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# **Operation Manual**

#### WARNING

To prevent electric shock or fire, please strictly abide by the procedures in the operation manual.

The machine only for the authorized persons, please do not let other people to operate. If any violation of the instructions operation and cause personal injury or machine damage, our company disclaim all responsibility.

The machine can be only maintained by the people who has the certification.

#### THANKS TO THE BUYER

Thanks for buying the series of diamond drill machine of . Please read the operation manual and pay attention to the safety precaution. The right operation, will make you fully feel our products superior performance. Please put this manual in a safe place for future reference.

#### **ABOUT THIS MANUAL**

The machine model of the description in this manual:

KCY: 320WEQ 420WEQ 520WEQ

Confirm the machine model according to the nameplate.





#### SAFETY REGULATIONS

- 1.Read and understand all instructions. Failure to follow all instructions listed below may result in electric shock, fire and/or serious personal injury.
- 2.Keep bystanders, children and visitors away while operating a power tool. Only to be operated by qualified person who has read and understand the manual.
- 3.Don't expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- 4.Do not abuse the cord. Never use the cord to carry the tools or pull the plug from an outlet. Keep cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately. Damaged cords increase the risk of electric shock.
- 5.Keep your work area clean and well lit. Cluttered benches and dark areas invite accidents.
- 6.Keep bystanders, children and visitors away while operating a power tool. Distractions can cause you to lose control.
- 7.Tool service must be performed only by qualified repair personnel. Service or maintenance performed by unqualified personnel could result in a risk of injury.
- 8.Check that the blade and the blade guard is not damaged or cracked before starting. Replace the blade or the blade guard if it is exposed to impact or is cracked.
- 9.Wear personal protective equipment. Wear safety shoes or boots, protective gloves, a hard hat, ear protection and eye protection.
- 10.Remain at a distance from the blade when the engine is running.
- 11.Never use the machine in upside down way.
- 12. Make sure that the mains voltage corresponds to the specification given on the type plate.

#### **USE THE KEY POINTS OF THE CUTTING MACHINE**

1. The use of power supply

Make sure that whether the power supply is equipped with creepage prevention device. If not, you can buy it by yourself. Please wear rubber shoes and rubber gloves before operation for sake of safety.

- 2.Protect the inside of the motor from water If water comes into the inside of the motor, it will arouse electric shock or burn the motor.
- 3.Cool the cutter in the inlet valve

Because superheated saw web' s longevity will be short, pay attention to supply water to the inlet valve in the cutting procedure. In addition, please note that do

not use recycled water, or else it will affect the smoothness of the runninr water, causing damage to the water seal and so on.

4.Fix the machine safely

Fix the machine safely. Improper way of installation will not only prevent normal operation, but be dangerous.

5.Use diamond saw web

The cutter is designed for using diamond saw web.Do not replace the diamond saw web with other cutting devices.

- 6.The machine is attached with adjustable clutch If you clamp down overly in operation or the saw web is stuck by the reinforcing steel bar suddenly.the clutch will start to protect the saw web from being damaged.If the clutch skids, it does not mean the machine is damanged.Just withdraw the reamer and tighten the clutch and then start the clutch again.
- 7.Let the saw web run fully before cutting

Turn on the switch, waiting the saw web run fully and then start cutting.

- 8.Do not touch the running saw web with your hands
- Note that never touch the running saw web with your hands, which is dangerous and will lead to serious results.
- 9.Aloft operation

If the machine is in aloft operation, please notice to fix it in balanced and steady place.

10.The cutter makes transverse cutting

Because the machine must use the cooling water in operation, the man motor is on top when the cutter makes transverse cutting.Contrarily, if the saw web is on top, water will come into the motor. It is very dangerous.

- 11.Pay attention when the cutter cuts through the floor When the cutter cuts through the floor, the cut parts will fall down after cutting. Thereby take protecting measures under the cut parts to protect the safety of people and properties.
- 12.Abnormal motion

If the saw web stops or there is abnormal sound in the process of cutting, turn it off.

