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Straight-sided single-action mechanical power presses - Characteristics and dimensions

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard uses the redrafting method to modify and adopt ISO 9188.1993 "Machine Tools 400kN~4000kN Closed Single Action Mechanical Pressure"

Force machine parameters and dimensions".

Compared with ISO 9188.1993, the technical differences of this standard and the reasons are as follows.

---The scope of application is expanded to 10000kN to adapt to the development of my country's closed single-action mechanical press industry;

---Modified the tensile pad force, changed Ft~0.2Fn to Ft~(0.1~0.2)Fn to adapt to the closed single-action mechanical press in my country

Product design and selection (see 2.2);

---The parameter values of 5000kN, 6300kN, 8000kN, 10000kN specifications have been increased, and the tensile pad force Ft and the

The parameter value of the material force Fk to guide the product design of my country's closed single-action mechanical press (see Table 1);

---Added three columns of parameter values to guide the product design of my country's closed single-action mechanical press (see Table 2);

---Added three columns of parameters and size values to meet the needs of my country's stamping process (see Table 3);

--- Two columns of parameters and size values have been added to meet the needs of my country's stamping process (see Table 4);

---Added four columns of parameters and size values to adapt to the product design of my country's closed single-action mechanical press (see Table 5);

--- Two columns of parameters and size values have been added to guide the product design of closed single-action mechanical presses in my country (see Table 6);

---Three columns of parameters and size values have been added to guide the product design of my country's closed single-action mechanical press and meet the needs of stamping technology (see

Table 7).

This standard was proposed by the China Machinery Industry Federation.

This standard is under the jurisdiction of the National Forging Machinery Standardization Technical Committee (SAC/TC220).

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1 Scope

This standard specifies the parameters and dimensions of a closed single-action mechanical press with a nominal force range of 400kN~10000kN.

This standard applies to single, double and four-point closed single-action mechanical presses.

2 Terms and definitions

The following terms and definitions apply to this document.

2.1

Nominalforce

Fn

The maximum force allowed on the slider within a certain distance before the bottom dead center.

2.2

Stretch cushion force bedcushionforce

Ft

The force corresponding to the nominal force, when the air pressure is 0.5MPa, Ft~(0.1~0.2)Fn.

2.3

Knockoutforce

Fk

The force corresponding to the nominal force, Fk~0.1Fn.

2.4

Nominalenergy

Wn

When the slider moves in a continuous stroke, the energy output by one stroke is related to the reduction of the rotation speed of the flywheel.

Note. The nominal energy Wn is related to the nominal force Fn, the nominal force stroke hn and when there is a stretching pad, the stretching pad force Ft and the stretching pad stroke ht are related. Nominal energy

The amount should generally be selected according to the working mode of the press.

2.5

Maximum mold height shutheight

e1

When the stroke of the slider is at its maximum, the height of the mold assembly is adjusted to the upper limit and the slider is at the bottom dead center.

distance.

Note. Under normal circumstances, the height of the mold can be adjusted. The maximum mold height difference is 100mm.

2.6

The distance from the worktable to the bottom surface of the slider bedtoslidedistance

e2

When the stroke of the slider is at its maximum, the height of the mold assembly is adjusted to the upper limit and the slider is at the bottom dead center.

distance.