

IMPRESSING ONE PART OF THE CUT TOGETHER IN VIEW

Abduraimova Muazzamoy Abduqodirivich

ADPI, Tasviriy san'at va muhandislik grafikasi yo'nalishi talabasi

Annotation

The article is unique in that the information is brief and clearly presented. To fully imagine the views. Learning how to properly perform part haircut and part look.

Key words. Cube, section, section, arrow, line types, cylinder, parallelepiped, hexagonal prism.

Sometimes it is difficult to fully visualize details through two projections. In accordance with GOST 2-305-68, we will refer to the projections of details as views. In drawing, in order to fully express the shape of the detail, we use different images (view, cut, section), before we get acquainted with the appearance of the detail. A plane image of the visible side (surface) of a detail relative to the observer is called a view. We assume that the view of the detail is between the observer and the plane where the image is being made.

For complete visualization, we use a cube and place it in the center of the cube. Then, the main views of the detail on the sides of the cube are projected. [Projections] are generated.

According to the standard, these six projections of the detail are called views.

The word projection (from Latin projectus projected) means image

We consider the six sides of the cube as the main image planes. The direction of the imaging light is directed from the observer to the sides of the cube



Figure 1

(Fig. 2, a) We take the back fat of the cube as the plane of the frontal images, and the others are rotated around the edges of the cube and placed with the continuations of the frontal plane. In this case, six drawings containing six images are created. that is, two frontal, two horizontal and two profile. This placement of images is the European (E) placement method.

The location of these views is shown in Figure 2 b. In the United States, England, and the Netherlands, drawing is adopted in the American way. It is denoted by the letter A (America). When imaging in this system, the image planes are understood to be transparent and are located between the observer and the object being imaged. In this

case, the descriptive straight line passes from the object located in the cube through its points and is directed towards the observer. They are formed by the image of the points intersecting with the sides of the cube. are called appearances.

Additional views. If a part of the detailing can be depicted by breaking into one of the main views, then it should be described in an additional view. If an additional view is created that is not parallel to any of the projection planes, then it is provided with the same notation as view A by placing an indicator. We can see the pointer (arrow) in the drawing

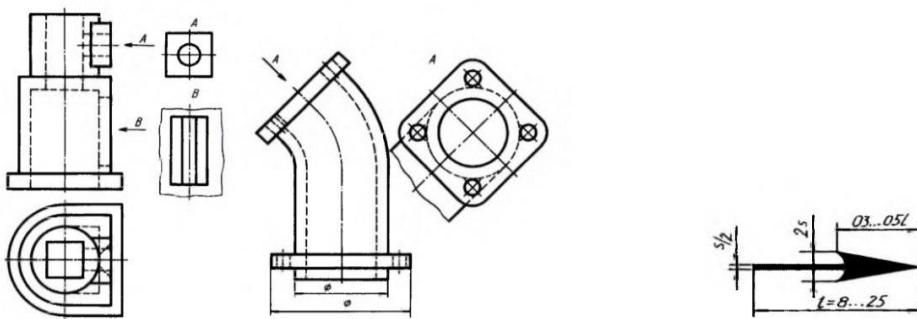


Figure 2

Depicting a part of the view with a part of the cut.

To reduce the number of images, one part of the view and the corresponding part of the crop can be depicted together. Such a combination allows to have perfect information about the internal and external form of the item in the smallest image. GOST 2-305-97, the standard allows to describe a part of the cut and a part of the view together.

1. If the view and the cut are part of a symmetrical object, then half the view and half the cut are depicted together.
2. There will be a thin wavy line adjacent to the border of the cut.
3. If one part of the view and one part of the cut are bounded by a thin dotted line and coincide with the trace of the symmetrical plane.

In this case, the plane object does not have a symmetrical axis. That is, it is the axis of the rotation surface of the product. We will consider three cases above.