13.Clean up the machine after use

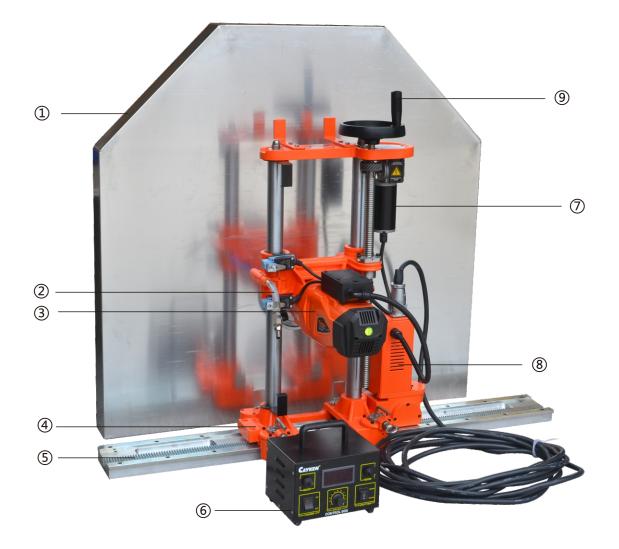
To keep the machine' s service life, keep it tidy after use.

#### **SPECIFICATION**

MOD	KCY-320WEQ	KCY-420WEQ	KCY-520WEQ
Cutting Diameter <b>mm</b>	800	1000	1200
Rated Voltage V	110/220~	110/220~	110/220~
Rated Frequency Hz	50-60	50-60	50-60
Input Power W	6280	7280	7980
Cutting Depth MM	320	420	520
No-load speed rpm	300	280	260

**※** In order to keep improving our products,we reserve the rights of making changes to technical data without advance notice.

#### **MACHINE PARTS DRAWING**



Blade guard
Water connection
Drive motor
Foundation
Track

6.Control Cabinet7.Feed motor8.Cutting motor9.Feed-on hand wheel

#### **APPLICABLE PROJECTS**

The machine is applicable for cutting or slotting on armoured concrete, concrete brick wall, stone material such as marble and wall.

#### MATTERS NEEDING ATTENTION

Check the following points before plugging in:

1.Use rated power supply

If the machine does not use rated power supply, it can not work. Please notice that only the machine uses the right rated power supply and keeps the current in the control cabinet at 6A, no more than 10A, the machine can work to its optimal efficiency and without damage.

2.Make sure that the switch is in position "Off"

The switch on the control cabinet of the machine can be easily switched on.Make sure all switches of the machine are off before plugging in to avoid the accident.

3. Make sure the blade is correctly fixed

Lock the blade screw in the clockwise direction.Fasten it with the open end wrench and rotate the blade screw to see if it rubs with the blade guard.If it does,adjust the blade and the blade guard before use.

#### **OPERATING INSTRUCTIONS**

#### A.Installation of the machine

Install the track way first, and then fix the machine on the track way. In order to cut the wall surface flatly, the right method to install the track way is: The motor is on top and the saw web in the downside. Keep the rotating direction of the saw web against that of the running direction of the motor. In this case, it can not reduce the cutting time, but also improve the cutting capacity.

- 1.Drill one anchoring spurs for the setscrew of 16.3-16.5mm in diameter and 55mm in depth with the percussion drill at the position of 133±2mm from the facet. It can hold a machine with a M12 setscrew. The guide rail can be fixed in any place around the anchoring spurs.
- 2.Use an air pressure gun to clean away the pieces in the anchoring spurs.
- 3.Drive in a machine with a M12 setscrew, insert a loosening bar into the screw hole, and knock the fixed setscrew with a hammer. Make sure the setscrew is fixed tightly in the holes, or else it may move or drop down in operation. Use the outfitted setscrew and screw and so on to fasten the guide rail outfit. The number of the setscrew depends on the softness of the cutting plane. The track way must be fixed tightly.

