

Problems should be paid attention to in practical application of angular contact ball bearings

[Angular contact ball bearings](#) are used at present in a very high number, mainly because it can withstand both axial and radial loads, as well as the pure axial load, the ultimate speed is very strong, and bear the axial load

is related to the size of the contact angle, the larger the contact angle, the greater the axial load. The contact angle is simply the line connecting the ball and raceway contacts on the radial plane with a

The angle between the lines perpendicular to the bearing shaft. The bearings can be broadly divided into 2 types: separable and non-separable. Here I am mainly talking about the non-fractional 7000 series.

We know that angular contact ball bearings are generally paired, and the size of the contact angle determines its ability to withstand axial loads. Therefore, for the first replacement of bearings, we must remember

The model, including contact angle, installation method, grade and so on, which is very important to the service life of the equipment, running time. Whether the operation of the mobile equipment can be carried out for a long period

OK, the key lies in the following points, from the experience I have worked these years to see:

First: To choose the right spare parts, the quality of spare parts related to the operating cycle of equipment, the relationship between us all safety;

Second: The correct maintenance and maintenance of equipment, which is the key to the operation of the equipment, is the focus of our daily work, but also the equipment can be efficient long-term operation of the necessary conditions;

Third: The quality of equipment maintenance is the guarantee of the operation of the equipment, but it can not guarantee that it will not appear in a long period of abnormal phenomenon. So, the key point is still

How to use the correct maintenance, this is the key to the good operation of the equipment. Of course, these three are not isolated, although there are priority points but must also be balanced, not thick

This thin.

Let's think about it, why is it that the running equipment can run long periods without the standby machine? I wonder if you have thought about it, actually think it over and see if we are

What do you do, do you understand? The key point is not that we are in this period of time on its Dobby care, special attention? When there are anomalies in important equipment, we do not implement special

Protect it? What is intensive care? is to take extra care of it all the time, that is, to let the development of the situation within our control, to monitor the failure to provide us with the analysis of the original

, forcing us to make further relevant remedial measures to enable it to continue to operate within this period of time. Equipment also has feelings, we usually love it care about it, it can be very

To serve us well, on the contrary, it may kicks and constantly create trouble for you. Therefore, we must recognize the actual situation, in the middle school, the learning to do, constantly improve my

Our business ability, so that our work can have a new platform, to the next level.

Angular contact ball bearings according to their contact angle to divide, can be divided into three kinds:

[1\) 7000 C type, contact angle \$\alpha=15^\circ\$, mainly used in large-size precision bearings.](#)

[2\) 7000 AC type, contact angle \$\alpha=25^\circ\$, mainly used in precision spindle bearings.](#)

[3\) 7000 B type, contact angle \$\alpha=40^\circ\$, can withstand a large axial load.](#)

Since angular contact ball bearings are used in pairs, in the installation process, some maintenance workers generally in accordance with their own previous installation method to install, but this is very fastidious,

The way it is installed is not correct, it will affect its use cycle. The wrong bearing selection, incorrect installation method, lubrication is not in place and so on, will cause abnormal equipment, such as, sound

Abnormal screaming, increased vibration, more serious is caused by damage to the pump shaft, equipment components seriously damaged, causing a major equipment accident, which is very dangerous. We should be in jail for this.

Remember the type of the bearing and record it for the next installation. The installation of angular contact ball bearings is generally divided into three kinds:

1) Rear-to-back configuration, followed by a code of DB

What is the back-to-rear configuration, simply refers to the bearing outer ring wide face wide, or the small end of the bearing inner ring facing the installation of small end face. This is the one we should often use

In 2 different ways, it has the following advantages:

? its load is separated from the bearing shaft, the attention is separate;

The ? can withstand axial loads acting in 2 directions, but the load in each direction can only be borne by one bearing;

The ? can accommodate bearing arrangements with relatively high rigidity and can withstand overturning moments.

Combining these 3 advantages, it is not difficult to find that the back-to-rear configuration installation is to separate the load from the bearing shaft, the bearings and shafts have the advantages of separating the load, coupled with its can withstand tilting

The moment, if coupled with the choice of a suitable contact angle, you can imagine, in the actual operation, can eliminate the number of maintenance labor, can avoid the number of possible equipment accidents

It? Therefore, based on the actual status of experience I recommend the preferred back-to-rear configuration. 14 Pumps for distillation units, such as the methanol-refining zone, are used for angular contact bearings and deep groove ball bearings, running

The use of these years is very good.

2) face-to-head configuration, followed by DF

What is face-to-side configuration, is opposite to the back of the configuration, refers to the bearing inner ring big-endian face, or the bearing outer ring narrow face of the installation method. This approach also

is often used, but it does not have the advantage of back-to-rear, its load is to meet the bearing shaft, and the configuration is not as good as the back-to-rear configuration has a high rigidity, is not suitable for

Withstand the overturning moment.

3) series configuration, followed by the name of DT

What is a tandem configuration, as the name implies, is in one direction, one shun. This configuration is rarely used in practice.

In the actual work, we should use the above method to install as much as possible, but the main should be based on the original production factory initial installation, after all, they have been practice

and time as well as the user's proof that this kind of installation configuration is reasonable, so we must remember the initial installation method, select the appropriate bearings, and then carefully follow the maintenance work

The requirements for the installation, I believe there will be very good results.