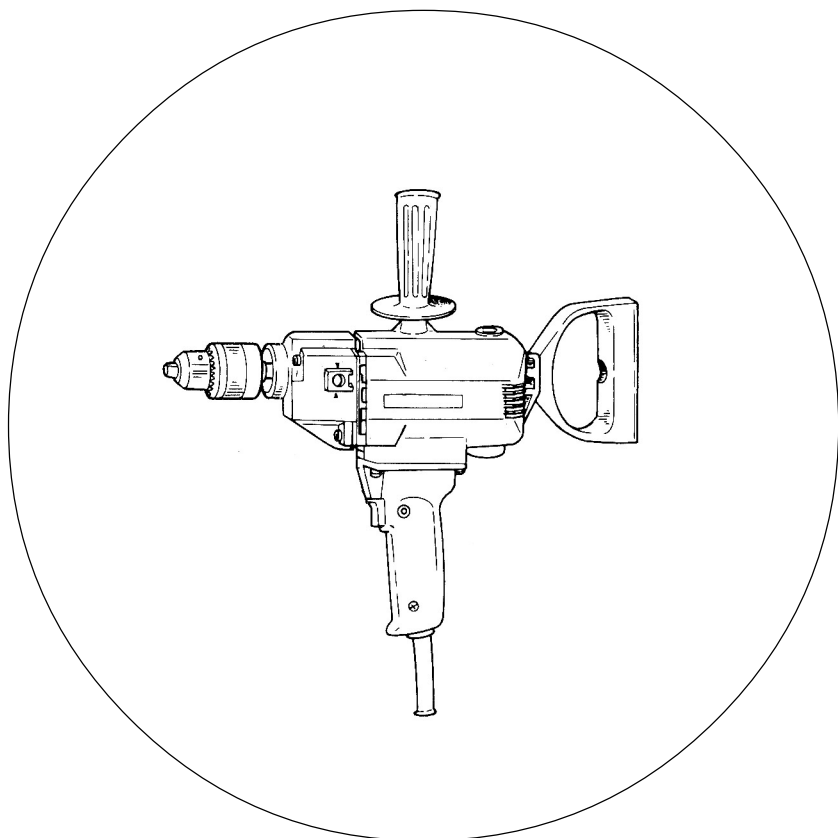


HITACHI

日立牌电钻 Drill

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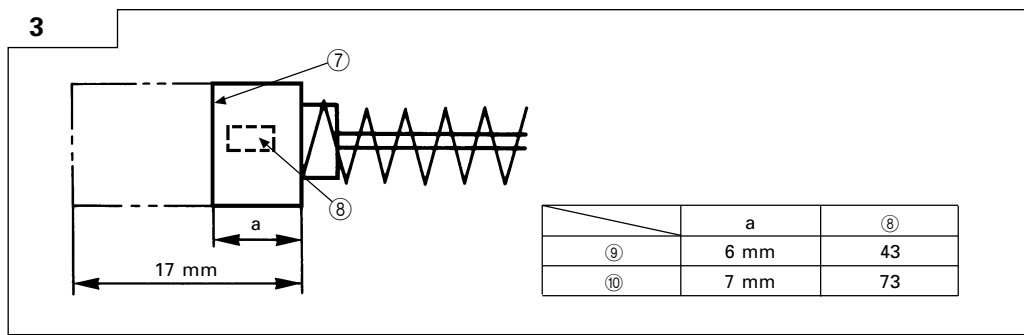
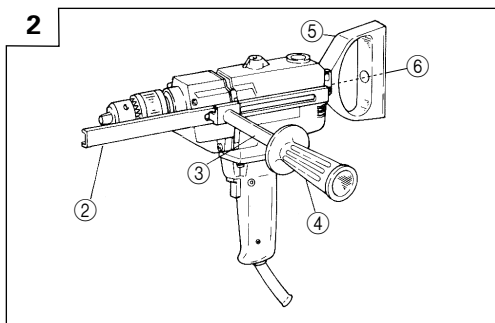
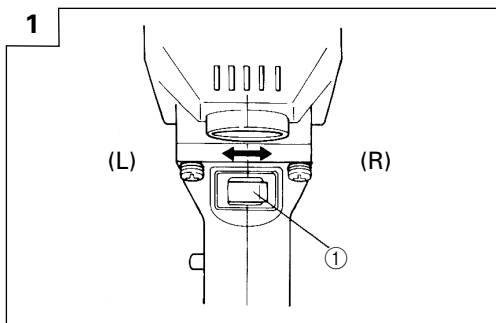
使用说明书
Handling instructions



使用前务请详加阅读。

Read through carefully and understand these instructions before use.

