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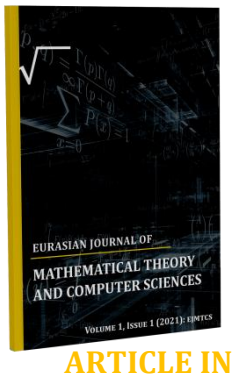

PERFORM DEVIATIONS AND STRAIGHT CUTS IN THE DETAIL DRAWING

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ABSTRACT

In order to make the rest of the detail after the deviation cut in a clear image, a holistic state of the detail is first drawn in an isometry, and after the isometric projection of the detail is drawn, a point is marked at the intersection of the base of the cylinder with the prism edge to determine the line of intersection of the surfaces.

Projection drawing is a preparation section for mechanical engineering drawing, where the basics of drawing are explored. The drawings must meet the requirements of" images-views, ridges, and cross sections " DS 2.305-68. In projection drawing, tasks are performed regarding the ways in which objects are depicted on the planes of projections, the construction of a third projection of the object based on two projections, giving them ridges, making the object in axonometric projections soblandi. The item is arranged in a headscarf in such a way that this display provides more information about the shape and size of the item compared to other views. The number of views (view, trim, cross section) is as low as possible, but with full information about the item, conditional marks and entries specified in the relevant standards will be applied. The right angle projection method. Here the body is projected onto the plane of several projections rather than into a single plane, (a) the planes of horizontal P1, frontal P2, and profile P3. After the projections are formed, all three planes are cipsigned into a single plane by rotation. The horizontal plane P1 projections axis is rotated around X12 (the intersecting line of planes P1 and P2), while the profile plane P3 is rotated around the Z23 axis (the intersecting line of planes P2 and P3). The P1 and P3 planes Jeep with the P2 plane (this plane does not change the situation); that is why the image in the frontal plane is often called the head View. The image of a body in the cipsigned plane is called a complex drawing. In the drawing, the frontal and horizontal projections will be connected to each other by vertical lines of connection. The Frontal and profile projections, on the other hand, will be connected by horizontal linkage lines. Horizontal and profile projections will be connected to the line K123, which is called the constant straight line of the cross-complex drawing, with horizontal-vertical link lines that have a common point. The k123 straight line forms a 45° angle with the Y1 and Y3 axes.

When cutting a detail with a plane in an oblique situation with respect to the planes of projections, a deviation cross-section or ridge is formed. When the area where the plane crosses is described in the drawing, the oblique cut is depicted, and the detail parts on the back of the cut are also depicted, the oblique cut is formed.

The oblique cross-sectional surface is described in its actual size, and to make it, the points of detail across the plane are marked, and the oblique cross-sectional projections of these points are determined by determining their positions above and in the lateral projections. To make the actual size of the oblique cross section, auxiliary lines perpendicular to the plane trace are passed through the points. A line of arrows is passed parallel to the ridge, and relative to it, cross-sectional points are measured in an appropriate position at side or top views of the detail. As a result of combining these points, the actual size of the deviation section is made. The visible contour lines of the detail parts behind the plane are drawn by adding to the actual size of the cross-sectional surface to make this section a deviation Ridge. To do this, when viewed in a perpendicular situation with respect to the plane, the outer points of the detail contour and the inner contour points are visible. Therefore, auxiliary lines perpendicular to the plane are transferred from these points, and the desired points are carried to these lines, corresponding to the side view of the detail. The result is an oblique Ridge.

In order to make the rest of the detail after the oblique cut in a clear image, a holistic state of the detail is first drawn in isometry. In a clear image, the axis of symmetry of the cutting plane is determined. Points of the contour of the cross-sectional surface are carried out, which are located on the axial Ridge. With the help of the formed points, the oblique cut is made in a clear image. Some of the details that will be applied in the technique will be cut flat at the request of the place where it will be used. Such places are found in large numbers in the bolt head, in the interroom wear section of the spindle, in the Lisca of cylindrical details. Flat shear surfaces are not barked. Let's get acquainted with some details that have a straight cut.

