MODELS

G 18SR, G 18SRU

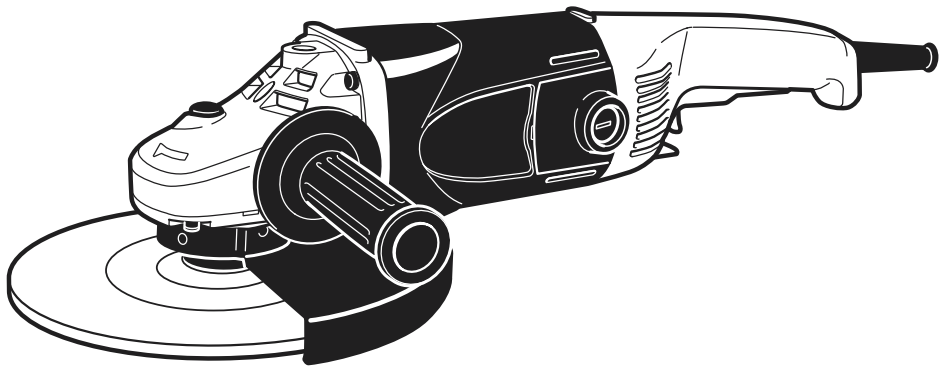
G 23SR, G 23SRU

Hitachi
Power Tools

DISC GRINDER
G 18SR, G 18SRU
G 23SR, G 23SRU

TECHNICAL DATA
AND
SERVICE MANUAL

G



LIST Nos. G 18SR: E275 G 18SRU: E276 Apr. 2006
G 23SR: E273 G 23SRU: E274

REMARK:

Throughout this TECHNICAL DATA AND SERVICE MANUAL, a symbol(s) is(are) used in the place of company name(s) and model name(s) of our competitor(s). The symbol(s) utilized here is(are) as follows:

Symbols Utilized	Competitors	
	Company Name	Model Name
C	MAKITA	9067 9069 9067SF 9069SF
B	BOSCH	GWS21-180JHV GWS21-230JHV

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1. PRODUCT NAME

1) Hitachi 180 mm Disc Grinder, Model G 18SR

2) Hitachi 180 mm Disc Grinder, Model G 18SRU (With soft start)

3) Hitachi 230 mm Disc Grinder, Model G 23SR

4) Hitachi 230 mm Disc Grinder, Model G 23SRU (With soft start)

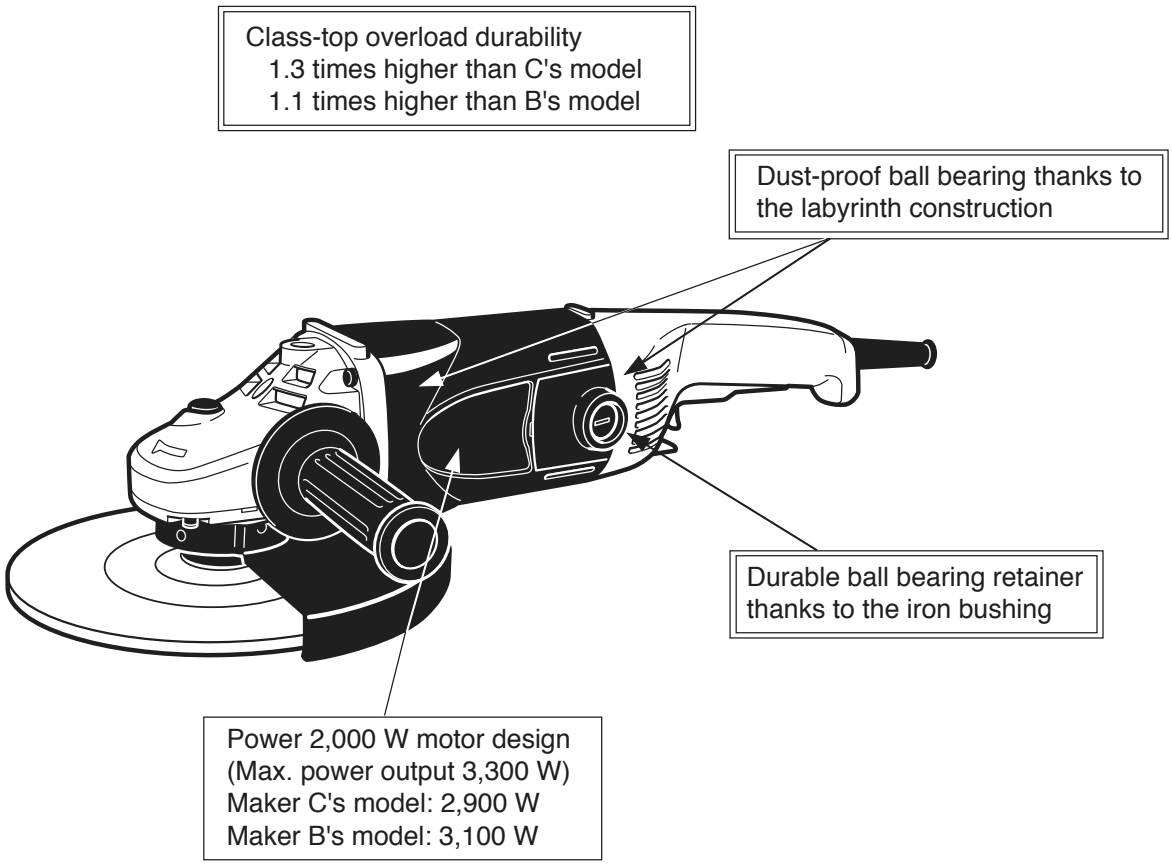
2. MARKETING OBJECTIVE

Large disc grinders are the markets where Europe is main, and HITACHI products have obtained high evaluation in power, durability and quality. However, C has supplied the low-price series of 2000 W disc grinders since 1998 posing a challenge to HITACHI's share. To compete with them, we have introduced the Model G 23SF2 series that are far more powerful and durable than C's low-price series in 2001. However, we have a hard time with C's more competitively priced products. To cope with this severe situation, we introduce the new G 23SR series that are comparably priced and superior in power and durability to B and C's low-price series.

3. APPLICATIONS

- Deburring diecast products and finishing iron, bronze, aluminum and diecast products
- Finishing welds and torch-cut surfaces
- Cutting soft steel materials
- Grooving and cutting concrete and other stone materials

4. SELLING POINTS



4-1. Class-top Overload Durability

The Models G 18SR, G 18SRU, G 23SR and G 23SRU provide excellent overload durability in common with the current models. Figure 1 shows the comparison of overload durability when the stator coil temperature rise is 200˚K using the Model G 23SR as the reference. As is evident from this, the Models G 18SR, G 18SRU, G 23SR and G 23SRU are superior to the competitors in overload durability.

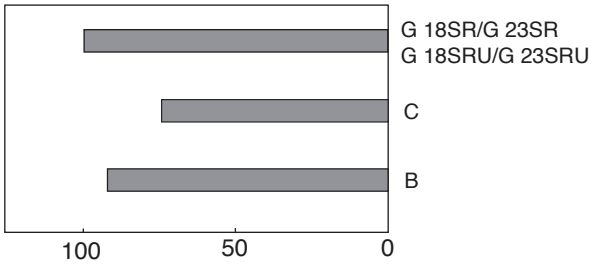


Fig. 1

4-2. Wear Resistance of Armature Coil

Both ends of the armature coil are sealed with heat-resistant adhesive in addition to varnish treatment to minimize wear of the armature coil caused by dust.

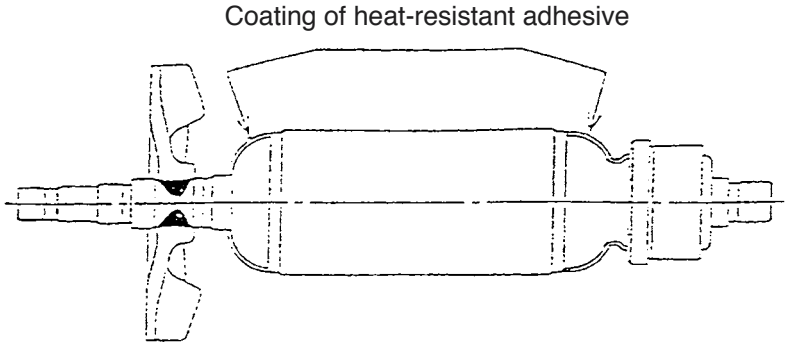


Fig. 2

4-3. Dust-proof Ball Bearing thanks to the Labyrinth Construction

The ball bearing retainers at both sides of the armature have a labyrinth construction to make the ball bearings dust-proof.

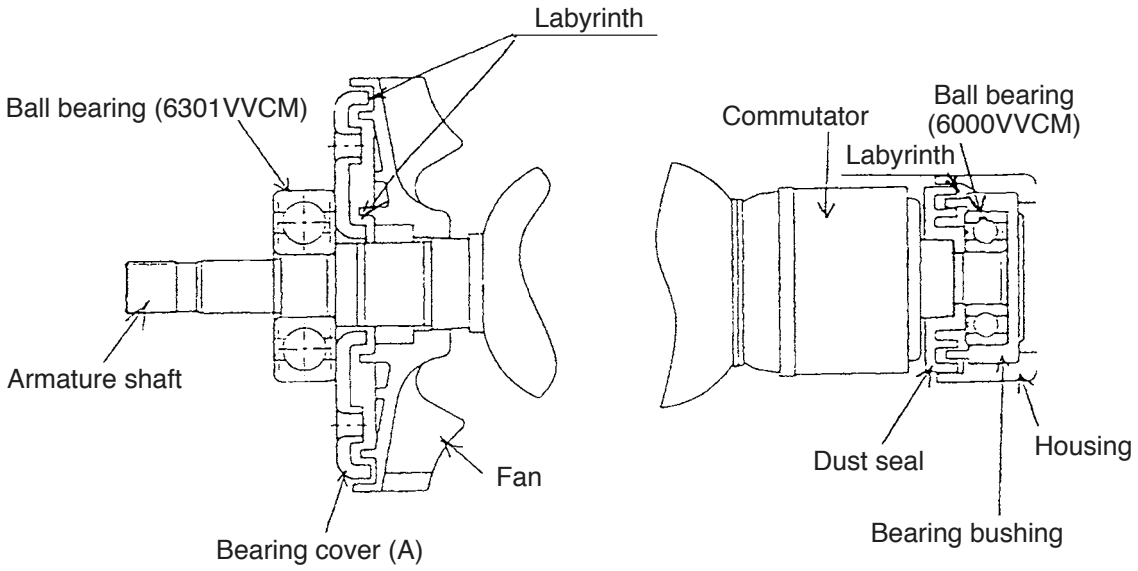


Fig. 3

4-4. Durable Ball Bearing Retainer thanks to the Iron Bushing

The Models G 18SR, G 18SRU, G 23SR and G 23SRU are equipped with the iron bushing in the ball bearing retainer at the commutator side of the housing to improve the durability of the ball bearing retainer.

