



MODELS G 18SE2/G 18SG/G 18SH/G 23SC2/G 23SE/G 23SF

1. PRECAUTIONS IN DISASSEMBLY AND REASSEMBLY:

As disassembly and reassembly procedures for all of the new models are essentially the same, Model G 23SC2 procedures are described below as an example. The circled numbers in the descriptions below correspond to the item numbers in the Parts List and exploded assembly diagram for Model G 23SC2.

1-1. Disassembly of the Armature Ass'y:

- (1) Loosen the M8 x 22 Bolt (s) ③⑩ (one piece or two pieces: depending on the shape of the Wheel Guard mounted.), and remove the Wheel Guard Ass'y ③⑪. Then, remove the two Brush Caps ④⑨ and take out the Carbon Brushes ⑤⑩.
- (2) Remove the four D5 x 35 Tapping Screws ③.

The Armature Ass'y ①⑥ can then be taken out simultaneously with the Gear Cover Ass'y ⑥, Packing Gland ②⑧, and related parts.

- (3) Remove the four M5 x 16 Hexagon Socket Hd. Bolts ②⑨.

The Packing Gland ②⑧ can then be taken out together with the Spindle ②⑤ and Gear ②⑩.

- (4) After removing the three M5 x 14 Machine Screws ①, the Armature ①⑥ can be extracted together with the Bearing Cover ①④, and related parts.
- (5) Carefully wrap the Armature Ass'y ①⑥ with a soft, clean rag to protect it from being damaged, and clamp it securely in a vise. Then, remove the M8 U-Nut ⑦, and extract the Pinion ⑧ and the Key ①⑤.
- (6) For the models indicated under Fig. 1, the Ball Bearing ①① can be removed from the Armature ①⑥ by utilizing a J-166 Bearing Puller (special repair tool) as illustrated. After the Ball Bearing has been removed, the Bearing Cover ①④ can be easily taken off.

