

OPERATING INSTRUCTION -10

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

The machine can only maintain by the people who has the certification.

THANKS TO THE BUYER

Great thanks for buying the series of diamond drill of . Please read operation manual and must pay attention to 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:

911 916H

Confirm the machine model according to the nameplate.



TECHNICAL PARAMETER

MOD	Brick drilling range (mm)	Voltage(V)	Frequency(Hz)	Input power (W)	No-load speed (rpm)	Net/Gross weight (kgs)	Packing size(cm)
911	~4.5"(~110)	110/220~	50-60	1980	100-2850	5.5/7.5	55*14*34
916H	~6"(~160)	110/220~	50-60	2300	100-1900	7/9	55*14*34

To improve product constantly, our reservation does not need the right of informing in advance for technical data change.

TECHNICAL CHARACTERISTIC DESCRIBES

Above series drilling machine can only install on frame to use. This machine applies to the professional personage operating use that has gotten professional training, carries out drill hole on the materials such as rock, reinforced concrete and pitch material or take core. The diameter of drill hole exceeds 250 mm, must use high performance expansion bolt to fix. In getting into the process of cutting, cooling water flows through ball valve to go through bit, rushes to go to broken bits, is going to at the same time cool for the knife head of bit (the wet condition that gets into edge. Diamond bit, it is the pipe form drilling tool of a kind of hollow, when its front the section piece that welding (or sintering) go up and contain diamond. If be necessary, cooling water may collect through a kind of special installation (fair Shui Huan).

SAFE WORKING INSTRUCTION

Pay attention: When use electric tool, to avoid that electric shock is dangerous or occur fire, please follow safe working instruction surely. Please read earnestly before manipulator ware, and keep this rules in safe place.

1. Work maintains the working environment with neat place and confused internal organs to be easy more to arouse accident.
2. Begin work is former, as working environment carries out necessary cleaning, can't use electric tool in rain, cannot when being near to burn angry local use electric tool.
3. To avoid electric shock, please do not directly contact earthing parts with hand as metal pipeline, heating pipeline, stove or coal-scuttle.
4. Cannot make child be near. Please do not let have not received contact line cable or the people manipulator ware of professional training, please let be unconcerned people to be far away from working place.
5. Guarantee that tool is stocking and safe. The electric tool that not used should be kept in the place that is dried and is far away from child.
6. Do not make your electric tool overloaded, can develop the fine performance of machine fully more in specified load scope.

7. Dress correct protection clothes Cannot wear very comfortable clothing or wear jewelry, otherwise be twined very much by the revolving part of machine occur danger. Manipulator ware, suggest to put on ear shield and rubber gloves, wear to guard against slippery shoes in enter the plate of long hair safety helmet.
8. If inconvenience. May install machine connection to aspiration.
9. Cannot use line cable to do other use cannot use line cable to drag Ye machine, can not Ye line cable pulls out plug.
10. Cannot over bend waist, avoid that body adopts unusual attitude. Ensure you to stand position safety maintains body balance.
11. Please protect your machine properly, in order to make it develop function normally when it is working. Please follow working instruction when changing tool. Often inspect machine from tape line cable, ensure to have no breakage, maintaining handle to be dried have no oil.
12. Machine does not use for a long time, before defending machine or before changing bit, please pull out the plug of power source.
13. Cannot stay in the spanner of handling bit bit is above, before starting machine, ensure that spanner has left bit.
14. Avoid accident start machine. When moving to put through the machine of power source, cannot put finger on switch. Ensure that before plug is being inserted into socket, machine switch is in the location that stops.
15. In outdoor manipulator ware, please use the cable of extension line that accords with safe requirement.
16. In unit process of cargo bandling must notice concentration, do not when excessiveness tiredness, after wine, finish drill with the condition of taking medicine to make tool.
17. The type of generator speed adjustment or gear speed adjustment in work please select the adaptive bit of appearance, and open speed most quickly, so machine reach best state. If rig in working process rock, must close machine to inspect the concentric degree of bit and main shaft, can damage machine otherwise to occur danger.
18. Pay attention: For your personal benefit, please choose original factory accessory. Is not original factory accessory if choosing, will may produce injury for operator or the very machine.

