

# **YJ-CD-A Road Drilling Machine (Environmental Protection)**

## **User Manual**



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## **I Introduction**

The pavement drilling machine developed and produced by the American YJ company can be used to drill holes in concrete or asphalt pavement. It is widely used in municipal gas and tap water and other municipal industries for precise positioning of pipeline network leak points, pipeline detection and maintenance of key hole operations. It is an indispensable equipment for the city gas and water pipe network detection system.

YJ-CD-A series is a new generation of environmentally friendly pavement drilling rig. Its main components and equipment are installed on a trolley, which is small in size, light in weight and easy to carry. It is also easy to operate, solid and durable, and is the first-class technology among similar products. Equipped with a water tank, there will be no dust generated in the drilling, achieving the ideal environmental protection effect.

## **II Technical Specification**

1. Operating voltage: ~ 220V 50Hz
2. Drilling power: 1.8kW
3. Drill bit diameter:  $\varnothing$  22mm
4. Drilling depth: 0 ~ 500mm
5. Dimensions: 1050 \* 680 \* 1000 mm
6. Weight: 115kg

### **III Safety**

1. Keep the workplace clean. Operation of the drilling rig in a messy workplace is prone to accidental injuries.
2. Pay attention to the workplace environment. Do not work in a dark environment. Do not expose the rig to rain and moisture. Do not use the rig in flammable or explosive places.
3. The operator should wear suitable tight-fitting work clothes, wear a hard hat, etc., and do a good job of safety protection.
4. The motor must have a grounding device to prevent electric shock.
5. Prevent the rig from starting suddenly. Before inserting the plug into the power socket, make sure that the switch is in the off position, and remove unrelated debris such as wrenches and screwdrivers.
6. Before the construction, check the embedding of pipelines and point conductors in the construction area. Construction in areas with unknown conditions is not allowed to avoid accidents.
7. When the drill is not in use, the power must be cut off when repairing and replacing the drill.
8. In addition to following this instruction, the provisions of GB3738 "Management, Use, Inspection and Maintenance of Hand-held Power Tools and Safety Technical Regulations" should be strictly implemented.

### **IV Installation and Operation**

1. Unpack and check whether the parts are complete.
2. First stand the trolley sideways, install the rig stand on the trolley according to the installation position and fasten with screws.
3. Install the generator on the trolley and fix it firmly with the positioning pressure block.
4. Install the rig on the rig mounting bracket and tighten.
5. Install the water tank, connect the water pipe, fill the water tank with a proper amount of clean

water, and pressurize.

6. Install the drill bit, park the trolley at the place to be drilled, and firmly (press the brake plate)

7. Adjust the angle of the drill rig so that the drill rod is straight down. Turn on the power, open the water valve, and turn the handle to slowly lower the drill. After the drill bit contacts the ground, feed slowly and smoothly to drill to the desired depth.

8. After drilling, lift the drill bit and turn off the water valve and power supply. Remove the drill bit and pour out the mandrel in the drill hole.

## **V Operation Warning**

### **1.Stable trolley & Drilling rig**

Fixing the rig firmly and steadily is an important condition to ensure that the rig can drill normally.

Before drilling, the car should be placed stably (press the brake plate). If the road surface is uneven, it can be leveled with leveling screws. If the road surface height difference is too large, steel plates or wooden boards can be placed under the wheels.

### **2. Installation Construction**

In the case of power failure and the rig stopped, carefully install the diamond thin-wall drill bit; after tightening the drill bit, it should be tested with no load to confirm that the radial runout when the drill bit rotates meets the requirements before it can be operated.

### **3. Adjust the drilling rig speed**

This rig has three speeds to choose from, and can be adjusted according to the situation during work.

Adjusting the speed of the drilling rig must be carried out with the power off and the drilling rig stopped.

### **4. Opening and drilling**

To start the rig under no-load state, it is not allowed to start with load. After starting, hit open the

water supply valve. When there is water flowing out of the drill, you can start to drill down. The force should be stable and even. During the drilling process, if the speed of the drilling rig is significantly decreased, it indicates that the drilling rig is overloaded and the feed pressure should be reduced immediately to achieve the ideal speed of drilling.

## **5. No operation without water**

During construction, there should be sufficient water to enter the inner cavity of the drill bit for cooling, and at the same time to remove mud debris to prevent damage to the drill bit and the sealing ring.

## **6. Drill vibration**

When drilling, if the drill rig vibrates, the drill should be stopped immediately for inspection and maintenance. There are two reasons for the vibration of the drilling rig: one is that the screw of the drilling rig is loose, and it can be solved by tightening the screw at this time; the other may be caused by the gap between the rack of the lifting body and the rail horn on the lifting body can be adjusted. , Roller, adjust the appropriate gap by tightening the relevant screws.

## **7. Cleaning and maintenance**

After the work is completed, the machine tool should be cleaned, and the rig and bit should be removed and stored in a suitable location to avoid damage.

## **8. Motor use and maintenance**

Refer to the power generation manual for generator use and maintenance.