

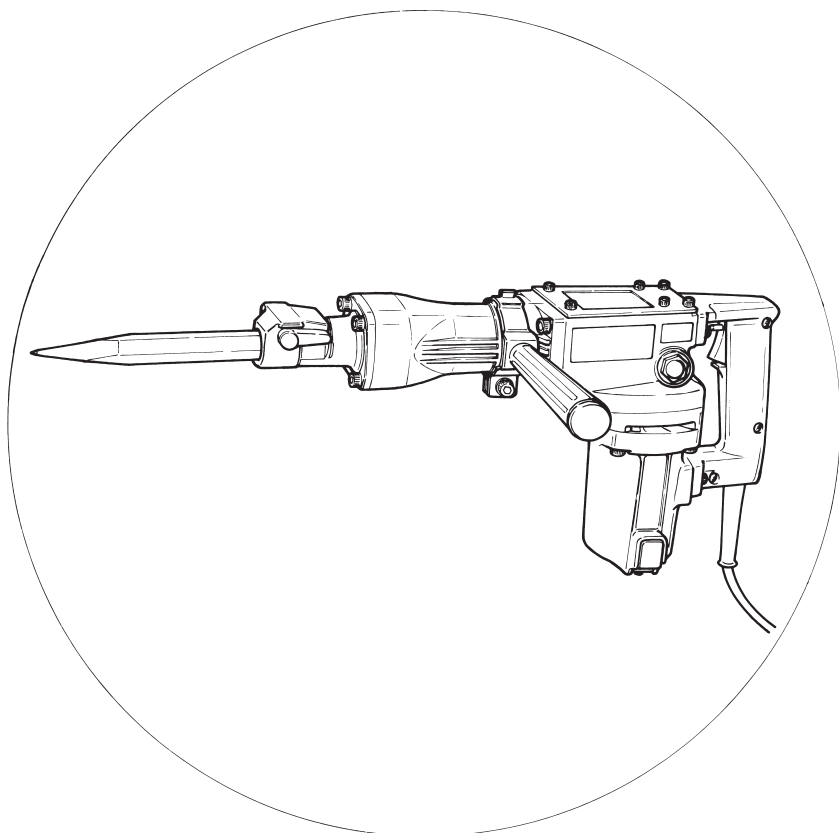
HITACHI

日立牌冲击式钻机 HAMMER

H 50

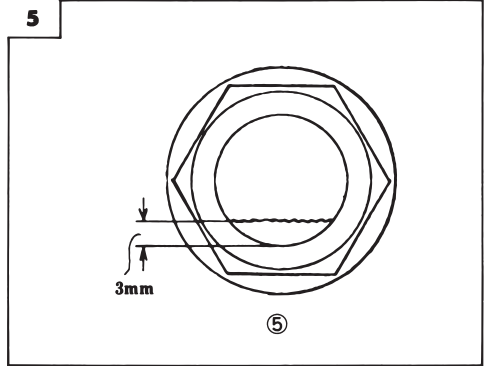
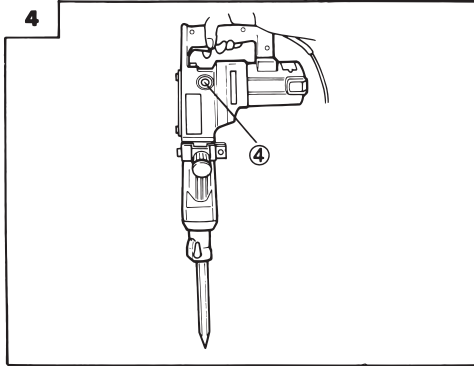
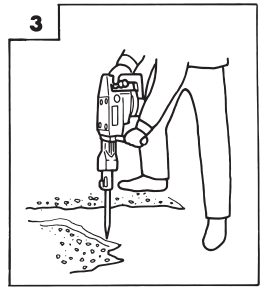
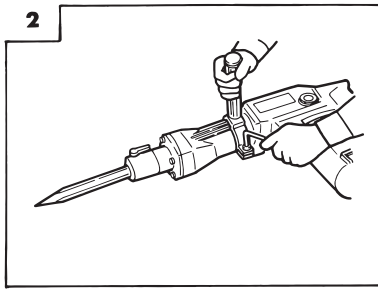
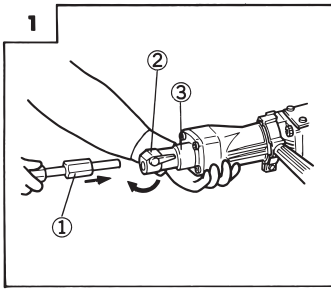
使用说明书