PREPARATORY STAGE

It may use additional tool, is completed in order to go off work to do if please install and join you according to step for diamond drilling machine.

Pay attention: Before joining, must guarantee that the switch of main computer is in the state that stops.

Step 1: Comparing with the inspection of container load plan, machine and parts open package, inspect machine in transportation process, whether damage, inspection the voltage of building site whether the voltage that shows on name plate is consistent, contrast container load plan sees the attachment in package whether is complete.

Step 2: Power source joins, according to a standard EN61029 and a IEC1029-2 6 of European Union, taking the diamond drilling machine of water schoolwork must add to pack the protector of leakage of electricity, the socket of power source must carry out earthing. It is consistent with these safe rules, our product matches have packed the protector of leakage of electricity, its function, including leakage of electricity are protected untie with under-voltage to deduct. Insert the plug of power source well after, the switch face plate of the protector of leakage of electricity must ensure that is in ON (beginning) location. Fall if arising voltage drop, the protector of leakage of electricity will automatic everything breaks, once after voltage normal, should operate the protector of leakage of electricity again in REST cubes (reset) location. The protector of leakage of electricity specified movement current is 30mA.

Pay attention: Quote clean source of water surely, contain grit waiting for until the water of impurity may damage the water set sealing ring of machine, biggest hydraulic pressure is 3BAR.

Step 3: Source of water joins, the radom ware additional water inlet of flaxible tube holds to have "fast joint" may join to wire reinforced suction hose very conveniently on water supply system.

Pay attention: If the protector function of leakage of electricity is not normal, please do not want manipulator ware.

Step 4: Safety is tested, pressing generator switch and machine (soft start switch) start smoothly. Press the protector button of leakage of electricity of "test", machine stops operation, then resumes the power supply for machine again according to the button of "reset".

Pay attention: Must cannot soak the protector of leakage of electricity in water. Must often pass according to press TEST button, come to inspect its function whether is normal. Suggesting operator not to operate do not take the diamond drilling machine of the protector of leakage of electricity.

BEGIN TO OPERATE

1. Choose suitable diamond bit

The main shaft of our company deducts 4 kinds uses type frequently, please choose the reliable diamond bit of quality. Choose sharp tool, And ensure that diamond knife is first to have enough backlash (the thickness of knife head the thickness that is larger than tube wall, such do good to more in row bits) between metal tube wall. It is above that using waterproof oil paint in the bit to deduct, in order to make dismantling bit convenient. Ensure bit way jump do not be larger than 1 mm (eccentricity).

2. Fix frame in face

Regular method has expansion bolts to fix; vacuum sucker is fixed; supports regular etc..

The most general method is fixed for expansion bolt, please use the diameter of metal expansion bolt and bolt as far as possible, must be larger than 12 mm. Using vacuum sucker fix, ensure that vacuum pump has enough efficiency, sealing ring complete have no breakage. Adopting support ensure when fixing way that frame has enough stability.

Fix using expansion screw regular way, first, will guarantee that face and the base of machine will be balanced, if have, it is high! Please use the spanner that takes in machine attachment for low injustice, the 4 adjustment screws on regulation base are balanced till base. After being fixed completely, machine should guarantee that generator will not slide on rack. And will make efforts around around pull to move pillar, will guarantee that when pillar is not around, sway side may use machine.

Pay attention: Our company suggests to use expansion bolt regular way to fix vigorously, and the location of expansion screw lets egg to pillar direction to be near is best. Since fixing consequence our company that not causes firmly, do not undertake any duty.

Vertical upward drill hole, must ensure special turn water to obtain basin, guard against generator strictly cannot enter water. In working error any suspension, open only to start machine road can. ensure to take the charge of machine fear start former bit may turn freely. Is not blocked in hole.