Hitachi Koki



①	杆	Lever
②	深度量规	Depth stopper
③	柄接合	Handle joint
④	边柄	Side handle
⑤	铲柄	Spade handle
⑥	螺栓	Bolt
⑦	磨损极限	Wear limit
⑧	碳刷号	No. of carbon brush
⑨	通常碳刷	Usual carbon brush
⑩	自动停止碳刷	Auto-Stop carbon brush

一般安全规则

警告！

阅读说明

没有按照以下列举的说明而使用或操作将导致触电、着火和/或严重伤害。

在所有以下列举的警告中术语“电动工具”指市电驱动（有线）电动工具或电池驱动（无线）电动工具。

保存这些说明

1) 工作场地

- a) 保持工作场地清洁和明亮。
混乱和黑暗的场地会引发事故。
- b) 不要在易爆环境，如有易燃液体、气体或粉尘的环境下操作电动工具。
电动工具产生的火花会点燃粉尘或气体。
- c) 让儿童和旁观者离开后操纵电动工具。
分心会使你放松控制。

2) 电气安全

- a) 电动工具插头必须与插座相配。
绝不能以任何方式改装插头。
需接地的电动工具不能使用任何转换插头。
未经改装的插头和相配的插座将减少触电危险。
- b) 避免人体接触接地表面，如管道、散热片和冰箱。
如果你身体接地会增加触电危险。
- c) 不得将电动工具暴露在雨中或潮湿环境中。
水进入电动工具将增加触电危险。
- d) 不得滥用电线。
绝不能用电线搬运、拉动电动工具或拔出其插头。
让电动工具远离热、油、锐边或运动部件。
受损或缠绕的电线会增加触电危险。
- e) 当在户外使用电动工具时，使用适合户外使用的外接电线。
适合户外使用的电线将减少触电危险。

3) 人身安全

- a) 保持警觉，当操作电动工具时关注所从事的操作并保持清醒。
切勿在有疲倦、药物、酒精或治疗反应下操作电动工具。
在操作电动工具期间精力分散会导致严重人身伤害。
- b) 使用安全装置。始终配戴护目镜。
安全装置，诸如适当条件下的防尘面具、防滑安全鞋、安全帽、听力防护等装置能减少人身伤害。
- c) 避免突然起动。
确保开关在插入插头时处于关断位置。
手指放在已接通电源的开关上或开关处于接通时插入插头可能会导致危险。

- d) 在电动工具接通之前，拿掉所有调节钥匙或扳手。
遗留在电动工具旋转零件上的扳手或钥匙会导致人身伤害。

- e) 手不要伸得太长。
时刻注意脚下和身体平衡。
这样在意外情况下能很好地控制电动工具。
- f) 着装适当。
不要穿宽松衣服或佩带饰品。
让你的头发、衣服和袖子远离运动部件。
宽松衣服、佩饰或长发可能会卷入运动部件。
- g) 如果提供了与排屑装置、集尘设备连接用的装置，则确保他们连接完好且使用得当。
使用这些装置可减少碎屑引起的危险。