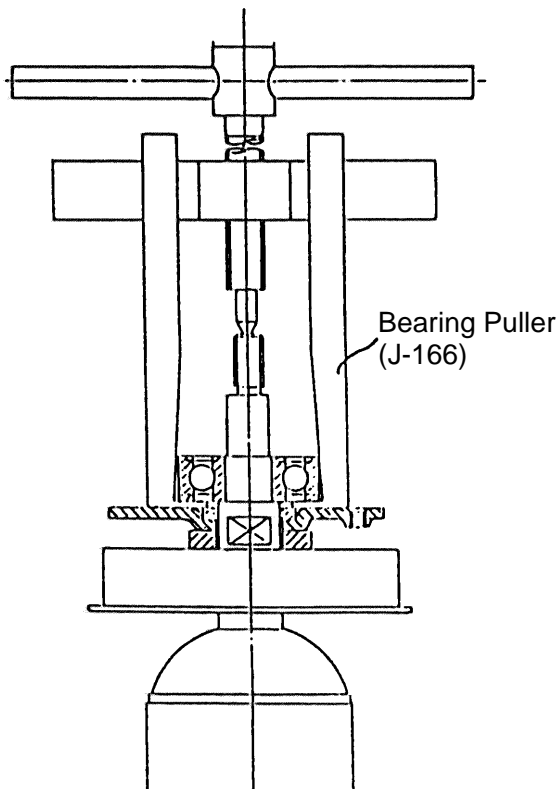


Fig. 1

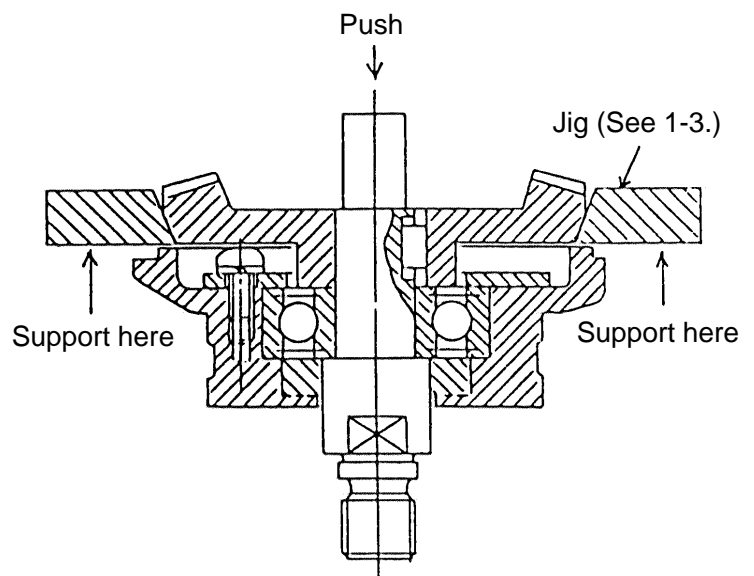


Fig. 2

1-2. Disassembly of the Stator Ass'y:

- (1) After taking out the Armature Ass'y (16), loosen the four D5 x 25 Tapping Screws (62), and the two D4 x 25 Tapping Screws (61) and remove the Handle (63).
- (2) Disconnect the lead wires of the Stator Ass'y (38) from the Trigger Switch (57). Then, disconnect the lead wires of the Noise Suppressor (55).
- (3) Disconnect the Brush Terminal Ass'ys (39) from the Brush Holders (51) and take out Rubber Ring (D) (44).
- (4) Finally, loosen the two D5 x 75 Hexagon Hd. Tapping Screws (37), and the Stator Ass'y (38) can be taken out of the Housing Ass'y (40). If the Stator Ass'y (38) cannot be easily taken out of the Housing Ass'y (40), disassembly can be facilitated by heating the Housing Ass'y to a temperature of approximately 60°C (140°F) with an appropriate heating device.

1-3. Disassembly of the Gear:

After the Packing Gland (28) has been removed from the Gear Cover Ass'y (6), support the Gear (20) with an appropriate jig (see below) and push down on the tip of the Spindle (25) with an arbor press as illustrated in Fig. 2 to separate the Gear.

Model names and appropriate jig numbers are indicated in the table below:

Model Name	Jig Number
G 18SH, G 18SE2, G 18SG	J-239
G 23SF, G 23SC2, G 23SE	J-238

1-4. Lubricant to be applied within the Gear Cover:

After disassembly, thoroughly remove all old grease from within the Gear Cover Ass'y (6), and insert new grease (Genuine Hitachi Grease, Nippeco JF-375 [lithium soup group], Code No. 930036, is recommended) prior to reassembly:

The appropriate amount of grease for each model is as follows:

Model Name	Grease Amount (g)
G 18SH, G 18SE2, G 18SG G 23SF, G 23SC2, G23SE	35 g

1-5. Adhesive and Screw Locking Agent:

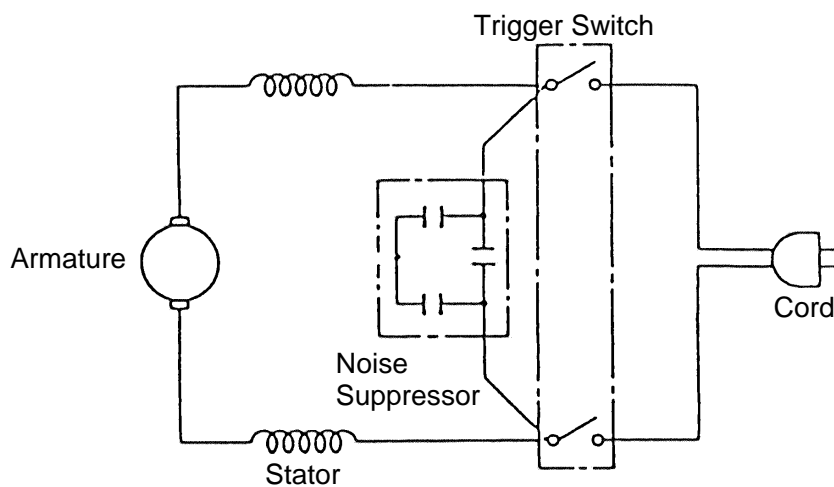
- (1) Apply Cemedine 1500 Adhesive between the Brush Holder chambers in the Housing Ass'y (40) and the Brush Holders (51).
- (2) Apply Three Bond TB1406 Screw Locking Agent to the following screws:
 - Four M5 x 16 Hexagon Socket Hd. Bolts (29) which fix the Packing Gland (28)
 - Three M5 x 10 Machine Screws (21) which fix Bearing Cover (B) (22).
 - Three M5 x 14 Machine Screws (1) which fix the Bearing Cover (14).

