

«Sketches of Machining a Body Part in the Corel Draw Program Environment»

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Annotation: The article describes the Part of the body, its design and method of obtaining. And described a short project for machining a part, created in the Corel Draw environment.

Keywords: Housing, planes, ends, Compass, Corel Draw, Milling, Drilling operations, drawing, workpiece.

The "Housing" part is a casting, in which a number of surfaces are to be processed - planes, holes, ends, internal threaded surfaces. In shape, the detail resembles a bracket of a complex shape with many stiffening ribs and critical surfaces. the casting is made of gray cast iron CЧ 18 and is a casting of the II group of complexity III of the accuracy class (casting "into the ground").

The part itself is very technological, since there are no hard-to-reach surfaces on it.

The most important components of any technical device are body parts. They can be different both in type, in the material used, and in functional purpose.

Housing parts are intended for fastening unit parts, have: holes, holes for installing bearings, bushings, bushings, shafts, sleeves, pins and threaded holes for fastening parts; planes and technological planes. A common design and technological feature for most body parts is the presence of flat surfaces and two mounting holes used as a mounting base, both in the manufacture and in the restoration of parts of this class.

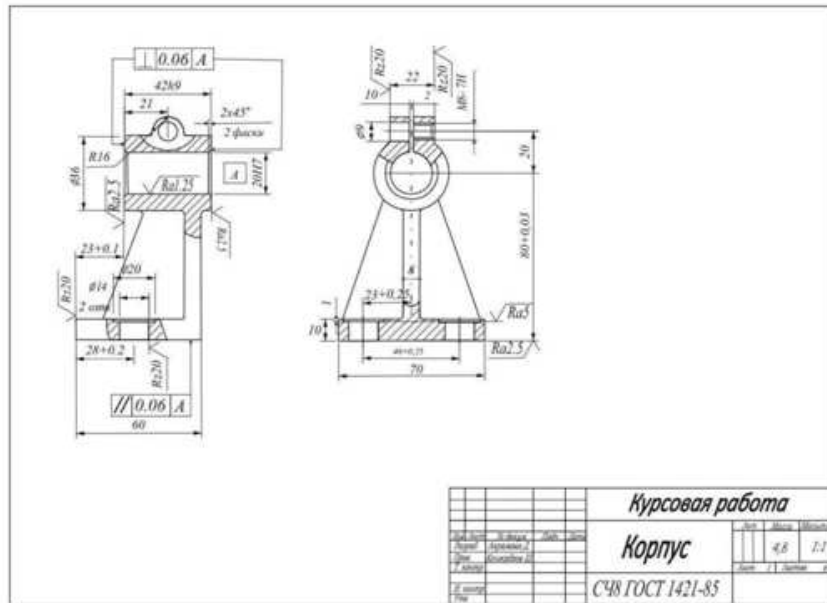
When designing the manufacture of parts in mechanical engineering, one of the main points of the entire project is the creation of processing sketches, in the order of their processing sequence. This task is entrusted to the designer and technologist of the plant. Compass is the most widely used sketching software in mechanical engineering at this time, and it has many advantages for this area. Except for the fact that the program is highly specialized and requires skills to work in a program environment that are not so easy to master.

One of the new programs that are spreading all over the world is Corel Draw, which differs from Compass in that it is much easier to master the skills of working in this program. And it makes it possible to fully display a part even without the high accuracy of its parameters, that is, in mechanical engineering, this is called a working drawing. And at the same time, accurate drawing of objects. And also this program has a lot of other areas of activity in which it is necessary.

