



# MODEL

# F 20A

## 1. NOTES ON DISASSEMBLY AND REASSEMBLY

As notes concerning usage are presented in the Handling Manual, notes on disassembly, assembly and repair are presented here.

The bottom surfaces of the front and rear bases must be kept level and parallel at all times. The power source cord must be unplugged from the electric outlet during all disassembly, assembly and repair procedures.

### 1-1. Set Gauge Adjustment

In addition to the items presented in the Handling Manual, supplementary explanations are presented here.

Blade height adjustment generally means to set the tip of the blade at the same surface of the rear base. With this planer, as shown in Fig. 2, a cartridge type setting gauge is utilized. With this type, the blade and the blade metal are fixed at Size L, which is previously set on the setting gauge, and, as shown in Fig. 1, the tip of the blade is set at the location of Size L prepared in the cutter block. Taking the proper L size means that the blade

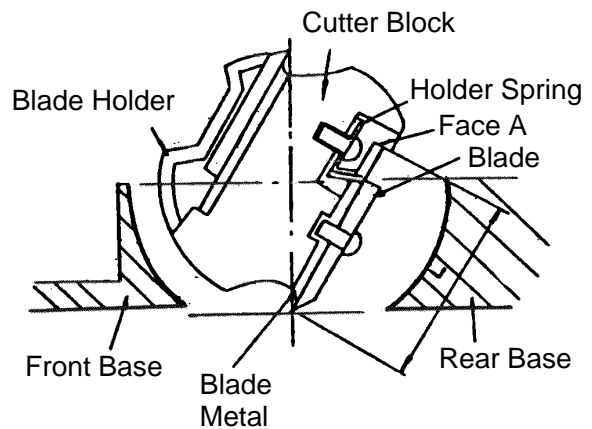


Fig. 1

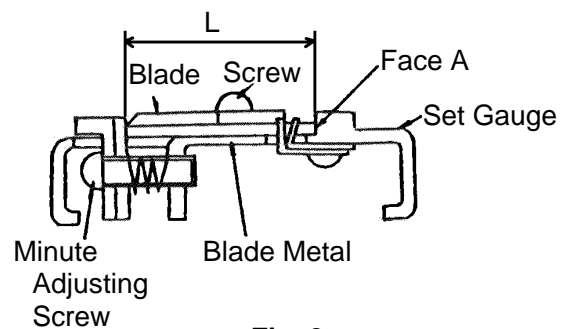


Fig. 2

can be at the same surface as the rear base.

However the L sizes in Fig. 1 and Fig. 2 are checked for accuracy before the shipment, the L size in Fig. 2 has possibility to differ from the L size in Fig. 1. For this reason, it is necessary to ask customers to double check the L sizes in Fig. 1 and Fig. 2. The first time the customer removes the blade holder and the L size in Fig. 2 must be checked to confirm that it coincides with the L size in Fig. 1. The setting gauge should be adjusted with the minute adjusting screw, as shown in Fig. 2, if the L size in Fig. 2 does not coincide with the L size in Fig. 1.

## **1-2. Disassembly (circled numbers denote the item number in the Parts List)**

- A. Removing Armature ⑫, Cutter Block ⑩ and End Bracket ⑳
1. First unscrew M4 plus head machine tapping screw ④⑧ (2 pcs.), and remove tail cover ⑤②.
  2. Remove brush cap ⑤⑨ and carbon brush ⑤⑧. Unscrew M4 plus head machine tapping screws ⑤③ (2 pcs.), and bearing Cover ②⑦.
  3. Unscrew M4 plus head machine tapping screws ②⑨ (5 pcs.), which fix end bracket ⑳ to housing ①, and

armature ⑫ and cutter block ⑯ are extracted together with end bracket ⑳, by lightly pounding the shaft of armature ⑫ and the end of spindle cutter block ⑯ with a wooden hammer, the fitting the handle of a box spanner, or some similar instrument.

#### B. Removing the Stator

1. After removing the stator, the handle cover is removed by unscrewing M4 plus head machine tapping screws ㉑. (4 pcs.).
2. Then, cut the connector (of the lead wire from cord ㉓, condenser ㉕, and stator ㉖) as close to the base as possible.
3. After unhooking the CB terminal of stator ㉖ which is hooked on the CB tube, M4 x 55 plus head machine screws ㉗ (2 pcs.) which fix stator ㉖ on housing ① are removed. Stator ㉖ can be removed by setting the contact face with end bracket ㉘ of housing ① downward, and tapping the surface lightly with a wooden hammer.

#### C. Removing Pulley (A) ㉙ and Pulley (B) ㉚

1. Remove belt cover ㉛ from end bracket ㉘ by unscrewing M4 plus head machine tapping screw (1 pc.).

2. Pulley (A) ⑤④ and pulley (B) ⑤⑤ are screwed (right hand screw and left hand screw respectively) on the armature shaft and the cutter spindle. Pulley (A) ⑤④ is removed by setting a spanner on the pulley, holding armature ⑫ firm with a vise, and rotating the spanner in the clockwise direction.
3. Pulley (B) ⑤⑤ is removed by setting a spanner on the pulley, holding the cutter block firm with a vise, and rotating the spanner in the counterclockwise direction.  
It is thick rag to prevent injury to fingers and hands.

**D. Removing Front Base ③② and Rear Base ⑤⑩**

Front base ③② is removed by rotating knob ③⑥ in the counterclockwise direction. Rear base ⑤⑩ is removed by unscrewing M4 plus head machine tapping screws ④⑧ (4 pcs.) which are screwed on the housing.

**1-3. Reassembly**

The reassembly procedure is the reverse of the disassembly procedure. It is necessary to feed lubrication oil (Shell Machine Oil No. 68) at the fitting point with the housing when fitting a new (spare) front base.

**1-4. Insulation test**

After overhaul, measurement of insulation resistance and insulation testing must be accomplished.