## 」드Luoyang Jiecheng Bearing Technology Co., Ltd

A designation is used to provide each \& every different bearing with a unique sequence of numbers and letters for its identification, any bearing with the same or similar designation can be interchangeable both dimensionally and operationally no matter who the manufacturers may be. Designations of JCB bearings are in accordance with those used by world-known bearing companies: SKF, FAG, and KOYO.etc.
The complete designation of a bearing consists of a basic design and may include one or more supplementary designations (prefixes and suffixes), as shown in chart fig. 1


The basic designation consists of an identification of the type of bearing (figure or letter), the series designation, in accordance with ISO and the bore diameter identification.

## Prefixes:

Prefixes are letter-identifications which indicate the material, other than the steel or component parts of a bearing. The prefix for material is separated by a horizontal line from the rest of designation.

## Prefixes for materials

H - heat-resisting steel
M - Copper alloy
S - Plastics, glass, ceramics etc.
T-Case hardening steel
X - Stainless steel

## Prefixes for special designs or parts of bearings

K - Cage with rolling elements of dismountable bearing
L - Free ring of dismountable bearing
R - Dismountable bearing without free ring
E - Shaft washer of thrust ball bearing
W - Housing washer of thrust ball bearing
WS - shaft washer of roller thrust bearing
GS - housing washer of roller thrust bearing
LS - Axial washer, thickness greater than 1 mm

AS - axial washer, thickness less than 1 mm or less

## Suffixes:

Suffixes are used to identify various constructive modifications of the bearing in comparison to normal design. They are classified in four different groups, as follows:

Group I - Modifications of internal design, design with increased basic load (E.g. A, C, E etc.), contact angle (e.g. A, B, C) and others.
Group II - Modifications of external design, tapered bore, groove on outer ring etc.
Group III - Modifications of cage design, material, guiding surfaces etc.
Group IV - Modifications of normal design regarding tolerance classes, bearing radial or axial clearance, stability of dimensions at high temperatures, bearing matching etc.
These suffixes for bearing designation are listed considering the groups they belong to, at the beginning of each bearing group.

## Cages Material and Centring

J - Pressed steel sheet cage,
Y - Pressed brass sheet cage,
H - One-piece open type steel sheet cage,
F - Machined steel cage,
L - Machined light metal cage,
M - Machined bronze or brass cage,
T-Machined textite cage,
TN -Machined polyamide cage,
A - Cage centred on outer ring,
B -Cage centred on inner ring,
V -Bearing without cage,

## Bearings with Shield and Seal

Z, ZR - Metal shield on one side,
-2Z, -2ZR - Metal shields on both sides,
RS - Seal on one side
$-2 R S,-2 R S R-$ Seals on both sides,

## Tolerance Class

P0 - Standard tolerance class not indicated
P6 - Higher tolerance class than P0.
P5 - Higher tolerance class than P6,
P4 - Higher tolerance class than P5,
P2 - Higher tolerance class than P4,

## Radial Clearance

C1 - Radial clearance lesser than C2,
C2 - Radial clearance lesser than standard,
---- - Standard radial clearance, sign is not indicated

C3 - Radial clearance larger than standard,
C4 - Radial clearance larger than C3,
C5 - Radial clearance larger than C4,
Table 1. Bearing design and identification

|  | The type of <br> bearing <br> symbol | Standardized | Non-standardize <br> d | Example |
| :--- | :--- | :--- | :--- | :--- | :--- |


| NUP |  |  |  | NUP209 NUP5410 |
| :---: | :---: | :---: | :---: | :---: |
| NNU | 49 |  | $51 . .57$ | NNU4920 NN5124 |
| NN | 30 |  | 51.. 57 | NN3015 |
| NNU | 6960 |  |  | NNU6064 4NNU5146 |
| NA | 484940 |  | Nad.D.B NAd/B | NA4905 NA121815 NA85/26 |
| NA | 69 |  | Nad.D.B NAd/B | NA6912 |
| RHNA |  |  | RHNAd.D.B | RHNA303825 |
| The type of bearing symbol | Size series |  |  | Example |
|  | Standardized |  | Non-standardize d |  |
| K |  |  | Kd.D.B | K202620 |
| KK |  |  | KKd.D.B. | KK606820 |
| Wa | 12 |  | Wa1d. Wa2d. <br> Wad.D.B | Wa1070 Wa2630 Wa18022070 |
| 2 | $\begin{aligned} & 39,41,23 \\ & 40,32,31 \end{aligned}$ | $30,22,13$ | 51.. 59 | 2221625130 |

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