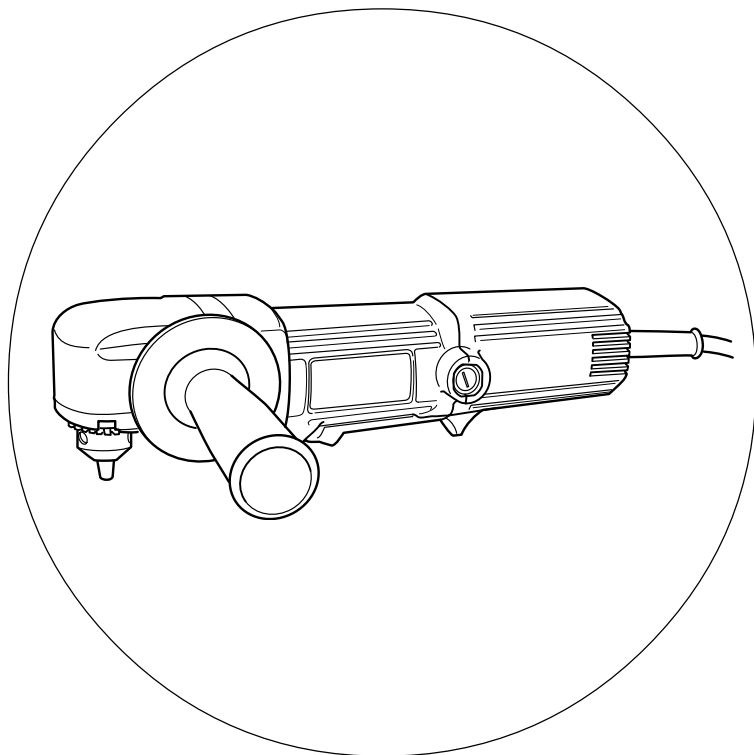


HITACHI

日立牌角向电钻 Angle Drill

D 10YB

使用说明书
Handling instructions

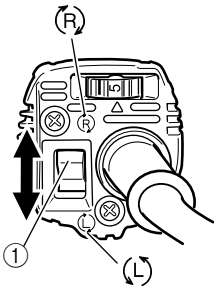


使用前务请详加阅读

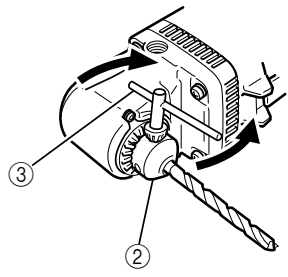
Read through carefully and understand these instructions before use.

Hitachi Koki

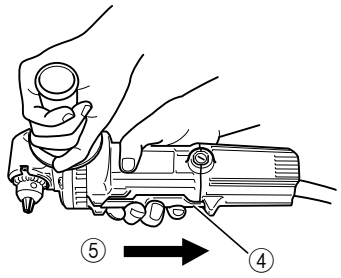
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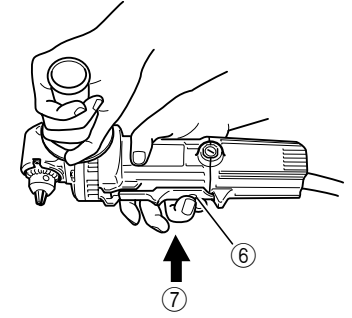
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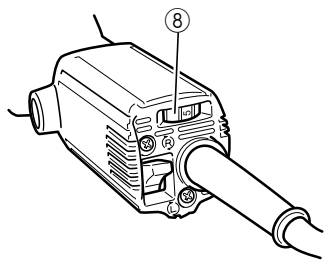
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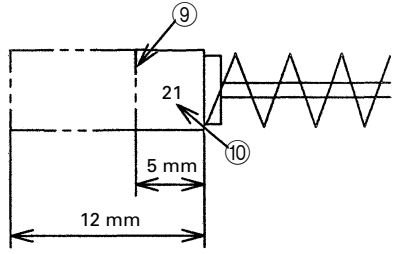
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5