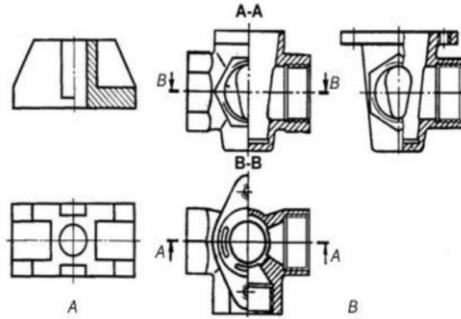


Figure 3

Section hatching - a cut or important section is separated by hatch lines to give a graphic indication of what material the item is made of. Conditional graphic designation of materials in section and their designation in the drawing is determined by GOST 2.306-68. Non-ferrous, ferrous metals and their alloys are defined by thin parallel straight lines in the section. The line is drawn at an angle of 45° to the contours of the drawing with the thickness of straight lines (Fig. 4, a)

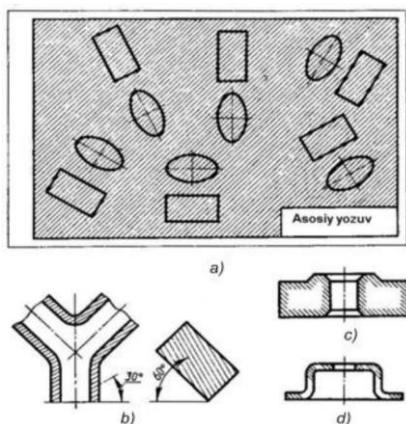
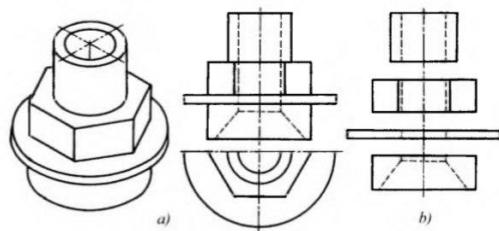


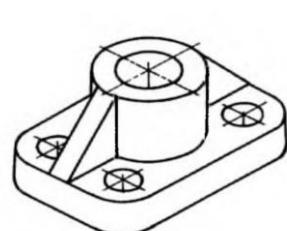
Figure 4

If the bar line coincides with the direction of the contour line, then the deviation angle of the bar line is at an angle of 30° or 60° (Fig. 4 b). The dash line is drawn diagonally to the left or right. The line should be directed in the same direction throughout the cut or cut of the product. The distance between the dashed lines should be the same for all sections of the given item. The distance can be taken from 1mm to 10mm, depending on the size of the surface to be scratched. In sections on a large surface, it is performed only in the form of a flat narrowest (narrow) image near the contour line (Fig. 4, c). On narrow and long cross-sectional surfaces, if their width is 2mm to 4mm in the drawing, the left and right side of the hole is crossed out in several places with a smaller part (Fig. 4, d). Longitudinal shearing of the ribs (edge of strength) on the surface of the product, but in such cases, the sheared area is not scratched.

All objects in detail are clearly visible to the eye, but we can see in figure 5 that they are drawn separately from each other on one axis, assuming that they will be more obvious.



5-Figure



6-Figure

Let's define each detail according to the shape of its function. For example, due to the rotation of the wheel, we made the pipes cylindrical so that any liquid or gas can pass

through the circular hole. The book is published in the form of a rectangle, so that it is easy to read and write.

Now, let's briefly think about the technical details of the shape and why its parts are needed.

The detail described in the drawing is a cylinder with triangular walls on both sides. These walls serve to firmly hold the cylinder on the parallelepiped. Such walls in details are called "Strengthening rib" or "Rib" for short. The ribs in these parts are used to strengthen the walls of the rotating cylindrical hole. The corners of the parallelepiped on the base of the detail are also rounded. The corners are rounded to make the details lighter and more beautiful.

Hexagonal prisms in the details serve to screw them in and out.

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