Handling instructions



使用前务请详加阅读

Read through carefully and understand these instructions before use.



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①	工具柄	Tool shank
②	停止杆	Stop lever
③	前罩	Front cover
④	油量表 握住钻机主体，使之朝上以 检查油量。	Oil gauge Check the oil quantity by holding the body upright.
⑤	油量降到约 3 mm 以下时，应即 加以补充。	Resupply oil when the oil level drops to less than approx.3mm.
⑥	磨损极限	Wear limit
⑦	碳刷号	No. of carbon brush
⑧	通常碳刷	Usual carbon brush
⑨	自动停止碳刷	Auto-stop carbon brush

作业上的一般注意事项

1. 工作场所应打扫干净，清理妥当。杂乱无章将导致事故。
2. 确保妥适的作业环境。电动工具不可任其风吹雨打。不得在潮湿的地方作业。工作场所需保持充分的亮度。不可在存放易燃液体或气体的地方使用电动工具。因为电动工具在作业时以及进行开关的通/断操作时会发出火花，所以严禁在存放：漆、涂料、轻质汽油、冲淡剂、汽油、煤气、胶粘剂以及其它爆炸性物质的地方使用。
3. 谨防触电事故。应注意避免身体同地面上的例如：管道、散热器、炉灶、冰箱等接触。
4. 不可让孩童靠近工作场所。与作业无关的访客也必需保持安全距离。
5. 不使用的电动工具应存放到干燥而孩童伸手不及的高处，并加锁保管。
6. 不得使劲用力推压。电动工具需按设计条件才能有效而安全地工作，绝不可勉强。
7. 妥选使用工具。不可用小型工具或附件去干重活。不可用于规定外的作业。举例说，用圆锯进行伐木打枝或原木锯切作业。
8. 工作时衣服穿戴要合适。不要让松散的衣角或宝石类卷入转动部分。屋外作业时，最好手带橡胶手套，脚穿防滑胶鞋，同时要戴上能够笼罩长发的工作帽。
9. 绝大多数的电动工具作业时均需带安全眼镜。进行粉尘飞扬的切削作业时，需带防尘面罩。
10. 不要拿电线提起电动工具，也不得拉扯电线从电源插座拆除插头。电线需从热源和油液隔开，并避免与锐利的边缘接触。
11. 作业以安全第一为原则。工件要用夹具或台钳卡紧。这样做，比用手按压更为可靠，也能够让双手专心操作。
12. 作业时脚步要站稳，身体姿势要保持平衡。
13. 工具应维护妥善，经常保持锋利、清洁才能充分发挥性能，落实作业安全的要求。应按规定加注润滑脂、更换附件。线缆应定期检查，如发现损伤应立即委托专业性的服务单位加以修复。延伸电缆如有损伤应予更换。手柄要保持干燥，并防止沾附油脂类。
14. 不使用时、维修前以及更换附件（如：刀具、钻头、锯具等）之前，都必需拆卸电源插头才行。
15. 开动前务需把调整用键和扳手类拆除下来。这一点与安全有关，应养成习惯，严格遵守。
16. 谨防误开动。插头一插上电源插座，插头就不可随便接触电源开关。插接电源之前，应先确认：开关是否切断。
17. 屋外作业时，必需使用专用的延伸线缆。
18. 保持高度警觉，充分掌握情况，以正常的判断力从事作业。疲惫时切不可开动电动工具。
19. 在继续使用电动工具之前，应过细检查各部零件以及防护装置有无损坏，以便据以决定能否正常工作，能否发挥正常效能。检查转动部分的对准、结合状态，各零件有无异常，安装是否妥善以及其它足以给工作带来不良影响的情况。如防护以及其它零件损伤了，应立即委托服务中心或其它适当单位进行修理或更换。开关一发现缺陷，应立即委托服务中心加以更换。如开关不能正常地接通或切断，绝不可使用该电动工具。
20. 不得使用电动工具去进行规定外的其它作业。
21. 为了保证设计的完整性，电动工具的盖罩和螺钉类不可随便拆除。
22. 除非电线插头已从电源插座拆下，绝不

