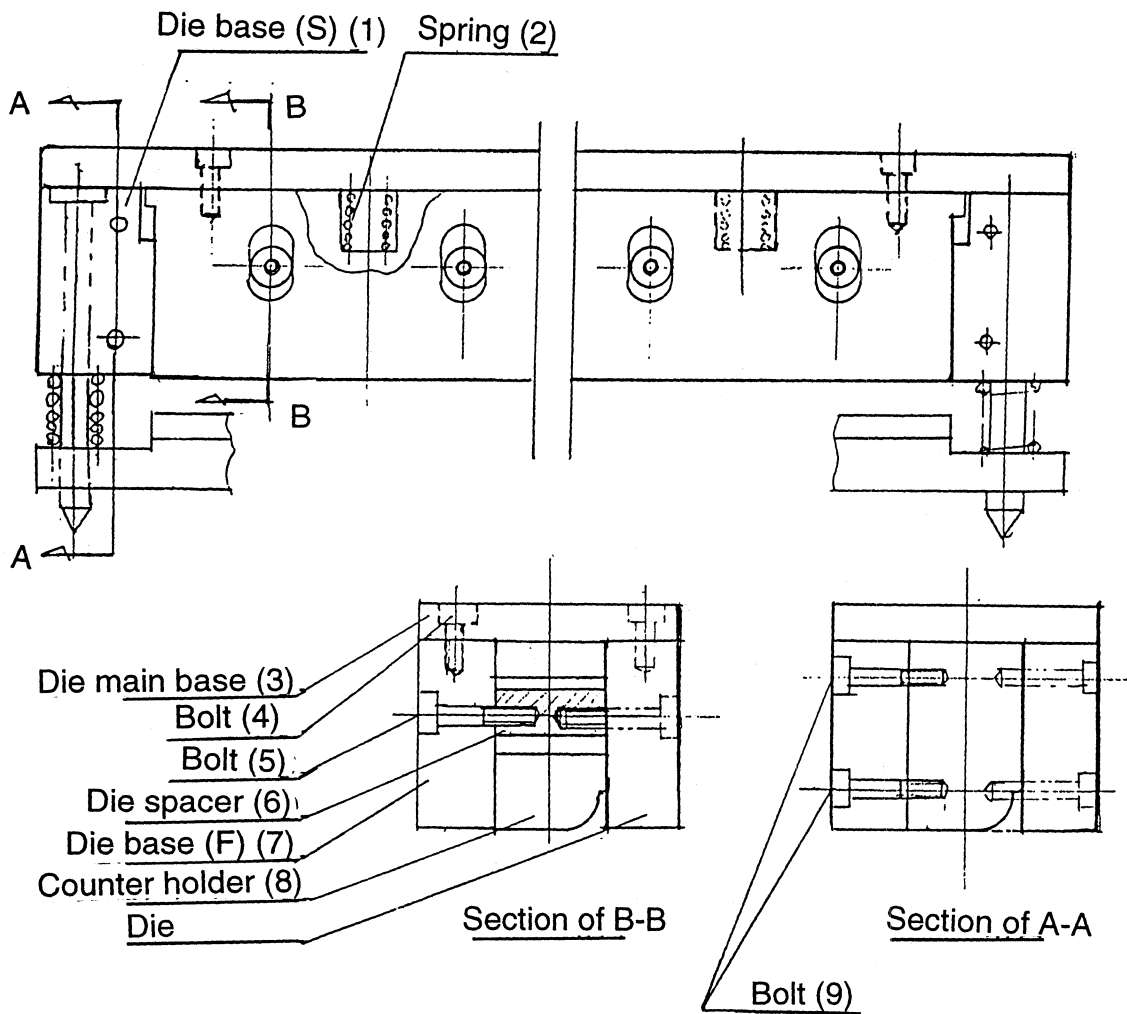
(1) Remove the Die and base-block (4). Then remove the four screws (6) and remove the guide (5).

(2) Remove the Digiplate Lift (7) which secures the lifter unit (2).