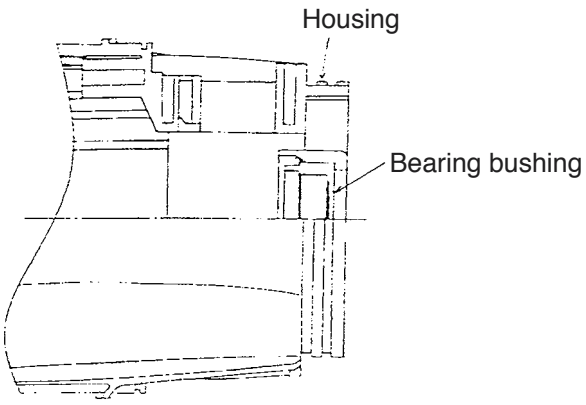


Fig. 4

4-5. Construction to Protect Grease Leakage

1) A rubber ring is added to the ball bearing section of the fan side to protect grease leakage.

2) An O-ring is added to the spindle lock section to protect grease leakage.

Ball bearing section of the fan side

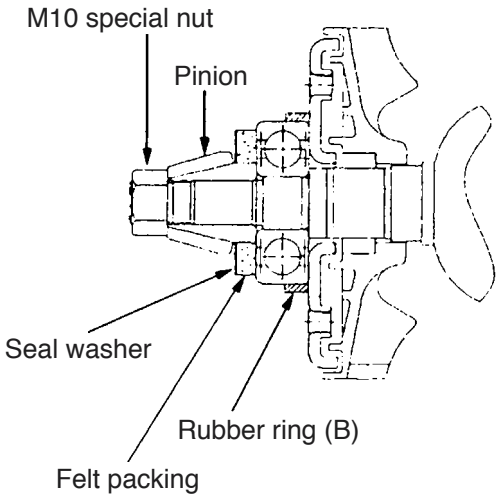


Fig. 5

Spindle lock section

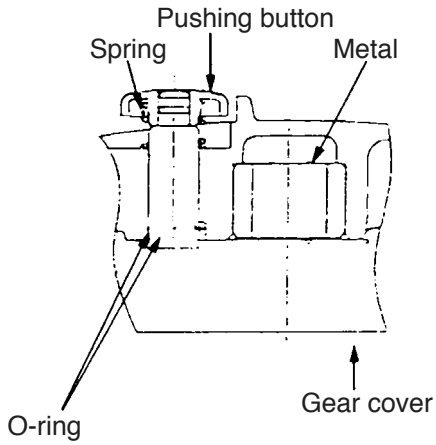


Fig. 6

5. SPECIFICATIONS

<table>
<tr><td colspan="2">Item \ Model</td><td>G 18SR/G 18SRU</td><td>G 23SR/G 23SRU</td></tr>
<tr><td rowspan="4">Depressed-center wheels</td><td>Dimensions</td><td>O.D. 180 mm (7")
x Thickness 6 mm (1/4")
x I.D. 22.2 mm (7/8")</td><td>O.D. 230 mm (9")
x Thickness 6 mm (1/4")
x I.D. 22.2 mm (7/8")</td></tr>
<tr><td>Max. practical peripheral speed</td><td colspan="2">80 m/s (15,800 ft/min)</td></tr>
<tr><td>Type</td><td colspan="2">A, 24, R, B</td></tr>
<tr><td>Spindle thread</td><td colspan="2">M14 x 2</td></tr>
<tr><td colspan="2">Power source</td><td colspan="2">AC single phase 50 or 60 Hz</td></tr>
<tr><td colspan="2">Voltage and power input</td><td colspan="2"><table><tr><th>Voltage (V)</th><th>Current (A)</th><th>Power input (W)</th></tr><tr><td>110</td><td>19</td><td>2,000</td></tr><tr><td>220</td><td>9.6</td><td>2,000</td></tr><tr><td>230</td><td>9.2</td><td>2,000</td></tr><tr><td>240</td><td>8.8</td><td>2,000</td></tr></table></td></tr>
<tr><td colspan="2">No-load speed</td><td>8,500/min</td><td>6,600/min</td></tr>
<tr><td colspan="2">Type of motor</td><td colspan="2">AC single phase commutator motor</td></tr>
<tr><td colspan="2">Enclosure</td><td colspan="2">Housing (Black)
Handle (Green) } ..... Polyamide resin with glassfiber
Gear cover, packing gland ..... Aluminum alloy diecasting</td></tr>
<tr><td colspan="2">Type of switch</td><td colspan="2">Trigger switch</td></tr>
<tr><td colspan="2">Weight Net: *1 (Main body)</td><td colspan="2">4.3 kg (9.5 lbs.)</td></tr>
<tr><td colspan="2">Gross:</td><td colspan="2">7.3 kg (16.1 lbs.)</td></tr>
<tr><td colspan="2">Type of packing</td><td colspan="2">Corrugated cardboard box</td></tr>
<tr><td colspan="2">Standard accessories</td><td>Depressed-center wheel 180 mm (7") (Code No. 316824) 1*2
Side handle (Code No. 340304) .. 1
Wrench (Code No. 987913Z) ..... 1</td><td>Depressed-center wheel 230 mm (9") (Code No. 316825) 1*2
Side handle (Code No. 340304) .. 1
Wrench (Code No. 937913Z) 1
Wheet nut (B) (Code No. 937917Z) ..... 1*2</td></tr>
</table>

*1 Net weight excludes cord, side handle, depressed-center wheel, wheel nut, wheel washer and wheel guard.
*2 Standard accessories may vary depending on market areas.

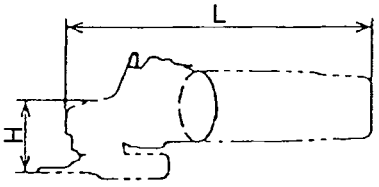
6. COMPARISONS WITH SIMILAR PRODUCTS

6-1. Specification Comparisons

Maker		HITACHI		C	B
Model name		G 18SR	G 18SH2		
		G 18SRU	G 18U2		
Capacity:		180	180	180	180
Depressed-center wheel dia.	(mm)	(7")	(7")	(7")	(7")
Power input *1	(W)	2,000	2,000	2,000	2,100
Power output *1	(W)	1,330	1,330	1,160	1,270
Max. power output *1	(W)	3,300	3,500	2,900	3,100
No-load speed	(/min)	8,500	8,500	8,500	8,500
No-load sound pressure level	(dB/A)	90	90	91	90
Service life of carbon brushes *2	(hr)	120	170	160	170
Weight *3	(kg)	4.3 (9.48 lbs.)	4.3 (9.48 lbs.)	4.2 (9.26 lbs.)	4.4 (9.70 lbs.)
(Actual weight)	(kg)	4.5 (9.92 lbs.)	4.4 (9.70 lbs.)	4.4 (9.70 lbs.)	4.6 (10.14 lbs.)
Dimensions	L mm (inch)	463 (18-7/32)	463 (18-7/32)	458 (18-1/32)	495 (19-16/32)
	H mm (inch)	83 (3-9/32)	83 (3-9/32)	92 (3-20/32)	85 (3-11/32)

Maker		HITACHI		C	B
Model name		G 23SR	G 23SF2		
		G 23SRU	G 23U2		
Capacity:		230	230	230	230
Depressed-center wheel dia.	(mm)	(9")	(9")	(9")	(9")
Power input *1	(W)	2,000	2,000	2,000	2,100
Power output *1	(W)	1,330	1,330	1,160	1,270
Max. power output *1	(W)	3,300	3,500	2,900	3,100
No-load speed	(/min)	6,600	6,600	6,600	6,500
No-load sound pressure level	(dB/A)	90	90	91	90
Service life of carbon brushes *2	(hr)	120	170	160	170
Weight *3	(kg)	4.3 (9.48 lbs.)	4.3 (9.48 lbs.)	4.2 (9.26 lbs.)	4.4 (9.70 lbs.)
(Actual weight)	(kg)	4.5 (9.92 lbs.)	4.4 (9.70 lbs.)	4.4 (9.70 lbs.)	4.6 (10.14 lbs.)
Dimensions	L mm (inch)	463 (18-7/32)	463 (18-7/32)	458 (18-1/32)	495 (19-16/32)
	H mm (inch)	83 (3-9/32)	83 (3-9/32)	92 (3-20/32)	85 (3-11/32)

*1 Depends on market
*2 Service life of carbon brushes in the continuous rated load test
*3 Weight without cord, side handle, depressed-center wheel, wheel nut, wheel washer and wheel guard



6-2. Practical Test Data

Comparison of temperature rise of stator coil section:

The graph below shows the relationship between load and temperature rise of the stator coil. The temperature rise of the Model G 23SR is the lowest among the competitive models. This means that the resistance to overload usage of the Models G 23SR and G 23SF2 is superior to other maker's models.

