

ZJ Series Punching Piling Machine

Operation

Manual

Shaoxing Nante Lifting Equipment Co., Ltd.

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ATTCHED: Drawing of piling machine

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1. Usage

Punching Pile Machine is an important drilling machine of pile foundation construction, the main structure is main winch, secondary winch, frame, hammer, mud pump and operation counters.

Punching Pile Machine is mainly used for drilling pile construction. It has obvious advantages particularly in the pebble, boulder stratum conditions. Its working principle is to lift striking hammer to free-fall down strike repeatedly, split and smash the mud, rock in the drill or push them into drill hole wall, suspend them in drilling mud, and then dig out them by cut tube devices.

Although the construction of Punching Pile Machine is simple, and works slowly, compared with other construction methods, the overall consumption is the lowest one, that is one of the reason why many construction companies have chosen it as main Drill Pile equipment Meanwhile, compact soil wall around hole stabes the wall, improves the bearing capacity of pile foundation, all have certain effect

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2. Main technical parameters

Technical Parameters of ZJ Series Punching Pile Driver

Parameter/Model	ZJ900	ZJ1200	ZJ1500	ZJ2000
Diameter of Punching (mm)	600-900	1000-1200	1200-1500	1500-2000
Depth of Punching(m)	80	80	80	80
Model of Main Winch (Ton)	JKL3	JKL5	JKL6	JKL8
Subsidiary Winch (Ton)	JK1.5	JK1.5	JK1.5	JK2
S.W.LRated pulling(KN)	30	50	60	80
Diameter of Main winch Wire Rope (mm)	17	21.5	24	28
Power of Main winch Motor (KW)	22	37	45	55
Punching Number (n/min)	5-6 n/min			
Diameter of Hammer(mm)	φ600~φ2200			
Weight of Punching Hammer	2ton	3ton	4ton	6ton
Weight of Complete Machine	5500kg	6000kg	6500kg	9500kg
Overall Dimension(mm)	6000×2200×6300	7000×2000×7000	7000×2100×7200	7200×2000×7200

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3. **Main structure**

Main material of the rack is welded of H structure steel, and all winch parts under main arm are connected with H structure steel. Main lifting arm is made of channel steel, as for the middle part it is connected with steel plate or seamless steel tube. The inclined arm is welded of seamless steel tube, thus ensure the stiffness and strength of the whole rack. There are 2 pieces of small pulley mounted on top of the main arm and are used for lifting mortar barrel. Main material of the pulley is ZG45 and there are 2 sets bearing inside with enough lubricating oil to prevent form wear, therefor increasing its service life.

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4. **Installation and operation.**

4.1. Main rod forward slope angle is decided by our customer. If the customer want change the angle, then the shaft seat must be moved to proper position and welded firmly. (This piling machine has been welded completely)

4.2. Installation procedures

4.2.1 During installation, there should also be a crane. First, put the shaft hole inside the seat with hinge pin, and then connected the top of rod to main rod with hinge pin. Lifting the upper part of main rod with crane and put the lower part of the rod into the shaft hole with hinge pin. Fix the hinge pin with shaft end stop plate or split pin.

4.2.2 Put the wire rope into the winch from front of upper pulley in the main rod, and then the rope will come out from back of the lower pulley. Then the wire rope can be operated through the press plate.

4.3 Usage of the machine

Please read the operation manual before usage of the machine, and carry out operation procedure according to the manual strictly.

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5. Notes

Besides items mentioned above, please also pay attention to the following

5.1 Check screw in each part regularly to see whether the screw is loose, shaft end plate and its screw, split pin is loose or broken, vibration caused by punching will easily lead to these kind of phenomenon. If there is any problem, please solve immediately to prevent from accidents

5.2 Keep enough lubricating oil or grease in the pulley. Usually, add oil to big pulley every half year while every week for the small pulley.

5.3 Do not put other stuff on the punching piling machine.

5.4 Do not overload.

Attaching drawing