4) 电动工具使用和主事项

- a) 不要滥用电动工具，根据用途使用适当的电动工具。
选用适当的设计额定值的电动工具会使你工作更有效、更安全。
- b) 如果开关不能接通或关断工具电源，则不能使用该电动工具。
不能用开关来控制的电动工具是危险的且必须进行修理。
- c) 在进行任何调节、更换附件或贮存电动工具之前，必须从电源上拔掉插头和/或将电池盒断开电源。
这种防护性措施将减少电动工具突然起动的危险。
- d) 将闲置电动工具贮存在儿童所及范围之外，并且不要让不熟悉电动工具或对这些说明不了解的人操作电动工具。
电动工具在未经训练的用户手中是危险的。
- e) 保养电动工具。检查运动件的安装偏差或卡住、零件破损情况和影响电动工具运行的其他条件。
如有损坏，电动工具必须在使用前修理好。
许多事故由维护不良的电动工具引发。
- f) 保持切削刀具锋利和清洁。
保养良好的有锋利切削刃的刀具不易卡住而且容易控制。
- g) 按照使用说明书以及打算使用的电动工具的特殊类型要求的方式，考虑作业条件和进行的作业来使用电动工具、附件和工具的刀头等。
将电动工具用作那些与要求不符的操作可能会导致危险情况。

5) 维修

- a) 将你的电动工具送交专业维修人员，必须使用同样的备件进行更换。
这样将确保所维修的电动工具的安全性。

注意事项

不可让儿童和体弱人士靠近工作场所。
应将不使用的工具存放在儿童和体弱人士接触不到的地方。

使用电钻时应注意事项

1. 用力钻孔时请佩戴护耳罩。
噪音会导致听力丧失。
2. 使用工具附带的辅助把手。
失去控制会导致人身伤害。
3. 切勿戴手套进行作业。
有时旋转部件会卷入手套，从而导致严重受伤。
作业过程中切勿使用手套。
4. 用双手安装边柄，并稳稳地抓住电钻。
单手作业非常危险。请务必用双手安装边柄并抓住电钻。作业时抓拿电钻不当会导致严重受伤。
5. 在钻入墙壁、天花板和地板之前，务必确认其中没有埋设电线。

规格

电压（按地区）*	(110 V, 115 V, 120 V, 127 V, 220 V, 230 V, 240 V) ~	
电 压	720 W*	
空载转速	550 /分	
能 力	钢 铁	13 mm
	木 材	40 mm
重量（不含线缆和侧柄）	3 kg	

*当须改变地区时应检查产品上的铭牌。

标准附件

- (1) 卡盘扳手 1
 - (2) 边柄 1
- 标准附件可能不预先通告而径予更改。

选购附件（分开销售）

- (1) 柄接合
 - (2) 深度量规
- 选购附件可能不预先通告而径予更改。

用 途

- 在金属、木材和塑料上钻孔。

作 业 之 前

1. 电源
确认所使用的电源与产品名牌上标示的规格是否相符。
2. 电源开关
确认电源开关是否切断。若电源开关接通，则插头插入电源插座时电动工具将出其不意地立刻转动，从而招致严重事故。

3. 延伸线缆
若作业场所移到离开电源的地点，应使用容量足够、铠装合适的延伸线缆，并且要尽可能地短些。
4. 确认钻头旋转方向
当换向开关柄置于“R（右）”位置时，钻头顺时针旋转（后视），当换向开关柄置于“L（左）”位置时，钻头逆时针旋转。
5. 安装钻头
将钻头装入夹盘，然后用卡盘扳手将其固定，将夹盘扳手依次放在三个孔上，固定夹盘。
6. 选择合适的钻头
 - 在金属或塑料上钻孔时
使用普通的金工钻头。
尺寸范围为 1.2 mm 至夹盘最大容量。
 - 在木材上钻孔时
使用普通的木工钻头。
但是，当钻小于 6.5 mm 的孔时，请使用金工钻头。
7. 安装铲柄
铲柄可安装在电钻背面。将螺栓插入铲柄上的孔，把铲柄放到所需位置，然后拧紧螺栓。

