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THE PROCESS OF BASING OF ZAGATOVS DURING THE DORNALIZATION OF THE HOLES

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Abstract

This article contains a variety of essays. In the dorsal of the holes involves the process of basing the taps. This process improves surface cleanliness, the quality level will be higher. When making deep holes of small diameter, it is desirable to use methods that increase high animosity and surface purity, working ability of details, as well as their rigidity in a state not less than HRC≤445. These include dornamon, flashing methods.

The article uses the Dornes in a variety of processes.

The state of stagnation in the plain of the forces acting on the Zagatovka

Baseing the tool in an upright working walk and scheme of forces on its cone. In the process of basing we define the state of self-installation of the zagatovka.

Keywords: Dornovka, Drilling, Punches, Sinkers, Grinders, Lathes.

Introduction

Taking into account the main influencing factors, we consider the baseing process of the bore of the bush detail.

First of all, the discrepancy of the axis of the zagatovka hole with the tool axis, the geometric fingers of the zagatovka and its position, the direction of the working tool character, the coefficient of friction caused by circuiting, the scheme of dorsing of the holes.

In the process of dorsing the tool, we consider the scheme of basing a vertical zagatovka in a top-down character.

Taking into account the influencing factors, we consider the tilt of the tool in the downward motion of the tool to the right relative to the base and the alignment of the axis of the hole of the part being processed with the working cone axis relative to each other. We determine the forces influencing the protrusion by the instrument (Fig. 2.1.)

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The state of stagnation in the plain of the forces acting on the Zagatovka

Pr=F1

P1=G+Po

where *the weight of G-zagatovka* is related to the scheme of forces in Figure 2.1.b, the forces acting on the roof of the working cone of the tool in the zagatovka

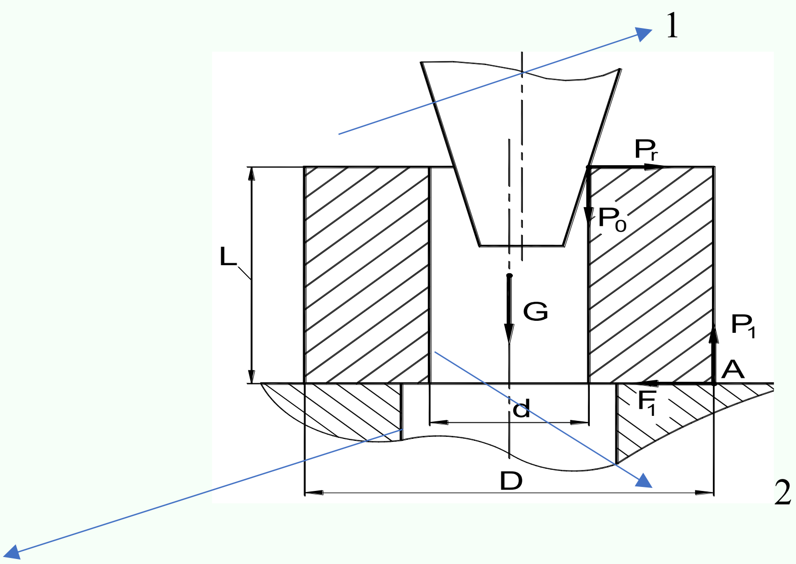
$$P_r = \frac{\cos\alpha - f\sin\alpha}{\sin\alpha + f\cos\alpha} \cdot P_o \quad (2.1)$$

Where *is* the coefficient of friction of the working cone of the working gear α, f-zagatovka-device circuit.

