ISSN: 2350-0328

International Journal of Advanced Research in Science, Engineering and Technology

Vol. 6, Issue 9 , September 2019

Data Sheet Materials and Types of Bearing Details

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ABSTRACT: Bearings are widely used in mechanical engineering, and to this day a lot of scientific research has been carried out on it. Its types, duration, production methods and a number of their problems are solved. To overcome these problems, a new casting method was proposed. It was anticipated that this method would be widely used in the manufacture of small bearings in a local context.

KEY WORDS: Bearing, Industry, Casting method, Mechanical engineering, Manufacture, Technology, Polymer, Materials, Steel.

I.INTRODUCTION

Mostly rolling machines and mechanisms on the shaft. Bearings are used where the friction force decreases sharply, that is, the usefulness of these bearings is higher than that of plain bearings. During the operation of the bearings, the voltage on the rings causes cracking of the working surfaces, since the number of cycles exceeds the degree of rolling of the rolling elements. Over time, the surface of the crack is subjected to high pressure due to the effect of oil on the cracked areas. This rotation occurs in spherical bearings from the outer ring, in other bearings, inside starting from the ring. During operation, the bearings of the bearings or rolling elements may break or break, if the roller bearings break, and if the bearings are overloaded, the ring with the most suitable ball or ball may break. This is not the case when the load is evenly affected. The purpose of this research work is to learn how to choose the bearings used in mechanical engineering, and how to calculate their durability.

II. SIGNIFICANCE OF THE SYSTEM

The paper mainly focuses on how methods of bearing production. The study of literature survey is presented in section III, Methodology is explained in section IV, section V covers the experimental results of the study, and section VI discusses the future study and Conclusion.

III. LITERATURE SURVEY

Bearings are the bearings of rotating shafts and axles. Limits the nature and purpose of rotating or oscillating parts of the mechanism relative to other parts, allowing the shaft to flow smoothly and easily. Distinguish P. sliding and skating. The main adhesive of P. gliding can be a cylinder, cone or balloon, and the base surface can be dry (non-greasy), semi-dry or liquid (i.e. greased). There are both irreplaceable and irreplaceable types of P. In a removable P., a valve, if it is not inseparable, is usually inserted into an opening in the housing between the base surface and the shaft. They are made of antifreeze (babbit, textolite, rubber, plastic, etc.). Rolling bearings consist of inner and outer rings, vibration objects (sphere, roller) and a cage. Depending on the direction of the force, there will be radial, radial pods.

Ball, roller, spherical-spherical, cylindrical, short and long roller, conical roller, spherical-conical roller, needle type, depending on the shape of the vibrating bodies and the working surfaces of the rings; Vibrations are divided into one, two and many lines, etc., depending on the number of rows of objects. Rolling bearings are made of stainless steel. Depending on the method of anointing, there will be voluntary and mandatory Podshipants. Bearings are used in mechanical engineering, shipbuilding, aircraft manufacturing and other fields.Галышкин

GalyshkinNikolayVasilievich. A rolling bearing comprising an outer ring with a cylindrical raceway, an inner ring and rolling bodies in the form of rollers, characterized in that the raceway of the inner ring is made with grooves whose curved surface is mated to the surface of the bearing rollers

ISSN: 2350-0328

International Journal of Advanced Research in Science, Engineering and Technology

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Shargaev Alexey Alexandrovich. A device for running-in and increasing the durability of a rolling bearing, comprising a housing, a cover, a working shaft, a rolling bearing, a dissolving anode element, a hydraulic pump with a container, an electrolyte, a current source with a regulator, characterized in that the working shaft of the device is installed in a chuck of a screw-cutting machine and the support and the tailstock of the machine apply a load in the radial and axial direction to the device body in accordance with the centers of symmetry of the bearing, depending on the type of rolling bearing

IV. METHODOLOGY

In recent years, the state of the industry, the latest technology and technology has entered a number of developed countries. Of course, the state has been able to increase its exports and reduce its imports.

Comprehensive development of the national economy, increasing productivity and product quality are dependent on science-based techniques. The accelerated development of technology and technology, the extensive use of automation and control systems further strengthen the demand for technical subjects. Therefore, the design of the machines, their details should be as lightweight, sufficiently durable, resistant to friction, perfectly compliant with the state standards. In addition, it is also possible to quickly and easily change the details when the item is broken. All industry-driven machines have such components and details as they can be viewed as a separate group, designing, computing and generating theoretical foundations. The transmissions are mechanisms used to transmit movements from one valley to the other, which are set between the power source and the working valve. Mechanical and mechanical gear supports are mainly used with bearings, in which the power of friction is sharply reduced, which means it is desirable to study the useful coefficient of the bearings.

V. EXPERIMENTAL RESULTS

At present locally, the production or removal of bearing has a number of problems. Problem solving is related to the production of materials, and there are no conditions in all countries. But bearing production is one of the areas to be set.

For this reason, the differences in the types and mats of the bearing were studied relative to rubber strength, prime cost, duration of operation, complexity of preparation.

- The coefficient of frictional coating on the rolling bearings is higher than the sliding bearing.
- The fact that there is little oil in the crushing pod, does not require the use of non-ferrous metal.
- Low noise when traveling at high speeds in the slash bearing
- It has a high velocity resistance on the crushing pads and can work in water

As you can see, the advantages of the crushing gear are high. Now, when it comes to the question of what materials are best prepared and what they are prepared from modern polymer materials? According to the results of the research, steel pallets made of IIIX15 are the most acceptable and popular. The main advantages of the bearings made of polymeric composite materials:

- It is recommended to use bearings made of composite material to reduce fire extinguishing for ginneries.
- It was found that 1.5 to 2 times longer than ordinary sliding bearings.
- Reduced costs.

The main advantages of polymeric composite materials are the underlying advantages of high performance productivity and low cost in some cases.

Table1. Efficiency and benefits

Differences	Cast	High speed	Water work	Security	Low noise	Resistance to pain	Demand
IIIX15		+	+			+	+
Polymer	+			+	+		

In summary, every piece of material has its own place today. In this case, it is necessary to prepare the details of rolling bearings from steel materials and manufacture them locally. It also serves as a part of financial benefits and industrial development.

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International Journal of Advanced Research in Science, Engineering and Technology
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VI. CONCLUSION AND FUTURE WORK

We propose a new method for making the details of the bearings, and at the same time tell us how to use the foundation. In cylindrical form, we learn that only the rings are removed. It is obtained by casting in the above form and after that it is machined. We have now obtained several results through this method. The bearing bearing steel can be removed from the above properties and part of the problem of bearing metal imports from the bearing companies. The essence of the problem is that the method of cast-soluble models is used as a single technology with vacuum injection, which can meet the need for bearings.

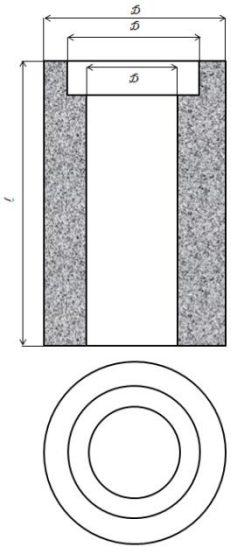

Fig1. Appearance of cast details

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