## 12. The counter holder and spring replacements

- 1) Remove the two bolts (9) on each side (total 4 on both sides) that attach the Die base (S) (1) to Die base (F) (7).
- 2) Remove the seven bolts (4) which attach the Die main base (3) to the Die base (F) (7).
- 3) Remove the four bolts (5) that secure the Die spacer (6).
- 4) Remove the Die base (F) (7), take out the counter holder (8), and replace the spring (2).





## 14. Adjusting the safety equipment

### 1) Removing the safety equipment

- (1) Remove the bolt (2) securing the lever base (3).
- (2) Remove the bolt (8) securing the lever pin (10), and remove the washer (9).
- (3) Remove the ratchet nail (5) from the lever pin (10), without removing the screws (4).

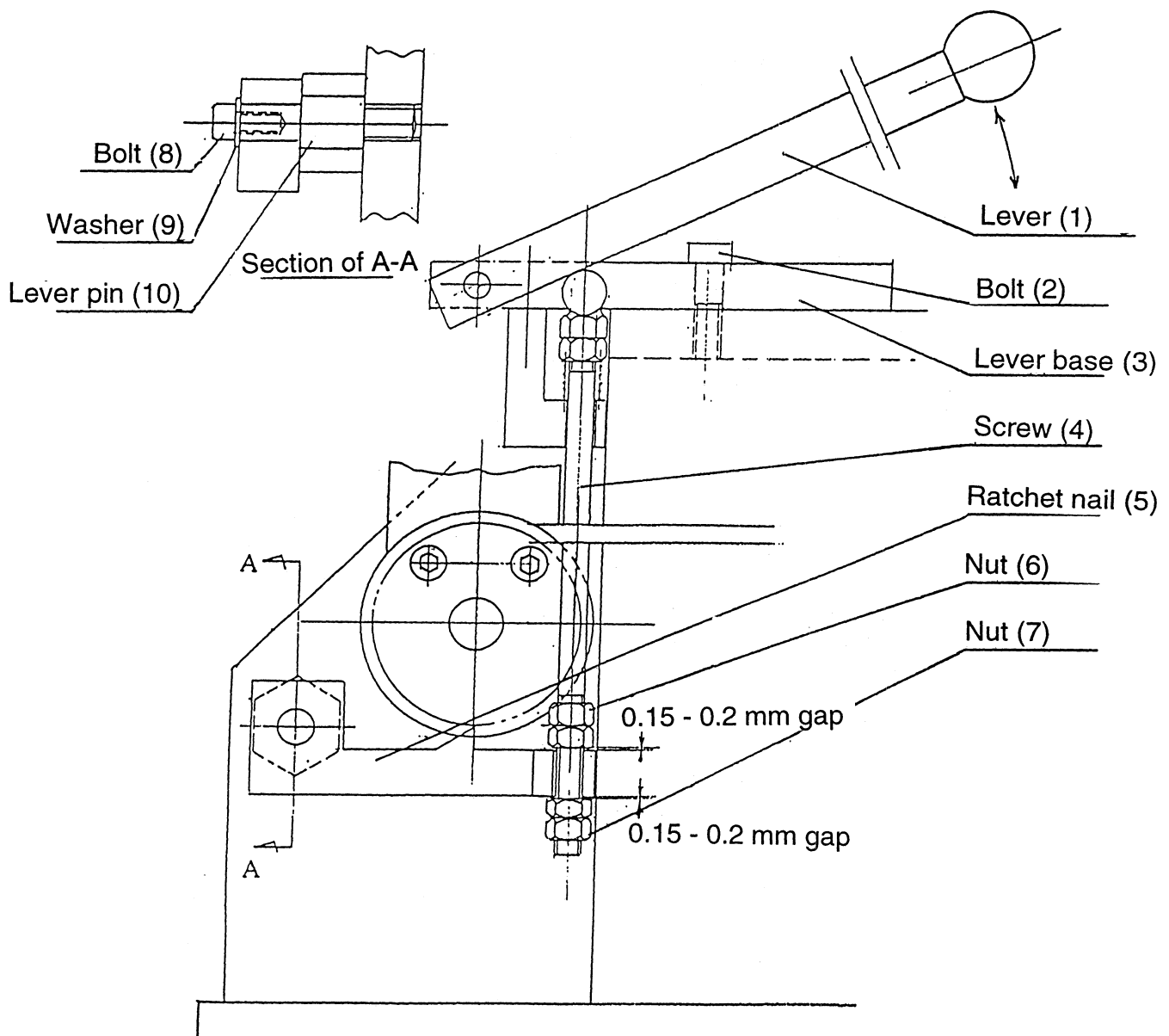
### 2) Reattaching and adjusting the safety equipment

- (1) Reverse these steps to replace the parts.

