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USE OF INNOVATIVE LOGICAL PROGRAMS IN THE DESIGN OF BEARING RINGS

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ABSTRACT:

Many scientific studies consist of practical parts. This article is about how to get information about the results by saving money and time in machining. It is envisaged to use computing systems and programs to achieve these results. This method is used in some processes in the manufacture of bearing rings.

KEYWORDS: Bearing, ring, application, technology, machining, logic application, design, material

INTRODUCTION:

At present, all sectors are working on localization. It is also important to know how to produce bearing parts locally and how to make rings that are one of its parts. We also looked at the grinding phase in machining to clarify some of the processes involved in the production of bearing rings.

In scientific research processes, experimental practical methods and theoretical methods have usually been used. The method we are researching also includes engineering casting techniques, machining, internal and external machining, and the like. One of the processes in this study, we found it necessary to define some methods of machining using innovative logic programs. Programs at this level save money and time. We chose Q-form, one of these programs. This system is considered to have Russian state certification and license.

Voltage, thermal conductivity, and the like are taken into account in solving research problems. As a result, it is possible to achieve the required accuracy. In addition, the system provides solutions to problems based on other theories. The results of this system are used to collect technological and structural data and convert them into electronic form.

LITERATURE REVIEW:

The first working version of the system was released in May 1998. The development of the new version took into account all the experience gained in the field of modeling of deformation processes, as well as in the field of programming. An improved computational algorithm was implemented. When talking about the features of the Q-Form system, the following key points should be emphasized.

The program automates the most important steps in the preparation of result data. It contains a database of properties and characteristics of products and tools. There is also a design program in the formulation of the part to be processed, and in addition there is the ability to export any graphics CAD compatible files.

MATERIALS AND METHODS:

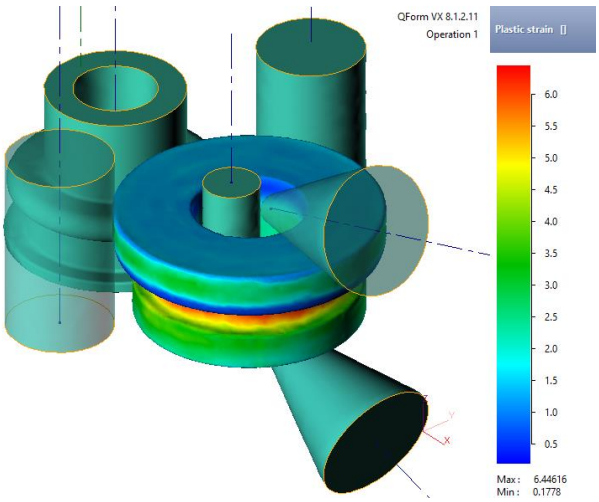
In this study, we will learn about the methods used in the manufacture of the ring from the bearing parts. One of these methods involves the machining process after casting.

Ringing is a technological process used in the production of ball bearings with precision. The composition of the steel material of the brand ШХ15 selected in the manufacture of the bearing ring and the machined part must be machined.

Learns about detail processing through modeling in the Q-Form program. As stated in this method, we determine how much effort is expended for the desired result using the capabilities of the program

RESULT AND DISCUSSION:

As a result, many researchers choose different methods in their projects. Some researchers have come up with their own method. With this method, we mainly focus on mechanical processing. Of course, it is possible to increase a number of levels of strength of a detail by grinding. These include hardness, abrasion resistance, and impact resistance properties. This allows you to determine the angle and the force of the impact during processing.



In order to confirm the above points, you can see the model in the picture and the angles and temperature effects that are processed on them.

CONCLUSION:

We talked about a number of advantages with this method. It is possible to evaluate and study technology on a computer without any practical experiments.

For modeling, the same input parameters set in the rolling mill management program are used. This significantly simplifies the work of the modeling engineer. The algorithms of the QForm Ring Rolling program were originally set up to mimic projection on two-stand rolling machines.

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