6



①	换向开关柄	Reversing switch lever
②	钻子卡盘	Drill chuck
③	卡盘扳手	Chuck wrench
④	开关柄	Switch lever
⑤	开关打开	Switch on
⑥	开关柄表面球形凸起	Round convex on surface of switch lever
⑦	开关关闭	Switch off
⑧	拨盘	Dial
⑨	磨损极限	Wear limit
⑩	碳刷号	No. of 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) 避免突然启动。
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/或将电池盒脱开电源。
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. 使用时用双手紧紧拿住电钻和侧柄。
2. 请勿戴用易于卷起材料（如棉花、羊毛、布或线等）制成的手套。

3. 在墙上、天花板或地板上钻孔之前，请确认其中无电缆或管道通过。

规格

电压（按地区）*	（110 伏，115 伏，220 伏，230 伏，240 伏）~
输入功率*	500 瓦*
空载转速	500—2300/分
电钻卡盘容量	10 毫米
能力：钢铁	10 毫米
木材	22 毫米
重量（不含线缆）	1.5 公斤

* 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给予更改。

用途

- 在各种金属，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铭牌上标示的规格相符。
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. 确认钻头转向（图 1）

按下反向开关柄的 R 一侧时，钻头便按顺时针方向旋转。而按下开关柄的 L 一侧时，钻头则按逆时针方向旋转。

注意：

切勿在操作时更改钻头的转向。
更改钻头的转向前，请关掉电源开关。否则，会烧毁马达。

5. 安装钻头（图 2）

用夹头扳手拧紧钻头。在夹头上有三个夹头扳手可以插入的孔，平均用力拧三个孔固定钻头，不要只拧一个孔固定钻头。用上述的相反动作即可拆下钻头。

6. 怎样选择钻头

- (1) 在金属或塑料上钻孔时
用普通金属加工钻头，可用的钻头大小：从最小 1.5mm 到最大能力。
- (2) 在木材上钻孔时
用普通木材加工钻头。钻等于或小於 6.5mm 的小孔径时用金属加工钻头。

7. 固定侧柄

把侧柄旋进齿轮罩。

使用方法

1. 转换说明

(1) 打开开关

如图 3 所示，向后拨动钻体上的开关柄。将其向后完全转动时，开关便会打开并被锁定于该状态。

(2) 关闭开关

如图 4 所示，按开关柄表面的圆形凸起后锁定被取消，开关柄靠弹簧压力回到钻体前部，并且开关被关闭。

注意：

在将插头插入电源插座之前，务请确认开关处于关闭状态。否则，电动工具突然启动会导致事故发生。

2. 弯头电钻的压力

不可用超过正常的压力来加快钻孔速度。这样不仅会损坏钻头尖，降低工作效率，而且会缩短电钻寿命。

3. 钻通材料时

当钻头完全钻通材料时，请小心操作，否则电钻的突然移动会导致钻头或电钻受损。当将要钻通材料时，请时刻警惕，作好释放压力的准备，并用双手抓紧电钻。

4. 调整钻孔速度

D10YB 带有电子控制电路，可进行无级速度控制。

要调整速度时，转动图 5 所示的拨盘。当拨盘设定於“1”时，钻孔速度为最慢速度（500 转/分）；当拨盘设定於“5”时，钻孔速度为最快速度（2300 转/分）。请根据材料调整钻孔速度

注意：

拨盘的刻度为“1”时，有时因电源等原因而不转动。这时，请提高拨盘的刻度后再使用。

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，否则会导致严重的事故。

3. 电动机的维护

电动机绕线是电动工具的“心脏部”。应仔细检查有无损伤，是否被油液或水沾湿。

4. 检查碳刷（图6）

电动机上的碳刷是一种消耗品，其磨耗度一旦超出了“磨耗极限”，电动机将发生障碍。因此，磨耗了的碳刷应立即更换新件。此外，碳刷必须常保干净状态，这样才能在刷握里自由滑动。

5. 碳刷的更换

用一字形头螺丝刀拆卸刷盖，碳刷就可简单地取下。

6. 维修部件目录

注意：

日立电动工具的修理、维护和检查必须由日立维修服务センター进行。

当寻求修理或其他维护时，将本部件目录与工具一起提交给日立维修服务中心会对您有所帮助。

在操作和维护电动工具中，必须遵守各国的安全规则和标准规定。

改进：

日立电动工具随时都在进行改进以适应最新的技术进步。

因此，有些部件可能未预先通知而进行改进。

注：

为求改进，本手册所载规格可能不预先通告而径予更改。

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。

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 of 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. Hold the drill and side handle securely with both hands when using.
2. Do not wear gloves made of stuff liable to roll up such as cotton, wool, cloth or string, etc.

