

Instruction

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1. Main Purpose and Characteristics

The Permanent-magnetic crane of PML series is mainly used to absorb plank-shape or column ironware materials and workpiece. It is provided with the characteristics of light structure, convenient operation, powerful absorbing force and safety and reliability. It will improve the working efficiency greatly, therefore, it has been widely used as the hoisting tool in factory, dock, storehouse and transportation.

2. Main Structure and Parameters

The Nd-Fe-B high-performance permanent magnetic material is used for the Permanent-magnetic crane of PML series. It can produce very strong absorbing force within the magnetic circuit. The handle can be used to switch on or off the core shaft of the crane and free of power supply. When the crane is under working status, the absorbing-surface of the crane bottom will form a pair of longitudinal magnetic pole to firmly absorb the workpiece of iron material. There is a V shape groove on the absorbing surface, so it can be used for both plank-shape workpiece and column one.

Main technology Parameters

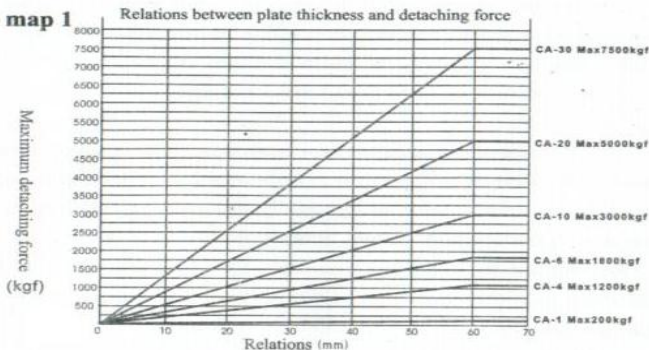
Model	Rated lifting capacity(kg)	Mas breakaway force(kg)	Dimensions(mm)				N.W (kg)
			L	B	H	R	
PML-100	100	250	90	63	68	145	3
PML-400	300	1200	160	95	180	160	11
PML-600	600	1800	220	115	125	230	20
PML-1000	1000	3000	260	145	145	280	40
PML-2000	2000	6000	420	185	185	510	90
PML-3000	3000	9000	480	200	200	510	125

If there is change on the size at the table, no additional information will be given.

3. Usage

- (1) The permanent-magnetic crane must work within the rated weight. It is forbidden for over-loading to avoid accident.
- (2) The thickness and surface quality of the hoisting workpiece will influence the hoisting capacity of the permanent-magnetic crane, therefore, before operation, please refer to the performance curve to decide the actual hoisting capacity.

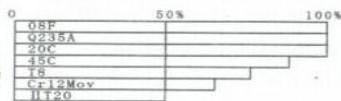
Sketch map 1



(3) The material of the workpiece may also influence the hoisting capacity. The hoisting capacity is 100% for mild steel, 95% for medium-carbon steel, 90% for high-carbon steel, 75% for low-carbon alloying steel and 50% for cast iron.

Sketch map 2

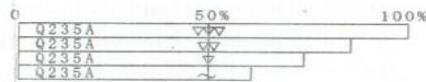
Relations between material and magnetic-absorbing force



(4) As to the influence of the surface roughness to the hoisting capacity, please see Fig.3

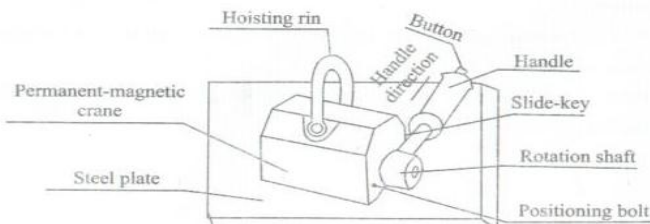
Sketch map 3

Relations between surface roughness and magnetic-absorbing force



(5) Installation

Please install the rotation handle after the permanent-magnetic crane is placed on the steel plate. Under this condition, the handle can rotate freely. Otherwise, it is very difficult to rotate it even much force is applied. Please see the following sketch map and do not mistake the direction.



(6) When hoisting workpiece, be sure to hoist the gravity center of the workpiece to guarantee the balance, then switch the handle from 'OFF' to 'ON' and confirm that the slide-key of the handle is locked and then begin hoisting. The crane should move smoothly to avoid shake that may cause workpiece drop and accident.

(7) If it is used to hoist column-shape workpiece, please be sure to make the V-shape on the crane bottom contact with the workpiece, but the hoisting capacity is only 30%~50% of the rated hoisting capacity. (the decrease of hoisting capacity is related to the diameter of the column workpiece)

(8) After hoisting operation, please detach the slide-key of the handle from the positioning lock, then recover the handle to the free position, shut off and take down the crane.

(9) Working environment condition of the permanent-magnetic crane

- A. The temperature is not higher than 80°C
- B. No violent shake or impact.
- C. No metal erosion reagent around the environment.

4. Maintenance and Safety

- (1) Do not strike and impact the permanent-magnetic crane during operation, these may influence its performance;
- (2) Do not turn the handle when the crane bottom not contacting the steel;
- (3) It is forbidden to stand under the hoisted workpiece during operation;
- (4) Keep the absorbing surface clean and flat and remove the impurity;
- (5) Please check the slide-key and positioning-bolt regularly to guarantee reliable lock and safety;
- (6) When the hoisting operation is finished, please make sure that the traveling crane moves smoothly. Do not impact and break the shaft. If there is crack or break or inner damage, please contact us for repair. Do not repair it by yourself;
- (7) Please demarcate and test the crane every two years after putting into use to ensure safety;
- (8) Please strictly carry out the national operation regulations to the permanent-magnetic crane.