可接触转动部分或附件。

- 23. 应以低于名牌上的额定输入功率进行作业。否则电动机将过载而影响工作精度,并降低效率。
- 24. 不可使用溶剂擦拭塑料零件。因为:汽油、冲淡剂、轻质汽油、四氯化碳、酒精、阿摩尼亚以及含氯油液等都会使塑

料损伤或发生龟裂,所以应避免使用。擦拭塑料制品,可以使用稍微沾湿了肥皂水的柔布。

- 25. 电动工具一旦发生任何异常,应毫不迟疑地商询服务中心。
- 26. 只能使用日立指定的更换零件。
- 27. 本电动工具只在更换碳刷时才可拆解。

使用电动冲击式钻机时应注意事项

- 1. 应戴上安全眼镜,以保护眼睛。
- 2. 脸部朝上作业时,要带上防护面罩。
- 3. 作业时要塞好耳塞,以减轻噪声的影响。
- 4. 正确地安装停止杆。
- 5. 作业时钻头处在灼热状态,应十分注意。
- 6. 作业时应使用侧柄。
- 7. 好的作业姿势,才能落实安全作业。
- 8. 开始作业时,要先确认油脂是否正常供应,螺钉类是否妥予拧紧。
- 9. 在高空作业时,应充分注意下面的东西和行人安全。
- 10. 钻凿墙壁、天花板、地板时,应先确认有无埋设电缆或管道类。

规格

型 式	H50
电 压	220V ~
功率输入	1,140W
满载冲击率	2,100次/分
重 量(不含线缆)	8kg

标 准 附 件

- (1) 盒 子..... 1
- (2) 尖钻头(总长320mm)..... 1
- (3) 侧 柄..... 1
- (4) 注 油 器..... 1
- (5) 六角头棒形扳手..... 1
- (6) 扳 手..... 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)

○尖钻头(破碎用)



总长	450mm
代号	955623

刀 具(破碎沥青路面)



(代号955629)

○冷 凿(开槽与切削)



总长	320mm	450mm
代号	955614	955624

- 撞 锤 (夯实砂和碎石)



(代号955181)

- 凿石锤(使混凝土或石材表面粗糙)



(代号955183)

- 柄(撞锤及凿石锤用)



(代号955625)

- 凿石锤 + 柄



- 撞锤 + 柄



- 铲 子(各种基础工程的挖土作业用)



(代号980034)

- 电动冲击式钻机油(1升)

(代号955009)

选购附件可能不预先通告而径予更改。

用 途

- 混凝土破碎、凿平、挖掘、切屑
(应用例)

装配管道、敷设线缆、卫生设备安装、机械安装、给排水设施建设、室内装修、港口设施建设、其它土木工程施工。

作 业 之 前

1. 电 源:
确认所使用的电源与工具名牌上标示的规格是否相符。
 2. 接 地:
这个工具在使用时一定要接地以防操作者受到电击。工具是配备有三导线和接地式插销以适应正常接地插座。在电缆中的绿色(或绿和黄)导线是接地线。千万不要把绿色(或绿和黄)线接到火线上。
 3. 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。
 4. 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。
- 注意:受伤的线缆应予更换或修改。
5. 给油(参照第6页“注油”一项)
在使用电动工具之前,应拆下油量表,并注意不可因给油而破坏油箱(油箱为内装式,但装船只装入少量的油液)。