- 4.Fix the host machine according to the progressing mark on it.Fix the speed control,the plug and the handwheel rotating in counter-clockwise and then the host machine can run on the track way.
- 5.Fix the saw web.The diameter of the internal hole of the host machine is 355mm.The hexagonal screw to fix the saw web must be fastened by the open and wrench.
- 6.The saw web aims at the cutting plane line.Fix the track way totally,adjust flatly the six hexagon heads on the track way with the hexagon spanner and move up and down the screws to be on the same horizontal line. Thus the track way can not break away from the joint.
- 7.Aim at the plug connecting the cable. B.Cutting instructions
- 8.Insert the water pipe into the inlet valve to supply water.Regulate the water and make it abundantly on the cutting plane.
- 9.Turn on the switch on the control cabinet and the switch on the control cabinet and the switch of the host machine.
- 10.After rotating the cutter handwheel, in start cutting slowly. The saw web move downwards to touch the cut parts. The saw web must move slowly. When the cuts to the preset depth, rotate the handwheel to cut. (then you should turn on the machine's switches for moving up and down or forward, adjust the speed and make electric cutting.) You can adjust the cutting speed when it cuts into the wall. The cutter must keep a low and uniform velocity when coming into reinforcing steel bars. If it cuts too deep at the beginning, it is excessive work for the machine, which will decrease the cutting speed.
- 11.Dissemble the host machine from the track way and clean up the working area after the cutting.

#### Notes when the cutter is working:

- a.If the cut part is hard and thick, the best way is to cut it twice. That is, if the cut part is 20cm thick, cut into 10cm first and then cut into 10cm again. In this way, it will raise the cutting efficiency, and reduce the spoilage to the saw web.
- b.Do not plug in when fixing or dissembling the saw web in case of accident.
- c.The machine can not work over 10hours every day.It is better to cool it for a while after it keeps working for two or three hours and then it can work again.

#### FITTINGS

The track has two sizes of 1.2m and 1.8m.The user can order other size of track way accordingly.

#### MAINTENANCE AND INSPECTION

### Note:Do not plug in before checking the machine.

The accumulative working hours of the machine can not exceed 24hours. Then it must be thoroughly cleaned up and maintained. You should especially guarantee the lubrication and flexibility of the lifting screw and the lifting screw and the lifter of the host machine. (They can not have any slurry and sundries, which is good for operation. On the contrary, it will damage the machine.) 1. Check the blade

Using attrited blade will reduce the cutting efficiency and make the motor overwork. The blade needs to be changed timely.

2.Check the chain wheel

Check whether the 16chain wheels under the foundation are stuck or fail to work. The space between the chain wheel and the track way is no more than 0.2mm,or else you should loosen the screw caps for fastening the chain wheels and adjust the hexagonal tightening screws at both sides of the foundation accordingly.

3.Check the chain wheel

Check monthly the depth of parallelism between the moving direction of the blade and the track way. If the distance between the blade and the track can not be more than 1mm, or else the blade maybe stuck by the concrete when cutting, thus decreasing the cutting efficiency. If they are not parallel, loosen the 4 set screw of two speed box on the middle base with hexagon spanner of less than6mm and adjust depth of parallelism of the blade.

4.Check the carbon brush

The motor contains dissipative carbon brush, If the carbon brush is seriously worn, it will wear the motor. When the carbon brush is frayed to only 6mm, it needs to change a new carbon brush. Keep the brush clean, so that it can be easily put into the carbon brush box.

Note: Keep changing the carbon brush from the original manufacturer. Nip tightly the power line when changing the carbon brush.

5. The motor' s protection

The motor is the heart of the machine. Be careful.Do not let oil or water into the motor.

Notes: If dust or things come into the motor.the motor may be damaged.

Make the motor run no-load to eject the dust after each use.

#### 6.Check the screws on the machine

Check whether the screws on the machine are loosed. If they are, fasten them. It is very dangerous to use machine with loosed screws.