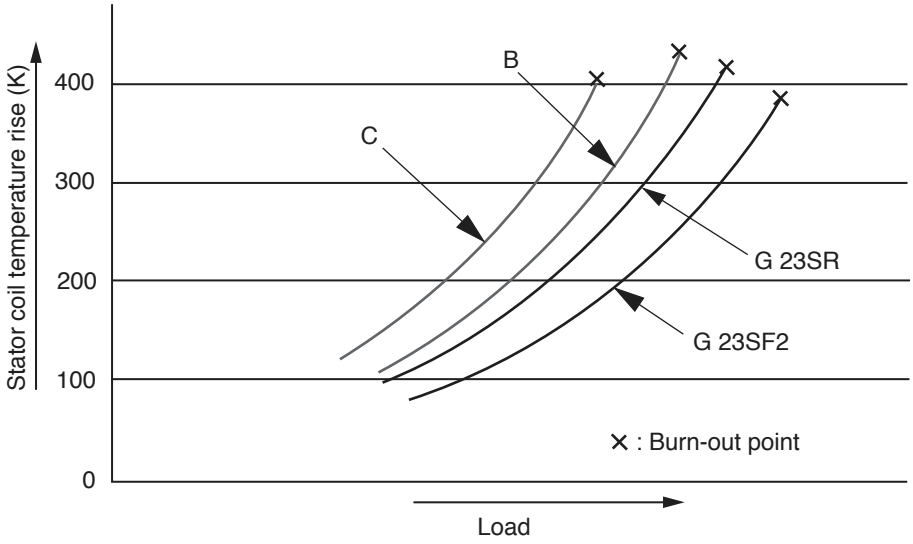


Fig. 7

7. PRECAUTIONS IN SALES PROMOTION

In the interest of promoting the safest and most efficient use of the Models G 18SR, G 18SRU, G 23SR and G 23SRU Disc Grinders by all of our customers, it is very important that at the time of sale, the salesperson carefully ensures that the buyer seriously recognizes the importance of the contents of the Handling Instructions, and fully understands the meaning of the precautions listed on the Name Plate or Caution Plate attached to each tool.

7-1. Handling Instructions

Although every effort is made in each step of design, manufacture and inspection to provide protection against safety hazards, the dangers inherent in the use of any electric power tool cannot be completely eliminated. Accordingly, general precautions and suggestions for the use of electric power tools, and specific precautions and suggestions for the use of the disc grinders are listed in the Handling Instructions to enhance the safe and efficient use of the tool by the customer. Salespersons must be thoroughly familiar with the contents of the Handling Instructions to be able to offer appropriate guidance to the customer during sales promotion.

7-2. Caution on Name Plate

Each tool is provided with a Name Plate which contains the following basic safety precautions in the use of the tool.

(1) For U.K., Germany, Belgium, France, Netherlands, Austria, Russia, Switzerland, Spain, Portugal, Canary Islands, Italy, Finland, Denmark, Sweden and Norway

(2) For Australia

CAUTION

Read thoroughly HANDLING INSTRUCTIONS before use.

7-3. Precautions on Usage

Never press the pushing button while the depressed-center wheel is rotating.

If the pushing button is pressed while the depressed-center wheel is rotating, the spindle will stop immediately. In such a case, there is a danger that the wheel nut may be loosened so that the depressed-center wheel flies off unexpectedly to cause possible serious injury.

8. PRECAUTIONS IN DISASSEMBLY AND REASSEMBLY

The **[Bold]** numbers in the descriptions below correspond to the numbers in the Parts List and the exploded assembly diagram for the Models G 18SR and G 23SR, and the **<Bold>** numbers to those in the Parts List and the exploded assembly diagram for the Models G 18SRU and G 23SRU.

8-1. Disassembly

(1) Removal of the Armature **[13] <13>**

1. Loosen the Bolt M8 x 22 **[29] <29>**, and remove the Wheel Guard Ass'y **[30] <30>**.
2. Remove the Brush Caps **[45] <53>**, and take out the Carbon Brushes (1 Pair) **[46] <54>**.
3. Remove the four Tapping Screws (W/Flange) D5 x 35 (Black) **[2] <2>**. The Armature **[13] <13>** can then be taken out simultaneously with the Gear Cover Ass'y **[5] <5>**, Packing Gland **[27] <27>**, and related parts.
4. Remove the four Hex. Socket Hd. Bolts (W/Flange) M5 x 16 **[28] <28>**.
5. After removing the two Seal Lock Screws (W/Sp. Washer) M5 x 14 (Black) **[1] <1>**, the Armature **[13] <13>** can be extracted together with Bearing Cover (A) **[12] <12>** and the related parts.
6. Carefully wrap the Armature **[13] <13>** with a soft, clean rag to protect it from being damaged, and clamp it securely in a vise. Then, remove the Special Nut M10 **[6] <6>** and extract the Pinion **[7] <7>**.
7. For the models indicated under Fig. 8, the Ball Bearing 6301VVCMPS2L **[10] <10>** can be removed from the Armature **[13] <13>** by utilizing a J-204 Bearing Puller (special repair tool, Code No. 970982) as illustrated. After the ball bearing has been removed, Bearing Cover (A) **[12] <12>** can be easily taken off.

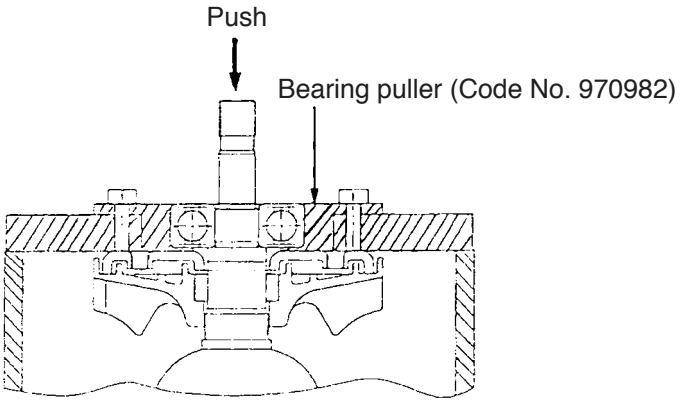


Fig. 8

(2) Removal of the Dust Seal **[37] <45>**

1. Insert the hooks of the J-204 bearing puller between the commutator and the Dust Seal **[37] <45>** from both sides, and fix the hooks with the wing bolts.
2. Place the J-204 bearing puller on a supporting jig and push down on the armature shaft with a hand press to remove the Dust Seal **[37] <45>** together with the Ball Bearing 6000VVCMPS2L **[38] <46>**. Replace the Dust Seal **[37] <45>** with new one because it is damaged by the removal of the Ball Bearing 6000VVCMPS2L **[38] <46>**.

(3) Removal of the Stator Ass'y **[16] <16>**

1. After removing the Armature **[13] <13>**, disconnect the internal wires connected to the Brush Holders **[47] <55>** and the Switch **[50] <59>**.
2. Loosen the two Hex. Hd. Tapping Screws D5 x 60 **[15] <15>** and remove the Stator Ass'y **[16] <16>** from the Housing **[40] <48>**. If the Stator Ass'y **[16] <16>** cannot be easily removed from the Housing **[40] <48>**, disassembly can be facilitated by heating the Housing **[40] <48>** to a temperature of approximately 60˚C (140˚F) with an appropriate heating device.

(4) Removal of the Gear **[20] <20>**

1. Loosen the four Hex. Socket Hd. Bolts (W/Flange) M5 x 16 **[28] <28>**, and remove the Packing Gland **[27] <27>** together with the Spindle **[25] <25>** and the Gear **[20] <20>** from the Gear Cover Ass'y **[5] <5>** in a single body.
2. Remove the Retaining Ring for D12 Shaft **[19] <19>** from the Spindle **[25] <25>**.
3. When it is necessary to remove the Gear **[20] <20>** from the Spindle **[25] <25>**, it is highly recommended that the special repair tools described below are utilized.

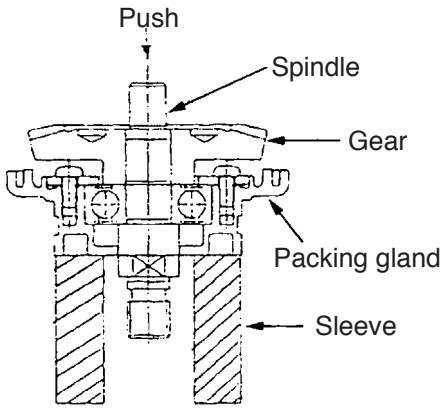


Fig. 9

Place the assembly on a sleeve that matches the dimension of the Packing Gland **[27] <27>** and push down on the top of the Spindle **[25] <25>** with a hand press to remove the Gear **[20] <20>** as shown in Fig. 9.

8-2. Reassembly

Put the parts together in the reverse order of disassembly, with the precautions given below.

(1) Apply machine oil to Felt Packing (B) **[24] <24>** then mount it to the Packing Gland **[27] <27>** to increase the dust resistance.

(2) Generously lubricate the teeth of the Gear **[20] <20>** and the Pinion **[7] <7>** with grease. Rub grease onto the teeth with your fingers so that the grease reaches each tooth bottom. Note that under-lubricated Gear **[20] <20>** and Pinion **[7] <7>** may wear at a faster rate.

(3) When replacing the Armature **[13] <13>** and the Ball Bearing 6000VVCMPS2L **[38] <46>** on the commutator side, press inward on the Dust Seal **[37] <45>** while taking care of its direction until the end face of the Dust Seal **[37] <45>** hits against the butting surface of the Armature **[13] <13>** and make sure that the Dust Seal **[37] <45>** cannot turn freely. (See Fig. 10.)

The Dust Seal **[37] <45>** is an important element for improved dust protection of the Ball Bearing 6000VVCMPS2L **[38] <46>**. Be sure to use a new one at every disassembly work of the Ball Bearing 6000VVCMPS2L **[38] <46>**.

