



## MODEL CC 14

### 1. NOTES ON DISASSEMBLY AND ASSEMBLY:

The circled numbers in the descriptions below correspond to the part numbers in the Parts Price Lists for Types CC 12 and CC 14, while the circled numbers in parentheses are those for Type CC 16SA. As most of the machine can be disassembled by simply removing nuts and screws, only major sections are described herein. Prior to commencing disassembly and assembly (including replacement of the cut-off wheel), ensure that the Switch is turned 'OFF', and the plug is removed from the power source.

#### 1-1. Disassembly:

(1) Cut-Off Wheel Section Disassembly:

(Required Tools: 17 mm Spanner)

- Loosen the M6 x 10 Wing Bolts [26] ([28]), and turn the Sub Cover [6] ([5]) to shift it out of position.

- Insert the Stopper **[23] ([21])** so that it engages the two flat surfaces on the circumference of the motor Spindle Ass'y **[29] ([26])** to lock the Spindle Ass'y.
- With the Spanner **[501] ([501])**, loosen Screw (G) **[7] ([6])** by turning it counter-clockwise.
- Take off Washer (A) **[8] ([7])**, the Wheel Washer **[9] ([8])**, and remove Wheel (A) **[10] ([9])**.

## (2) Spring Section Disassembly:

(Required Tools: ⊕ -Hd. Screwdriver, 13 mm Spanner, and 2.5 mm Hexagonal Wrench Key)

- Loosen the two M5 x 10 ⊕ -Hd. Machine Screws **[106] ([107])**, and remove the Spark Chute **[104] ([101])**.
- Lower the Switch Handle **[63] ([61])**, and hook the Chain **[77] ([85])** on the Chain Hook **[60] ([56])** to temporarily lower the motor section.
- Loosen the M8 Nut **[107] ([88])**, and remove the M8 x 16 Hexagon Socket Hd. Bolt **[108] ([87])**. Then, after removing the Chain, gradually raise the Switch Handle to invert the motor section.  
(Note: At this time, never release the Switch Handle suddenly.)
- Loosen the M5 x 16 Hexagon Socket Hd. Screw **[95] ([93])** mounted on the Gear Case **[94] ([92])**, and remove the Shaft **[96] ([94])**. Spring (A) **[93] ([91])**, Spring (B) **[92] ([90])**, and the two M16 Bolt Washers **[91] ([89])** can then be removed.

## (3) Motor Section Disassembly:

(Required Tools: ⊕ -Hd. Screwdriver, Wooden Hammer, and Minus-Hd. Screwdriver)

- Remove the Cut-Off Wheel (see Item (1) above.)
- Remove the Wheel Washer **[9] ([8])**, loosen the three M6 x 22 ⊕ -Hd. Machine Screws **[38] ([36])** (M6 x 25 ⊕ -Hd. Machine Screws **[36] ([34])**) and the M5 x 12 ⊕ -Hd. Machine Screw **[24] ([22])**, and remove the Wheel Cover **[46] ([42])**.
- Loosen the two Brush Caps **[19] ([17])**, and take out the two Carbon Brushes **[20] ([18])**.
- Loosen the four M5 x 50 ⊕ Tapping Screws **[89] ([97])**, and separate the Housing Ass'y **[45] ([60])** from the Gear Case.

- Take out the Armature Ass'y [33] ([31]) and the Fan Guide [34] ([32]).
- Loosen the two M5 x 80 ⊕ Tapping Screws [55] ([51]), and tap gently on the Gear Case mounting surfaces of the Housing Ass'y with a wooden hammer to loosen and remove the Stator Ass'y [43] ([41]).  
At this time, use the minus-head screwdriver to disconnect the Stator Ass'y lead wires which are connected to the Brush Holder Ass'ys [21] ([19]).