Frictional strength of Zagatovka against base

$$F_1 = P_1 \cdot f_1 = (G + P_o) f_1 \qquad (2.2)$$

here is the *coefficient of friction on the F1-Zagatovka-base circuit*



A- Picture

1-dorna. 2-namuna. 3-prism a

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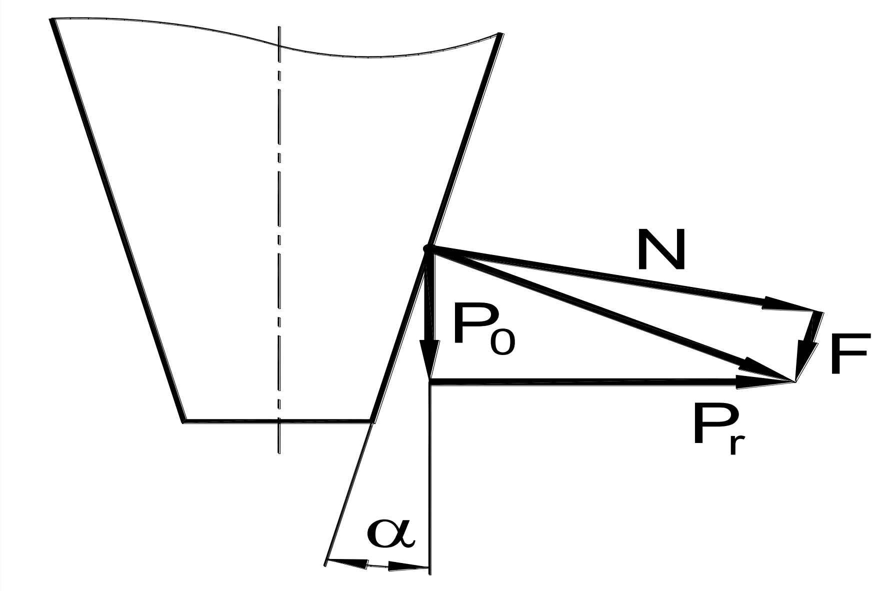

Figure 2.1.b

Figure 2.1. Scheme of forces in the conical of the tool with an upright positioning of the tool in an upright working process.

Subject to (2.1) and (2.2)

$$\frac{\cos\alpha - f\sin\alpha}{\sin\alpha + f\cos\alpha} = k \quad (2.3)$$

From the Stability Equation

$$P_o = \frac{Gf_1}{k - f_1} \quad (2.4)$$

$$P_r = \frac{Gf_1 \cdot k}{k - f_1} \quad (2.5)$$

It can be seen from (2.3) and (2.5) that the value of the forces acting on the zagatov (instrument) in basing is not negligible. For example, the $\alpha = 5°$, $f = f_1 = 0{,}2$, radial force P_r is about 0.2 G, and the acting force on the axis is P_0 0.06 G.

The radial force can be as small as the weight of the scavengers. In this case, it is important to base the tool through the built-in non-behavioral slots holes.

In the process of basing we define the state of self-installation of the zagatovka. To do this, we construct the equation of the moments of force with respect to point A

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$$P_O\left(\frac{D-d}{2}\right)+G\frac{D}{2}-P_r\lambda=0$$

Zagatovka is an irreversible state

$$P_r\lambda\le P_O\left[\frac{D-d}{2}\right)+G\frac{D}{2}$$

To this we put (2.4) and (2.5)

$$\lambda=\frac{D-d}{2k}+\frac{D(k-f_1)}{2f_1k}\quad(2.6)$$

As can be seen from Fig. 2.6, the permissible height of the zagatovka increases with the increase in its outer diameter and the coefficient of friction at the base zagatovskaya circuit decreases.

The permissible height of the zagatowka is low, the diameter of the hole and the effect of the coefficient K. For example, $\alpha=5°$, $f=0{,}2$, the coefficient $K=3{,}42$ is , $\alpha=3°$ $f=0{,}1$, $K=6{,}53$, Zagatovkani $d=10мм$, $D=30мм$ if $f_1=0{,}13$ there is $K=3{,}42$, it $\lambda\le 48{,}5мм$ will be.