#### (2) Adjustment

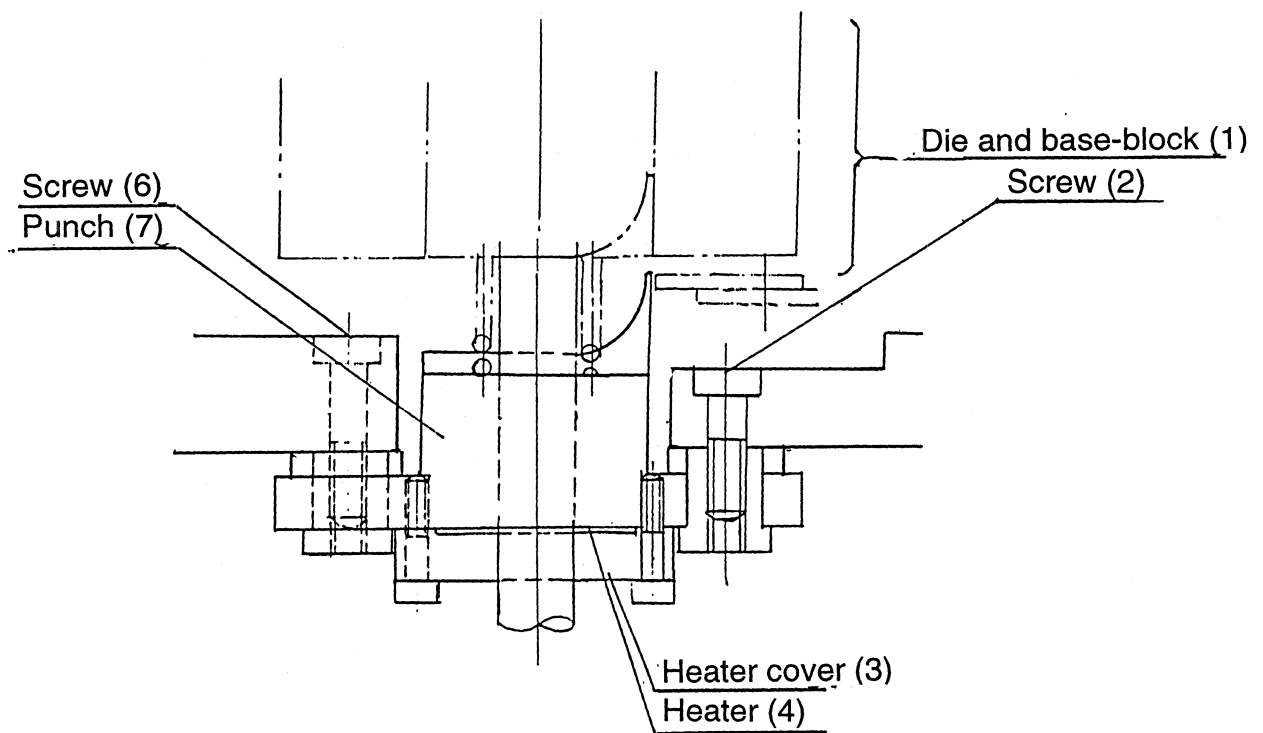
Create a gap of 0.15 to 0.2 mm between the top and the bottom of the screw (4) and the ratchet nail (5) without tightening the nuts (6) and (7), as shown at the base of the diagram.

Using the lever (1) makes it easier to move the screw (4) up and down.



### 13. The punch replacement

- 1) Remove the heater (4) (See section 8)
  - (1) Turn the power off first, and then make sure that the heater has cooled down sufficiently.
  - (2) Remove the heater cover (3) and the heater (4)
- 2) Remove the Die and the base-block (1). (see section 9)
- 3) Remove the screws (2) and (6) that secure the punch (7).
- 4) Reverse these steps to replace the parts.



# 15. Wiring diagram