(4) Switch Section Disassembly:

(Required Tools: ⊕ -Hd. Screwdriver and Minus-Hd. Screwdriver)

- Loosen the M4 x 20 ⊕ Tapping Screws [67] ([65]), and remove the Handle Cover [64] ([62]).
- With the minus-head screwdriver, loosen the retaining screws on the Trigger Switch [54] ([50]), and disconnect the two lead wires from the Stator Ass'y and the two lead wires from the Cord Ass'y [76] ([74]).

**1-2. Assembly:**

Reassembly can be accomplished by following the disassembly procedures in reverse. However, special attention should be given to the following items.

- (1) When replacing the cut-off wheel, thoroughly remove any dust and dirt from the Wheel Washer, Screw (G), and Washer (A) prior to mounting the new cut-off wheel.

Any dust or dirt may cause the cut-off wheel to become loosened, making accurate cutting impossible.

Resultant vibration could also be very dangerous.

After mounting the cut-off wheel, ensure that the Stopper has been returned to its original position.

- (2) In the event that the Armature Ass'y is removed, be sure to confirm that the Bearing Lock [32] ([30]) is properly inserted. Also, because of the high-speed rotation, the balance of the Armature Ass'y is very important to avoid vibration. Accordingly, be very careful not to damage or deform the Armature Ass'y Fan, and carefully avoid mounting ball bearings with excessive play.

- (3) In the event that the ball bearings mounted on the Armature Ass'y and the Spindle Ass'y are removed from the Housing Ass'y and Gear Case, they should be replaced with new ones.

(This is to prevent bearing noise and possible early bearing failure.)

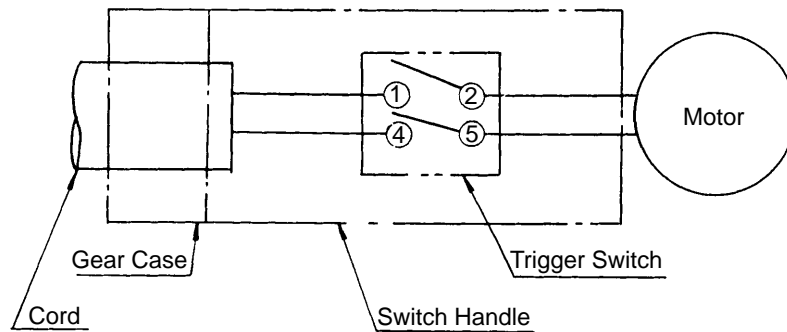
### 1-3. Lubrication:

Ensure timely application of oil or grease to the following lubrication points:

- Rotary sections of the Gear Case and Shaft.
  - Rotary section at the tip of the Screw Ass'y  
(3 x 15 Split Pin section).
  - Female threads and threaded portion of the Screw Ass'y.
  - The slideway of Vice (A).
  - Armature Ass'y gear (Pinion) portion and Spindle Ass'y  
gear portion.
- Machine Oil
- Hitachi Motor Grease

### 1-4. Wiring Connections:

Precautions



Wiring Diagram

Precautions in Making Wiring Connections:

- (1) Be very careful to avoid wiring connection errors which might result in irregular or impossible rotation, short-circuit, etc.
- (2) When reassembling the Handle Cover, be very careful to avoid pinching the lead wires between the Switch Handle and the Handle Cover, which could cause compression failure, etc.

### 1-5. Electrical Insulation:

Prior to reassembly, measure the insulation resistance of the Switch and other electrical components, and confirm that resistance readings are in excess of 5 MΩ. Components which measure less than 5 MΩ should be replaced.

(1) Confirm Appropriate Insulation Lengths:

When making lead wire connections, do not remove any more of the wire insulation than is necessary.

For example, when connecting lead wires to the Switch terminals, ensure that the core of the lead wires are not exposed.

(2) Confirm Insulation Resistance:

On completion of assembly, be sure to use a resistance meter to confirm that insulation resistance measures in excess of 1 M $\Omega$ . If measurement is less than 1 M $\Omega$ , reinspect all fittings and connections. With the Switch "ON", plug in the power cord and measure between the plug and the Base.