FRICITION CLUTCH

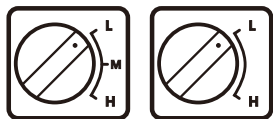
Clutch carries out protection under high-strength mechanical overload condition for operator, machine and bit. Please ensure clutch in a separation state goes off work to do not exceed 3-4 second, because it will cause temperature rise quickly and causes wear for friction flat that time passes length.

MASTER SWITCH AND OVERLOAD PROTECTIVE DEVICE

After pressing switch, machine (soft start switch) starts smoothly. If machine is overload, its electron protects switch, will remind operator machine to be overload with exceptional fluctuation. If load does not be reduced, after some seconds of clocks, switch is closed voluntarily. Start again if remove load, machine will again start smoothly. When start machine again is former, ensure bit may turn freely is not blocked in drill hole. It will even burn out for that generator causes serious infringement if this machine highest compression is higher than 260 V for 260 V. When using generator to supply power, must notice that voltage peak value cannot be higher than 260 V.

GEAR SPEED ADJUSTMENT

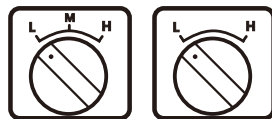
Ordinary gear speed adjustment



3 files

2 files

Oil soaks money gear speed adjustment



3 files

2 files

To improve the efficiency of drilling, some machines have 3 type gear speed changes. In it is high to divide, high speed files (the day files) apply to little bit and more soft material to rush, fast files (M files) apply to in bit and more hard material; The files of low speed (L files) apply to big bit and hard material.

- ▲ Machine turns under stoping the state that turns or stops soon to move group Niu change files.
- ▲ Machine must want to shift gear to position when shifting gear, if occur main shaft after start, it does not turn or have tooth sound to explain that files position does not hang to position, must close switch at once, and turn again move knob to the position that needs files at the same time round trip turns main shaft (hang files easily), have obvious put into gear to block until position.
- ▲ Must close mains switch at once, round trip turns mainshaft to at the same time turn to move knob. Machine is operating at full speed, load or card please don't change files when living.

L is the files of low speed, H is high speed files, M is the files of middling speed (3 files types), graphic representation is the files of low speed, spin along hour hand if by the files of low speed, turning high speed files knob, otherwise counter-clockwise.

COMMON FAULT AND THE METHOD OF REMOVING

Fault	Reason	The method of removing
Generator does not turn	Power source is obstructed , or contacts to loosen to fall	Resume power source , inspect all joints and tighten
	Carbon brush blocks , take off open commutator	New installation carbon brush
	After the protector movement of leakage of electricity, do not reset	Press reset button to start generator again
	The protector damage of leakage of electricity	Change the protector of leakage of electricity
Drill hole is too slow	Bit life has arrived	Change bit
	Feed pressure is too low	Increase feed pressure
	Bit knife first surface is pasted by thin bits	Clean bit, increase hydraulic pressure
	Rotational speed is too high	Switch the files position of low speed
	It is slippery to cut thick reinforcing bar to hit	Feed pressure reduces is little after, will cross reinforcing bar increase pressure again
	In processing hole, amass bits	Put in order hole bottom. Pressurization
	Current does not be obeied , leakage or have no reflux	Inspect into the valve of water polo , inspect current
Bit blocks	Bit sharp degree reduces	Using fire-resistant brick or emery wheel open edge again
	The leather or broken bits piece of reinforcing bar blocks , is getting into core between bit or between bit and hole wall, frame fixes , is not firm , it is exceptional to produce displacement frame pillar and the gap of sliding sleeve.	Stop machine , turn bit around spanner, or pull out bit to knock broken get into heart to fix the frame adjustment gap of sliding sleeve again.
Bit wall wear is rapid	Main shaft not just	Repair or change main shaft
	Bit not just	Change bit
	Reinforcing bar or thin bits can not remove hole outside	Improvement current, take out bit , clean hole
Water set leakage	The skeleton wear or ageing of sealing ring	Change skeleton sealing ring

MAINTENANCE AND REPAIR

ATTENTION: You must remove the main plug from the supply socket before beginning any maintenance or repair work.