8. 安装边柄

边柄钻入齿轮罩左侧或右侧的框架中。为了安全作业，有必要使用边柄。尤其在重负荷钻孔时，请使用柄接合和边柄。

9. 安装深度量规（选购附件）

可选购用于调整钻孔深度的深度量规。使用边柄或固定螺丝将深度量规安装到齿轮罩上。

实际操作步骤

1. 压力

不可通过在电钻上施加重压来加快钻孔速度。这样操作会损坏钻头、降低钻孔效率和/或缩短电钻使用寿命。

2. 使用大直径钻头

钻头直径越大，手臂受到的反作用力也越大。必须注意不要因反作用力而失去对电钻的控制。为了获得良好的控制，脚步要站稳，用双手握紧电钻，确保钻头与被钻面保持垂直。

3. 钻穿材料时

当钻头完全钻穿材料时，操作不小心经常会引起钻头突然移动而导致钻头断裂或电钻本身损坏。当钻穿材料时，请务必保持警惕，准备减少推力。

4. 开关操作

(1) 触发开关

拉动触发开关并压下制动器，保持开关位于ON（开）位置，便于连续钻孔。若要OFF（关）电钻电源，再次拉动触发开关，然后放开。

(2) 换向开关

通过操作换向开关，本电钻可顺时针旋转（用于钻孔）和逆时针旋转（用于松开钻头）。

注意

切勿在电动机转动时改变旋转方向。请在改变旋转方向之前关闭电源开关。

5. 钻孔注意事项

作业过程中钻头可能会过热；但是此时仍可正常作业。切勿在水或油中冷却钻头。

6. 使用完毕后的注意事项

使用完毕后，当电钻仍在旋转时，如果所放置的位置有大量碎土和灰尘，可能会把灰尘吸入电钻内部。请务必注意不要发生这种情况。

维护和检查

1. 检查钻头

继续使用已磨损或损伤的钻头，不仅使工作效率大为降低，同时又会导致电动机过载。因此，钻头必须时常检查，并根据情况需要换新件。

2. 检查安装螺钉

要经常检查安装螺钉是否紧固妥善。若发现螺钉松了，应立即重新扭紧，否则会导致严重事故。

3. 检查碳刷

电动机需使用消耗品碳刷。

碳刷磨损时，可能会出现电动机故障。当碳刷磨损到一定程度时，请更换新碳刷。请保持碳刷清洁，以便顺利滑入碳刷座。

更换新碳刷时，请务必根据显示编号使用用于日立牌电钻型号D13的两个碳刷。自动停止碳刷会在磨损到磨损极限时自动切断电路。

这可避免损坏整流器，也表示需要更换碳刷了。

4. 更换碳刷

用无头螺丝刀卸下碳刷盖，然后可以很容易地取下碳刷。

5. 电动机的维护

电动机绕线是电动工具的“心脏”。应仔细检查有无损伤，是否被油液或水沾湿。

6. 维修零部件一览表

A：项目号

B：代码号

C：使用数

D：备注

注意：

日立牌电动工具的维修、改造和检查须由经日立公司授权的维修中心进行。

当要求维修或其他保养服务时，若将此零部件一览表与电动工具一起呈交给经日立公司授权的维修中心，将有助于维修或保养工作。

在操作和维修电动工具时，必须遵守贵国制定的安全的有关规则和标准。

改造：

日立牌电动工具经常加以改善和改造以采用最新的先进技术。

因此，某些零部件（例如代码号和（或）设计）可能变更，恕不另行通知。

注：为求改进，本手册所载规格可能不预先通告而径予更改。

GENERAL SAFETY RULES

WARNING!

Read all instructions

Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

The term "power tool" in all of the warnings listed below refers to your mains operated (corded) power tool or battery operated (cordless) power tool.

SAVE THESE INSTRUCTIONS

1) Work area

- a) **Keep work area clean and well lit.**
Cluttered and dark areas invite accidents.
- b) **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.**
Power tools create sparks which may ignite the dust or fumes.
- c) **Keep children and bystanders away while operating a power tool.**
Distractions can cause you to lose control.

2) Electrical safety

- a) **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.**
Unmodified plugs and matching outlets will reduce risk of electric shock.
- b) **Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators.**
There is an increased risk of electric shock if your body is earthed or grounded.
- c) **Do not expose power tools to rain or wet conditions.**
Water entering a power tool will increase the risk of electric shock.
- d) **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.**
Damaged or entangled cords increase the risk of electric shock.
- e) **When operating a power tool outdoors, use an extension cord suitable for outdoor use.**
Use of a cord suitable for outdoor use reduces the risk of electric shock.

3) Personal safety

- a) **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.**
A moment of inattention while operating power tools may result in serious personal injury.
- b) **Use safety equipment. Always wear eye protection. Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.**
- c) **Avoid accidental starting. Ensure the switch is in the off position before plugging in.**
Carrying power tools with your finger on the switch or plugging in power tools that have the switch on invites accidents.