SPECIFICATIONS

Voltage (by areas)*	(110V, 115V, 220V, 230V, 240V) ~
Power input*	500 W
No-load speed	500 – 2300 min ⁻¹
Drill chuck capacity	10 mm
Capacity: Steel	10 mm
Wood	22 mm
Weight (without cord)	1.5 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.

APPLICATION

- Drilling holes on various metal, wood 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 (Fig. 1)**
The bit rotates clockwise (viewed from the top side) by pushing the R-side of the reversing switch lever. The L-side of the lever is pushed to turn the bit counterclockwise.

CAUTION

Never change the direction of bit rotation while operating.
Turn the power switch OFF before changing the direction of bit rotation; otherwise, burning of the motor will result.

3. Prior to drilling into walls, ceilings or floors, ensure there are no electric cables or conduits inside.

5. Mounting drill bits (Fig. 2)

Tighten drill bits with the chuck wrench. There are three holes in which the chuck wrench should be inserted. Tighten them equally in turn at three holes, without tightening them only at one hole. The drill bit can be removed in the opposite method as mentioned above.

6. How to select drill bits

- (1) When drilling holes in metals or plastics:
Use ordinary metalworking drill bits, applicable drill sizes range from min. 1.5 mm to drill chuck capacity.
- (2) When drilling holes in wood:
Use woodworking drill bits. For small holes of 6.5 mm diam. or below, use metalworking drill bits.

7. Fixing the side handle

Screw the side handle into the gear cover.

HOW TO USE

1. Switching instruction

- (1) Turning the switch on
Slide the switch lever on the main body backward as illustrated in **Fig. 3**. When you slide it backward completely, the switch gets turned on and locked in that condition.
- (2) Turning the switch off
Press the round convex on the surface of the switch lever as illustrated in **Fig. 4**. Then, the lock comes off, the switch lever returns forward on the main body by the spring's force, and the switch gets turned off.

CAUTION

Check and make sure positively that the switch is off before inserting the plug into the power outlet. Otherwise, a sudden start of the tool definitely results an accident.

2. Pressing force of drill

You can not get holes quickly even if pressing it by strong force more than necessary.
It not only damages the tip of drill bits and decreases the efficiency of operation, but also shortens the life of the drill.

3. When drilling completely through the material

When the drill bit bores completely through the material, careless handling often results in a 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 and hold the drill body securely with both hands when drilling through the material.

4. Adjusting the drilling speed

D10YB is equipped with electric control circuit which enables non-step speed control.

To adjust the speed, turn the dial shown in Fig. 5. When the dial is set to "1", the drilling speed is minimum speed (500/min). When the dial is set to "5", the drilling speed is maximum speed (2300/min). Adjust the drilling speed according to the material.

NOTE

When the dial is set to "1", there can be cases where no rotation takes place due to a power situation, etc. In this case, raise the dial slightly before use.

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 resharpener 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. 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.

4. Inspecting the carbon brushes (Fig. 6)

The motor employs carbon brushes which are consumable parts. Since an excessively worn carbon brush can result in motor trouble, replace the carbon brushes with new ones which have the same carbon brush No. shown in the figure when they become worn to or near the "wear limit". In addition, always keep carbon brushes clean and ensure that they slide freely within the brush holders.

5. Replacing carbon brushes

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

6. Service parts list

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.