6. 安装工具

注意：尖钻头、冷凿以及其它附件应使用日立标准品，以保证作业顺利开展。

- (1) 将停止杆往箭头方向旋转，把工具柄插入前罩上的六角形孔。
- (2) 将停止杆牢固地安装在工具把手上。

注意：拆卸尖钻头时，可按相反的程序操作。

7. 安装侧手把

当使用六角形板手松开M 8螺栓时，侧手把变得能自由移动。将侧手把安装在确定的位置，然后，用板手锁紧螺栓。

1. 当竖起钻机时，若油量计窥窗看不到油液，应即加油补充。
2. 加油之前，应使用附属的扳手拆除油量计。这时候，必需十分注意，防止遗失油量计下面的橡胶填密件。
3. 应每日检查油位一次，确认油量是否足够。
4. 加油后，应重新夹紧油量计。

注意：使用油液是作为选购附件分开销售。油箱缺油时，亦可使用Shell牌ROTELLA #40(机油)。此种牌号的油在Shell的加油站到处均有出售。

怎么样使用冲击式钻机(图3)

1. 拉开盖板机之后，将钻头尖端钻入适当的位置。
2. 利用工具本身的重量操作。进行工作时，用力将工具推入或加压力插入工作平面，并不会造成较好的工作效率。仅使用可以充分抗拒反弹的力量去握住工具。

维 护 和 检 查

1. 检查钻头：
使用迟钝的钻头，将使电动机工作失常，并降低作业效率。因此，若钻头发现显著的磨损，应立即更换新件，或加以磨快。
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)
电动机里的碳刷是一种消耗品。碳刷一旦使用到磨损极限，电动机就会出现各种障碍；如果所使用的碳刷是“自停式”，电动机将自动地停止转动。遇到上述情况，应立即换上与图上代号一致的新碳刷。
此外，碳刷应经常保持干净状态，以保证能在刷握里自由滑动。

注 油

注意：注油之前，应先从电源插座拆卸插头。日立电动冲击式钻机内部装有油箱，因此即使不补给油液，若每天作业时间为3~4小时，则可连续使用20天左右。
使用冲击式钻机之前，应按下述方法注油(参阅图4和5)。

○更换步骤

拆下尾罩和刷盖，碳刷可简单地取下。

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 operational precautions

1. Keep work area clean. Cluttered areas and benches invite injuries.
2. Consider work area environment. Don't expose power tools to rain. Don't use power tools in damp or wet locations. Keep work area well lit.
Don't use tool in presence of flammable liquids or gases.
Power tools produce sparks during operation. They also spark when switching ON/OFF. Never use power tools in dangerous sites containing lacquer, paint, benzine, thinner, gasoline, gases, adhesive agents, and other materials which are combustible or explosive.
3. Guard against electric shock. Prevent body contact with grounded surfaces. For example; piles, radiators, ranges, refrigerator enclosures.
4. Keep children away. Do not let visitors contact tool or extension cord. All visitors should be kept away from work area.
5. Store idle tools. When not in use, tools should be stored in dry and high or locked-up place—out of reach of children.
6. Don't force tool. It will do the job better and safer at the rate for which it was intended.
7. Use right tool. Don't force small tool or attachment to do the job of a heavy-duty tool. Don't use tool for purpose not intended—for example—don't use circular saw for cutting tree limbs or logs.
8. Dress properly. Do not wear loose clothing or jewelry. They can be caught in moving parts. Rubber gloves and non-skid footwear are recommended when working outdoors. Wear protective hair covering to contain long hair.
9. Use safety glasses. Also use face or dust mask if cutting operation is dusty.
10. Don't abuse cord. Never carry tool by cord or yank it to disconnect from receptacle. Keep cord from heat, oil and sharp edges.
11. Secure work. Use clamps or a vise to hold work. It's safer than using your hand and it frees both hands to operate tool.
12. Don't overreach. Keep proper footing and balance at all times.
13. Maintain tools with care. Keep tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect tool cords periodically and if damaged, have repaired by authorized service facility. Inspect extension cords periodically and replace if damaged. Keep handles dry, clean, and free from oil and grease.
14. Disconnect tools. When not in use, before serving, and when changing accessories, such as blades, bits, cutters.
15. Remove adjusting keys and wrenches. Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
16. Avoid unintentional starting. Don't carry plugged-in tool with finger on switch. Be sure switch is off when plugging in.
17. Outdoor use extension cords. When tool is used outdoors, use only extension cords intended for use outdoors and so marked.
18. Stay alert. Watch what you are doing. Use common sense. Do not operate tool when you are tired.
19. Check damaged parts. Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service center unless otherwise indicated elsewhere in this instruction manual. Have defective switches replaced by authorized service center. Do not use tool if switch does not turn it on and off.
20. Do not use power tools for applications other than those specified in the Handling Instructions.
21. To ensure the designed operational integrity of power tools, do not remove installed covers or screws.
22. Do not touch movable parts or accessories unless the power source has been disconnected.
23. Use your tool at lower input than specified on the nameplate; otherwise, the finish may be spoiled and working efficiency reduced due to motor overload.
24. Do not wipe plastic parts with solvent. Solvent such as gasoline, thinner, benzine, carbon tetrachloride, alcohol, ammonia and oil containing chloric annex may damage and crack plastic