- d) **Remove any adjusting key or wrench before turning the power tool on.**
A wrench or a key left attached to a rotating part of the power tool may result in personal injury.

- e) **Do not overreach. Keep proper footing and balance at all times.**
This enables better control of the power tool in unexpected situations.

- f) **Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts.**
Loose clothes, jewellery or long hair can be caught in moving parts.

- g) **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.**
Use of these devices can reduce dust related hazards.

4) Power tool use and care

- a) **Do not force the power tool. Use the correct power tool for your application.**
The correct power tool will do the job better and safer at the rate for which it was designed.

- b) **Do not use the power tool if the switch does not turn it on and off.**
Any power tool that cannot be controlled with the switch is dangerous and must be repaired.

- c) **Disconnect the plug from the power source before making any adjustments, changing accessories, or storing power tools.**
Such preventive safety measures reduce the risk of starting the power tool accidentally.

- d) **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.**

- e) **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools operation. If damaged, have the power tool repaired before use.**
Many accidents are caused by poorly maintained power tools.

- f) **Keep cutting tools sharp and clean.**
Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

- g) **Use the power tool, accessories and tool bits etc., in accordance with these instructions and in the manner intended for the particular type of power tool, taking into account the working conditions and the work to be performed.**
Use of the power tool for operations different from intended could result in a hazardous situation.

5) Service

- a) **Have your power tool serviced by a qualified repair person using only identical replacement parts.**
This will ensure that the safety of the power tool is maintained.

PRECAUTION

- Keep children and infirm persons away. When not in use, tools should be stored out of reach of children and infirm persons.**

PRECAUTIONS ON USING DRILL

1. Wear ear protectors with impact drills.
Exposure to noise can cause hearing loss.
2. Use auxiliary handles supplied with the tool.
Loss of control can cause personal injury.
3. Never wear gloves during operation.
Gloves are sometimes caught by rotating parts, resulting in serious injury. Do not use gloves during operation.

SPECIFICATIONS

Voltage (by areas)*	(110V, 115V, 120V, 127V, 220V, 230V, 240V) ~	
Power input	720 W*	
No load speed	550 / min	
Capacity	Steel	13 mm
	Wood	40 mm
Weight (without cord)	3 kg	

*Be sure to check the nameplate on product as it is subject to change by areas.

STANDARD ACCESSORIES

- (1) Chuck wrench 1
(2) Side handle 1
Standard accessories are subject to change without notice.

OPTIONAL ACCESSORIES (sold separately)

- (1) Handle joint
(2) Depth Stopper
Optional accessories are subject to change without notice.

APPLICATIONS

- Drilling in metal, lumber and plastics.

PRIOR TO OPERATION

1. **Power source**
Ensure that the power source to be utilized conforms to the power requirements specified on the product nameplate.
2. **Power switch**
Ensure that the power switch is in the OFF position. If the plug is connected to a receptacle while the power switch is in the ON position, the power tool will start operating immediately, inviting serious accident.
3. **Extension cord**
When the work area is removed from the power source. Use an extension cord of sufficient thickness and rated capacity. The extension cord should be kept as short as practicable.
4. **Confirm the direction of bit rotation**
The drill bit rotates clockwise (when viewed from the rear) when the lever of the reversing switch is set to the "R" position, and rotates in the reverse direction when the lever of the reversing switch is set to the "L" position.

4. Install the side handle and hold the tool firmly with both hands.
One-hand operation is very dangerous. Always install the side handle and hold the tool with both hands. Holding the tool insufficiently can result in serious damage during operation.
5. Before drilling into walls ceilings or floors, ensure that there are no concealed power cables inside.

5. Fitting the drill bit

Fit the drill bit into the chuck and use the chuck key to secure it, tightening the chuck by each of the three holes in turn.

6. Selecting the appropriate drill bit

- When boring metal or plastic
Use ordinary metalworking drill bits.
Sizes range from a minimum of 1.2 mm to chuck maximum capacity.
- When boring wood
Use ordinary woodworking drill bits.
However, when drilling 6.5 mm or smaller holes, use a metalworking drill bit.