When the detail views are analyzed, it passed from the sphere to the cylinder through the ring surface the cut ends with a cone. It is carved with an interlocking cylindrical and prismatic hole. To make a straight cut line, methods are used to make lines of intersection of surfaces with a plane. It is known that a circle is formed when a sphere is cut by any plane. Accordingly, a circular arc is drawn at radius R. As can be seen from the drawing, the cylinder is cut through two cutters. The shear lines of the sphere and cylinder connect the shear line of the ring surface. This finds the points of the line using a plane. Determining the points of a straight ridge line on the cone surface begins with determining the return point of this line. Intermediate points are found using a plane. The axis of symmetry is used to make straight cut lines in detail in a clear image. All the making is known from the drawing. Surfaces in some technical details intersect to form passing lines. To make such lines in detail views, their conditional representation is first studied. When the rotational surfaces in the detail form smooth transitions, these areas are marked through thin contiguous lines. To make such transition lines in drawings, it is first seen that there are no rotational surfaces at the junction of the detail elements, and the surfaces are continued until they intersect in thin lines, and a line of their intersection is made. When cylinders of equal diameter intersect, the intersecting

lines are ellipses, which are depicted in the form of straight lines in the drawing if the intersecting lines have different diameters in the form of curves in the drawing.

When detailed views are analyzed, the base consists of a parallelepiped with a cylinder mounted in the center of its superstructure base, with a prism on both sides of the cylinder, which forms a transition line with the prism cylinder. A trivalent Prism is crossed by a cylindrical hole, and a ditch is carved downward from the top base of the cylinder. To make transition lines, the place where the prism bottom edge intersects with the cylinder base is marked, through which L is found. At the intersection of the top edge of the prism with the cylinder, a point is defined, and when auxiliary incisors are passed between them, this plane crosses the prism through a given point in the side view. The view of this point from above is determined and found through it. When determining the line of the cylindrical hole intersecting the prism, the view of the prism from the top is described in an invisible barcode line. Then the cutting line is made. Given the importance of the intersecting lines that are being formed through the arc in the cylinder, they are being formed through the cylinder yasovci. Therefore, it is determined by points 7| and 8| on the ground and points. After the isometric projection of the detail is drawn, a point is marked at the intersection of the base of the cylinder with the prism edge to determine the line of intersection of the surfaces. In the upper non-plane of the prism, the curve O1 is the Ellipse part drawn from the center. When determining a point, the distance is taken to the axis, and it is found on the prism edge, drawing parallel to the axis. From the edge, draw X parallel to the MOQ, and the distance to it is measured. The line of intersection of a three-way prism with a cylindrical hole is clearly determined by the width of the ditch in the cylinder using points A and V. From them, lines drawn parallel to the axis cross both ellipses. When cylinder pliers are drawn from intersecting points, they cut ellipses drawn from the center to form a ditch.

If the inner shape of the item is complex, it is indicated by a barcode in its views. In this, the drawing loses its clarity. For this, a trimming is used in order to determine the internal structure of the item, which is not visible to our eyes. The image cut, the inner appearance of which is shown in the drawing, thoughtfully cut out with one or more planes, is called an image cut. In this case, the part of the item with the observer to the cutting plane is delusively removed. A cliffhanger is a conditional image showing the location (cross section) of the object cut by a plane and the part visible to the Observer behind the plane.

It is accepted to divide the trimming into varieties with several symptoms:

1. The cutter is divided into simple and complex ridges, depending on the number of planes;
2. There will be frontal, horizontal, profile and oblique ridges, depending on the ratio of the cutting plane to the horizontal image plane.
3. Cutting plane relative to the head dimensions (gobarite) of the item depending on the location, there will be longitudinal and transverse cuts.
4. The trim will be complete and local, depending on the perfect execution.

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