- parts. Do not wipe them with such solvents. Wipe plastic parts with a soft cloth lightly dampened with soapy water.
25. Consult an authorized Service Agent in the event of power tool failure.

26. Use only original HITACHI replacement parts.
27. This tool should only be disassembled for replacement of carbon brushes.

Precautions on using hammer

1. Wear protective glasses to protect your eyes.
2. Wear a mask when turning your head upward.
3. Use earplugs to keep your ears noise-free while working.
4. Properly set the stop lever.
5. Since the bit becomes very hot during operation, exercise extremes very hot.
6. Be sure to use the side handle.
7. Safe operation depends on one's stable posture.
8. At the start of work, confirm the oil supply and screw tightening.
9. When working at a highly elevated location, pay attention to articles and persons below.
10. Before starting breaking or chipping a wall, floor, or ceiling, thoroughly confirm that no items such as an electric cable or conduit are buried inside.

Specifications

Model	H50
Voltage	220V~
Input	1,140W
Full-load impact rate	2,100/min
Weight(w/o cord)	8kg

Standard accessories

- (1) Case1
 (2) Bull Point (Total Length 320mm)1
 (3) Side Handle1
 (4) Oil Feeder1
 (5) Hexagon Bar Wrench.....1
 (6) Wrench1

Standard accessories are subject to change without notice.

Optional accessories (sold separately)

- Bull Point (for crushing)



Total length	450mm
Code No.	955623

- Cutter (for crushing asphalt)



(Code No. 955629)

- Cold Chisel
(for grooving and squaring)



Total length	320mm	450mm
Code No.	955614	955624

- Rammer (for tamping sand and gravel)



(Code No. 955181)

- Bushing Hammer
(for roughing concrete and stone surfaces)



(Code No. 955183)

- Shank (for rammer and bushing hammer)



(Code No. 955625)

- Bushing Hammer + Shank



- Rammer + Shank



- Scoop
(for digging ground in various foundation work)



(Code No. 980034)

- Electric Hammer Oil (one liter)
(Code No. 955009)

Optional accessories are subject to change without notice.

Applications

- Crushing concrete, chipping, digging, and squaring.
(Application Examples)
Installation of piping and wiring, sanitary

facility installation, machinery installation, water supply and drainage work, interior jobs, harbor facilities and other civil engineering work.

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. Grounding

This tool should be grounded while in use to protect the operator from electric shock. The tool is equipped with a three-conductor cord and grounding type plug to fit the proper grounding type receptacle. The green (or green and yellow) conductor in the cord is the grounding wire. Never connect the green (or green and yellow) wire to a live terminal.