7. Installing spade handle

The spade handle can be installed on the back of the drill. Insert the bolt through the hole in the spade handle, locate the spade handle in the desired position and tighten the bolt firmly.

8. Installing the side handle

The side handle screws into the housing on either side of the gear cover. For safe operation, use of the side handle is necessary. Especially in heavy duty drilling, use handle joint and side handle.

9. Installing the depth stopper (optional accessory)

The depth stopper which is useful for adjusting the drilling depth is available. Install the depth stopper to the gear cover using the side handle or set screw.

PRACTICAL HANDLING PROCEDURES

1. Pressure

Drilling will NOT be accelerated by placing heavy pressure on the drill. Such action will only result in a damaged drill bit, decreased drilling efficiency, and/or shortened service life of the drill.

2. Using a large diameter drill bit

The larger the drill bit diameter, the larger the reactive force on your arm. Be careful not to lose control of the drill because of this reactive force. To maintain firm control, establish a good foothold,

hold the drill tightly with both hands, and ensure that the drill is vertical to the material being drilled.

3. When drilling completely through the material

When the drill bit bores completely through the material, careless handling often results in broken drill bit or damage to the drill body itself due to the sudden movement of the drill.

Always be alert and ready to release pushing force when drilling through the material.

4. Switch operation

(1) Trigger switch

By pulling the trigger switch and depressing the stopper, the switch is held in the ON position for continuous drilling. To turn the drill OFF, pull the trigger switch again and release.

(2) Reversing switch

This drill can rotate both clockwise (for drilling) and counterclockwise (for releasing the drill bit) by operating the reversing switch.

CAUTION

Never change the direction of rotation while the motor is rotating. Turn the power switch off before changing the direction of rotation.

5. Precautions on boring

The drill bit may become overheated during operation; however, it is sufficiently operable. Do not cool the drill bit in water or oil.

6. Caution concerning immediately after use

Immediately after use, while it is still revolving, if the Drill is placed on a location where considerable ground chips and dust have accumulated, dust may occasionally be absorbed into the drill mechanism. Always pay attention to this undesirable possibility.

5. Maintenance of the motor

The motor unit winding is the very "heart" of the power tool. Exercise due care to ensure the winding does not become damaged and/or wet with oil or water.

6. Service parts list

A: Item No.

B: Code No.

C: No. Used

D: Remarks

CAUTION

Repair, modification and inspection of Hitachi Power Tools must be carried out by a Hitachi Authorized Service Center.

This Parts List will be helpful if presented with the tool to the Hitachi Authorized Service Center when requesting repair or other maintenance.

In the operation and maintenance of power tools, the safety regulations and standards prescribed in each country must be observed.

MODIFICATION

Hitachi Power Tools are constantly being improved and modified to incorporate the latest technological advancements.

Accordingly, some parts (i.e. code numbers and/or design) may be changed without prior notice.

NOTE

Due to HITACHI's continuing program of research and development, the specifications herein are subject to change without prior notice.

MAINTENANCE AND INSPECTION

1. Inspecting the drill bits

Since use of an abraded drill bits will cause motor malfunctioning and degraded efficiency, replace the drill bits with a new one or resharpening without delay when abrasion is noted.

2. Inspecting the mounting screws

Regularly inspect all mounting screws and ensure that they are properly tightened. Should any of the screws be loose, retighten them immediately. Failure to do so could result in serious hazard.

3. Inspecting the carbon brushes

The motor employs carbon brushes which are consumable parts.