If (2.6) equality is not met, Zagatov will be overthrown during the basing period. To find the deviation angle β Zagatovka we consider the scheme (Figure 2.2). If we call a right-angle coordinate system the starting point O, then the zagatovka is inclined by β angles relative to the point A, and the point V now occupies the state V*. And the point S goes into the state S*. V* and S* coordinates

$$B*\left[e-\frac{d}{2}-t+C\cos(\gamma+\beta);C\sin(\gamma+\beta)\right]$$

$$C*\left[a\cos(\mu+\beta)+e-t-\frac{d}{2};a\sin(\mu+\beta)\right]$$

The correct equation passing through point V* at an angle to the abscissa axis (90°+α) will look like this. (Figure 2.2)

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$$y = -x(tg(90-\lambda)) + (e - \frac{d}{2} - t + C\cos(\gamma+\beta)tg(90-\lambda) + C\sin(\gamma+\beta)$$

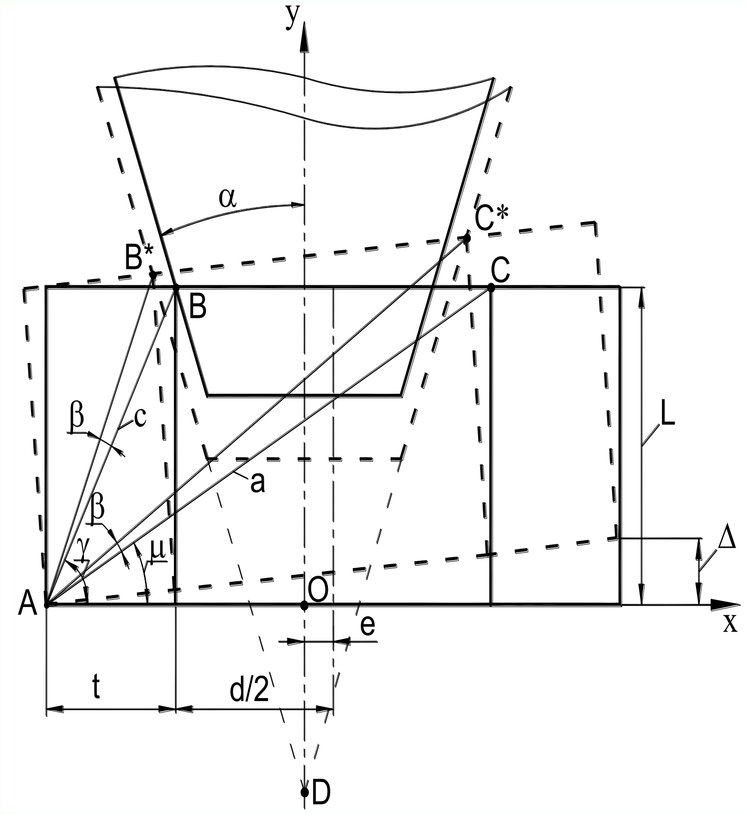

Figure 2.2.

C^* A straight equation (2.7) passing

$y = x(tg(90-\lambda)) + (e - \frac{d}{2} - t + C\cos(\gamma+\beta)tg(90-\lambda) + C\sin(\gamma+\beta)$ at an angle from point to an abscissa axis

(2.7) If C^* we put the ni coordinators into the equation

$$a\sin(\mu+\beta) = (a\cos(\mu+\beta) + e - t - \frac{d}{2})tg(90-\lambda) + \left(e - \frac{d}{2} - t + C\cos(\gamma+\beta)tg(90-\alpha) + C\cos(\gamma+\beta\right)$$

(2.8)

Redesign (2.8)

$$t + \frac{d}{2} - e = \left(t + \frac{d}{2}\right)\cos\beta - \left(\frac{d}{2}tg\alpha + \lambda\right)\sin\beta \quad (2.9)$$

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Based on this equation

$$B\cos\beta - A\sin\beta = C \quad (2.10)$$

$$A = \left(\frac{d}{2}tg\alpha + \lambda\right) \succ 0 \quad (2.11)$$

$$B = \left(t + \frac{d}{2}\right) \succ 0 \quad (2.12)$$

(2.10) tenglamani yechsak

$$\cos(\beta + \varphi) = \frac{c}{\sqrt{A^2 + B^2}} \quad (2.13)$$

Here $\varphi = arctg\frac{A}{B}, \ldots\ldots\ldots 0 \le \varphi \le \frac{\pi}{2}$ (2.14)

V level (2.9)

$$\frac{C}{\sqrt{A^2 + B^2}} = \frac{t + \frac{d}{2} - e}{\sqrt{\left(t + \frac{d}{2}\right)^2 + \left(\frac{d}{2}tg\alpha + \lambda\right)^2}} \prec 1 \quad (2.15)$$