7.Keep the machine or fittings

Keep the machine or fittings in dry and safe place.Do not place them in the following places:

a) Place in the reach of children

b) Moist place

- c) Place where the temperature is labile
- d) Place exposing directly to the sunshine
- e) Flammable or explosive place

#### **MAINTENANCE NOTES**

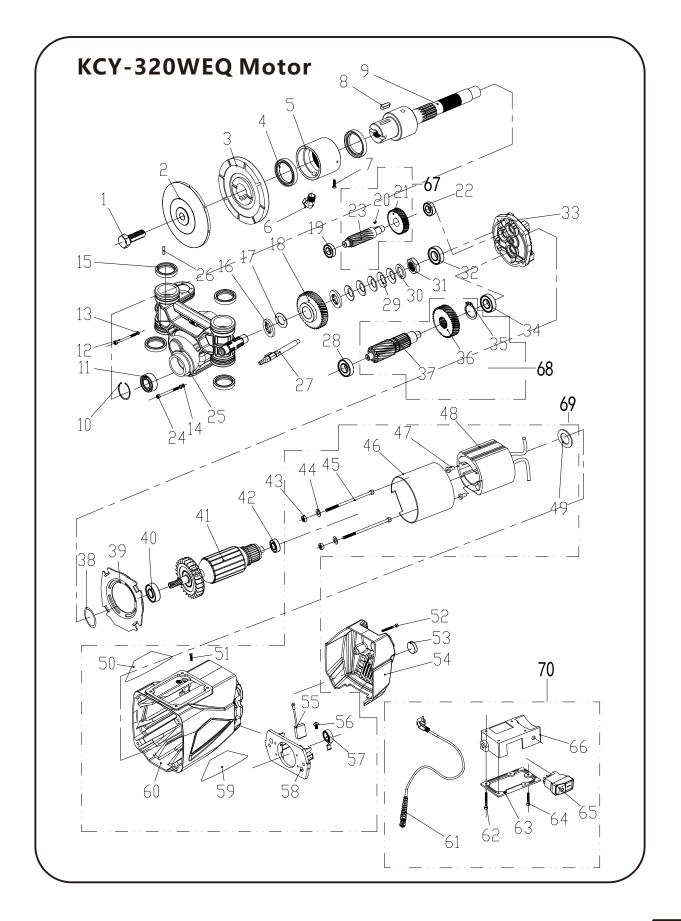
First, the machine is made under normal producing system. Thereby, if your machine is broken, do not repair it by yourself but contact our franchiser or us for repair. Second.it is prohibited to personally change parts not from the original producer. If you do, we will charge the total repairing fees after it is verified. For example, if you change the carbon brush not from the original producer, the resistance may be too large or small for the machine for it is not from our factory. It may result in the damage to the motor cover and others, and even leads to the burning of the motor. For the sake of protecting the machines' s service life, we prohibit the customer to personally change parts not from the original producer. Thank you for your cooperation.

Annotations:Clean up and lubricate every thread rolling dies and wheel for every 200 hours' operation.

#### NO. Parts name

NO.	Parts name	QTY
1	Outer hexagonal screw M16 * 35	1
2	Inner splint 800	1
3	Outer splint 800	1
4 5	Oil seal 50 * 60 * 8	2
5 6	Water circle 800A	1
7	Water connection 1/4 Cylinder screw M4 * 6	1 1
8	Marketing 25 * 8 * 7	1
9	Spindle 320	1
10	Inner card 52	1
11	Bearing 3205	1
12	Hegonal screw M6 * 125	2
13	Pad M6	4
14	Pad M6	2
15	Oil seal 40 * 52 * 8	4
16	Hand-key pad 250A	2
17	Copper 200A	2
18 19	Spindle gear 800-5	1
20	Bearing 6201	1
20	Crescent pin 4 * 12 Class I gear 800-1(8)	1 1
22	Bearing 6001	1
23	Class I tooth axis 800-2	1
24	Hegonal screw M6 * 80	2
25	Gear Box 320-WEQ	1
26	Cylinder pin 4 * 12	1
27	Hose faucet 200A-EU	1
28	Bearing 6202	1
29	Curved bullet pad 200A	5
30	Iron Ring 200-1	1
31	Nut 200A	1
32 33	Bearing 16002	1
33 34	Middle cover 320-WEQ	1
35	Bearing 6202 Card 24	1 1
36	Class II gear 800-3	1
37	Class II tooth axis 800-4	1
38	O-ring 35 * 2	1
39	Breeze 200D	1
40	Bearing 6202	1
41	Rotor 320 WEQ	1
42	Bearing 6200	1
43	Loose nut M5	2
44	Pad M5	2
45	Hegonal screw M5 * 105	2
46 47	Interior 200A	1
47 48	Insulation sleeve 12 * 20	2
40 49	Stator 320WEQ O-ring 38 * 3.1	1 1
50	Trademark DK	1
50		1