Clean the machine with a dry or moist cheaning-rag and not with a jet of water. Make sure that no water gets into the motor or the switch box. Ensure that the ventilation slots are always clean. Clean and greases the tool thread , too.

◆ Oil bath gear

The gear oil should be changed after the first 300 hours of operation. Ensure that this work is carried out in a specialist workshop, or proceed as follow: Clamp the machine vertically in the vice. Remove the three hexagon socket screws. Take off motor and inter-mediate cover. Change gear oil-use only original oil. The filling quantity is 300-310ml.To reassemble, proceed vice vesa and ensure that the shim ring is on the front shaft.

ATTENTION: if gear oil escapes, stop the machine immediately. Leakage of oil damages the gear. Water connection

If water escapes from the overflow hole on the water connection ring, the rotary shaft seals must be replace immediately. This should only be done in an authorized specialist workshop.

Carbon brushes

The carbon brushes should be examined for wear after about 300 hours in operation, and replaced if necessary. As with all other work on the motor, this should only be carried out by an electrician.

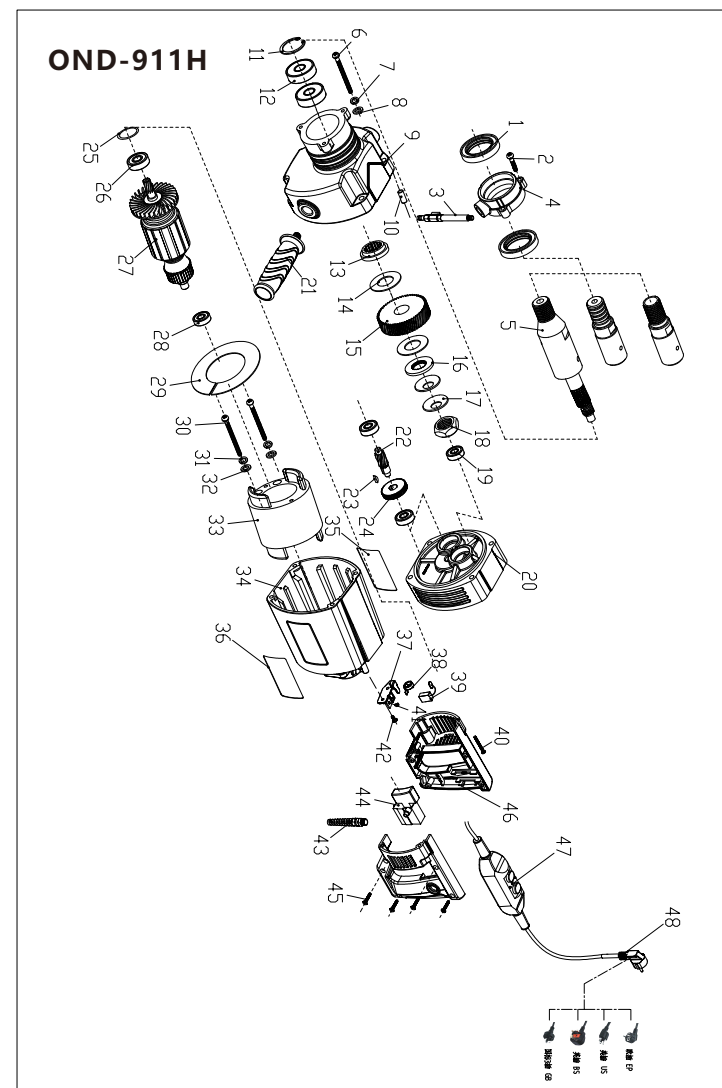
WARRANTY

We warrants all products manufactured or sold by it against defects in workmanship or materials for period of 12 months from the date of shipment to the customer. Please contact our factory or the authorized repair shop in your local area for replacement or repair of defective parts.

This warranty does not cover normal wear and tear, overloading , non-compliance with the operating instruction and intervention by unauthorized persons or the use of parts from other companies.