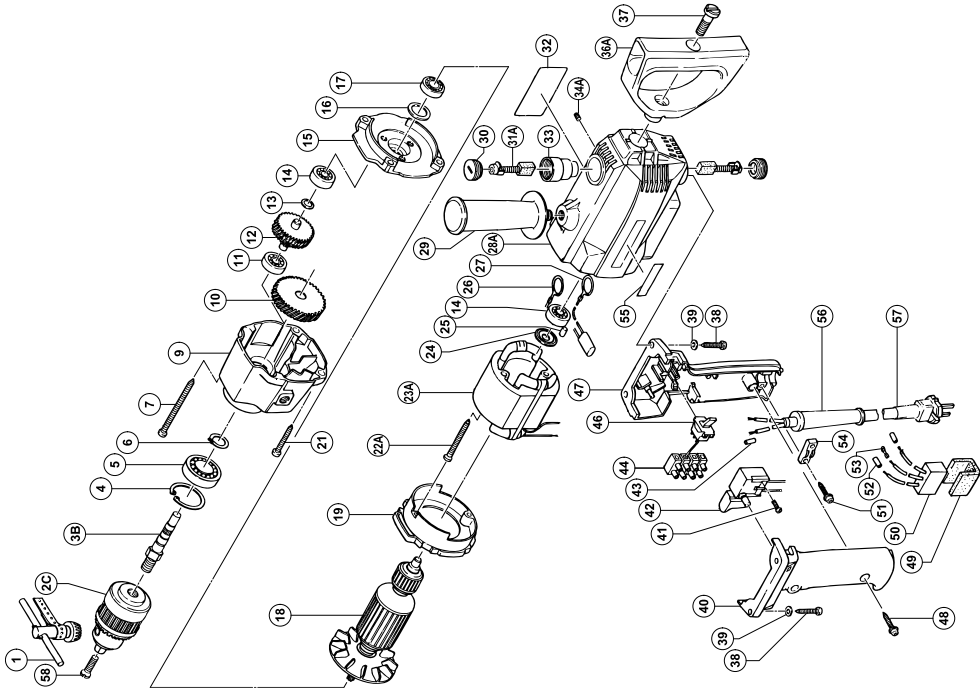
When the brushes are worn down, motor trouble may result. When the brushes are worn down to the limit line, replace the brushes with new ones. Keep the brushes clean, so that they smoothly slide into the brush holders.

When replacing the brushes with new ones, be sure to use a pair of brushes for HITACHI ELECTRIC DRILL Type D13 corresponding to the illustrated number. Auto-stop carbon brushes automatically cut off the electric circuit, when it is worn down to the wear limit.

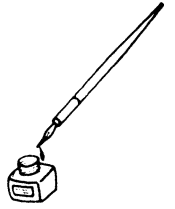
This indicates the replacement time of the brush and prevents damage of the commutator.

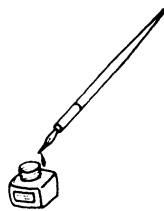
4. Replacing carbon brushes

Disassemble the brush caps with a slotted-head screwdriver. The carbon brushes can then be easily removed.



A	B	C	D	A	B	C	D
1	930-515	1		34A	985-114	2	
2C	950-275	1	13VLR "1, 58"	36A	982-794Z	1	
3B	981-667	1		37	982-796Z	1	M10
4	939-556	1		38	937-807	4	D5 × 25
5	620-2VV	1	6202VCMPS2S	39	949-424	4	M5
6	939-544	1		40	984-361	1	
7	957-725	2	D5 × 70	41	980-060	2	M3.5 × 5
9	981-650	1		42	971-667Z	1	
10	983-448	1		43	981-373	2	
11	627-VVM	1	627VVMC2EPS2S	44	982-804Z	1	
12	981-652Z	1		46	982-802Z	1	"44"
13	949-426	1	M8	47	984-360	1	
14	608-VVM	2	608VVMC2EPS2L	48	982-095	1	D4 × 20
15	982-791	1	"14, 16, 17"	49	930-153	1	
16	984-357	1		50	994-273	1	
17	609-VVM	1	609VVMC2PS2S	51	930-446	2	D4 × 16
18	981-657E	1	220V-230V	52	981-373	2	
19	981-562	1		53	961-419Z	1	
21	931-875	2	D5 × 35	54	960-266	1	
22A	991-007	2	D5 × 60	55	957-561	1	
23A	982-797L	1	220V-230V	56-1	953-327	1	D8.8
24	984-367	1		56-2	938-051	1	D10.1
25	946-362	1		57	_____	1	
26	982-800Z	1		58	981-122	1	M6 × 22
27	982-801Z	1					
28A	982-790	1	"33, 34A"				
29	981-205	1					
30	961-781	2					
31A	999-073	2					
32	_____	1					
33	981-586	2					





 **Hitachi Koki Co., Ltd.**

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