3. Power switch

Ensure that the power switch is in the OFF position. If the plug is connected to a power receptacle while the power switch is in the ON position, the power tool will start operating immediately, inviting serious accident.

4. 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.

5. Feeding oil (refer to the paragraph on oil feeding, page 11)

Prior to using the power tool, remove the oil gauge and do not fill the oil tank with the provided oil. (Although the oil tank is built in, it contains only a small volume of oil when shipped from the Hitachi Works.)

6. Mounting a tool

Note: When handling bull point, cold chisel and other accessories, Hitachi standard tools are recommended for better operation.

- (1) Turn the stop lever in the arrow direction, insert the tool shank into the hexagon hole on the front cover.
- (2) Replace the stop lever to grip the tool firmly.

Note: When dismantling the bull points, reverse the procedures described above.

7. Set the side handle

When the M8 bolt is loosened with hexagon bar wrench, the side handle becomes freely

movable. Set the side handle to a position conforming to the job, and then securely clamp the bolt.

How to use the hammer (Fig. 3)

1. Pull the switch trigger after applying the tip of the bit to the crushing position.
2. Operate the tool by utilizing its own weight. The performance will not be better even if the tool is pressed or thrust forcibly against the work surface.
Hold the tool with a force just sufficient to counteract the reaction.

Oil feeding

Caution: Prior to oil feeding, always disconnect the plug from the power supply receptacle.

Since an oil chamber is built in this Hitachi Electric Hammer, it can be used for approximately 20 days without supplying lubricating oil, assuming that the Hammer is used continuously 3~4 hours daily.

Feed oil into the oil tank as described below before using this Hammer. (See **Figs. 4** and **5**)

1. Just before no oil is visible in the oil gauge window when the device is held upright, feed oil without fail.
2. Before feeding oil, use the provided wrench to remove the oil gauge.
Be careful not to lose the rubber packing attached below the oil gauge.
3. Check the oil level once daily, confirming that oil is filled.
4. After feeding oil, securely clamp the oil gauge.

Note: As an optional accessory, oil for the Hitachi Electric Hammer (one liter) is sold separately. Use this oil when oil in the tank is depleted. Shell Oil Co. ROTELLA #40 (engine oil) can also be used. This oil is sold at Shell filling stations most anywhere.

Maintenance and inspection

1. Inspecting the tool

Since use of a dull tool will cause motor malfunctioning and degraded efficiency, whet it or replace with a new one 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. When they become worn to or near "wear limit", it could result in motor trouble. When an auto-stop carbon brush is equipped, the motor will stop automatically.

At that time, replace both carbon brushes with new ones which have the same carbon brush Nos, shown in the figure.

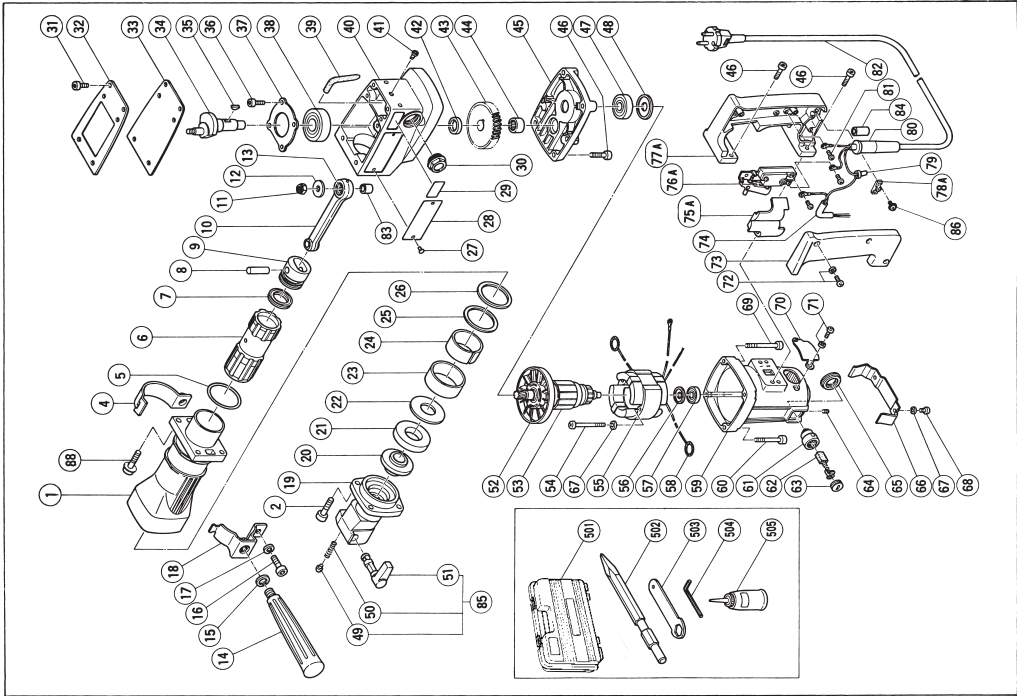
In addition, always keep carbon brushes clean and ensure that they slide freely within the brush holders.