※We don't warranty the situation that machine is not fixed by users and damaged.

No.	Parts Name	QTY
1	Oil seal 30 * 40 * 7	2
2	Hegonal screw M4 * 18	3
3	Water faucet 200A-EU	1
4	Water circle 911.	1
5	Spindle 911	1
6	Round head cross self-propelled screw M5 * 65	4
7	Pad M5	4
8	Pad M5	4
9	Gear box 911-S	1
10	Cylinder pin 4 * 12	1
11	Inner card 35	1
12	Bearing 6003	2
13	Hand-key pad 17 * 34 * 7	1
14	Segment 90	2
15	Spindle gear 911H-3	1
16	Hand-key pads 17 * 34 * 3.5	1
17	Curved bullet pad 90	2
18	Nut 130	1
19	Bearing 608	3
20	Cover 911 in the middle.	1
21	The assistant took 80	1
22	Class I tooth shaft 911H-2	1
23	Crescent pin 3 * 10	1
24	Class I gear 911H-1(7)	1
25	O-ring ϕ 31.5 * 1.8	1
26	Bearing 6000	1
27	Rotor OND-911	1
28	Bearing 608	1
29	Windscreen 911.	1
30	Round head cross self-propelled screw M4 * 65	2
31	Pad M4	2
32	Pad M4	2
33	Stator OND-915	1
34	Stator shell 911	1
35	Parameter Card 18-916(60.3 * 29.5)	1
36	Brand 40-80	1
37	Brush 911.	2
38	Bypass 1780	2
39	Carbon Brush 1780	2
40	Round head cross self-propelled screw M5 * 40	4
41	Round Head Cross Screw M4 * 6(Copper)	2
42	Round Head Cross Screw M4 * 10(Copper)	4
43	Fold proof connector M12 * 1.5	1
44	Speed switch 9/11 / 130	1
45	Round head cross self-propelled screw M4 * 20	5
46	Master, hold 911	1
47	Leakage protector PD16	1
48	Power cord 3 * 1.0 * 3.5 M	1



No.	Parts Name	QTY
1	Oil seal 30 * 40 * 7	2
2	Hegonal screw M4 * 18	3
3	Water faucet 200-EU	1
4	Water circle 911.	1
5	Spindle 916	1
6	Inner card 35	1
7	Bearing 6003	3
8	Iron Circle 916-2	1
9	Hegonal screw M5 * 85(half tooth)	2
10	Pad M5	4
11	Pad M5	4
12	Sphinx 90	1
13	Segment 90	2
14	Spindle gear 916-3	1
15	Hand-key pads 17 * 34 * 3.5	1
16	Curved bullet pad 1780	2
17	Nut 130	1
18	Bearing 608	1
19	O-ring ϕ 31.5 * 1.8	1
20	Middle cover 916	1
21	Bearing 608	1
22	Class I gear 916-1(6)	1
23	Class I tooth axis 916-2	1
24	Crescent pin 3 * 10	1
25	Bearing 6000	1
26	Gear Box 916-L	1
27	Hegonal screw M5 * 75(half tooth)	2
28	Bearing 608	1
29	Rotor OND-916	1
30	Bearing 6001	1
31	Windscreen 916	1
32	Cross tapping screw M4 * 75	2
33	Pad M4	2
34	Stator OND-916	1
35	Pad M4	2
36	Brand 40-80	1
37	Parameter Card 18-916(60.3 * 29.5)	1
38	Stator shell 916	1
39	Curtain 19	2
40	Carbon Brush 19	2
41	Switch HY12-15	1
42	Round head cross self-propelled screw M5 * 40	4
43	Brush frame 19	2
44	Round Head Cross Screw M4 * 6 Copper	2
45	Round Head Cross Screw M4 * 10(Copper)	4
46	Top cover 916	1
47	Horizontal instrument ϕ 13 * 6	1
48	Leakage protector PD16	1
49	Power cord 3 * 1.0 * 3.5 M	1
50	Fold proof connector M16 * 1.5	1