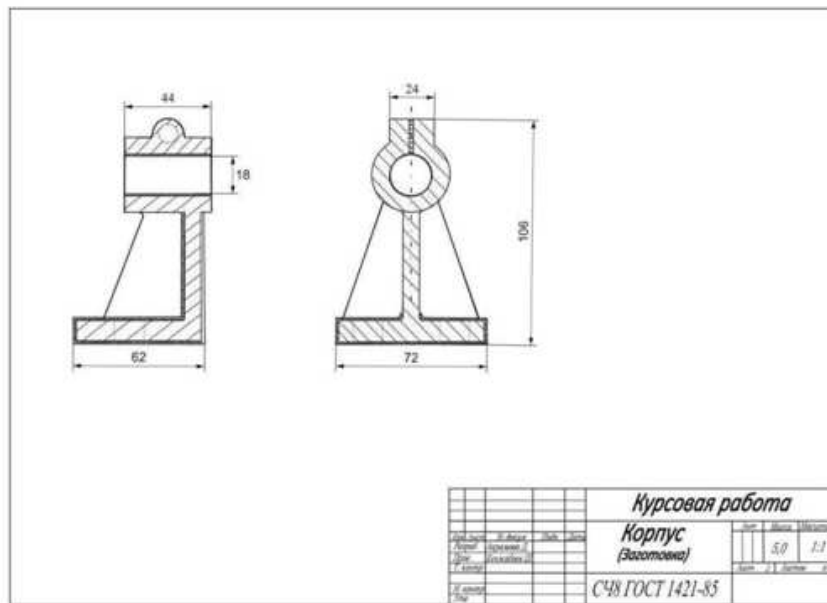
In this article, we decided to display the sketches of the corpus created for the term paper in the Corel Draw program.

In the first sheet of drawings in the course project, you need to create a drawing of the part that you want to get in the end of the course design.

Here is a Drawing of the Housing part, and shows all the required dimensions and roughness:



The second drawing is a drawing of the Billet of the body part, which was designed based on the required dimensions, and other requirements, as well as the type of production:



CS Сканировано с CamScanner

The third drawing is the sketches of working surfaces processing:

005 Operation milling

Processing the base of the body for basing in further processing

010 Drilling operation

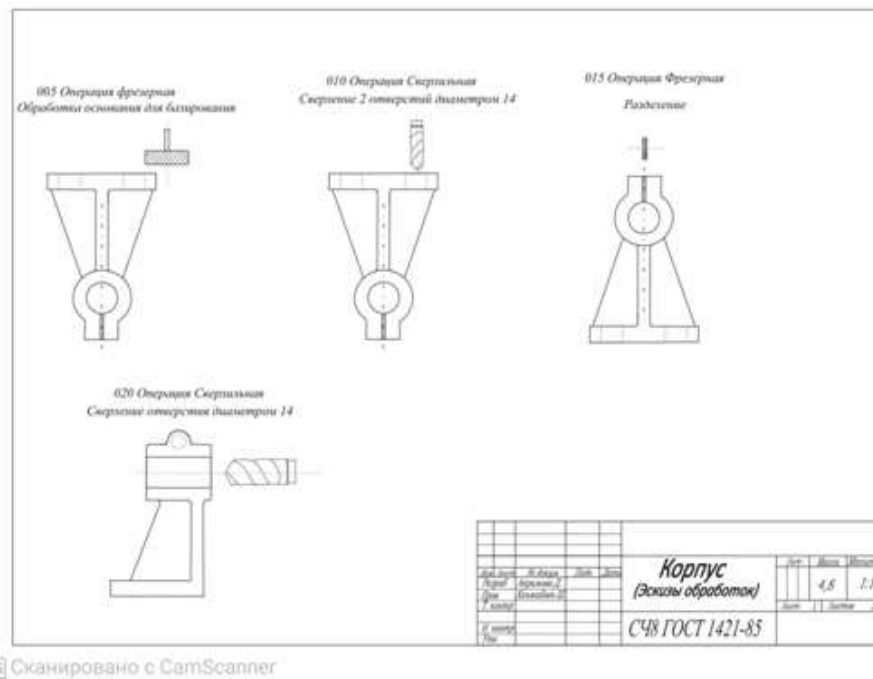
Drill two holes of size 14

015 Operation Milling

Splitting the upper part of the case

020 Operation Drilling

A hole with a diameter of 14 is drilled



The article was developed from the Course Project, for the purpose of a clear example of the possibility of working in the Corel Draw environment, as a full-fledged design of sketches for machining parts in mechanical engineering.

It is a clear example of the use of the multifunctional modern program Corel Draw, which has been used in recent years in a wide variety of industries.

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