

# how to read skf bearing numbers

[SKF bearing](#) numbers are a combination of letters and numbers. They help identify the manufacturer, product line and specific model number.

SKF bearings are marked with a four-digit number that combines the first two digits with the third and fourth digits to form one complete number. For example, an SKF bearing with a number of 1XX0XXX would be a single row deep groove ball bearing. The XX0XXX part represents the diameter (in millimeters) and the XXXX represents the bore diameter (in millimeters).

In addition to this information, SKF bearings may have other markings on them as well. These include:

N - No flange means that there is no flange on one side of the bearing or both sides of the bearing.

Z - Zerk fitting means that there is a grease fitting in place on one side or both sides of the bearing.

## The first number in an SKF bearing number indicates the series.

SKF uses a two-digit code to identify each bearing type within the SKF product portfolio. The first number indicates the series. For example, if you have a 6204 bearings, you know it is part of the 6 series and that it is a deep groove ball bearing with an outer diameter of 40 mm and an inner diameter of 24 mm.

The first digit in an SKF bearing number indicates the series:

0 = Single row angular contact ball bearings (open)

1 = Single row angular contact ball bearings (closed)

2 = Deep groove ball bearings (open)

3 = Deep groove ball bearings (closed)

4 = Spherical roller bearings (open)

5 = Spherical roller bearings (closed)

## The second number in the bearing code is the diameter of

## **the balls inside of the bearing.**

SKF bearings are a leading brand in the industry, with a wide range of sizes and designs. The second number in the bearing code is the diameter of the balls inside of the bearing. For example, if you see FA-216, this means that the bearing has an outer diameter of 216mm, and it has 17 balls inside of it.

This is important because it tells us what size our replacement part will need to be if we want to replace our bearings. For example, if you have a car that uses SKF FA-216 bearings and one fails, you may want to replace them with new ones from SKF because they are such high quality products. However, if you have another brand of bearing and it fails as well, then you can simply replace it with an equivalent size from another manufacturer without worrying about getting an inferior product that will fail again soon after installation.

## **The third digit tells about the dimensions of the bore and width of the inner race of an SKF bearing.**

The third digit tells about the dimensions of the bore and width of the inner race of an SKF bearing. It is a dimensionless code. The first part of this number defines how many rings there are around this bore; the second part specifies their width in millimeters (mm). For example, 3 denotes a single-lip cylindrical roller bearing with a bore diameter of 40 mm, 4 denotes a double-lip cylindrical roller bearing with the same bore diameter and 5 denotes a single-lip cylindrical roller bearing with a bore diameter of 60 mm.

## **The fourth digit found on SKF bearings represents their cage type.**

The cage type is important because it can affect the bearing's load capacity, operational speed and service life. For instance, a plain or non-rolling element cage can only carry light loads and is not suitable for high speeds. The rolling element cages are designed for heavy loads, high speeds and long service life.

The most common cage types found in SKF bearings are:

1) Normal Cage (N): This type of bearing has a single row of balls and a single row of rollers separated by only one cage wall. The rolling elements are made up of ball bearings with cages that are integral with the races. N type bearings have been in production since 1912 and they are still used today because they are relatively inexpensive and simple to manufacture. They also have good rigidity and low friction compared to other cage types; however, this makes them unsuitable for applications that require high running accuracy or where there are frequent start/stop cycles due to their lack of flexibility.

2) Double-Row Cage (D): This type is similar to the N type but it has an additional outer ring that

provides additional stiffness and rigidity to the raceway surfaces while reducing friction levels even further than what.

## **The last two digits in an SKF part number represent the basic radial load rating of a bearing, as well as its limiting speed (in RPMs).**

There are many factors that determine the basic radial load rating and limiting speed of a bearing. These include the bearing material, shaft size, cage design, internal clearance and lubrication regime.

The basic radial load rating indicates the maximum static pressure that can be applied to a bearing without causing permanent deflection or damage. It is measured in bars or kilograms per square millimeter (kg/mm<sup>2</sup>) at room temperature and is equivalent to a load of one kilogram applied vertically on an area equal to one square millimeter of bearing surface.

The limiting speed is the maximum speed at which a rotating shaft can rotate without causing undue vibration. It is measured in revolutions per minute (rpm).

## **This are the main pieces of information that you can get by reading an SKF bearing number.**

The first digit is a number that indicates the precision level of the bearing. The higher the number, the higher the precision.

The second digit is a letter that indicates the type of bearing. The letter "A" represents plain bearings, while "B" represents shielded bearings.

The third digit is another number that refers to the size of the inner ring or outer ring and its dimensions in millimeters (mm). For example, an SKF bearing with a code of "2112" has an inner diameter of 21 mm and an outer diameter of 12 mm.

The fourth digit is a letter that indicates the speed rating or operating temperature range of the bearing. The letter "I" stands for industrial use only; "J" stands for hot climates; "R" stands for both hot and cold climates; and "S" stands for severe service conditions such as high speeds or heavy loads in applications such as aircraft engines or wind turbines.

Bearing number can be used to make the identification of various bearings easy. Make sure you understand the inner structure of a skf bearing and how to read skf bearing numbers.