○ Replacement steps

The carbon brush can be removed by removing the tail cover and brush cap in that order at the interior.

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
1	Cylinder Case
2	Hexagon Socket Hd. Bolt M8 × 30
4	Handle Band (B)
5	O-Ring (S-48)
6	Striker
7	X-Ring
8	Piston Pin
9	Piston (A)
10	Connecting Rod Ass'y
11	U-Nut M6
12	Washer (C)
13	Needle Bearing
14	Side Handle
15	Spring Lock Washer
16	Hexagon Socket Hd. Bolt M8 × 25
17	Spring Lock Washer
18	Handle Band (A)
19	Front Cover
20	Shank Sleeve
21	Damper
22	Mouth Washer (B)
23	Mouth Cover
24	Mouth
25	Mouth Washer (A)
26	Urethane Ring
27	Rivet D2.5 × 4.8
28	Name Plate
29	Caution Plate
30	Oil Gauge
31	Hexagon Socket Hd. Bolt M6 × 16
32	Cover Plate
33	Cover Seal
34	Crank Shaft (C)
35	Woodruff Key
36	Hexagon Socket Hd. Bolt M5 × 16
37	Bearing Cover (B)
38	Ball Bearing (6204DDCM)
39	Oil Felt
40	Crank Case Ass'y
41	Valve
42	Distance Ring (C)
43	Gear (B)
44	Needle Bearing (HK1512)
45	Gear Cover Ass'y
46	Hexagon Socket Hd. Bolt M6 × 22
47	Ball Bearing (6202DDCM)

Item No.	Part Name
48	Dust Seal
49	Stopper Pin
50	Spring
51	Stop Lever
52	Fan
53	Armature Ass'y
54	Machine Screw M5 × 55
55	Stator Ass'y
56	Dust Seal
57	Ball Bearing (6000VVCM)
58	Brush Terminal
59	Housing Ass'y
60	Hexagon Socket Hd. Bolt M6 × 35
61	Brush Holder
62	Carbon Brush
63	Brush Cap
64	Hexagon Socket Hd. Set Screw M5 × 8
65	Stop Plate
66	Tail Cover
67	Spring Lock Washer
68	Machine Screw M5 × 8
69	Hexagon Socket Hd. Bolt M6 × 55
70	Side Cover
71	Machine Screw M4 × 12
72	Machine Screw M4 × 12
73	Handle Cover
74	Vinyl Tube (I.D9 × T0.5 × 65)
75A	Support (D)
76A	Switch
77A	Handle Ass'y
78A	Cord Clip
79	Connector (50092)
80	Cord Armor
81	Machine Screw M4 × 6
82	Cord
83	Inner Race
84	Vinyl Tube
85	Stop Lever Ass'y
86	Machine Screw M4 × 16
88	Hexagon Socket Hd. Bolt M8 × 30
501	Case
502	Bull Point
503	Wrench 320mm
504	Hexagon Bar Wrench 23mm
505	Oil Feeder (120CC)

Parts are subject to possible modification without notice due to improvements.

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