NO.	Parts name	QTY
51	Cross level screw M4 * 8	1
52	Hegonal screw M4 * 35	2
53	Horizontal instrument 16 * 8	1
54	Cover 200D	1
55	Brush frame 200A	2
56	Round head cross screw M4 * 8	1
57	Bypass 200A	2
58	Brush frame 200D	1
59	Parameter card DK(92.6 * 40.4)	1
60	Stator hull 200D	1
61	Power cord 3 * 2.0 * 3.5 M	1
62	Hegonal screw M4 * 50	4
63	Switch Box Cover 200A-FS	1
64	Hegonal screw M4 * 25	1
65	Waterproof switch KJD17B	1
66	Switch Box 200A-FS	1



NO.	Parts name	QTY
1	Roller 320	4
2	Bearing 6902	8
3	Pad 8	2
4	Hegonal screw M8 * 16	2
5	Flower Iron Set 320	1
6	Semi-circular plate 320-WEQ	2
7	Hegonal screw M4 * 16	6
8	Trip switch left hook 320	1
9	Outer Heptagonal Screw M6 * 12	4
10	Trip Switch TIV-80	2
11	Trip Switch Cover DW	2
12	Trip switch punch DW	2
13	Hegonal screw M4 * 10	4
14	Cover 320-WEQ	1
15	Up hook 800	2
16	Outer hexagonal screw M6 * 16	4
17	Direction 320	1
18	Sign 320	1
19	Blade gear 320.	1
20	Marketing 3 * 3 * 12	1
21	Knife motor 320	1
22	Hegonal screw M5 * 20	4
23	Hegonal screw M5 * 10	4
24	Warning sign 320	1
25	Hose connector M12 * 1.5	1
26	Outer Heptagonal Screw M6 * 16	4
27	Lower hook right) 320	2
28 29	Nut M12	1
29 30	Base 320-WEQ	1
31	Outer Hegonal screw M4 * 25	4
32	Auto Remove Wrench 320	2
33	Hegonal screw M5 * 25	4
34	Handle M16320	2 2
34	Ring cover 800A	2
36	Gasket 320	2
37	Eccentric iron ring 320	2
38	Hegonal screw M8 * 16	2
39	Bearing 6000	6
40	Iron sleeve with spline 44 * 5 Hegonal screw M12 * 35	2 2
41	5	2
42	Hegonal screw M5 * 16 Semi-circular cover 800D	3 1
43	Bearing 6001	1
44	Turbo plate 800D	1
45	Marketing 4 * 4 * 14	1
46	Turbine 800	1
47	Bearing 6001	1
48	Small gearbox 320-WEQ	1
49	Bearing 6202	1
50	Worm φ 22 * 102	1
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NO.	Parts name	QTY
51	Bearing 6003	1
52	Card 16	1
53	Worm plate 800D	1
54	Card 16	1
55	Marketing 4 * 4 * 10	1
56	Hegonal screw M5 * 10	2
57	Hegonal screw M5 * 16	4
58	Small box cover plate 320-WEQ	1
59	Hegonal screw M4 * 10	6
60	Walking gear 800D	1
61	Marketing 4 * 4 * 16	1
62	Card 8	2
63	Walking motor DW	1
64	Hegonal screw M6 * 25	6
65	Silk rod 530	1
66	Plot 250	1
67	Rod 640	2
68	Column 570	2
69	Hegonal screw M6 * 16	1
70	Gear 320	1
71	Marketing 8 * 7 * 15	1
72	Cover nut M12	1
73	Pad M12	1
74	Bearing cover 800	1
75	Marketing 5 * 14	1
76	Right-angle connector M16 * 1.5	1
77	Motor cover 800D	1
78	Round Cross Screw M4 * 10	4
79	Cover cover DW	1
80	Into the knife wheel 800	1
81	Pad M8	1
82	Inner hexagonal screw M8 * 16	1
83	Hegonal M3 * 8	4
84	Nine-hole aviation plug DW	1

