



$$M = \begin{bmatrix} \cos(\alpha) & -\sin(\alpha) & x_0 \\ \sin(\alpha) & \cos(\alpha) & y_0 \\ 0 & 0 & 1 \end{bmatrix}, \quad (2)$$

. 1.

$$\begin{cases} x' = x \cos(\alpha) - y \sin(\alpha) + x_0 \\ y' = x \sin(\alpha) + y \cos(\alpha) + y_0 \end{cases} \quad (3)$$

$$M' = \begin{bmatrix} \cos(\alpha) & \sin(\alpha) & -x_0 \cos(\alpha) - y_0 \sin(\alpha) \\ -\sin(\alpha) & \cos(\alpha) & x_0 \sin(\alpha) - y_0 \cos(\alpha) \\ 0 & 0 & 1 \end{bmatrix} \quad (4)$$

$$\begin{cases} x = x' \cos(\alpha) + y' \sin(\alpha) - x_0 \cos(\alpha) - y_0 \sin(\alpha) \\ y = -x' \sin(\alpha) + y' \cos(\alpha) + x_0 \sin(\alpha) - y_0 \cos(\alpha) \end{cases} \quad (5)$$

(1),
$$(5) \quad x \quad y$$

$$\frac{(x \cos(\alpha) + y \sin(\alpha) - x_0 \cos(\alpha) - y_0 \sin(\alpha))^2}{a^2} + \frac{(-x \sin(\alpha) + y \cos(\alpha) + x_0 \sin(\alpha) - y_0 \cos(\alpha))^2}{b^2} = 1. \quad (6)$$

x', y' —

$x' \dots O \dots$

(6) $x_1, y_1, \dots, x_5, y_5$; a, b ;

$$\left. \begin{aligned} & \frac{(x_1 \cos(\alpha) + y_1 \sin(\alpha) - x_1 \cos(\alpha) - y_1 \sin(\alpha))^2}{a^2} + \\ & \frac{(-x_1 \sin(\alpha) + y_1 \cos(\alpha) + x_1 \sin(\alpha) - y_1 \cos(\alpha))^2}{b^2} = 1, \\ & \dots \\ & \frac{(x_5 \cos(\alpha) + y_5 \sin(\alpha) - x_5 \cos(\alpha) - y_5 \sin(\alpha))^2}{a^2} + \\ & \frac{(-x_5 \sin(\alpha) + y_5 \cos(\alpha) + x_5 \sin(\alpha) - y_5 \cos(\alpha))^2}{b^2} = 1, \end{aligned} \right\} (7)$$

x_i, y_i — ; i —
 1 5. (7), x_i, y_i ;

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 DETERMINATION OF THE PARAMETERS OF
 THE INTERSECTION OF THE SURFACE OF
 THE TOOTH CAVITIES COUPLING SLEEVE
 AND THE PLANE PARALLEL TO THE BASE
 END FACE**

The work is devoted to defining the parameters of the intersection of the surface depressions of the teeth with a plane parallel to the plane of the base end. The dependences shown in the work permit together to consider a number of consecutive sections with ring gear teeth of the spatial geometry by combining the separate results of measuring the coordinates of points belonging to the surfaces of the ring gear on the same axis.

Keywords: gear clutch, teeth of hub, surface depressions of the teeth, the base end, an ellipse.