1-6. Tightening Torques:

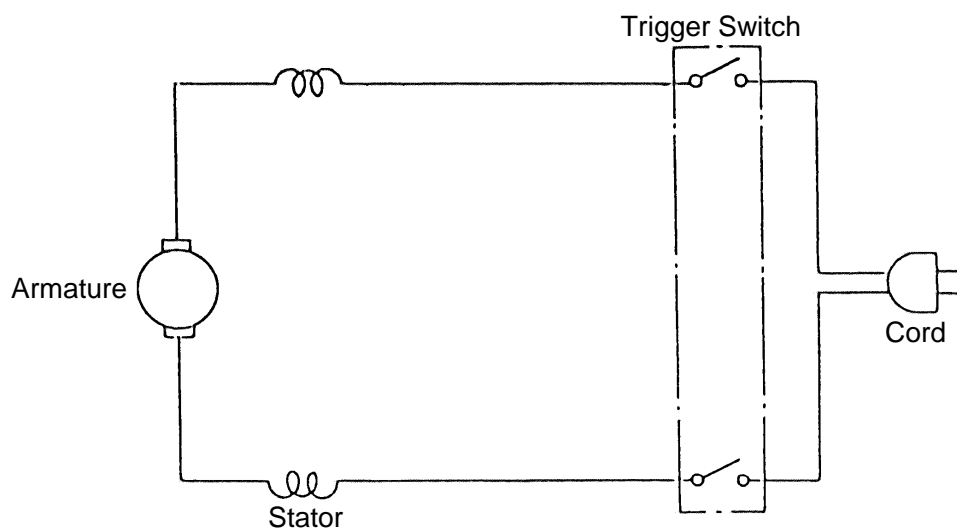
- D4 Tapping Screws1.5 - 2.5 N·m (15 - 25 kgf-cm) (13 - 22 in-lb)
- D5 Tapping Screws and M5 Machine Screws2.5 - 3.4 N·m (25 - 35 kgf-cm) (22 - 30 in-lb)
- M5 Hexagon Socket Hd.Bolts6.4 - 9.3 N·m (65 - 95 kgf-cm) (57 - 81 in-lb)
- M8 U-Nut.....11.8 - 15.7 N·m (120 - 160 kgf-cm) (104 - 139 in-lb)

1-7. Wiring Diagram:

For European countries and New Zealand



For other countries:



1-8. Remaining Reassembly:

Remaining reassembly can be accomplished by following the disassembly procedures in reverse.

1-9. Insulation Tests:

On completion of disassembly and repair, carefully measure the insulation resistance, and conduct an insulation test (dielectric strength test).

Insulation Resistance: 7MΩ or more with 500V DC Megohm Tester.

Dielectric Strength: AC 4,000V/1 minute, with no abnormalities.....220V - 240V
(and 110V for U.K. products)
AC 2,500V/1 minute, with no abnormalities.....110V - 127V
(except U.K. products)

1-10. Inspection Manual:

- No-load Current Value: After no-load operation for 30 minutes
- Backlash of Gear Value: Measured at outer circumference of Grinding Wheel.

No.	Model Name	Max. No-load current (A)			Max. Backlash of gears (mm)
		Voltage (V) 110 - 115	Voltage (V) 220 - 230	Voltage (V) 240	
1	G 18SH	6.3	3.2	3.1	2.5
2	G 23SF				3.2
3	G 18SE2	6.4	3.5	3.2	2.5
4	G 23SC2				3.2
5	G 18SG				2.5
6	G 23SE				3.2