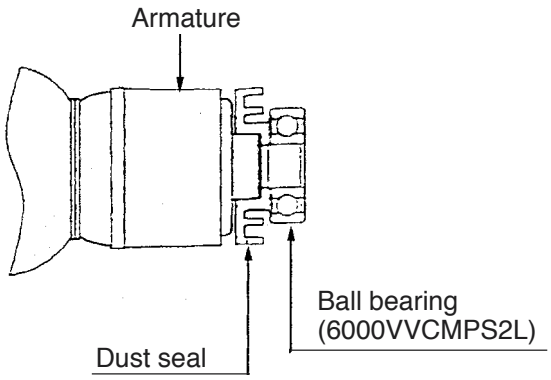
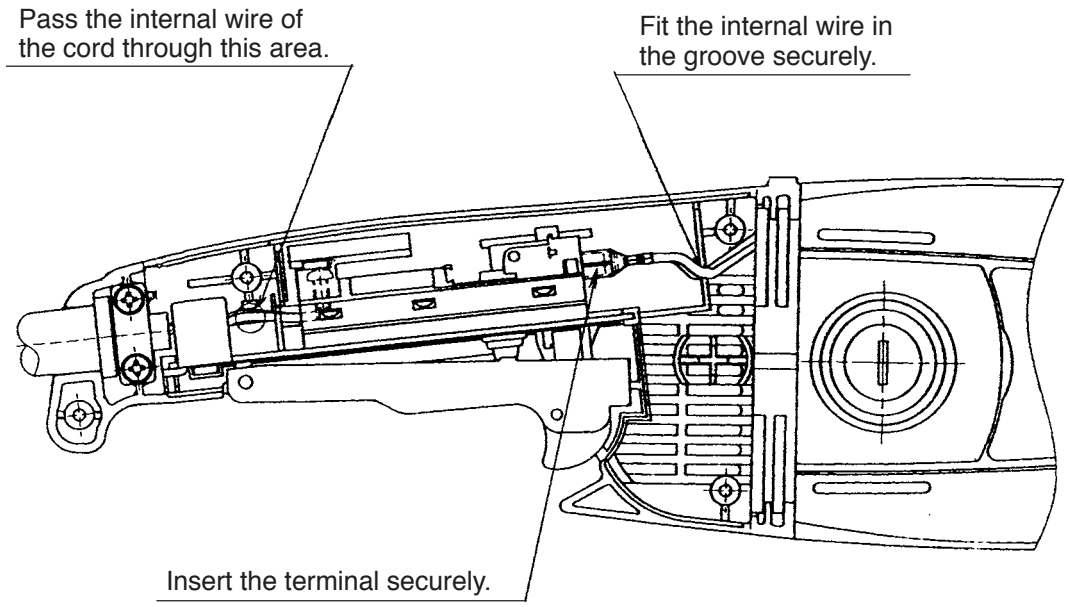


Fig. 10

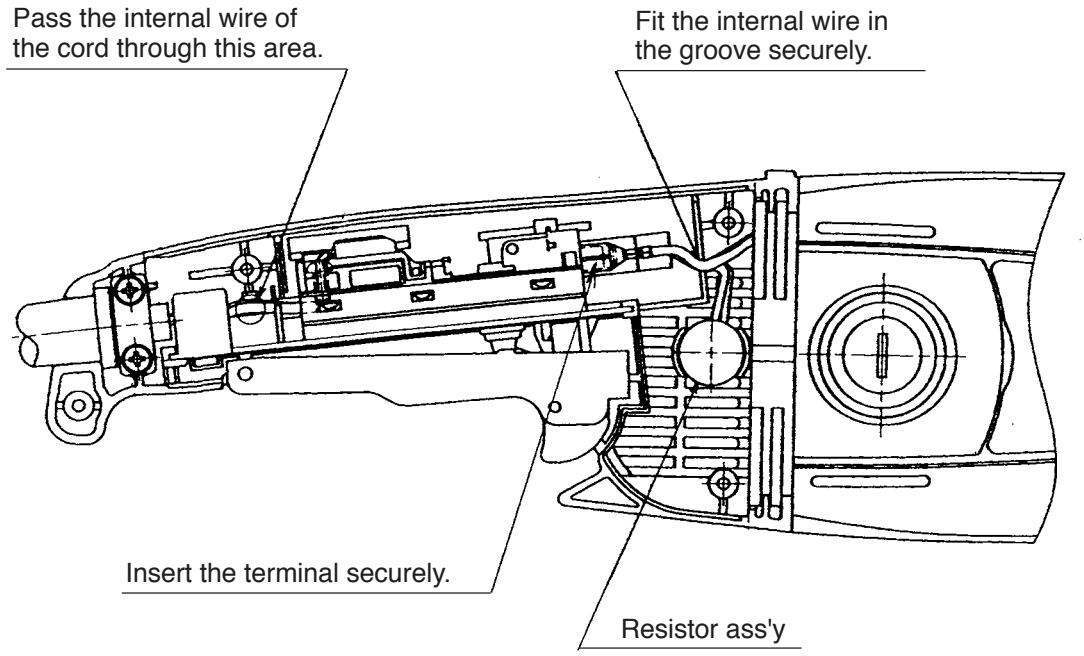
(4) Apply Three Bond TB 1406 Screw Locking Agent to the following screws.

- Two Seal Lock Screws (W/Sp. Washer) M5 x 14 (Black) **[1] <1>** which fix Bearing Cover (A) **[12] <12>** in place.
- Four Hex. Socket Hd. Bolt (W/Flange) M5 x 16 **[28] <28>** which fix the Packing Gland **[27] <27>** in place.

(5) Arrange the internal wires as shown in Figs. 11 and 12 being careful not to connect in wrong direction or position and not to get the internal wires caught in parts.



(a) Models G 18SR/G 23SR



(b) Models G 18SRU/G 23SRU

Fig. 11

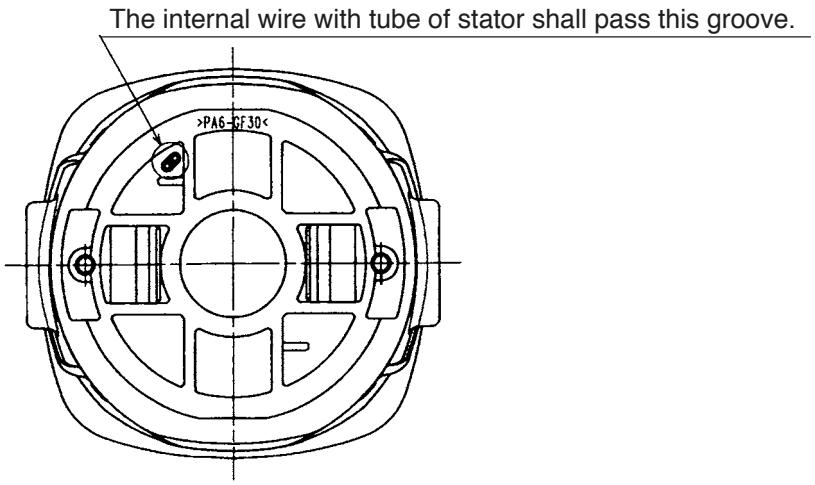


Fig. 12

(6) Mount the cord clip as shown in Fig. 13 being careful of the direction.

Cord dia.: Over 8.5 mm dia. Cord dia.: Max. 8.5 mm dia.

Cord clip mounting diagram

Fig. 13

8-3. Lubrication Points and Types of Lubricant

Pinion chamber of the Gear Cover Ass'y **[5] <5>** ..... ALVANIA grease EP (LF) O 35 g

Generously rub grease onto the gear and pinion and inner circumference of metal.

8-4. Tightening Torque

Tapping Screws (W/Flange) D4 x 16

[43] <51> [52] <61> ..... 2.0 ± 0.5 N·m (20 ± 5 kgf·cm, 1.5 ± 0.4 ft-lbs.)

Seal Lock Screws (W/Sp. Washer) M5 x 14 **[1] <1>** ..... 4.9 ± 1.0 N·m (50 ± 10 kgf·cm, 3.6 ± 0.8 ft-lbs.)

Tapping Screw (W/Flange) D5 x 35 **[2] <2>** ..... 3.4 ± 0.7 N·m (35 ± 7 kgf·cm, 2.5 ± 0.5 ft-lbs.)

Hex. Socket Hd. Bolt (W/Flange) M5 x 16 **[28] <28>** ..... 7.8 ± 1.5 N·m (80 ± 15 kgf·cm, 5.8 ± 1.1 ft-lbs.)

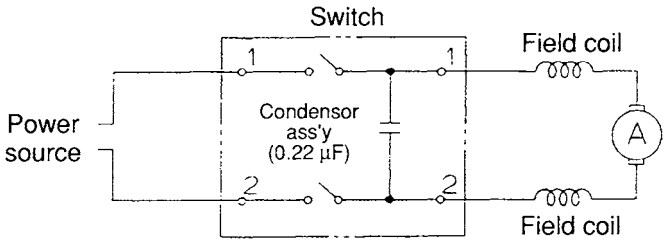
Special Nut M10 **[6] <6>** ..... 20.4 ± 3.1 N·m (200 ± 30 kgf·cm, 14.4 ± 2.2 ft-lbs.)

Machine Screw M5 x 10 **[21] <21>** ..... 5.9 ± 1.5 N·m (60 ± 15 kgf·cm, 4.3 ± 1.1 ft-lbs.)

8-5. Wiring Diagram

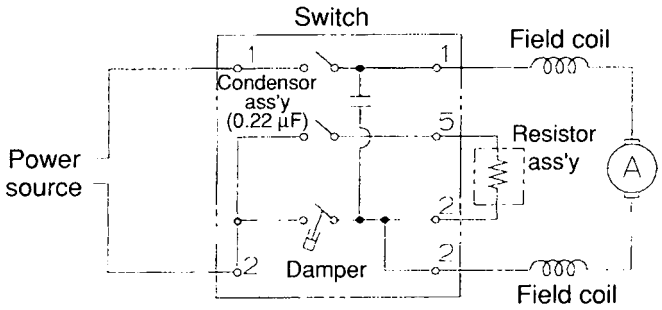
(1) Models G 18SR/G 23SR

Wiring dia.