MODIFICATIONS

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

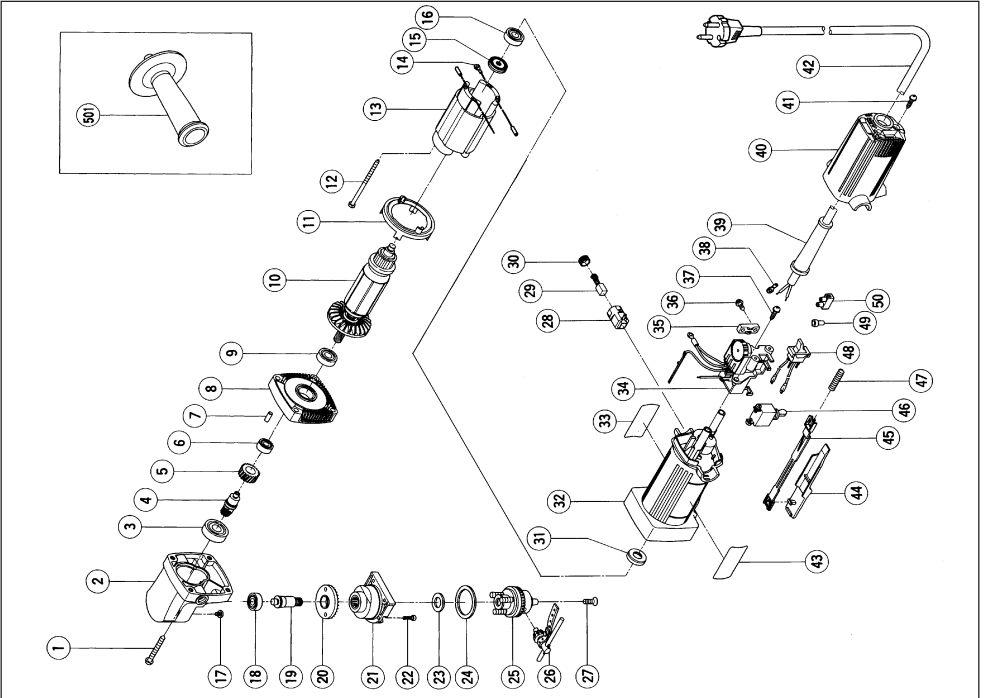
Accordingly, some parts may be changed without prior notice.

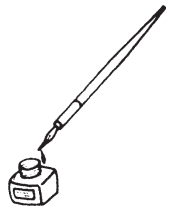
NOTE

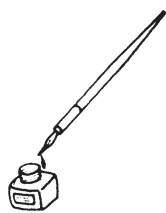
Due to HITACHI's continuing program of research and development, the specifications herein are subject to change without prior notice.

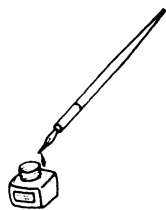
Item No.	Part Name
34	Controller Circuit
35	Cord Clip
36	Tapping Screw (W/Flange) D4 × 16
37	Tapping Screw (W/Flange) D4 × 20
38	Terminal
39	Cord Armor
40	Tail Cover
41	Tapping Screw (W/Flange) D4 × 16
42	Cord
43	HITACHI Label
44	Slide Knob
45	Slide Bar
46	Switch
47	Spring
48	Reversing Switch
49	Connector (50091)
50	Pillar Terminal
501	Side Handle

Item No.	Part Name
1	Tapping Screw D5 × 40
2	Gear Cover
3	Ball Bearing (6001VVCMPS2L)
4	Second Pinion
5	First Gear
6	Ball Bearing (606ZZC2PS2L)
7	Bearing Lock
8	Inner Cover
9	Ball Bearing (608DDC2PS2L)
10	Armature
11	Fan Guide
12	Hex. Hd. Tapping Screw D4 × 70
13	Stator Ass'y
14	Terminal
15	Dust Seal
16	Ball Bearing (626VV2CPS2L)
17	Flat Fillister Hd. Screw M4 × 10
18	Ball Bearing (607VV2CPS2L)
19	Spindle
20	Gear
21	Chuck Cover
22	Seal Lock Hex. Socket Hd. Bolt M3 × 12
23	Felt Packing (A)
24	Felt Packing
25	Drill Chuck (10TLRD)
26	Chuck Wrench
27	Flat Hd. Screw (Left Hand) M5 × 15
28	Brush Holder
29	Carbon Brush
30	Brush Cap
31	Rubber Bushing
32	Housing Ass'y
33	Name Plate









服务中心

日立工机商业（中国）有限公司

上海市长宁区遵义路100号

虹桥上海城B栋2686-2689室

制造商

日立工机株式会社

日本国茨城县常陆那珂市

 **Hitachi Koki Co., Ltd.**

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Code No. C99101521

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