So there is a permanent solution to Equation (2.9)

(2.10 ..... 2.15), we can find the deviation angle of the zagotovka

$$\beta = \arccos\left\{\frac{\frac{D}{2} - e}{\sqrt{\left(\frac{D}{2}\right)^2 + \left(\frac{d}{2}tg\alpha + \lambda\right)^2}}\right\} - arctg\frac{dtg\alpha + 2\lambda}{D}, \quad (2.16)$$

Here ye – the initial compatibility of the working corps and the zagotovka hole Analysis of the formula (2.16) shows that the angle β influencers are YE and φ and β increase as YE grows.

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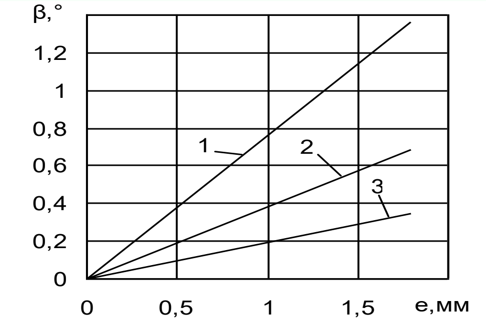
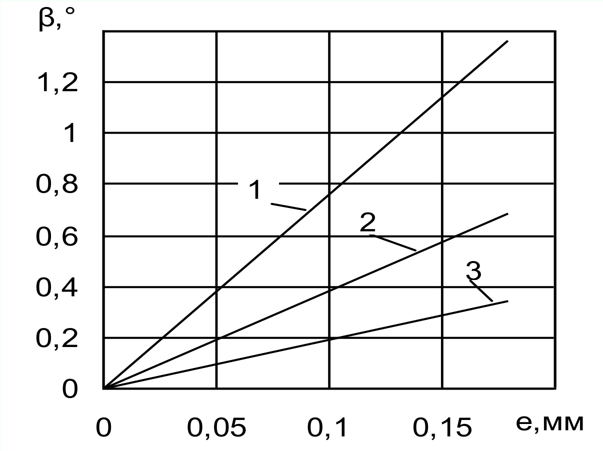
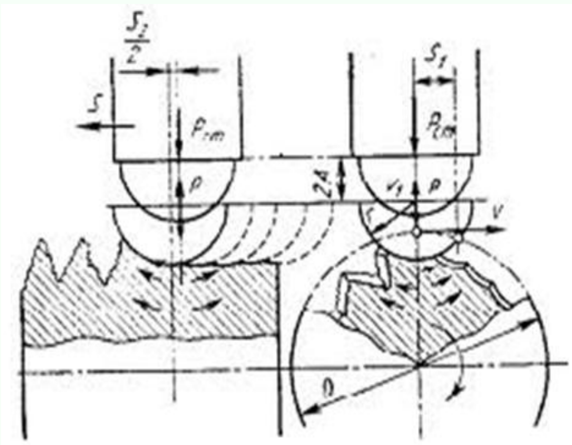
λ decreases as a result of an increase in the number of people in the world. (Figure 2.3)



A



1 – L=75 mm,
2 – L=150 mm, 3 – L=300 mm; b – d=1 mm, D=3 mm, 1 – L=7.5 mm, 2 – L=15 mm,
3 – L=30 mm



2.4. The figure shows a diagram of the surface with a new trim when the Dorne ring is stitched through. Dornaching is mostly done after pre-drilling, zinkering,

grooving, reconnaissance, and other processes. If the microprofile of the initial surface is transverse, the surface of the lower purity where the dorsal process is performed is the surface.
Dornacular technology is used in performing finishing - reinforcing processes in transitional holes.
Piercing holes are treated with straightening clenches, flattening screwdrivers, and flashing balls.

Conclusion:
Improving the coefficient of useful work due to the application of the Dornization technological process. Alternatively, there can be increased surface cleanliness, less waste output, improved working efficiency. Widespread use of dornovka process in machine-building, milk-making, as well as in the manufacture of military weapon equipment ensures that our products meet the standards.

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