(2) Models G 18SRU/G 23SRU

Wiring dia.



8-6. Insulation Tests

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

Insulation resistance: After switch is turned on, more than 10 M Ω by 500 V DC megohm meter between live parts and accessible metal parts.

Dielectric strength: After switch is turned on, there must be no trouble when the voltage indicated below is provided between live parts and accessible metal parts.

Less than 150 V of rated voltage: 3,000 V x 3 sec.

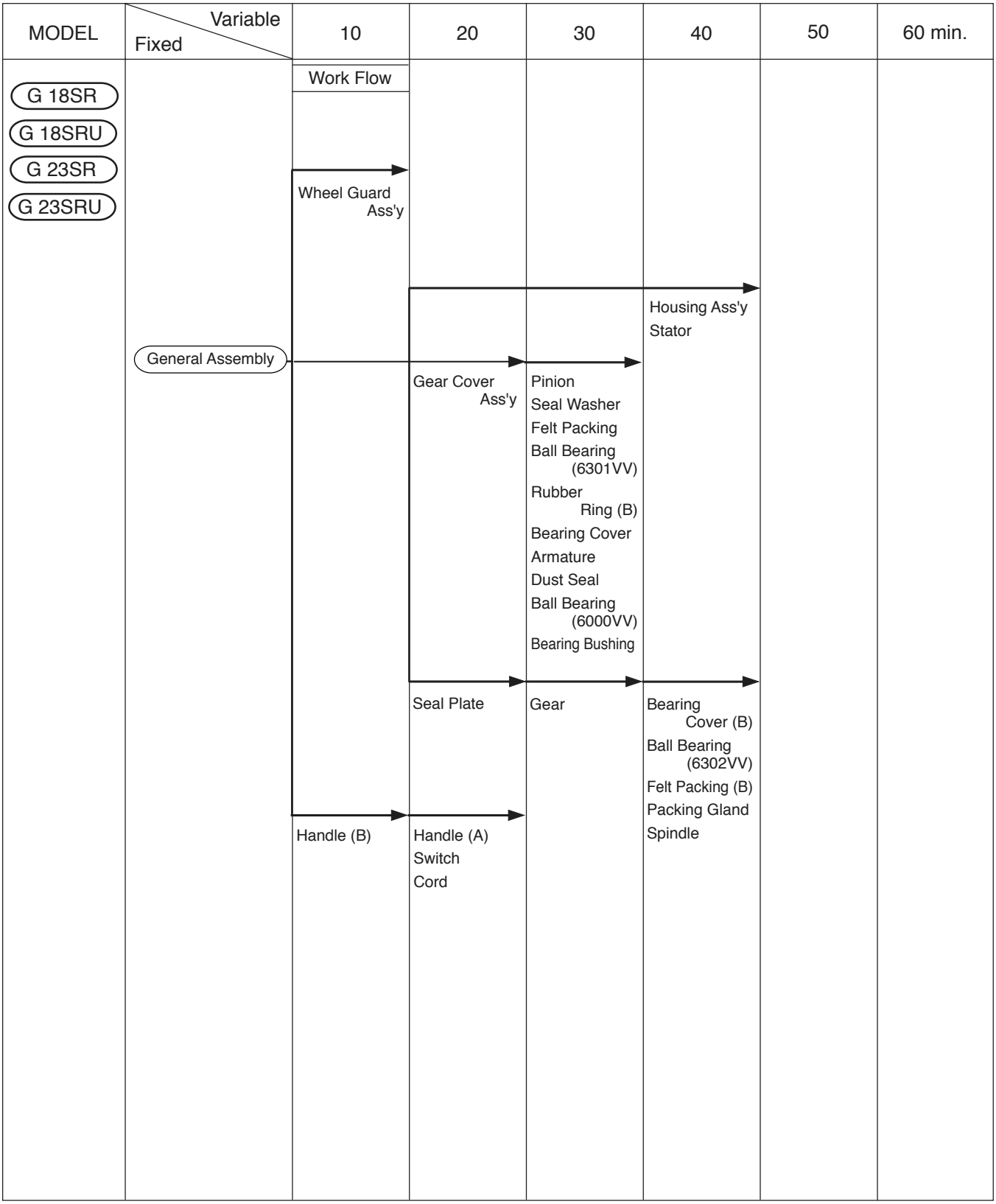
More than 150 V of rated voltage: 4,400 V x 3 sec.

8-7. No-load Current Value

After no-load operation for 30 minutes, the no-load current value should be as follows.

Voltage (V)	110	220	230	240
Current (A) max.	8.0	3.6	3.9	3.8

9. STANDARD REPAIR TIME (UNIT) SCHEDULES



Hitachi Power Tools

LIST NO. E275

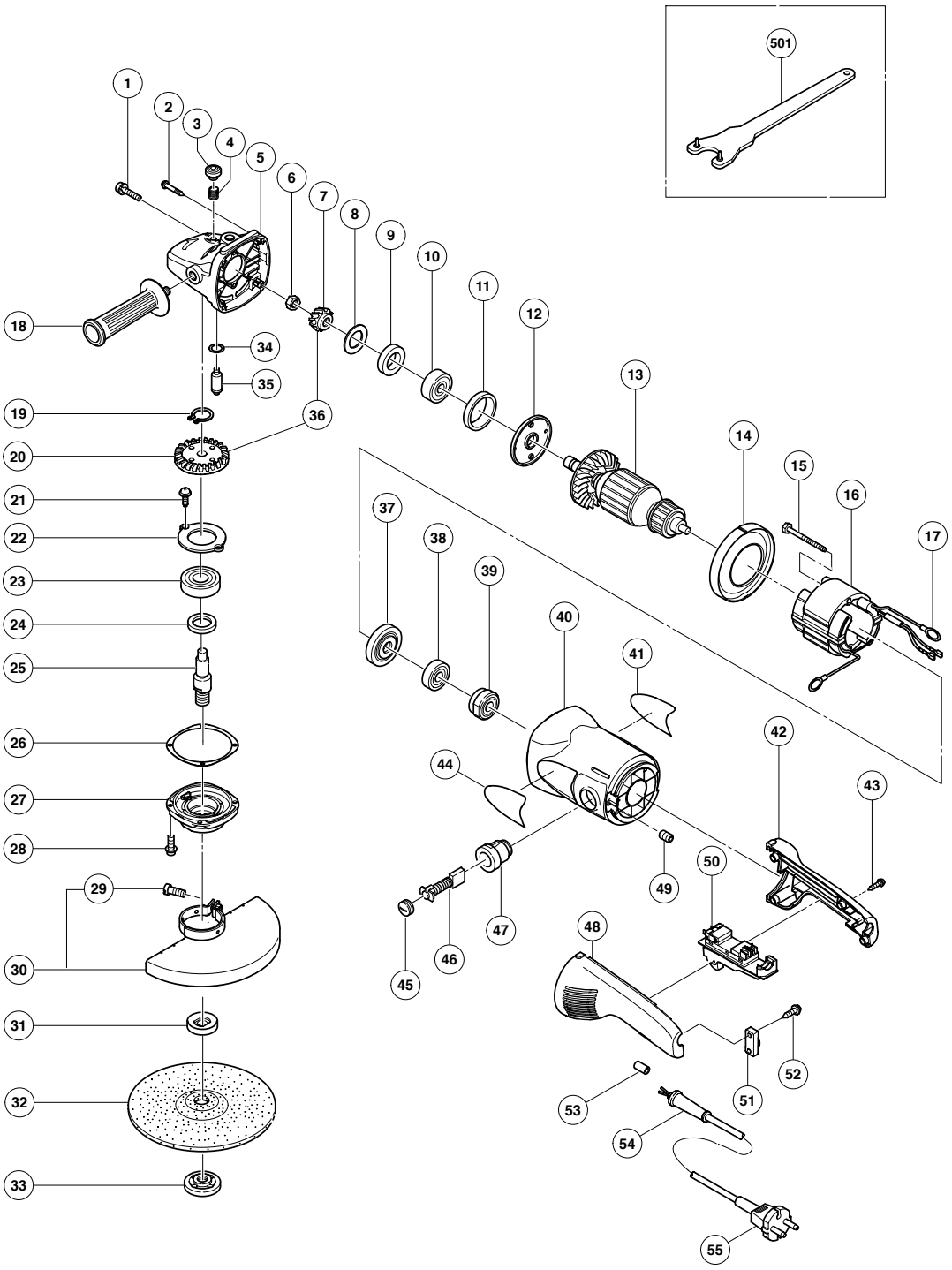
ELECTRIC TOOL PARTS LIST

■ DISC GRINDER

2006 · 4 · 14

Model G 18SR

(E1)



ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS	
1	315-636	SEAL LOCK SCREW (W/SP. WASHER) M5X14 (BLACK)	2		
2	323-209	TAPPING SCREW (W/FLANGE) D5X35 (BLACK)	4		
3	306-888	PUSHING BUTTON	1		
4	320-219	SPRING	1		
5	320-217	GEAR COVER ASS'Y	1	INCLUD. 3, 4, 34, 35	
6	320-226	SPECIAL NUT M10	1		
7	320-225	PINION	1		
8	320-221	SEAL WASHER	1		
9	320-222	FELT PACKING	1		
10	630-1VV	BALL BEARING 6301VVCMPS2L	1		
11	994-208	RUBBER RING (B)	1		
12	320-220	BEARING COVER (A)	1		
13	360-762E	ARMATURE 220V-240V	1		
14	320-215	FAN GUIDE	1		
15	961-501	HEX. HD. TAPPING SCREW D5X60	2		
16	340-664E	STATOR ASS'Y 220V-230V	1	INCLUD. 17	
17	958-032	BRUSH TERMINAL	2		
18	937-981	SIDE HANDLE FOR M14	1		
19	939-542	RETAINING RING FOR D12 SHAFT (10 PCS.)	1		
20	320-224	GEAR	1		
21	949-236	MACHINE SCREW M5X10 (10 PCS.)	2		
22	320-229	BEARING COVER (B)	1		
23	630-2VV	BALL BEARING 6302VVCMPS2L	1		
24	990-852	FELT PACKING (B)	1		
25	320-234	SPINDLE	1		
26	320-228	SEAL PLATE	1		
27	320-227	PACKING GLAND	1		
28	994-192	HEX. SOCKET HD. BOLT (W/FLANGE) M5X16	4		
29	306-887	BOLT M8X22	1		
30	306-124	WHEEL GUARD ASS'Y	1		
31	937-907Z	WHEEL WASHER (A)	1		
32	316-824	D. C. WHEELS 180MM A24R (25 PCS.)	1		
33	937-909Z	WHEEL NUT M14X2	1		
34	320-218	O-RING	1		
35	306-890	LOCK PIN	1		
36	320-223	GEAR AND PINION ASS'Y	1	INCLUD. 7, 20	
37	320-216	DUST SEAL	1		
38	600-0VV	BALL BEARING 6000VVCMPS2L	1		
39	321-536	BEARING BUSHING	1		
40	325-640	HOUSING	1	INCLUD. 39, 47, 49	
41		HITACHI LABEL	1		
42	325-641	HANDLE (B)	1		
43	305-812	TAPPING SCREW (W/FLANGE) D4X16 (BLACK)	4		
44		NAME PLATE	1		
45	940-540	BRUSH CAP	2		
46	999-044	CARBON BRUSH (1 PAIR)	1		
46	999-074	CARBON BRUSH (AUTO STOP TYPE) (1 PAIR)	1		
47	980-487	BRUSH HOLDER	2		
48	325-642	HANDLE (A)	1		
49	938-477	HEX. SOCKET SET SCREW M5X8	2		
* 50	320-239	SWITCH (2P PILLAR TYPE) W/SAFETY LOCK	1	W/LOCK	

	ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS	
*	50	320-238	SWITCH (2P PILLAR TYPE) W/SAFETY LOCK	1	OFF/LOCK	
	51	960-266	CORD CLIP	1		
	52	984-750	TAPPING SCREW (W/FLANGE) D4X16	2		
	53	981-373	TUBE (D)	2	FOR CORD	
*	54	940-778	CORD ARMOR D10.7	1		
*	54	958-049	CORD ARMOR D8.2	1		
*	55	500-247Z	CORD	1	(CORD ARMOR D10.7) FOR EUROPE	
*	55	500-234Z	CORD	1	(CORD ARMOR D8.2) FOR SYR, IND, INA	

STANDARD ACCESSORIES

ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS	
501	325-491	WRENCH	1		

OPTIONAL ACCESSORIES

ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS	
601	323-993	PIPE HANDLE SET	1	INCLUD. 602	
602	985-597	BOLT M14	2		
603	310-337	SUPER WASHER	1		

* ALTERNATIVE PARTS

Printed in Japan 4 – 06
(060414N)

Hitachi Power Tools

LIST NO. E276

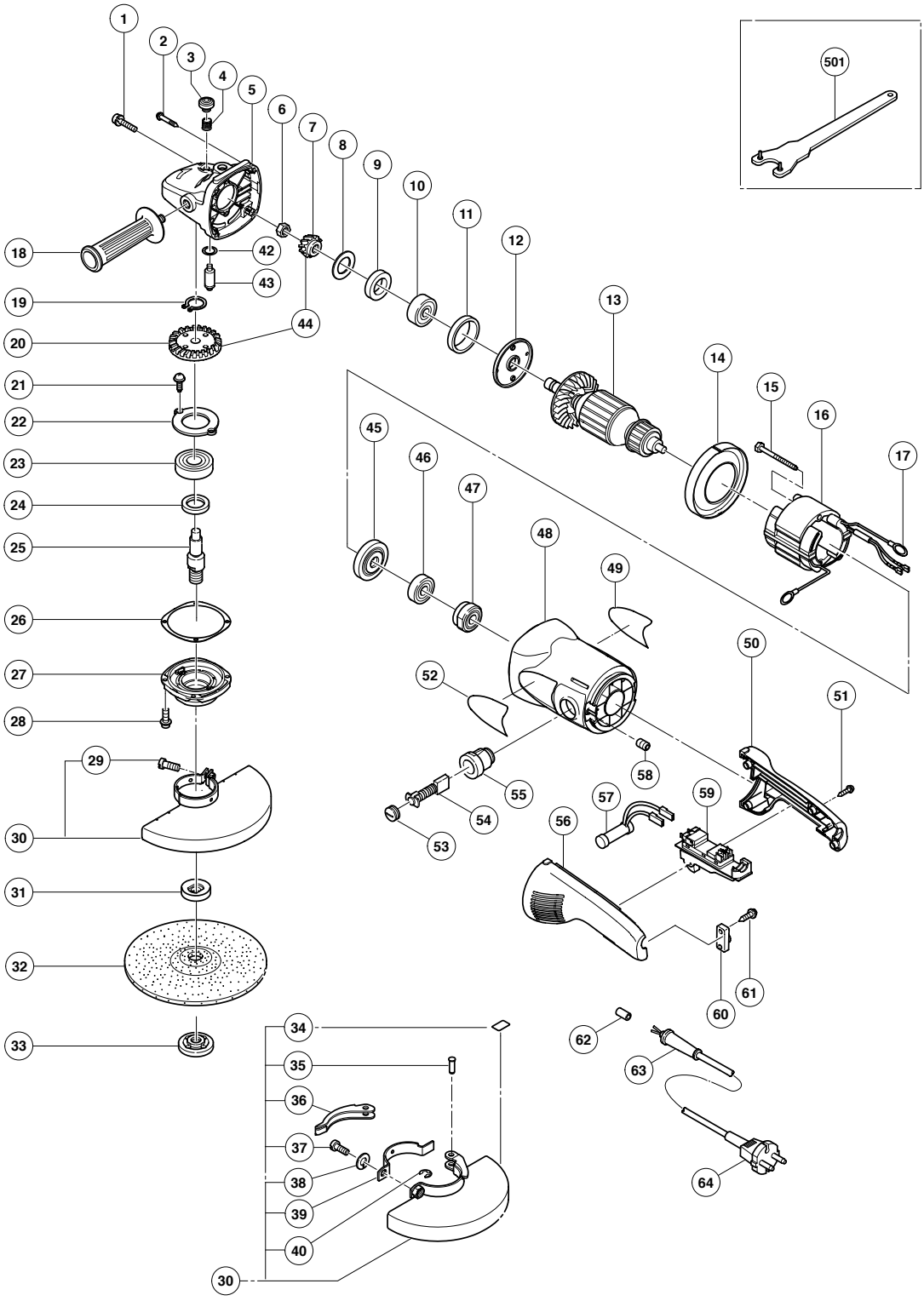
ELECTRIC TOOL PARTS LIST

■ DISC GRINDER

2006 · 4 · 14

Model G 18SRU

(E1)



	ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS	
	1	315-636	SEAL LOCK SCREW (W/SP. WASHER) M5X14 (BLACK)	2		
	2	323-209	TAPPING SCREW (W/FLANGE) D5X35 (BLACK)	4		
	3	306-888	PUSHING BUTTON	1		
	4	320-219	SPRING	1		
	5	320-217	GEAR COVER ASS'Y	1	INCLUD. 3, 4, 42, 43	
	6	320-226	SPECIAL NUT M10	1		
	7	320-225	PINION	1		
	8	320-221	SEAL WASHER	1		
	9	320-222	FELT PACKING	1		
	10	630-1VV	BALL BEARING 6301VVCMPS2L	1		
	11	994-208	RUBBER RING (B)	1		
	12	320-220	BEARING COVER (A)	1		
	13	360-762E	ARMATURE 220V-240V	1		
	14	320-215	FAN GUIDE	1		
	15	961-501	HEX. HD. TAPPING SCREW D5X60	2		
	16	340-664E	STATOR ASS'Y 220V-230V	1	INCLUD. 17	
	17	958-032	BRUSH TERMINAL	2		
	18	937-981	SIDE HANDLE FOR M14	1		
	19	939-542	RETAINING RING FOR D12 SHAFT (10 PCS.)	1		
	20	320-224	GEAR	1		
	21	949-236	MACHINE SCREW M5X10 (10 PCS.)	2		
	22	320-229	BEARING COVER (B)	1		
	23	630-2VV	BALL BEARING 6302VVCMPS2L	1		
	24	990-852	FELT PACKING (B)	1		
	25	320-234	SPINDLE	1		
	26	320-228	SEAL PLATE	1		
	27	320-227	PACKING GLAND	1		
	28	994-192	HEX. SOCKET HD. BOLT (W/FLANGE) M5X16	4		
*	29	306-887	BOLT M8X22	1	EXCEPT FOR HOL	
*	30	306-124	WHEEL GUARD ASS'Y	1	INCLUD. 29	
*	30	321-543	WHEEL GUARD ASS'Y	1	INCLUD. 34-40 FOR HOL	
	31	937-907Z	WHEEL WASHER (A)	1		
	32	316-824	D. C. WHEELS 180MM A24R (25 PCS.)	1		
	33	937-909Z	WHEEL NUT M14X2	1		
*	34	311-492	LABEL	1	FOR HOL	
*	35	321-546	SET PIN	1	FOR HOL	
*	36	321-545	LEVER	1	FOR HOL	
*	37	306-887	BOLT M8X22	1	FOR HOL	
*	38	949-457	SPRING WASHER M8 (10 PCS.)	1	FOR HOL	
*	39	321-544	SET PIECE	1	FOR HOL	
*	40	673-489	RETAINING RING (E-TYPE) FOR D5 SHAFT	1	FOR HOL	
	42	320-218	O-RING	1		
	43	306-890	LOCK PIN	1		
	44	320-223	GEAR AND PINION ASS'Y	1	INCLUD. 7, 20	
	45	320-216	DUST SEAL	1		
	46	600-0VV	BALL BEARING 6000VVCMPS2L	1		
	47	321-536	BEARING BUSHING	1		
	48	325-640	HOUSING	1	INCLUD. 47, 55, 58	
	49		HITACHI LABEL	1		
	50	325-641	HANDLE (B)	1		
	51	305-812	TAPPING SCREW (W/FLANGE) D4X16 (BLACK)	4		

ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS	
52		NAME PLATE	1		
53	940-540	BRUSH CAP	2		
54	999-044	CARBON BRUSH (1 PAIR)	1		
54	999-074	CARBON BRUSH (AUTO STOP TYPE) (1 PAIR)	1		
55	980-487	BRUSH HOLDER	2		
56	325-642	HANDLE (A)	1		
57	320-236	RESISTOR	1		
58	938-477	HEX. SOCKET SET SCREW M5X8	2		
59	320-235	SWITCH (2P PILLAR TYPE) W/SAFETY LOCK	1		
60	960-266	CORD CLIP	1		
61	984-750	TAPPING SCREW (W/FLANGE) D4X16	2		
62	981-373	TUBE (D)	2	FOR CORD	
63	940-778	CORD ARMOR D10.7	1		
64	500-247Z	CORD	1	(CORD ARMOR D10.7)	

STANDARD ACCESSORIES

ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS	
501	325-491	WRENCH	1		

OPTIONAL ACCESSORIES

ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS	
601	323-993	PIPE HANDLE SET	1	INCLUD. 602	
602	985-597	BOLT M14	2		
603	310-337	SUPER WASHER	1		

Hitachi Power Tools

LIST NO. E273

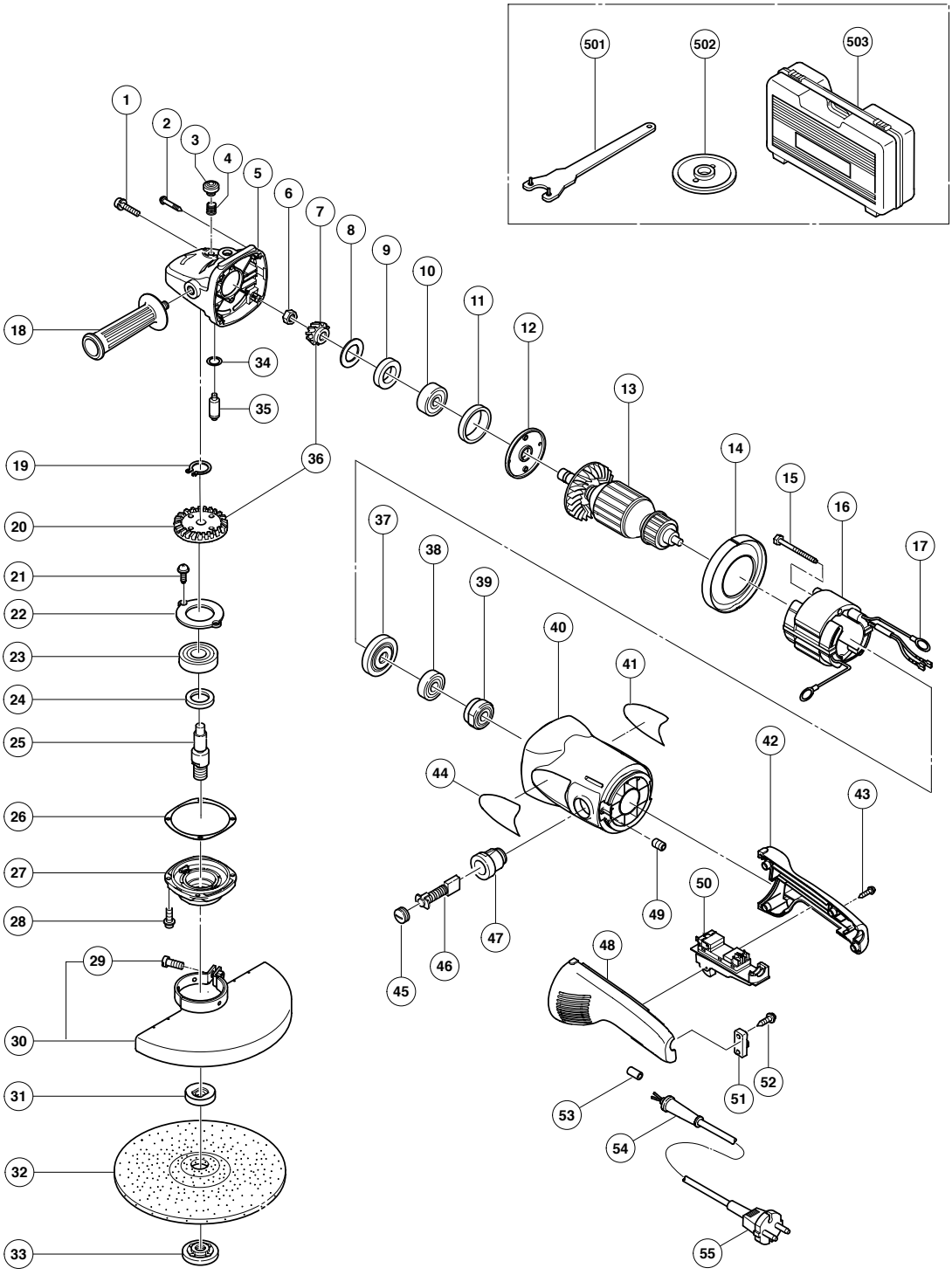
ELECTRIC TOOL PARTS LIST

■ DISC GRINDER

2006 · 4 · 14

Model G 23SR

(E1)



	ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS	
	1	315-636	SEAL LOCK SCREW (W/SP. WASHER) M5X14 (BLACK)	2		
	2	323-209	TAPPING SCREW (W/FLANGE) D5X35 (BLACK)	4		
	3	306-888	PUSHING BUTTON	1		
	4	320-219	SPRING	1		
	5	320-217	GEAR COVER ASS'Y	1	INCLUD. 3, 4, 34, 35	
	6	320-226	SPECIAL NUT M10	1		
	7	320-225	PINION	1		
	8	320-221	SEAL WASHER	1		
	9	320-222	FELT PACKING	1		
	10	630-1VV	BALL BEARING 6301VVCMPS2L	1		
	11	994-208	RUBBER RING (B)	1		
	12	320-220	BEARING COVER (A)	1		
*	13	360-762C	ARMATURE 110V	1		
*	13	360-762E	ARMATURE 220V-240V	1		
	14	320-215	FAN GUIDE	1		
	15	961-501	HEX. HD. TAPPING SCREW D5X60	2		
*	16	340-664C	STATOR ASS'Y 110V	1	INCLUD. 17	
*	16	340-664E	STATOR ASS'Y 220V-230V	1	INCLUD. 17	
*	16	340-664F	STATOR ASS'Y 240V	1	INCLUD. 17	
	17	958-032	BRUSH TERMINAL	2		
	18	937-981	SIDE HANDLE FOR M14	1		
	19	939-542	RETAINING RING FOR D12 SHAFT (10 PCS.)	1		
	20	320-224	GEAR	1		
	21	949-236	MACHINE SCREW M5X10 (10 PCS.)	2		
	22	320-229	BEARING COVER (B)	1		
	23	630-2VV	BALL BEARING 6302VVCMPS2L	1		
	24	990-852	FELT PACKING (B)	1		
	25	320-234	SPINDLE	1		
	26	320-228	SEAL PLATE	1		
	27	320-227	PACKING GLAND	1		
	28	994-192	HEX. SOCKET HD. BOLT (W/FLANGE) M5X16	4		
	29	306-887	BOLT M8X22	1		
	30	306-120	WHEEL GUARD ASS'Y	1	INCLUD. 29	
*	31	937-907Z	WHEEL WASHER (A)	1		
*	31	937-908Z	WHEEL WASHER (B)	1	FOR AUS	
	32	316-825	D. C. WHEELS 230MM A24R (25 PCS.)	1		
	33	937-909Z	WHEEL NUT M14X2	1		
	34	320-218	O-RING	1		
	35	306-890	LOCK PIN	1		
	36	320-223	GEAR AND PINION ASS'Y	1	INCLUD. 7, 20	
	37	320-216	DUST SEAL	1		
	38	600-0VV	BALL BEARING 6000VVCMPS2L	1		
	39	321-536	BEARING BUSHING	1		
	40	325-640	HOUSING	1	INCLUD. 39, 47, 49	
	41		HITACHI LABEL	1		
	42	325-641	HANDLE (B)	1		
	43	305-812	TAPPING SCREW (W/FLANGE) D4X16 (BLACK)	4		
	44		NAME PLATE	1		
	45	940-540	BRUSH CAP	2		
	46	999-044	CARBON BRUSH (1 PAIR)	1		
	46	999-074	CARBON BRUSH (AUTO STOP TYPE) (1 PAIR)	1		

	ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS	
	47	980-487	BRUSH HOLDER	2		
	48	325-642	HANDLE (A)	1		
	49	938-477	HEX. SOCKET SET SCREW M5X8	2		
*	50	320-238	SWITCH (2P PILLAR TYPE) W/SAFETY LOCK	1	OFF/LOCK	
*	50	320-239	SWITCH (2P PILLAR TYPE) W/SAFETY LOCK	1	W/LOCK	
	51	960-266	CORD CLIP	1		
	52	984-750	TAPPING SCREW (W/FLANGE) D4X16	2		
*	53	981-373	TUBE (D)	1		
*	53	961-820	TUBE (D)	2	FOR GBR (110V)	
*	54	958-049	CORD ARMOR D8.2	1		
*	54	940-778	CORD ARMOR D10.7	1		
*	55	500-247Z	CORD	1	(CORD ARMOR D10.7)	
*	55	500-450Z	CORD	1	(CORD ARMOR D10.7) FOR GBR (230V)	
*	55	500-246Z	CORD	1	(CORD ARMOR D10.7) FOR GBR (110V)	
*	55	500-245Z	CORD	1	(CORD ARMOR D10.7) FOR SYR	
*	55	500-234Z	CORD	1	(CORD ARMOR D8.2) FOR IND, INA	
*	55	500-439Z	CORD	1	(CORD ARMOR D8.2) FOR AUS	

STANDARD ACCESSORIES

	ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS	
	501	325-491	WRENCH	1		
*	502	937-917Z	WHEEL NUT (B)	1	FOR AUS	
*	503	326-175	CASE	1	FOR EUROPE	

OPTIONAL ACCESSORIES

ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS	
601	323-993	PIPE HANDLE SET	1	INCLUD. 602	
602	985-597	BOLT M14	2		
603	310-337	SUPER WASHER	1		

* ALTERNATIVE PARTS

Printed in Japan 4 – 06
(060414N)

Hitachi Power Tools

LIST NO. E274

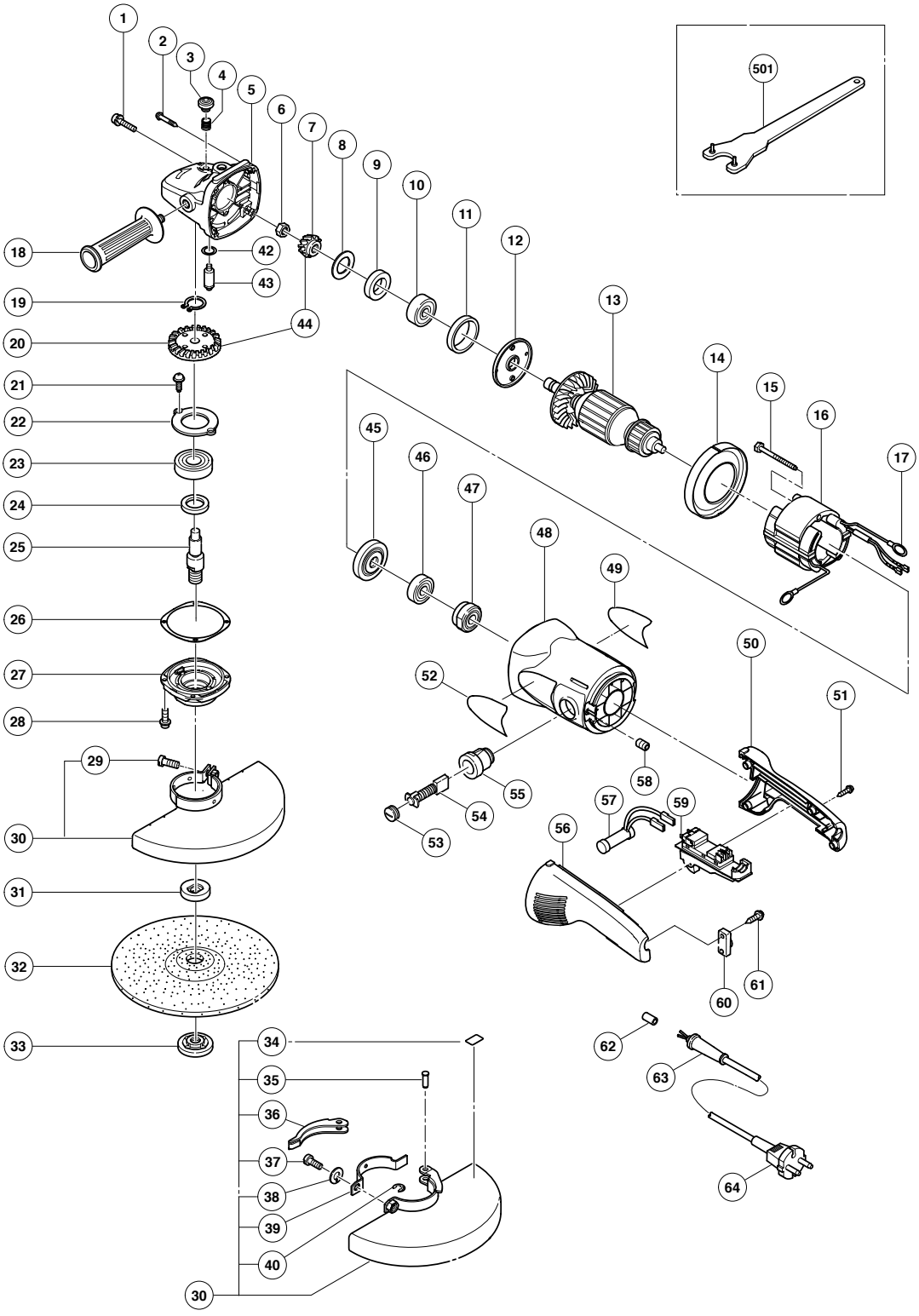
ELECTRIC TOOL PARTS LIST

■ DISC GRINDER

2006 · 4 · 14

Model G 23SRU

(E1)



	ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS	
	1	315-636	SEAL LOCK SCREW (W/SP. WASHER) M5X14 (BLACK)	2		
	2	323-209	TAPPING SCREW (W/FLANGE) D5X35 (BLACK)	4		
	3	306-888	PUSHING BUTTON	1		
	4	320-219	SPRING	1		
	5	320-217	GEAR COVER ASS'Y	1	INCLUD. 3, 4, 42, 43	
	6	320-226	SPECIAL NUT M10	1		
	7	320-225	PINION	1		
	8	320-221	SEAL WASHER	1		
	9	320-222	FELT PACKING	1		
	10	630-1VV	BALL BEARING 6301VVCMPS2L	1		
	11	994-208	RUBBER RING (B)	1		
	12	320-220	BEARING COVER (A)	1		
	13	360-762E	ARMATURE 220V-240V	1		
	14	320-215	FAN GUIDE	1		
	15	961-501	HEX. HD. TAPPING SCREW D5X60	2		
	16	340-664E	STATOR ASS'Y 220V-230V	1	INCLUD. 17	
	17	958-032	BRUSH TERMINAL	2		
	18	937-981	SIDE HANDLE FOR M14	1		
	19	939-542	RETAINING RING FOR D12 SHAFT (10 PCS.)	1		
	20	320-224	GEAR	1		
	21	949-236	MACHINE SCREW M5X10 (10 PCS.)	2		
	22	320-229	BEARING COVER (B)	1		
	23	630-2VV	BALL BEARING 6302VVCMPS2L	1		
	24	990-852	FELT PACKING (B)	1		
	25	320-234	SPINDLE	1		
	26	320-228	SEAL PLATE	1		
	27	320-227	PACKING GLAND	1		
	28	994-192	HEX. SOCKET HD. BOLT (W/FLANGE) M5X16	4		
*	29	306-887	BOLT M8X22	1	EXCEPT FOR HOL	
*	30	306-120	WHEEL GUARD ASS'Y	1		
*	30	321-547	WHEEL GUARD ASS'Y	1	INCLUD. 34-40 FOR HOL	
	31	937-909Z	WHEEL NUT M14X2	1		
	32	316-825	D. C. WHEELS 230MM A24R (25 PCS.)	1		
	33	937-907Z	WHEEL WASHER (A)	1		
*	34	311-492	LABEL	1	FOR HOL	
*	35	321-546	SET PIN	1	FOR HOL	
*	36	321-545	LEVER	1	FOR HOL	
*	37	306-887	BOLT M8X22	1	FOR HOL	
*	38	949-457	SPRING WASHER M8 (10 PCS.)	1	FOR HOL	
*	39	321-544	SET PIECE	1	FOR HOL	
*	40	673-489	RETAINING RING (E-TYPE) FOR D5 SHAFT	1	FOR HOL	
	42	320-218	O-RING	1		
	43	306-890	LOCK PIN	1		
	44	320-223	GEAR AND PINION ASS'Y	1	INCLUD. 7, 20	
	45	320-216	DUST SEAL	1		
	46	600-0VV	BALL BEARING 6000VVCMPS2L	1		
	47	321-536	BEARING BUSHING	1		
	48	325-640	HOUSING	1	INCLUD. 47, 55, 58	
	49		HITACHI LABEL	1		
	50	325-641	HANDLE (B)	1		
	51	305-812	TAPPING SCREW (W/FLANGE) D4X16 (BLACK)	4		

	ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS	
	52		NAME PLATE	1		
	53	940-540	BRUSH CAP	2		
	54	999-044	CARBON BRUSH (1 PAIR)	1		
	54	999-074	CARBON BRUSH (AUTO STOP TYPE) (1 PAIR)	1		
	55	980-487	BRUSH HOLDER	2		
	56	325-642	HANDLE (A)	1		
	57	320-236	RESISTOR	1		
	58	938-477	HEX. SOCKET SET SCREW M5X8	2		
	59	320-235	SWITCH (2P PILLAR TYPE) W/SAFETY LOCK	1		
	60	960-266	CORD CLIP	1		
	61	984-750	TAPPING SCREW (W/FLANGE) D4X16	2		
	62	981-373	TUBE (D)	2	FOR CORD	
	63	940-778	CORD ARMOR D10.7	1		
*	64	500-247Z	CORD	1	(CORD ARMOR D10.7)	
*	64	500-248Z	CORD	1	(CORD ARMOR D10.7) FOR SUI	

STANDARD ACCESSORIES

ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS	
501	325-491	WRENCH	1		

OPTIONAL ACCESSORIES

ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS	
601	323-993	PIPE HANDLE SET	1	INCLUD. 602	
602	985-597	BOLT M14	2		
603	310-337	SUPER WASHER	1		

Hitachi Koki Co., Ltd.

Tokyo Japan